

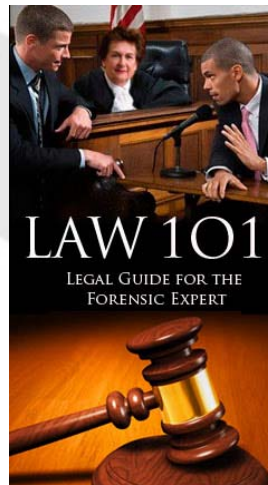
## Law 101: Legal Guide for the Forensic Expert

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This course is provided free of charge and is designed to give a comprehensive discussion of recommended practices for the forensic expert to follow when preparing for and testifying in court.

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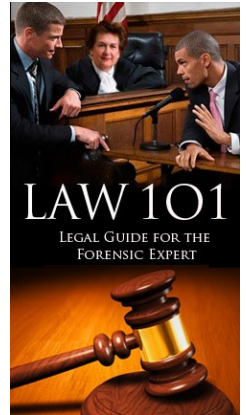
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# Law 101: Legal Guide for the Forensic Expert



This course provides 13 modules and this introduction which is designed to give a comprehensive discussion of recommended practices for the forensic expert to follow when preparing for and testifying in court.

Because laws may vary from jurisdiction to jurisdiction, experts are advised to check with local attorney(s) and become familiar with the laws applicable in the court where they will testify.

The thirteen modules include:

1. Sources of Scientific Evidence
2. Report Writing and Supporting Documentation
3. Importance of Case Preparation
4. Subpoenas vs. Promises to Appear
5. Affidavits
6. Being a Court-Appointed Expert
7. Discovery
8. General Testifying Tips
9. Depositions
10. Pretrial
11. Trial
12. Post-Trial, Pre-Sentencing
13. Ethics for Experts

## Disclaimer

The opinions and points of view expressed in this training program represent a consensus of the authors and do not necessarily reflect the official position of the U.S. Department of Justice.

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## Introduction to Law 101

## Learning Objectives

After completing the **introductory module**, the user should:

- Know the role of an expert witness.
- Know the difference between lay and expert opinions.
- Be able to define technical terms and complex processes in everyday language.
- Realize that standard operating procedures (SOPs) must be correctly applied in laboratories.
- Comprehend that the expert must remain impartial in testing, report writing and testimony, regardless of the proffering party's identity.

## Terminology

Most terms used in this document are common nomenclature, or legal terms of art, but some words may have multiple interpretations. For that reason, a glossary of definitions for those words, as they are used in this text, appears in the Appendix.

Although experts must have specialized knowledge and experience in specific disciplines, they must explain these areas of expertise to many people less knowledgeable or experienced in these disciplines. Experts should be able to explain technical terms and complex processes clearly in plain, everyday language. Analytical reports, pretrial preparation with attorneys, testimony, trial exhibits and demonstrations should all be written in plain English and simple language. In addition, an expert's writing must be impartial — in fact, the expert should remain impartial in testing, report writing and testimony regardless of whether the expert works for one of the parties or the court.

This document also outlines the role of the forensic expert, from completing evidence analyses, to testifying in court in support of those analyses. Content is divided into modules designed to be read from start to finish for a broad overview, as individual chapters on specific aspects of analyses and testimony, or as a primer or refresher on a particular topic.

## Rules of Evidence and Lay Witnesses

Federal Rules of Evidence refer to the body of evidentiary rules, used in federal court and adopted in many state courts, which generally constitute a summary of the law of evidence in many jurisdictions.

FRE 701 applies to opinion evidence given by a lay (non-expert) witness. Lay witnesses cannot give opinions based on scientific, technical or specialized knowledge. In order for a non-expert witness to give an opinion in court, it must relate to something about which the witness has personal knowledge (e.g., eyewitness evidence) or be based on something upon which any reasonable person could offer an opinion (e.g., the height of a suspect).

## Expert Witnesses

By contrast, FRE 702 states that "if scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness — as qualified as an expert by knowledge, skill, experience, training, or education — may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case." As indicated, however, the rule concerning expert witnesses may vary from state to state.

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Federal court jury instructions advise juries concerning expert witnesses as follows:

"The rules of evidence ordinarily do not permit witnesses to testify as to conclusions. An exception to this rule exists as to opinions to those whom we call 'expert witnesses.' Witnesses who, by education and experience, have become expert in some art, science, profession, or calling, may state an opinion as to relevant and material matter, in which they profess to be expert, and may also state their reasons for the opinion.

"You should consider each expert opinion received in evidence in this case, and give it such weight as you may think it deserves. If you should decide that the opinion of an expert witness is not based upon sufficient education and experience, or if you should conclude that the reasons given in support of the opinion are not sound, or that the opinion is outweighed by other evidence, you may disregard the opinion entirely."

(Source: Devitt and Blackmar, *Federal Jury Practice and Instructions*, 3rd ed., Vol.1 [West Publishing Company, 1977], § 15.22, p. 482.)

Many state courts offer similar typical expert witness jury instructions that could read as follows:

You have heard evidence in this case from witnesses who testified as experts. The law allows an expert to express opinions on subjects involving their special knowledge, training, skill, experience or research. You shall determine what weight, if any, should be given such testimony, as with any other witness.

A witness who is qualified by the court as an expert in a particular field may assist the judge or jury in understanding a method or technology at issue, interpreting results of scientific tests, or offering opinions based upon the evidence in the case. Testifying experts are not required to conduct the tests on which they base their opinions. However, they must possess the required "scientific, technical or specialized knowledge" to be qualified by the court as an expert in their particular field in order to review relevant materials from the case and/or give relevant opinions.

Experts who work for federal, state, local and private laboratories may have written standard operating procedures (SOPs), which outline all steps of each scientific analysis the laboratory performs. These should be followed whenever possible. In instances where a deviation from the SOP is necessary, a thorough explanation should be documented and immediately brought to the attorney's attention.

Generally, a forensic expert's role begins by:

- Receiving information and evidence in a case for testing.
- Examining or evaluating a case.
- Receiving an opposing expert's analytical report.
- Anticipating and preparing for cross-examination.

## **An Expert Witness Overview: How the Process Works**

A general understanding of the process may help alleviate some fears about the expert's role in the adversarial legal system.

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- Experts are allowed to render opinions about matters in legal proceedings because of their knowledge, training and experience.
- Experts may be called on to assist in all phases of the investigation, preparation, discovery and trial.
- The expert transmits specialized information and knowledge to the fact finder. The expert will likely be questioned. Anticipation of cross-examination can facilitate a confident response.
- Experts should prepare for cross-examination and frame a strategy for answering vulnerable areas.
- Forensic experts must prepare thoroughly to testify.

## Forensic Expert's Role

The essence of the forensic expert's role in the judicial process is to assist the trier of fact in understanding complex scientific and technical issues. This explanation may include rendering an expert opinion.

The forensic expert's role may include being involved at various stages of a case, including:

- Assignment.
- Investigation.
- Preliminary report.
- Formal discovery.
- Final report.
- Pretrial preparation.
- Trial.
- Post Trial.

Upon assignment to a case, the expert begins investigating the evidence, following laboratory SOP and accepted protocols.

## Preliminary Report

If appropriate, this will likely include a verbal report and typically refers to tentative conclusions and early opinions. The preliminary report may contain reference to work that has not yet been completed.

## Formal Discovery

Possible elements include interrogatories (written questions), requests for production (of documents and other material information), and depositions (oral questioning).

## Final Report

The expert's written report includes:

- Basic case and evidence identification and dates.
- Conclusions and opinions.
- Reasons supporting conclusions and opinions.
- Rationale or interrelationship between conclusions and the supporting reasons for those opinions.
- Deposition: Sworn testimony before trial, usually given in an office or place of business. Depositions are usually designed to accomplish specific objectives, such as:
  1. Gathering information.
  2. Uncovering weaknesses in testimony.

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3. Locking the expert witness into a position.
4. Assessing the expert's ability as a witness.

Opposing counsel typically conducts the deposition. Few, if any, questions are asked by the proffering attorney. The setting is generally informal, scheduled in advance, and conducted in the presence of a certified court reporter. Recording by video and by stenographic notes is common. The expert may also assist the examining attorney at deposition of opposing experts by assessing their qualifications, capabilities and demeanor, and framing questions for them.

Guidelines for courtroom testimony are treated in depth in Module 8: General Testifying Tips. Before deposition, the expert should review the following:

- Technical data and facts.
- Investigative and technical materials.
- Standard scientific works relevant to the subject.

## Final Trial Preparation

The expert reviews the facts and evidence of the case and sharpens his skills for credible presentation (see Module 10: Pretrial). He organizes his presentation of materials, staging, timing, bearing and dress before the trial. Graphs, charts, drawings, models and demonstrations can make expert testimony more interesting, understandable and effective.

## Qualities of an Effective Expert

Key qualities help determine an effective, credible expert witness. The expert must:

- Be personable, genuine and natural.
- Demonstrate effective teaching ability.
- Be competent.
- Be believable.
- Be persuasive, not advocative, about factual accuracy.
- Be prepared.

See Module 8: General Testifying Tips for more on these key qualities.

## Direct Examination

Direct Examination: The expert provides credible, persuasive and clearly understandable opinions and conclusions concerning the matter(s) at hand. At trial, the expert's testimony is generally divided into five main parts:

- Expert's qualifications to render opinion testimony.
- Expert's assignment and how it was performed.
- Expert's factual findings from the investigation.
- Expert's opinions.
- Expert's reasons given for conclusions.

The expert's opinions may be based on facts, research or a series of hypothetical questions (developed with the expert by the proffering attorney, based on facts, evidence and proof developed at trial).

## Cross-Examination

Cross-examination: The expert witness may be called upon to retrace his steps, explain and justify his position, and harmonize his views in the case with prior writings, depositions or trial testimony from other matters/cases.

Cross-examination is one of the most misunderstood aspects within the adversarial system. It need not be a fearful experience for the expert. Cross-examination is designed to guarantee a fair trial. With regard to experts, cross-examination has six general purposes. These are to establish the expert's:

- Lack of perceptive capacity or application (i.e., failure to do one's homework).
- Inadequate recollection of the applicable facts.
- Bias, prejudice or interest in the outcome (or motivation to give a particular testimony).
- Questionable character, reputation or qualifications.
- Prior inconsistent statements or conduct (i.e., if the expert testified to different conclusions in another case in which the facts and evidence were approximately the same, that can be used to impeach their testimony).
- Inconsistency with recognized published authorities, so-called learned treatises.

Cross-examination can present an opportunity to solidify and drive home the expert's conclusions and opinions previously stated during direct examination. Witnesses should be honest and should rely on their technical expertise and the scientific method, on which their testimony is based. They should provide credible and effective expert testimony and should be able to use cross-examination in a positive way. (See Module 11: Trial for further information).

## Ethical Issues

Forensic experts must adhere to ethical standards of conduct and be aware of the proper procedures and legal constraints or motions that may affect their testimony.

**A cautionary word:** In the legal system, attorneys are advocates. Their duty is to put forward a set of facts and proofs that support the state's or the client's position. Occasionally, zeal for the cause may shade professional and intellectual independence. It is not improper for the advocate to give an expert a wish list stating the most desirable conclusions from the attorney's and client's viewpoint. This does not mean, however, that the expert must support that view.

Expert witnesses' integrity, reputation, and personal and professional self-esteem are at stake and require that their conclusions and opinions be supported by the available body of facts and by operative knowledge.

**Experts must always follow the scientific method**, regardless of the path it forces them to take. "Following" the scientific method has to do with how science is conducted. "Adhering to the principles" of objective and unbiased science describes how scientific results are reported or presented.

As in any professional, technical or scientific field, experts must keep abreast of current information and maintain a high level of competence. Many experts do this by attending seminars that deal with enhancing forensic skills. Experts must also maintain professional competence at a substantive level. Before they become



competent, credible and valuable witnesses, they must be able to perform as competent, capable and credible professionals. They must perform with excellence the day-to-day functions that are the cornerstones of their practices.

## Module 1: Sources of Scientific Evidence

### Learning Objectives

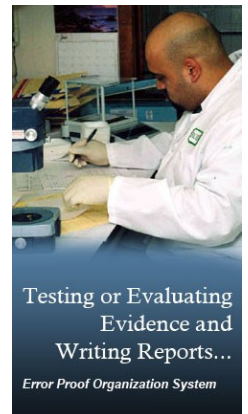
After completing **Module 1: Sources of Scientific Evidence**, the user should:

- Know that experts can have a diversity of employers.
- Comprehend that experts evaluate or test evidence items and produce analytical reports summarizing their findings.
- Recognize what type of information can be discovered.
- Comprehend which information should be maintained by the laboratory.
- Realize the need for thorough documentation.
- Know that experts may be hired to evaluate work of another analyst.

### Topic 1: Employer Diversity

Experts can be employed by a variety of entities: laboratories at the state, local or federal level; academic institutions; or commercial and private organizations. Some private experts are self-employed as consultants and use specialized knowledge and experience to give advice on scientific or technical issues.

### Topic 2: Testing or Evaluating Evidence and Writing Reports

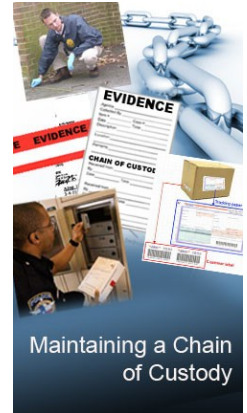


Experts may receive information or evidence related to a case. They may be asked to evaluate or test evidence items and produce analytical reports summarizing their findings. In producing their report, they record all tests and evaluation steps.

In addition to the report, they may generate other information, such as supplementary supporting documentation, including chain-of-custody forms, handwritten notes, summaries of phone conversations with the client or other relevant parties, photographs, sketches, spreadsheets, worksheets and raw data. Experts should preserve all data for discovery and trial.

Throughout all stages of the case, experts should keep a running list of additional information required for follow-up investigation. They can use the list as a guide for preparing tracking devices for case information, either manually or as part of a computer program. A single case may require a number of different investigative methods and follow-up, and experts may handle multiple cases at the same time. Experts must have an error-proof organizational system.

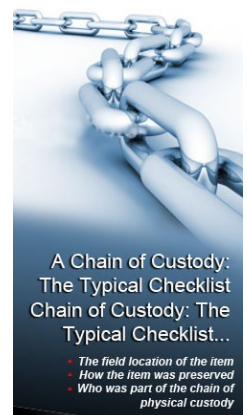
## Maintaining a Chain of Custody



### Maintaining a Chain of Custody

1. The same person or persons that recovered the evidence should initial, seal and send the evidence, or deliver it to an evidence locker.
2. The law enforcement agency (court, police station or lab) should maintain the evidence in a locked vault, cabinet or room until it must be shipped or is needed for tests, discovery or trial.
3. The person who is shipping or transporting an item of evidence should use a reliable shipping method that can accurately track items shipped.
4. Each person who takes physical custody of an evidence item must sign for it as custody is taken.

## A Chain of Custody: The Typical Checklist



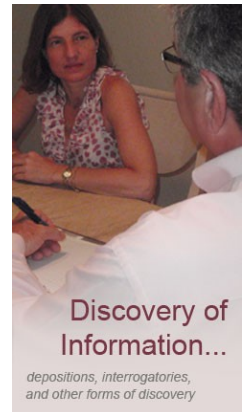
Documenting the chain of custody literally requires each person who touches an item of evidence to sign for its possession. Generically, the term refers to the ability to track tangible evidence items. A typical chain of

custody checklist might include the following items:

1. **The field location of the item.** The geographical location where the item was found or observed, including a careful log entry and, if necessary, a photograph of the location.
2. **How the item was preserved.** Evidence items must be bagged, packaged or otherwise handled in such a fashion that the evidentiary value is not destroyed. Appropriate containers should bear complete ID tags and labels.
3. **Who was part of the chain of physical custody.** Each person who handles the item should make a log entry and receipt of the fact that they handled the evidence. As the item passes from person to person, ultimately to a laboratory or storage area, a chain of receipts should be created. No question should ever exist at trial or a hearing that concerns missing items, mishandling or contamination of items, mislabeling of items, destruction of items (other than in special circumstances where destructive tests are required), or breaks in the chain of custody that might jeopardize evidence admissibility.

For more on destructive testing, including steps to follow, see Module 2: Report Writing and Supporting Documentation, Topic 10: Retaining Samples for Future Testing.

## Topic 3: Discovery of Information

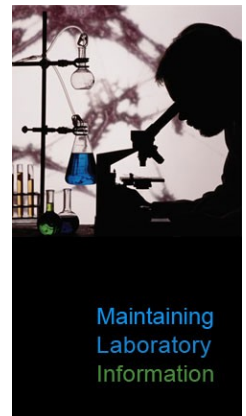


Discovery has been defined as "compulsory disclosure, at a party's request, of information that relates to the litigation; the pretrial phase of a lawsuit during which depositions, interrogatories, and other forms of discovery are conducted."

Discovery is the general term for the ways in which attorneys formally gather information to support and supplement their factual investigation. This is sometimes a laborious process but may help uncover the underlying facts surrounding a matter in dispute. Certain devices are available to help uncover underlying facts.

For more information about discovery issues, including discovery components, the discovery process and case examples, see Module 7: Discovery.

## Topic 4: Maintaining Laboratory Information



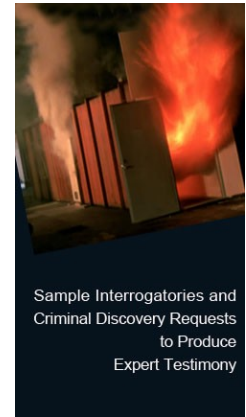
Information generated from laboratory analysis should be maintained by the laboratory indefinitely. Other documents submitted with the evidence may also be kept in the laboratory's case file (e.g., police reports, submitting agencies' presumptive analysis reports, chain-of-custody forms). All of this information may be subject to discovery if the case goes to trial.

## Topic 5: Documenting Findings



Experts must thoroughly document all observations and analyses to permit accurate testimony in trials (which often take place months or years in the future). Any deviations from the standard operating procedure (SOP) or unexpected findings should be noted in the report and in records maintained in the case file.

## Sample Interrogatories and Criminal Discovery Requests to Produce Expert Testimony



For a real-life example of the degree of specific detail a forensic expert may be requested (and should be prepared) to provide on occasion, see [Sample Interrogatories and Request for Production to Expert Witnesses](#) in the Appendix.

These are samples of continuing [interrogatories](#) and criminal [discovery](#) requests for production of expert testimony by hired or subpoenaed witnesses on specific subject matter or on SOPs of scientific/laboratory analysis and testing. Experts must provide their responses in a prompt and timely fashion.

## Topic 6: Reviewing Other Analysts' Work

Experts may also be hired to evaluate work that another analyst has already performed. These experts may offer [testimony](#) in court or advise attorneys about [cross-examining](#) other experts. In these instances, the original evidence is seldom examined. These [expert opinions](#) are generated on the basis of documentation provided from the initial expert's observations, data and reports.

Experts can be appointed directly by the court rather than appointed by a party. Their duties may include reviewing other experts' work, explaining a particular method or technology to the court and answering questions the court may have (see [Federal Rule of Evidence 706](#)).

## Module 2: Report Writing and Supporting Documentation

### Learning Objectives

After completing **Module 2: Report Writing and Supporting Documentation** the user should:

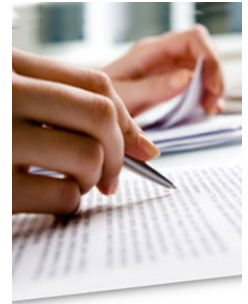
- Know that laws differ according to jurisdictions.
- Recognize the importance of checking with attorneys on appropriate legal issues in applicable jurisdictions.
- Know how to prepare reports, pretrial training documents, and testimony in layman's language to avoid ambiguity or misunderstanding.
- Determine what is required in the case file by consulting quality assurance (QA) and quality control (QC) standards of various accrediting bodies.
- Ensure that all supporting documentation is maintained in the case file.
- Know the laboratory's policy for disposition of evidence.
- Recognize that the scientist is responsible for documenting work done to prepare samples for outside testing.
- Examine notification requirements regarding sample consumption, retention and disposition.

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- Ensure the specifics of all relevant testing dates.
- Realize the importance of studying any applicable standards of performance from the American Society for Crime Laboratory Directors (ASCLD) — ASCLD's Code of Ethics, American Bar Association (ABA) — ABA Model Rules for Professional Conduct, National Forensic Science Technology Center (NFSTC), International Organization for Standardization (ISO) — ISO Standards, and American Society for Testing and Materials (ASTM).
- Confirm that all conclusions are included in the report.
- Adhere to laboratory policy on appropriate language for report writing.
- Perform a technical and administrative review of the report (QA/QC).
- Confirm that the proffering attorney has correct and complete report(s).
- Comprehend the ethical responsibility of the forensic scientist according to American Academy of Forensic Sciences (AAFS) — AAFS Code of Ethics, ASCLD Guiding Principles, International Association for Identification (IAI) — IAI Standards of Ethical Conduct, American Board of Criminalistics (ABC) — ABC's Rules of Professional Conduct and other professional association ethics codes.
- Recognize the importance of checking with attorneys on appropriate legal issues in applicable jurisdictions.

Results of laboratory analyses are usually preserved in analytical reports written by the forensic expert once all tests are completed. The reports are then submitted to the requesting agency or attorney. Copies of these reports may be made available to opposing counsel, investigators and others involved in the case.

## Topic 1: Using Plain Language in Reports



Reports...  
*should be written in plain,  
clear and basic language*

Many people who read and interpret these reports are not trained scientists, so all explanations, conclusions and statements (particularly when describing statistical frequencies or probability of occurrence) should be written in plain, clear and basic language to avoid ambiguity or misunderstanding.

All supporting documentation associated with the case, such as logs, handwritten notes and template forms, should be maintained in one central location (usually a case file or folder). Because different evidence items from the same case may be tested over a span of time, the specific dates that tests were performed on each item should be carefully and accurately recorded in the case file.

Any documents maintained by the laboratory that pertain to multiple cases (such as calibration logs or validation reports of equipment used in the testing process) may be maintained separately from the documentation for specific cases. Documentation should be maintained in a central location and be made

available upon request by appropriate parties.

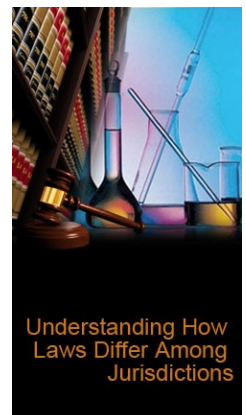
Often, laboratories will have someone on staff responsible for responding to discovery requests. Because casework documentation can be subject to discovery, it should never be destroyed. Federal law prohibits the destruction of public records created in forensic evidence testing in federal and state government crime labs.

## Topic 2: Removing Documents From the Case File



An attorney or expert, when faced with a formal request for production of file documents, may not remove items from a file without making a disclosure of that removal to opposing counsel. **In a criminal case, the intentional withholding of evidence could itself be considered a criminal act and may subject the expert and/or the attorney to legal action.** The expert should not be a party to removal of any items from a case file without disclosing that removal to opposing counsel. If in doubt, the expert should bring the matter to a laboratory supervisor's attention.

## Topic 3: Understanding How Laws Differ Among Jurisdictions



Analysts should be familiar with all relevant laboratory policies or jurisdictional requirements that determine which documents can be compelled to be released through discovery. If discoverable documents are unavailable for any reason, the requesting party should be notified.

## The Preliminary Report



### The Preliminary Report...

*At some time before the analyst has finished the investigation, his or her opinions and conclusions will be properly converted to an initial or preliminary report*

At some time before the analyst has finished the investigation, his or her opinions and conclusions will be properly converted to an initial or preliminary report. At this point, the discovery steps, such as interrogatories, production of documents, and depositions, may still be under way. Tests may not have been concluded. The literature survey may be unfinished. Witness statements may need to be obtained. Preliminary findings, which may be related verbally, should reflect these open areas of inquiry.

## Limitations of the Preliminary Report



### Limitations of the Preliminary Report...

- ▲ Only a preliminary opinion is required
- ▲ Findings may be tentative
- ▲ Statements may be substantially qualified and limited
- ▲ The report is subject to a list of remaining investigative tasks

At this stage of assignment, caution and wisdom dictate several likely limitations to the preliminary report:

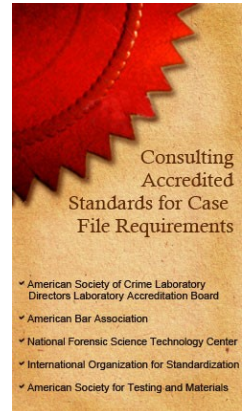
- Only a preliminary opinion is required.
- Findings may be tentative.
- Statements may be substantially qualified and limited.
- The report is subject to a list of remaining investigative tasks.

At the same time the expert makes the preliminary report, the expert may be restating, reevaluating and recasting preliminary hypotheses. The investigative process may have taken a surprise turn. The expert should maintain contact with the requesting attorney or department. Facts that have been uncovered may require



further discovery or investigation, which the expert may need to know in order to conduct additional testing.

## Topic 4: Consulting Accredited Standards for Case File Requirements



Policies regarding whether or when to generate a lab report may vary by laboratory. Laboratories accredited by the American Society of Crime Laboratory Directors Laboratory Accreditation Board (ASCLD/LAB) or those adhering to recommendations issued by the American Bar Association (ABA), the National Forensic Science Technology Center (NFSTC), the International Organization for Standardization (ISO) and the American Society for Testing and Materials (ASTM) Standards will generate a report whenever lab work is performed (even if inconclusive results are obtained). This allows labs to provide a record of the attempt to obtain testing results made by the laboratory.

## Surveying the Professional Literature



Surveying the Professional Literature

The literature survey varies in each case, depending on the field and the specific assignment. A literature survey may include:

- Professional and technical journals.
- Dissertations.

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- Commercial literature.
- Manufacturers' products or technical bulletins.
- Internal operating and procedure manuals.
- Standard textbooks for specific fields, industries, etc.
- Relevant test procedures and laboratory studies.
- Other experimental studies.
- The expert's own library and files, including: lecture notes, laboratory tests, reports prepared in prior forensic assignments, surveys, articles, and prior depositions and testimony transcripts in similar cases. (The expert's files may also assist in cross-examination preparation.)

In addition, analysts should be very familiar with the standard key texts in their specific field(s) of expertise. These authoritative texts are referred to as learned treatises. The expert should stay current on new developments, techniques, research, standards of practice and protocol in the applicable area(s) of expertise.

## Topic 5: Following Lab Policies for Report Writing

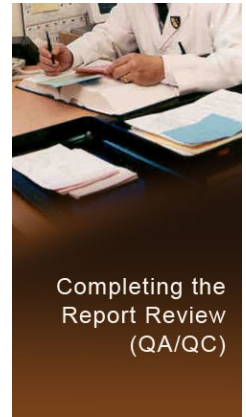


Laboratories should have standard policies on report writing. Most have template language that describes frequently encountered situations and outcomes. Writers should ensure that all conclusions contained in a report are supported by the raw data or test results. If appropriate, qualifying language should be included on scientific opinions to avoid misinterpretation if the data do not support a conclusive opinion.

## Topic 6: Including All Conclusions

If a result has more than one possible explanation (e.g., in cases of unresolvable mixtures, or with a question about improper use of a mechanical device by the operator vs. product defect or failure), the ambiguity should be clearly stated or an alternative explanation should be provided in the report. Further clarification should also be supplied to the submitting agency.

## Topic 7: Completing the Report Review (QA/QC)



In most laboratories, the testing analyst drafts the initial laboratory report. Additional lab personnel then review the report for technical and administrative detail before release to the party who requested the analysis.

## Topic 8: Amending Reports

When new items of evidence or additional suspects are submitted for testing, the analyst may issue additional or supplemental reports. Amended reports may be issued in a variety of situations:

- If a statement from a prior report needs to be amended for accuracy or clarification purposes.
- If new national standards are set that govern how conclusions should be reached.
- If related statistics are generated.

If the lab issues an amended report, the party requesting the analysis should be notified immediately and an explanation should be provided.

## The Final Report

The analyst's final report should demonstrate organization, clarity and neatness. Its contents depend on the scope of the assignment. The following recommended list of items for inclusion is intended to suggest possible areas to consider:

- Case name.
- Case file number(s).
- Date.
- Lab and analyst contact information.
- Name and business address of requesting attorney or other agency.
- General description of the item(s), event or activity that is the subject of the assignment.
- Stated objective of the assignment.
- General methodology used.
- Case summary.
- Expert's conclusions and final opinion.
- Specific dates, times and places of investigatory testing or other activities.
- Photographs, samples, drawings, schedules, maps, charts and summaries relevant to the case.
- Investigative reports incorporated into the report.

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- Test examinations, calculations, computations or other procedures that were followed.
- Consultation with other experts, particularly with those recognized as an expert in their relevant field.
- Statements of various hypotheses under investigation.
- Areas of investigation that are still open because of unavailable data or incomplete test or evaluation results.
- Findings from the physical examination — all normal physical findings, negative findings, and objective findings and observations.
- Limiting conditions, exclusions and disclaimers — qualifying the opinion or leaving conclusions somewhat open, subject to later determined facts.

When preparing the report, the expert should use standard internal quality assurance and final check procedures. The expert should double-check all calculations and make sure technical terms are used correctly. The report must be reviewed for typographical errors, grammar and syntax, and clarity. The expert must verify the accurate sequence of pages, exhibits and attachments. The expert must cover all the basic "who, what, when, where, why and how" questions and make sure the report is distributed only to the proper recipients.

### Topic 9: Submitting the Report to the Proffering Attorney

Under the rules of discovery, the proffering attorney (who has produced or subpoenaed the witness) is required to supply the results of testing to the opposing counsel. If multiple reports are generated during the course of testing in a case (which includes any preliminary, interim or amended reports), the submitting party/agency and proffering attorney should always receive the most recent information.

### Topic 10: Retaining Samples for Future Testing



Whenever possible, a portion of biological, toxicological or other samples should be retained for future testing. In situations where the entire sample may be consumed in the testing process, the analyst should notify and/or consult, as prescribed by their policy, and document the events in the case file.

Evidence items should be maintained at the lab while testing is ongoing. Labs should keep documentation of all personnel with access to the evidence while it is at the lab on a chain of custody form initiated by the submitting agency, maintained by the lab, and transferred to the agency that takes final possession of the evidence.

For more on chain of custody issues, see [Module 1: Sources of Scientific Evidence, Topic 2: Testing or Evaluating Evidence and Writing Reports](#) .

## Destructive Testing

Testing requires scrupulous attention to detail. The expert must maintain impeccable records of his procedures at every point. Memory fails. The expert should write, draw, photograph, videotape or otherwise record all steps of the testing process.

Testing is often a prerequisite to expert testimony. Occasionally, destructive testing must be undertaken.

Steps to follow during destructive testing:

- Consult with attorney and client *prior to* testing.
- If an opposing party is known, the party should be given notice. This simple step will avoid many potential problems and objections later on.
- If the matter is subject to court or administrative procedures, review and observe rules of the forum.
- Obtain a court or administrative order before destructive tests are undertaken.
- Maintain meticulous documentation. Show precisely what was done, how it was done, and what the findings were. Record the process with photographs or videotape.
- Make sound recordings when appropriate, particularly if results are observed or the process is audible and can be heard.
- Follow the scientific method of preservation: marking, labeling and evaluating to preserve the residue from the test.
- If the process is lengthy, time-lapse photography is an alternative method of recording.

Helpful guidelines for situations where destructive testing is necessary:

- Use documentation.
- Obtain written authorization.
- Use photos or video to record the events.
- Arrange for witnesses to be present.

## Topic 11: Knowing Relevant Lab Policies for Evidence Disposition

Rules about final disposition of evidence will vary by jurisdiction: lab policy or state law may prescribe how and where to retain evidence. Case documentation must reflect the disposition of evidence, including any consumption of the sample in the process of testing and analysis.

Some local, regional or state crime labs may have agreements with associated law enforcement agencies about where evidence is kept for long-term storage. In the absence of such an agreement, labs must make arrangements for the final disposition of evidence. In light of scientific advances and expansion or elimination of statutes of limitations for certain crimes, forensic testing may be attempted on evidence that is decades old. For this reason, even with limited long-term storage space, many jurisdictions are moving toward indefinite

storage of evidence items containing potential biological material. The analyst plays a key role in documenting, protecting and preserving this vital evidence in perpetuity.

## Report Writing for the New Rules

The following new rules may affect the analyst's written report:

A. Federal Rules of Criminal Procedure — Rule 16(a)(1)A and (1)E 16(b)(1)C.

1. By request of the defendant, the government must provide opinions, qualifications, basis and reasoning for the government's expert.
2. However, if the defendant asks for this information from the government witnesses, that opens the door to the government requesting and obtaining the same information from the defense. This may include finding out experts' names, their opinions, their qualifications, the basis for their opinion and the reasoning supporting their opinion.

## Module 3. Importance of Case Preparation

### Learning Objectives

After completing **Module 3: Importance of Case Preparation**, the user should:

- Recognize the value of the pretrial preparatory meeting.
- Recognize the uses of and importance of using the scientific method.
- Ensure that adequate facts are obtained before forming an opinion.
- Remain objective and neutral when examining and reporting evidence.
- Communicate, discuss and distinguish facts that do not impact the results.
- Use lay terms and visual aids to assist with testimony.
- Apply terminology correctly.
- Comprehend how the results of the forensic testing fit into the overall theory of the case.
- Recognize potential weaknesses/vulnerabilities of the technology.
- Explain weaknesses in forensic testing methods.
- Perform additional tests when appropriate to strengthen the reliability of the results.
- Apply testing or conclusions to potential challenges in the immediate case.
- Identify prior challenges in the discipline that were successfully resolved and led to remedies.
- Distinguish nonforensic uses of the technology to demonstrate its acceptance in the broader community.
- Ensure that the attorney understands the distinction between objective and subjective statements.
- Ensure that the attorney is aware of the assumptions/presumptions implied or stated when formulating opinions, facts, or a combination of both when supporting conclusions.
- Explain the limitations of the test results and give basic information about the science behind them.
- Recognize the laws regarding the parameters of expert testimony.

## Introduction: Communicating With Attorneys

The forensic expert must communicate with the attorney who requested his or her services and with the opposing counsel, judges, and administrative hearing officers. Forensic assignments are typically divided into

distinct phases:

- Engagement.
- Investigation/analysis.
- Preliminary report.
- Final report.
- Discovery.
- Trial.
- File closing.

All phases (except the last) require communication with attorneys. One of the fundamental difficulties for analysts when communicating with attorneys is that attorneys sometimes use legal terminology that is unfamiliar.

As in any profession, particular terms have specific meanings that will require definition or translation. A [glossary](#) of frequently used legal terms is included with the Law 101 online training to help clarify conversations, correspondence and pleadings.

## **Problem Areas When Communicating With Attorneys**

Experts routinely identify several problems when communicating with attorneys. In order of priority, they include the following:

- Lawyers are too busy to discuss the case priorities.
- They do not understand technical scientific language.
- They do not listen to the experts.
- They are too aggressive and adversarial.
- They often do not return phone calls.
- They oversimplify complex issues and require "yes" or "no" answers.
- They contact the expert at the last minute.

Experienced experts suggest that attorneys could improve communication in the following ways:

- Giving the expert more time.
- Planning ahead and being better organized.
- Attending technical training seminars.

The expert and the attorney share the responsibility for communicating effectively with each other. The expert must translate technical terms and concepts for the attorney. The attorney must translate the legal vocabulary for the expert. Counsel can help the expert understand the goals and objectives and can focus on the most important points to emphasize in the expert's testimony. Developing one or more working hypotheses will enhance their mutual understanding.

## Techniques to Improve Communication

Most technical, professional and scientific fields boast a text or series of books that constitute the definitive text for that field. Experienced trial lawyers will regularly ask the forensic expert for such texts. If the lawyer does not ask for this material, the expert should take the initiative and provide it. The attorney should provide the expert with sufficient information about the judicial process, and the expert's role in it, so that the expert will be effective during testimony.

Timely communication is almost as important as clarity. The expert's verbal or written report will be due at a certain time, and it is important to meet this deadline. If the attorney does not lay out a timetable for the procedures and steps involved, the expert should create one. (See [Module 10: Pretrial](#)).

Experts must respond promptly to requests for information and progress reports. The expert's professional reputation will be enhanced by excellent professional service.

The main points at which the expert will need to communicate with counsel are:

- Writing an engagement letter to counsel, in response to counsel's initial statement of engagement, that conveys an understanding of the assignment.
- Creating a preliminary report of initial findings.
- Drafting interrogatories, requests for production of materials for court, and deposition questions.
- Preparing materials for the deposition, using working hypotheses to focus on the main points, and anticipating questions from opposing counsel.
- Preparing a final report.
- Preparing testimony and materials for the court trial.
- Developing the direct examination questions.
- Helping prepare for cross-examination.
- Giving expert testimony at the trial.
- Providing other trial assistance.

At each of these points, the expert should confirm with counsel, either verbally or in writing, that the expert understands the information and expectations. The expert may ask counsel to provide the same assurances. Active listening is an excellent way to ensure an accurate understanding.

## Philosophical Differences

The forensic witness should consider the following philosophical and attendant procedural questions to help facilitate the most effective testimony:

- If forensic investigation suggests a result that is scientifically, technically or factually irrefutable, why can't experts simply gather around a table and resolve the dispute in a spirit of collegiality and fraternity?
- Why must an expert be subjected to grueling and rigorous cross-examination when the facts are so clear? The expert is confident of his or her expertise and has studied the facts and tested the evidence. The expert is educated and trained in the applicable specialty and can provide answers to most questions about the scientific evidence.
- How can another expert witness study the same facts, data or evidence and reach a different conclusion?
- How can the attorney know the results of the expert's research and testing in advance without preparing adequate groundwork to arrive at those conclusions? An attorney who draws conclusions



without the evidence hinders the expert's role in providing accurate testimony, or it may appear that the expert's integrity is being challenged.

## Topic 2: Engaging the Expert



Starting the assignment in an orderly and businesslike manner indicates competence and professionalism. Intake memos, directives and engagement letters reflect the expert's attention to duty. They also serve to eliminate possible misunderstandings about the assignment.

The expert's general and specific assignments are essential parts of the initial engagement. Certain permissible areas of inquiry and dialogue between the expert and the attorney are proper, as long as the expert maintains the right to reach an independent judgment and provide an opinion that is based on the evidence.

When engaging an expert, attorneys may often:

- Investigate the expert's credentials and inquire as to whether the expert's background contains any potentially damaging material (e.g., felony convictions, or prior contrary testimony or written materials).
- Engage the expert sufficiently in advance of the court date so that witnesses are included when disclosing their identities to opposing parties and so that the expert's opinion can be elicited before deciding whether to call the expert as a witness.
- Tell the expert that he or she will be engaged initially only as a consultant (in an attempt to preserve confidentiality).
- Elicit candid opinions from the expert on the issues for which testimony might be sought, and confirm his or her willingness to testify to that effect, before certifying the expert as a witness.
- Spell out the rules regarding discoverability of the expert's research findings and written communications if the expert is chosen to testify.
- Inform the expert of all actual and potential opposing parties (e.g., cross-claims and third-party defendants) and whose names should be checked for possible conflicts of interest.
- Provide sufficient material to enable the expert to form an opinion that is based on the evidence.

## Expert's Background and Qualifications

An expert should expect to make full disclosure of his or her background and qualifications to the proffering attorney, including:

- Education (degrees).
- Work experience.
  - ◆ Length of current employment.
  - ◆ Length of time in the field.
  - ◆ Supervisory responsibility.
  - ◆ Performance appraisal.
  - ◆ Public or private laboratory or test site, and its capacity.
  - ◆ Platform or equipment used for testing, and availability to the expert when writing the final report.
  - ◆ Number of times the expert has performed this type of testing.
  - ◆ Number of times the expert has previously given testimony for the opposing parties.
  - ◆ Previous court testimony.
  - ◆ Record of proficiency tests completed.
  - ◆ Certifications.
- Teaching experience.
- Publications in the field.
- Membership in professional organizations, including any official roles within the organizations.
- Honors and professional recognition.
- Criminal history or events that could imply moral turpitude (e.g., personnel actions in *Giglio v. United States*, 405 U.S. 150 (1972)).
- History of compensation received for previous testimony (more relevant for privately retained experts than for state crime laboratory employees).

The opposing counsel may explore the expert's background and qualifications, not only from information provided by the expert but also through independent fact checking, research and verification.

The expert should never misrepresent his or her personal background, experience and qualifications in any way, including the elimination of embarrassing résumé entries. Any missing information is potentially discoverable by opposing counsel and may come back to haunt the expert on the witness stand. Background misrepresentation or exclusion, whether intentional or not, may impugn the expert's character, reputation and credibility and challenge the reliability of the expert's actions and testimony.

## Initial Contact

The first contact an attorney makes with the expert may be by telephone, e-mail, letter or in person. At this point, the expert should write an intake memo. The memo should include the:

- Date.
- Name, address, phone number and e-mail address of attorney.
- Name, address and phone number of opposing attorney.
- Date of the subject event.
- Location of the event or evidence involved.
- Location of relevant documents and information.
- Brief description of the problem or situation and the alleged crime or event.
- Statement of terms of initial assignment.

Some initial contacts do not result in cases. It is a good idea to maintain a file of contact memos entitled, "pending matters/not yet cases." The memo could be important when checking for possible conflicts, should the expert be contacted later by opposing parties.

## Specific Responsibilities

Beyond a statement of general assignment, an itemization of specific duties is sometimes appropriate. For example, if the analyst's assignment involves investigation of an explosion scene, the listing of specific duties could include:

- Inspecting the scene, including photography and video.
- Examining official reports.
- Sampling debris.
- Removing possible explosive fragments.
- Testing evidence.
- Cooperating with local officials.
- Formulating a preliminary causation thesis.
- Preparing a final cause-and-effect report.

An itemized list of specific responsibilities benefits both the expert and the proffering attorney by allowing them to engage in the thought process necessary to bring the expert's service into proper focus within the framework of the overall case. Opportunity for misunderstanding is reduced.

## Dates and Deadlines

The time frame within which the expert must do the work should be established. If trial dates or statutes of limitation are involved, they should be noted at the outset to avoid later misunderstanding. Some cases require preliminary expert reports at an early date. The overall strategy of the case often revolves around the timing of the expert's investigation.

Administrative and judicial dispute resolution processes frequently involve a carefully timed sequence of steps. The expert's understanding of the time requirements will avoid the last-minute crunch that often attends discovery and production matters.

## Engagement Letter or Directive

Whether the expert works for a public laboratory or agency or is a private consultant, the expert should use a directive or engagement letter to begin the assignment. This is true even for routine assignments.

The directive or engagement letter may be an item that is discovered by opposing counsel. It may contain instructions to the expert. Under current case decisions, any information that is relied upon by the expert when formulating his or her opinion is a discoverable item, most certainly during court proceedings.

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(Source: Rule 26(b)(4)(B) Federal Rules of Civil Procedure; *DelCastor, supra* at 407-408; *Phillips, supra* at 556; *U.S. v. McKay*, 372 F. 2d 174 (5th Cir. 1967).

For that reason, experts should take care to phrase the directive document or assignment letter carefully and avoid any hint of direction to the expert to reach a specific conclusion. The document should clearly state that the expert's conclusions must be reached only on the basis of the expert's professional opinion after full inquiry, testing and investigation.

Refer to on Sample Engagement Letter From Retaining Attorney and/or Sample Engagement Letter From Expert Witness (Appendix) to see sample letters from retaining attorneys and from an expert witness. The samples may be more detailed than the expert's purposes require. The expert should consider them as guidelines only but should make the use of such agreements a part of the commencement of each case.

## Compensation

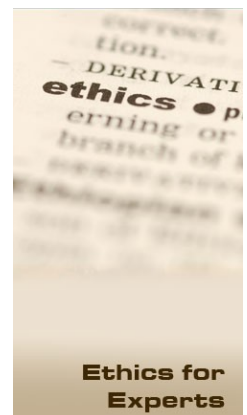
As an employee of a government laboratory or forensic facility, the expert will receive compensation that is routine and part of the employment agreement. This compensation is usually paid to the laboratory or agency and not the expert.

If the expert later becomes engaged in private practice, the expert's compensation must be addressed and included in the engagement letter. The rate and method of compensation should be explicitly stated. The engagement letter in civil matters frequently fails to spell out who is specifically responsible for paying the expert's fees — the client or the attorney. Often, the expert knows the attorney and not the client. As a result, it is to the expert's advantage to have the attorney guarantee the payment.

[Source: *Copp v. Breskin*, 56 Wash. App. 229 (1989)]

In civil cases, expert fees may range from \$50 per hour to \$2,500 or more per day. The expert should find out what similar experts are charging. Fees may be determined by experience, complexity of the assignment, or time constraints. Fees may be net or gross; the expert should establish who pays expenses incurred for performing assigned duties.

## Importance of Ethical Considerations



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The forensic expert and the attorney may engage in a preliminary discussion, based upon hypothetical facts, in order to determine the expert's general opinion in a given professional area. Specifically, the attorney may wish to determine whether an expert is predisposed to a certain conclusion.

The following example from a civil case illustrates this concept in principle. A typical initial contact dialogue may involve discussions like this:

**Attorney:** *Doctor, as a thoracic surgeon, I know you have performed a number of operations involving first rib resection.*

**Expert:** *Yes, that's correct. That surgery has often been used to alleviate what's called the thoracic outlet syndrome.*

**Attorney:** *Doctor, my previously healthy client sustained an injury requiring a first rib resection following an automobile collision. After surgery, all symptoms of the thoracic outlet syndrome, including diminished radial pulse, were alleviated.*

*Doctor, if I can establish for you the facts that I have just recited and if, after you have made an investigation of the medical records and a clinical examination of the patient, you conclude that those facts are accurate, what sort of conclusions would you make as an expert testifying witness about the car crash being the proximate cause of the thoracic outlet syndrome necessitating a first rib resection?*

**Expert:** *If you can establish the facts you just indicated, and if the medical records, the history, and a clinical examination of the patient support that conclusion, it would generally be my belief that, absent other intervening or contraindicative causes, the car crash probably caused the thoracic outlet syndrome and resulting first rib resection surgery.*

This sort of inquiry is proper. Note that the inquiry and dialogue:

- Allow the expert to determine the general area of testimony required.
- Require the attorney to state the client's situation accurately.
- Ensure that the expert opinion will meet the attorney's expectation, *if and assuming that* the facts stated are actually established.

The following dialogue, as distinguished from the previous scenario, constitutes an *improper* demand by an attorney. The expert should be forewarned about such unscrupulous tactics and be prepared to respond:

**Attorney:** *I know you have testified in a number of cases about property valuations in condemnation. The state in this case has offered our clients \$100,000 for their property. The client believes the property is worth \$300,000.*

*It's important for me to know at the outset whether your expert opinion can support a \$300,000 valuation. If you can't support such an opinion, I'm going to have to find another expert for our client.*

**Expert:** *Well, I'd have to look at comparable sales in the neighborhood, consider the income stream generated by the property, examine the cost of construction of the property, and calculate the depreciation to determine the value of the property.*

**Attorney:** *I'm not concerned at this point about the standard approaches to the value. What I want to know is, can you tell me now that you can support a valuation of \$300,000 for this property? If you can't, I'm just going to have to hire someone else.*

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That type of examination is unethical and improper. The expert is being asked to venture a position for an attorney and client that is not supported by the pragmatic data or has been entirely suggested by the attorney.

The expert can reach a conclusion only after careful, professional, factual and technical investigation. Agreeing with unsupported opinions suggested by an attorney or client is unethical and contrary to the goals of the dispute resolution process.

### Topic 3: Preparation: Qualities of an Effective Expert



Jurors generally respond better to ordinary people, but they do not always like and trust experts. One reason for this dislike or mistrust is that experts tend to depersonalize themselves through their methodology, vocabulary or general demeanor. The end result is trial presentation by a robot-like creature who has become devoid of human warmth. That situation can be reversed, making testifying forensic experts more effective.

Six key qualities identify the effective, credible expert witness. The expert witness must:

- Perform a thorough investigation.
- Demonstrate effective teaching ability.
- Be competent.
- Be believable.
- Persuade users of factual accuracy, without advocacy.
- Demonstrate enthusiasm and preparedness.

### Thorough Investigation

The expert must always go the extra mile. This includes:

- Studying all reports.
- Surveying the general body of relevant data.
- Viewing all relevant objects and items carefully.
- Conducting careful evidence testing.
- Maintaining lab notes and investigative tracks, and making sure that time records reflect such activity.
- Conducting tests that include and exclude the preliminary hypothesis.
- Following protocols and standard operating procedures.
- Using the most current professional thinking, writing, research and practice to develop appropriate investigative checklists.

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The expert should be aware of the well-recognized *Daubert* rule, which comes from the landmark U.S. Supreme Court case dealing with evidence from new scientific theories.

The *Daubert* rule requires an independent judicial assessment of reliability. Among other purposes, the *Daubert* test is intended to end the current "battle of the experts" by establishing a reliability or admissibility standard.

Trial courts make a preliminary admissibility determination. This involves a preliminary assessment of whether the evidence is relevant, competent and material. The court decides if the evidence can be properly applied to the facts in this case. This is generally known as the "gate-keeping" function of the court.

Using the *Daubert* standard, a number of reliability factors can enter into this and subsequent hearings. The expert should determine the answers to the following questions:

- Has the scientific theory or technique been empirically tested? The criteria on the scientific status of a theory include its falsifiability, refutability, and testability. [Source: Karl R. Popper, *Conjectures and Refutations: The Growth of Scientific Knowledge* (2002)]
- Has the scientific theory or technique been subjected to peer review and publication?
- What is the known or potential error rate?
- What are the expert's qualifications and stature in the scientific community?
- Does the technique rely on the special skills and equipment of one expert, or can it be replicated by other experts elsewhere?
- Can the technique and its results be explained with sufficient clarity and simplicity so that the court and the jury can understand its plain meaning?

[Source: *Daubert v. Merrell Dow Pharmaceuticals Inc.*, 509 U.S. 579 (1993)]

For example, in *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999), the Supreme Court disposed of the idea that *Daubert's* gate-keeping principles extend only to scientific testimony. The Court invoked Federal Rule of Evidence 702, which says that expert testimony must embody scientific, technical or other specialized knowledge. It held that trial courts ruling on admissibility must evaluate the reliability of all expert testimony, whether it is scientific or not. Emphasizing *Daubert's* flexible approach, the Court noted that the factors bearing on a reliability determination may vary, depending on the field of expertise. In every field, it is necessary to evaluate the trustworthiness of the expert's methodology. *Kumho Tire* offers the benchmark that an expert's courtroom analyses should be conducted under the same standards for intellectual rigor that generally prevail in the expert's field.

## Ability to Teach

The expert may want to think back to high school or college and recall a favorite teacher, instructor, professor or coach. The expert should recollect the specific qualities that made him want to learn more from that person. The expert should visualize those attributes and try to act like that person.

A partial list of outstanding qualities of exceptional teachers might assist in the expert's recollection. Outstanding teachers are:

- Well-informed.
- Well-prepared.
- Effective when using demonstrative aids.
- Non-intimidating.

- Good at using examples and analogies.
- Questioning.
- Modest and humble.
- Non-directive.
- Able to provide opportunities to test knowledge.
- Able to honestly admit information gaps.
- Friendly and personable.

## Competence

Competence is the ability to do something at the expected level of performance. Demonstrating ability and competence in a subject field is a mandatory element of effective expert testimony. Experts demonstrate competence by:

- Having a thorough knowledge of the field, subject or specialty.
- Having appropriate experience or credentials, or both.
- Presenting a currency of information.
- Showing that they have the ability to perform as well as teach.
- Demonstrating results.
- Showing an ability to recognize problems, elect alternatives, and make good choices among them.

## Believability

The expert should not just simply reflect the position established by an attorney. Instead, the expert is presented with a problem; afforded an opportunity to test, investigate, and evaluate the facts and evidence; and asked to reach a conclusion.

If the expert acts as a witness dedicated to a particular conclusion, reached independently and based upon available data and conclusions, he or she will be believable because the expert has a basis and conviction in the opinion. On the other hand, if the conclusion the expert espouses is that of the attorney, or is not supported by the data, the expert will not be believable.

## Ability to Persuade

Experts may recall the last time something changed their minds on a particular subject. What caused this change? Was it a book, something said at a lecture, information from a television program, or an exchange of ideas with persons who had more information?

People change their opinions for various reasons. One of the expert's objectives as a witness may be to cause the fact-finder to change an opinion about a scientific, technical or factual proposition. The expert's task frequently is to:

- Persuade without becoming an advocate.
- Convince without argument.
- Encourage a conclusion based upon data presented in an interesting way.

Effective persuasion is subtle. A person is most strongly convinced if he can mentally develop the conclusion for himself rather than having it "spoon-fed" to him by a persuader.



## Enthusiasm

Enthusiasm for the task at hand, the subject matter, and the conclusion can be demonstrated in many subtle ways. Facial expression and body language tell a great deal about the witness's enthusiasm for the subject. Tone of voice and inflection can suggest confidence and conviction, or boredom and disinterest.

## Keeping Current and Competent

Experts who undertake the challenge of expert testimony have an obligation to stay current in their fields of expertise. They cannot rely on outdated theories, methods, concepts, procedures or equipment.

Whether an expert intends to pursue a forensic witness career or is called upon incidentally for that service, the expert must maintain and improve his current credentials. At the very least, the expert owes that obligation and duty to those who rely on his opinion.

The process of preparing a case for trial or hearing is a learning exercise. Because the expert must examine many aspects of the case, he or she must become competent and stay current in the forensic investigation's subject matter. A number of tasks will help the expert stay current:

- Reading professional literature.
- Being active in the field of expertise.
- Continuing education/certification.
- Research and publishing.
- Teaching, lecturing and consulting.
- Attending seminars.
- Attending professional conferences.
- Testifying.

## Professional Societies and Associations

Memberships in professional associations are considered useful by many active and testifying experts. Association membership benefits include:

- Making contacts.
- Stimulating interaction.
- Keeping current.
- Providing educational opportunities.
- Creating new ideas.
- Providing publishing opportunities.
- Creating enhanced credibility.

The proliferation of professional and technical organizations requires the expert to select organization memberships carefully, depending on the expert's particular specialty area.

The expert should investigate the association's reputation in the field with associates, laboratory directors and mentors. Not all associations may be considered equally reputable. The expert who joins a society should participate actively and energetically in the chosen organization(s).

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Experts should assume leadership roles and undertake chairperson roles on committees or research projects. These achievements can enhance an expert's qualifications to be chosen as a witness.

Organizations that selectively invite membership are of great value to the expert witness. Membership in associations that require an examination for membership is even more valuable.

The professional societies and associations available to the expert may not be organized on an invitation basis or require examinations for entry. Still, the expert's active and enthusiastic participation will help keep the expert current, competent and recognized within the area of specialty.

### **Continuing Education**

The avalanche of new information makes it difficult to stay competent in any professional or technical field. As a result, experts may tend to become more competent in a gradually narrowing field or subject. Specialization and increase in knowledge and competency in these narrow fields are trends that will continue.

Most professional, technical and scientific societies provide continuing education and training. Some make ongoing learning mandatory. Others sponsor seminars and workshops as part of an effort to maintain professional responsibility. A forensic witness can gain significant benefits from participating in such activities.

### **Journals and Publications**

The flow of technical, scientific and professional journals, articles, reports and information is also multiplying, particularly online. Experts must be selective and should determine which journals (hard copy or online) should be read or perused on a regular basis.

### **Research, Teaching and Writing**

Preparing articles for publication has the same benefit as classroom teaching for the expert witness. The article, monograph, book, chapter or text cannot be properly and correctly produced without substantial research effort.

These same qualities can benefit the expert who seeks or accepts opportunities to teach others in the same field. Classroom teaching is a learning opportunity, as is professional, technical or scientific writing. The motivation for both undertakings is to advance knowledge in a particular field. Often, an investigation that requires expert testimony can become the subject of a paper, article or textbook chapter.

### **Maintaining an Active Practice in the Field**

The expert witness who does nothing but forensic testimony is a less desirable and less effective testimonial witness than one who actively practices in the specific field and only incidentally testifies in criminal or civil cases.

Attorneys relish the opportunity to cross-examine a forensic witness whose full-time occupation is forensic testimony. Such a witness can be an easy target. Therefore, some attorneys will not engage the services of a "professional" forensic witness. A forensic witness must be credible.

## Topic 4: Curriculum Vitae

The expert's curriculum vitae (CV), or résumé, tends to address the past. For the attorney or fact-finder's benefit, the CV suggests the expert's ability to analyze prior events for causes and effects, and his ability to predict a course of activity or conduct in the future. The expert must have experience performing investigations in the lab or the field, testing evidence, gathering facts, and digging out relevant information on the subject under inquiry.

The expert's résumé speaks of the ability to do that kind of careful testing, detailed labor and extensive study. Theoretically, after the concentrated evidence testing and information-gathering effort, solutions will become apparent. Each part of the résumé should be designed to lead to that conclusion. Résumé sections should suggest an ability to wade through the morass of factual data and technical detail to reach supportable conclusions.

Areas of professional emphasis speak to the expert's experience. Special admissions, memberships, and technical or professional ratings suggest excellence. They also suggest that other experts in the field respect the expert's abilities. Special recognitions, honors and awards likewise provide evidence of professional or societal recognition.

The expert's educational history is evidence of his academic inquiry and tenacity, as is any teaching, writing and lecturing experience. The expert's publications demonstrate an ability to gather and process important information and to pass it on to others in an effective way.

A potential outline for the expert's résumé might include these major sections:

- Current position or title.
- Professional education and training.
- Government and public service.
- Employment history.
- Details of continuing education and training.
- Areas of professional or technical concentration and professional highlights.
- Honors, ratings, recognitions and licenses.
- Professional memberships and affiliations.
- Teaching, lecturing, seminar, workshop or conference presentations.
- Publications, including books, articles, chapters, and seminar or workshop papers.
- Expert witness experience.

The expert's CV must be factually accurate in all respects. The expert must resist any temptation to expand credentials beyond absolute facts; the résumé must be correct and up-to-date. Imagine the courtroom chagrin that would attend the exposure of errors in the expert's résumé to cross-examination. Such attacks might involve nonexistent degrees, improperly stated ratings and licenses, undisclosed disciplinary proceedings or suspensions, or plagiarized articles. The consequences can be devastating to the case and to the expert's reputation.

## Topic 5: Getting Started: The Action Plan



The Action Plan

Often, the most difficult part of any task is getting started. The expert should complete four basic tasks when approaching a new assignment:

- Develop alternative hypotheses.
- Survey applicable literature.
- Review his or her private files.
- Develop one or more action plans.

"Action plan" is a catch-phrase for an organized way to break a large project into steps and sub-steps. It is an easy way to track progress and identify what needs to be done.

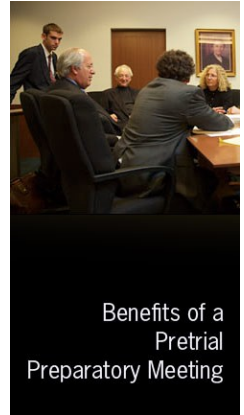
Many public and private experts follow some type of procedure for tracking work effort through individual assignments. Attorneys sometimes use tracking systems they have developed. Labs typically have tracking procedures in place.

Other experts use schedules, notes describing items that require followup, and checklists. Some experts use a standard procedure, and others do so more informally or when circumstances require it.

In situations where action plans have been used, cases are usually ready for trial on time. The chance of a successful result is significantly increased when all parties take a well-organized, pragmatic approach to the project. Because some forensic assignments are massive, the task must sometimes be broken into manageable parts.

If the action plan is prepared by the attorney, it may be a work product — the lawyer's own thought processes — and should receive very limited distribution. As such, it may be privileged and not discoverable. Without the attorney work-product blanket of protection, the action plan may be discoverable.

## Topic 6: Benefits of Pretrial Preparatory Meeting



The expert may benefit from and contribute to the pretrial preparation process in a number of useful ways. A witness at a pretrial preparatory meeting:

- Can be shown the exhibits that may be introduced into evidence at the trial.
- Can be consulted regarding the authenticity of documents.
- Can give the attorney advice on whether certain demonstrative evidence will be helpful in conjunction with the witness's testimony.
- May be able to help prepare the attorneys for the types of exhibits that may be shown to the witness during cross-examination.

In the absence of some privilege or regulation (such as attorney-client privilege and the attorney work-product rule), discussions during witness preparation are discoverable by the other party. The witness may be deposed and questioned about private witness preparation. In other cases, witnesses may be questioned about pretrial preparation meetings at the trial.

## Multidisciplinary Cases and Multiple Experts

The expert may be asked to work with other experts in multidisciplinary cases. Trace analysts, chemists, toxicologists, explosion experts, medical and psychiatric witnesses, and sometimes sociologists or real property appraisers may be called on to assist in presentation of mass disaster cases. The experts must work as a team to gather facts, test evidence, prepare the data, and present the evidence. They must be able to give, take, support and enhance one another's testimony.

In a case involving more than one expert, all expert witnesses on the same side may be called together for a meeting. Each expert should bring results of preliminary studies and fact-gathering efforts for an exchange of data, ideas and theories.

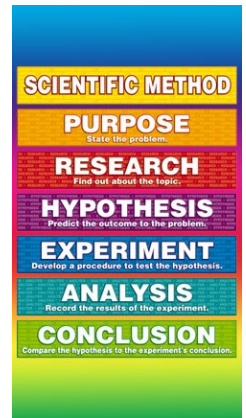
The attorney should open the meeting by explaining that subjects about to be discussed will be part of the attorney's work product and thought process. As such, the materials should not be discoverable by opposing counsel.

This precaution is mandatory, particularly at early stages when various hypotheses are proposed, some of which will be discarded for lack of evidence. If the attorney does not call such a meeting, the expert witness might initiate it.

A collateral benefit of the first meeting is that all experts begin to appreciate reciprocal strengths, weaknesses and information. This is particularly necessary for cases that demand a blend of sciences, skills and expertise. A multidisciplinary or interdisciplinary approach to a forensic problem can emerge when a team of experts

works together on complicated cases.

## Topic 7: The Scientific Method



**Scientific Method:** The principles and empirical processes of discovery and demonstration considered characteristic of or necessary for scientific investigation. The scientific method generally involves observing a phenomenon, formulating a hypothesis concerning the phenomenon, experimenting to determine whether the hypothesis is true or false, and a conclusion that validates or modifies the hypothesis.

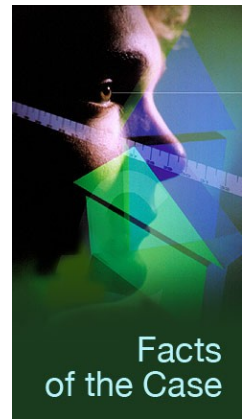
The witness can review a scientific or medical report or a testing analysis. The witness can also help the attorney determine and identify what results could be recreated by a retest of the opposing experts' analysis.

An expert can educate the attorney on the specific scientific discipline's basic elements. The attorney may also need to be educated regarding the method(s) and testing procedure(s) used in the case. An expert may be necessary to explain why the specific method, procedures, equipment, etc., were chosen over other available ones (including a specific lab protocol, a standard operating procedure, etc.).

The expert may recommend additional literature or scientific publications related to the discipline or testing procedure. He or she should include relevant technical literature and "learned treatises" that may be used by the other party's experts.

A witness can also help prepare the attorney for case theories, discovery, deposition, direct examination and cross-examination by providing a list of predicate questions related to the discipline.

## Topic 8: Facts of the Case



An expert should obtain all of the facts about the case to be able to render an informed opinion.

If an expert knows certain facts about the case before scientific testing is conducted, the expert should not allow such knowledge to influence the comprehensiveness of results reported (i.e., making results fit facts known ahead of time vs. reporting a variety of potential conclusions that all fit the data).

An expert should remain objective and neutral when examining and reporting the evidence, during engagement and throughout the trial process. Despite being engaged by one party, it is imperative that the expert witness remembers that the role is not that of an advocate for either party.

## Topic 9: Objectivity vs. Advocacy



Experts should remain objective, whereas lawyers should be advocates for their clients. Fundamental unethical conduct occurs when experts knowingly compromise proper methods, standards and procedures in order to satisfy the goals of a case.

The advocate may give the expert a wish list, stating the most desirable conclusions from the attorney's and state's viewpoint. This does not mean, however, that the expert must support that view.

The expert's integrity, reputation, and personal and professional self-esteem require that the conclusions reached and opinions espoused are supported by the available body of facts and operative knowledge. The expert should always follow the scientific method, regardless of the path it forces the expert to take.

If the expert has an interest in the outcome of a case, by virtue of employment or otherwise, the expert will be approached with care. Government witnesses face this problem by definition. They should make any disclosures freely, and early. Any interests that are not disclosed may give the appearance of shading the investigative and testimony process and may also afford substantial opportunity for damaging

cross-examination.

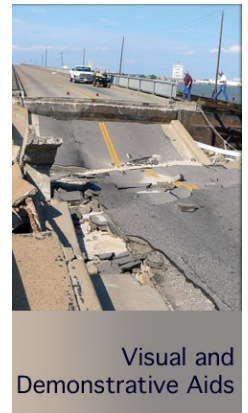
Unfortunately, some crime labs, because of the crunch of demands for drug testing, have cut corners, for example, by reporting the presence of controlled substances only on the basis of a presumptive screening. That test would not justify a scientific conclusion. Although some defendants might plead guilty on the basis of such inadequate evidence, such shallow work does not serve the process.

## Facts That Have No Impact on Results

An expert should be prepared to discuss and distinguish facts that have no impact on testing or on the case, as compared to facts that may have an impact on the test results. Such explanations should be made in basic language using layman's terms. Demonstrative aids should be suggested if they will help convey a clearer understanding of the scientific concepts at issue.

The expert should double-check the use of any technical or scientific terminology in reports, testing and analysis to confirm that all such specialized terminology is used correctly.

## Topic 10: Visual and Demonstrative Aids



As the expert gathers facts from testing and analysis, he should consider which graphic displays will help present the material in an understandable and effective way.

As findings are developed, the expert should strive to translate them into nontechnical, layman's language. The most complete investigation will be of little importance if the result cannot be relayed in a clear, effective and understandable way.

Researchers conclude that most people learn about 15 percent from what they hear and about 85 percent from what they see. Therefore, the expert must translate complex principles into visual presentations. The expert must clearly demonstrate how those principles can be applied to the facts of the case.

Visual media can be used to present technical information. When used in testimony, it must be planned early. Experts can use:

- Drawings.



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- Photographs, including black-and-white and color enlargements and slides.
- Films, videos or DVDs.
- Charts and graphs summarizing voluminous data.
- Time-lapse still photography.
- Photographic enlargements or overhead projection of critical documents.
- Parts, samples or specimens of tests that were conducted.
- Microscopic examination of slides enhanced by video presentation (this technique is particularly effective for cellular or fiber analysis).
- Models and mockups of the crime site.
- Holographic presentations.
- Computer-generated or enhanced animation to demonstrate movement, time and sequence of events.
- Computer displays to portray difficult-to-observe features.
- Three-dimensional computer graphics.
- PowerPoint presentations.

Points to remember about using visual aids:

- Numerous media are available (chalkboard, overhead projector, flip chart, photographic blowups, PowerPoint).
- Dim the lights sparingly, if at all.
- Although copies of exhibits can be given to jurors, using a large projected image (blowup) is preferable.
- Leave images on view after the testimony is finished. Long exposure makes a more lasting impression on the jury.
- Be sure any visual aid is clear and legible.
- Writing the chart before the jury's eyes gains attention and fosters better understanding, but it requires advance preparation.
- If transparencies are used, provide the court with a hard copy.
- Make sure the information shown is relevant and supports your opinions.
- Visit the courtroom to see its layout, before testifying.
- Using visual aids allows the witness to walk around, which helps to hold the jury's attention.
- Visual aids should be simple and clear, should make sense, and should be easy to remember.
- Clear Plexiglas® or flexible acetate overlays can be used to display trends in related areas.
- Placing a clear overlay on the opposing expert's exhibit is an effective means of "correcting" the exhibit to reflect the expert's opinions.

Optimize the effectiveness of charts:

- Illustrate information that furthers the expert's line of argument and avoid extraneous information.
- Keep each chart simple for maximum clarity.
- When using interrelated charts, display them side-by-side to illustrate their relationship.
- Use overlays to illustrate relationships and heighten dramatic effect.
- Place labels next to plots in charts rather than in the legend. Make axis numbers large and readable, and make labels horizontal and adjacent to or within the bar, line or slice.
- Use white background and black print.
- Use scales that illustrate trends fairly.
- Use different thicknesses or colors to distinguish lines from each other and use dashed lines for projections or omissions.
- Stack colors or shades within bars from darkest at bottom to lightest at top.

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This list has relevance to Module 8: General Testifying Tips, on useful techniques for the witness stand. The best witnesses use demonstrative and graphic aids for maximum effect, working with counsel to obtain appropriate rulings to allow use or admissibility.

It is always effective to produce the actual item at issue (e.g., the knife, valve, coupling, electric switch, burnt fabric, or deteriorated timber). In a personal injury case involving an allegedly defective item of heavy equipment, jurors were taken to a warehouse and given an opportunity to see, sit in, and view the vehicle from the position of both the operator and the injured fellow employee.

Models can be equally effective. In one case, the expert witness prepared a full-scale model of a building that exploded in part because of a defective liquefied petroleum gas regulator valve. In another case, the expert witness prepared a scale model of a giant crane. The crane had collapsed, causing a workman's death. In a third case, the expert witness prepared a topographic model of an area subject to a partial condemnation, where resulting road elevations caused substantial damage to the remainder of the owner's land. These models became focal points for each case.

A number of national companies can provide three-dimensional digital animation simulation and interactive video production services, which experts may find useful when presenting evidence.

## Eleven Steps Toward Admissibility

To increase the probability that the expert's tests, experiments, demonstrations and models will be admissible for the courtroom, the expert should follow these steps:

- Be thoroughly familiar with the facts of the case.
- Have accurate measurements available.
- Be familiar with the progression of events that occurred.
- Use the same materials that were involved in the events.
- Meticulously track tests or experimental steps.
- Record the tests or experimental events carefully.
- Make demonstrations similar to the actual events that occurred.
- Make models to precise scale.
- Detail all findings, both positive and negative.
- Do sufficient research to establish that the test or experimental procedure is scientifically and technically recognized as authoritative.
- Consult with counsel to ensure the best presentation for admissibility.

## Topic 11: Theory of the Case

The expert should understand how personal expertise effectively fits the overall theory of the case. If possible, the expert should obtain information on the opposing party's theory. The proffering lawyer may be a potential source for such theories. Knowing this information could prove helpful in preparing counter arguments or in providing testimony to refute the opposing party's theory.

## Developing Possible Hypotheses

Once the expert has received an assignment, obtained initial information from counsel or others, and performed preliminary evidence testing, the next step is to formulate a series of test hypotheses.

## Formulating a Working Hypothesis

After investigating and testing to establish the facts of a case, the expert should then formulate a working hypothesis. The following basic case example shows how this is done.

*Example:* The prosecution's hypothesis was that the defendant, charged with burglary, was:

1. The perpetrator of the burglary.
2. The seller of the stolen goods to the state's prime prosecution witness, who had purchased the recently stolen materials from the defendant.

The prosecution forensic fiber expert was able to analyze and conclusively establish fiber remnants from stolen materials in both the defendant's van and in his home closet.

The facts of the case emphasize the need for a working hypothesis in a forensic case, and application of that hypothesis to the discovered facts. Sometimes, the hypothesis is not easily determined, and considerable investigation and testing is required before a specific theory can be developed.

The expert should be prepared to review any evidentiary reports and confer with counsel about how the reports support an existing or tentative theory. The witness should be able to offer opinions and conclusions based on the reviewed reports. Such reports and report conclusions may elicit changes in either party's theory.

The expert should analyze the evidence and identify the positive evidence (matching profile) that cannot be excluded. Negative (nonmatching, excluded) or inconclusive evidence (i.e., a test was attempted but no results or uninterpretable data were obtained because of contamination, degradation, or an insufficient sample to test) should also be identified. The expert may need to explain the implications of these results.

The expert should be prepared to explain and identify all testing that was performed and to identify other tests that may not have been attempted (necessary for full disclosure and to rebut claims of the "CSI effect").

Some of the possible explanations the expert may need to include:

- The importance of negative evidence (either none exists, or no evidence was sent for testing).
- Why there were no results (tests may have been attempted, but they were unusable or inconclusive, or no results were obtained).
- Why having no conclusive results does not necessarily negate theories.
- Why every item of evidence was not tested (prioritization, resources, etc.).

Various interpretations should be offered, and these should be consistent with the results. The attorney should be made aware of alternate theories that are supported by the results.

The attorney may need to be educated on the scientific terminology. Scientific terms should be explained to the attorney in appropriate language. The attorney must ensure that the descriptions and scientific terminology are accurate so that the jury is not misled.

The expert can expedite this procedure by preparing a glossary or information sheet specific to the case for the attorney to use on the witness stand. This glossary may also be useful to the court reporter at the deposition and trial.

## Topic 12: Background on the Discipline

The expert should present a description of the relevant technology to show its potential vulnerabilities. It is important to discuss this description with the attorney in advance so that proper preparations can be made to rehabilitate the expert witness on the stand if opposing counsel questions the expert about these weaknesses.

The attorney should be informed of any weaknesses in testing methods that could affect test results or conclusions. Explanations can be offered to show how additional tests are performed to strengthen the reliability of results (e.g., multiple presumptive tests when confirmatory tests are not possible).

## Pitfalls of Selective Fact Gathering

In presenting facts and evidence to experts, attorneys and authorities may sometimes tell their story the way they wish it had been, rather than the way it actually occurred. Because a trial of a disputed matter in any forum is often the retelling of past events, accuracy in recitation is essential. If the expert does not get the facts and conclusions correct, the opposing party may.

The fact-gathering process must have a foundation of integrity and must be comprehensive for all those involved. The criminal justice and dispute resolution processes are jeopardized when experts, attorneys and others attempt to create biased results through selective fact gathering.

Attorneys have a responsibility to provide forensic experts with complete and accurate evidence and information about the case. The expert's responsibility is to ensure that the attorney provides complete and comprehensive information.

## Causes of Selective Fact Gathering

In the final analysis, there are four causes of selective fact gathering or selective fact presentation:

- Willful misrepresentation in an attempt to shade the expert's conclusions.
- Willful selection of only the facts that support a conclusion that reflects one side of the controversy.
- Selective presentation of facts and evidence to the expert, by the attorney or others, because in retelling the story, they have shaped the events as they hoped or wished they had occurred ("selective recollection").
- Genuinely erroneous field, laboratory, clinical or investigative preparation that did not disclose salient evidence.

Selective fact gathering is contrary to the scientific method and every expert's good judgment. Such a process impedes the expert's ability to reach valid, supportable, professional and ethical conclusions.

## Avoiding Pitfalls of Selective Fact Gathering

An expert can follow key steps to avoid the pitfalls of selective fact gathering or fact presentation:

- Keep an open mind.

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- Do not approach a case with predetermined conclusions about causation, culpability, fault or damage.
- Remember that attorneys and others may come to the lab or expert with facts that may be slanted, either accidentally or intentionally.
- Carefully follow well-established investigative steps, protocols and standards of procedure.
- Apply forms, procedures and processes that will ensure that no evidence is overlooked.
- Observe all professional ethical guidelines.
- Recognize the expert's vital role in the criminal justice and dispute resolution process.

The causes for adverse trial results from selective or inadequate fact investigation may be due to:

- Attorney oversight in failing to ask the right questions of the right parties.
- Misstatements of fact by parties because of faulty recollection, lack of appreciation of the significance of facts, or intentional nondisclosure of facts (i.e., lying).
- Inadequate investigation by the expert due to:
  - ◆ Failure to test and explore evidence fully.
  - ◆ Lack of proper direction, inadequate time, or lack of equipment.
  - ◆ Inadequate direction pursued by attorney or other parties.

## Challenges Within the Discipline

An expert should be aware of any prior successful challenges in the discipline, and any subsequent remedies (e.g., additional research, or successful legal rulings).

The attorney may need to be informed of nonforensic uses of the technology to show how accepted the technology is in the broader community (e.g., DNA for disease research, or toxicology for identifying drugs in noncrime scenarios). Technological advancements can be emphasized.

## Topic 13: Opinions and Conclusions

The expert should ensure that the attorney understands the distinction between objective (supported by science) and subjective (opinion) statements and uses them appropriately.

The attorney should also be made aware of the expert's assumptions and the presumptions he uses in formulating opinions, as opposed to facts supporting conclusions, or a combination of both (e.g., using presumptive tests to identify biological fluids).

An expert may testify like any other witness about facts about which the expert has personal knowledge, even if the expert was able to observe and assess the relevancy of those facts only because of special skill or experience.

An expert may also offer opinions related to facts about which the jury itself has insufficient experience to form an intelligent conclusion. The expert does not need to be certain of which facts the opinion is based on as a condition of its admissibility. It is sufficient that the testimony of a particular result is within the range of reasonable probability according to generally accepted scientific principles.

An expert should explain the limitations of results (e.g., two hairs being microscopically consistent does not mean that they originated from the same source).

## Topic 14: Rules for Experts

Almost every forum in which the expert testifies will have rules to guide him as an expert witness. Most reflective of current thinking on the subject are typically the Federal Rules of Evidence (See Appendix for more information), Rules 701 through 706.

The Federal Rules of Evidence characterize the rules in the federal courts, and they are similar to rules enacted by many state courts. The rules reflect case and common law decisions in many jurisdictions that have grappled with aspects of expert testimony.

The Federal Rules of Evidence have been included because they exemplify the current mainstream of legal thought on evidence. However, evidence rules in the various states vary considerably and have been interpreted differently by many court decisions and opinions.

### Rules for Experts (FREs): 701-706

#### Rule 701: Opinion Testimony by Lay Witnesses

If the witness is not testifying as an expert, the witness's testimony is limited to those opinions or inferences which are (a) rationally based on the perception of the witness, (b) helpful to a clear understanding of the witness's testimony or to determining a fact about a case, and (c) not based on scientific, technical or other specialized knowledge within the scope of Rule 702.

#### Rule 702: Testimony by Experts

If scientific, technical or other specialized knowledge will help the jury understand the evidence or determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training or education may testify and provide an opinion. The testimony must be based upon sufficient facts or data and the product of reliable principles and methods. The witness must have applied the principles and methods reliably to the facts of the case.

#### Rule 703: Opinion Testimony by Experts

The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. If facts or data can be reasonably relied on by experts in the particular field when they form opinions or inferences about the subject, the facts or data need not be admissible as evidence in order for the opinion or inference to be admissible in the courtroom. Facts or data that are inadmissible shall not be disclosed to the jury unless the court determines that their probative value in assisting the jury to evaluate the expert's opinion substantially outweighs their prejudicial effect.

#### Rule 704: Opinion on the Ultimate Issue

(a) Except as provided in subsection (b), admissible testimony in the form of an opinion or inference is not objectionable because it embraces an ultimate issue that will be decided by the jury.

(b) No expert witness testifying about the mental state or condition of a defendant in a criminal case may state an opinion about whether the defendant had the mental condition when committing the crime. Such ultimate issues are matters for the jurors to decide.

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### Rule 705: Disclosure of the Facts or Data Underlying an Expert Opinion

The expert may testify in terms of opinion or inference and give reasons for that opinion without first testifying to the underlying facts or data, unless the court requires otherwise. The expert may be required to disclose the underlying facts or data on cross-examination.

### Rule 706: Court-Appointed Experts

**(a) Appointment.** The court may, on its own motion or on the motion of any party, enter an order to show cause why expert witnesses should not be appointed and may request all parties to submit nominations. The court may appoint any expert witnesses agreed upon by all parties and may appoint expert witnesses of its own selection. An expert witness shall not be appointed by the court unless the witness consents to act. A witness so appointed shall be informed of the witness's duties by the court in writing, a copy of which shall be filed with the clerk or at a conference in which the parties shall have the opportunity to participate. A witness so appointed shall advise the parties of his or her findings. The witness's deposition may be taken by any party, and the witness may be called to testify by the court or any party. The witness shall be subject to cross-examination by each party, including a party calling the witness to the stand.

**(b) Compensation.** Expert witnesses are entitled to reasonable compensation in whatever sum the court may allow. The compensation is payable from funds which may be provided by law in criminal cases and civil actions and proceedings involving just compensation under the Fifth Amendment. In other civil actions and proceedings, the compensation shall be paid by the parties in such proportion and at such time as the court directs, and thereafter charged like any other costs.

**(c) Disclosure of Appointment.** The court may disclose to the jury that the court appointed the expert witness.

**(d) Parties' Experts of Own Selection.** Nothing in this rule limits the parties from calling expert witnesses of their own selection.

## Shifts in Admissibility Standards

There has been concern in the forensic and legal community that scientists have gained unprecedented power over the outcome of civil and criminal cases, a power that can be abused.

Scientific evidence, transferred from the laboratory to the courtroom, can be distorted with a more liberal application of the *Frye* test, combined with other relaxed evidentiary standards.

However, the expert can help avoid these dangers:

A conscientious expert can ask questions to determine, for example, what the lawyer hopes to establish, what other experts the lawyer plans to call as witnesses, and how the lawyer plans to divide the labor among the experts. The expert can also introduce the lawyer to the nature and limits of his or her own specialty, clarifying that he or she is qualified to address certain issues but less qualified than another expert, or not qualified at all to address other issues.

A few recent cases showed that if no scientific data supported an expert's opinion, the expert's conclusion would be disallowed by the trial courts.

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*Daubert* allowed expert opinion based on scientifically valid principles to establish evidentiary relevance and reliability.

For example, in the *Kumho Tire* case, the court held that the *Daubert* standard applied to nonscientific expert testimony (skill- or experience-based) and affirmed that the trial judge must "make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field."

For more on this subject, see "Expert Testimony in the Wake of *Daubert*, *Joiner* and *Kumho Tire*" by Sidney W. Jackson, III.

<http://www.crcnetbase.com/doi/abs/10.1201/9781420051636.axh>

## Module 4: Subpoenas vs. Promises to Appear

### Learning Objectives

After completing **Module 4: Subpoenas vs. Promises to Appear**, the user should:

- Know the legal requirements of a subpoena.
- Comprehend the consequences of not honoring a subpoena.
- Recognize what constitutes failure to appear.
- Know what constitutes contempt.
- Know what constitutes contacting opposing parties.
- Comprehend the ramifications of contacting opposing parties.

### Topic 1: Legal Requirements for Subpoenas

Subpoena

A subpoena is a court order for the named person to appear as a witness in that court on a specific matter and at a specific time.

The purpose of a subpoena to appear is to secure the appearance of a witness to testify on a specific date in advance. The appearance may be for a deposition, pretrial hearing, trial, or a posttrial or grand jury proceeding.



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The court or authorized parties may issue subpoenas. A properly served subpoena is accomplished in person through personal service to the witness or an authorized person. Being "served" is simply part of the testifying process to secure the appearance of an important and necessary witness for legal proceedings.

The definition of what is considered "personal service" is determined by jurisdictional rules of procedure. Some jurisdictions allow someone other than the named witness to accept service of the subpoena.

A properly served subpoena compels the recipient witness to appear at a specific time and place and therefore is a compulsory process. Subpoenas served in person are legally binding. Subpoenas sent by mail or accepted by someone other than the named witness may not be binding in some jurisdictions.

Sometimes, it is beneficial to the expert to be under subpoena rather than to voluntarily appear for trial. The expert's independence and credibility are enhanced if the expert has been subpoenaed.

## Topic 2: Failure to Honor a Subpoena



### Contempt of Court

Failure to honor a personally served subpoena may result in court-ordered sanctions of a fine or the forced surrender of the person. A court's authority to impose these sanctions is known as its contempt power. A witness who ignores, disregards or even forgets to honor a subpoena to appear and testify may be held in contempt of court.

### Failure to Appear

If a witness is unable to appear on the date requested on the subpoena because of a reasonable conflict, immediate notification of those involved is recommended. Often, the appearance can be rescheduled. A witness may be excused or released from his or her obligation to appear by the attorney (i.e., the prosecutor, plaintiff's attorney or defense attorney) who requested that the subpoena be issued, or by the court. The circumstances for a witness to be excused or released from appearing may vary, depending on the jurisdiction. In some cases, the attorney issuing or requesting the subpoena can release the witness, provided that the attorney consults with and/or notifies opposing counsel. In other circumstances, particularly during trial, only the court can release the witness. If that is not possible, the witness remains legally bound to appear and may be held responsible for a failure to appear.

In rare cases, the witness's failure to appear may result in the witness being found in contempt of court.<sup>[1]</sup> However, a party failing to produce his or her witness when required may be subject to sanctions.

A witness and the attorney calling the witness may agree that the witness will appear at a proceeding, despite not being personally served a subpoena in advance. This is done for a variety of reasons, from accommodating the witness's schedule to having flexibility for all concerned, given the tentative nature of court dockets. The witness must still be fully prepared to appear and testify, regardless of the potentially short notice in such instances.

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[1] *Saiz v. Ortiz* at 392 F.3d 1166 (10th Cir. 2004) in which Dr. Kathy Morall, a state psychiatrist, failed to appear in a murder trial. As a result, there was "a default judgment obtained against Morall, an order finding Morall in contempt of court for failure to appear and derelict in her duties as a forensic expert, and a warrant issued for Morall's arrest." Apparently, this all stemmed from a "case in which Dr. Morall and the attorney involved evidently had a fee dispute."

## Subpoena duces tecum

Another type of subpoena that may be issued compels the witness to produce documents, data or other physical evidence created or in the expert's possession (such as hair, blood or saliva samples). This is called a *subpoena duces tecum* which, in Latin, means "appear and bring with you."

Generally, in order for a *subpoena duces tecum* to compel the production of anything (other than a witness's appearance), the *subpoena duces tecum* must also be properly served, as defined above.

## Scheduling Matters

The witness needs to know when he or she will be testifying.

Trials and hearings are sometimes delayed by sickness, unavailability of witnesses or emergencies. If the attorney has not informed the expert about whether and when the witness will testify, it may be good practice for the witness to telephone the court clerk or for the attorney's secretary to determine or confirm the testimony schedule. The witness should ask the attorney whether the witness's presence is needed before and/or after the witness's testimony.

## Topic 3: Permission to Speak With Attorneys

Although a subpoena compels a witness's attendance and testimony during the applicable court proceeding, it does not preclude a witness from speaking with the attorneys in a case. Permitted communications between expert witnesses and attorneys outside of legal proceedings will vary among jurisdictions.

Although there may be no jurisdictional prohibition against speaking to attorneys outside of legal proceedings, having attorneys present from both sides affords them equal access to the expert and prevents the possibility for misunderstanding.

## Speaking with Opposing Counsel

Under the ABA Model Rule of Professional Conduct 3.4(f) (2002), a witness does not have to speak to opposing counsel under the following certain circumstances:

A lawyer shall not:

...

(f) request a person other than a client to refrain from voluntarily giving relevant information to another party unless:

1. The person is a relative or an employee or other agent of a client, and
2. The lawyer reasonably believes that the person's interests will not be adversely affected by refraining from giving such information.

Paragraph (f) permits a lawyer to advise employees of a client to refrain from giving information to another party, [otherwise] the employees may identify their interests with those of the client.

## Contacting Opposing Parties

Rules of evidence allow opposing counsel to cross-examine the witness regarding any prior contact that occurred outside the courtroom, from depositions to phone calls and electronic mail (e-mail).

Therefore, the forensic witness should exercise care and caution regarding any contact or comments made to or with opposing counsel in depositions, outside the courtroom, in phone calls and by e-mail.

Any attorney may use a witness's statements obtained outside of court (e.g., even those unrelated to the instant case but having to do with the witness's prior experience or lack thereof, prior mistakes, bias, etc.) as impeachment material if and when it becomes appropriate. (FRE 607)

The best practice is for the forensic witness to avoid any unnecessary contact and communication with opposing counsel outside the formal legal forum.

## Module 5: Affidavits

### Learning Objectives

After completing **Module 5: Affidavits**, the user should know:

- When an affidavit is required to substantiate an arrest warrant.
- When an affidavit is required for a preliminary hearing or grand jury.

### Topic 1: Legal Requirements of an Affidavit

A sworn affidavit is a voluntary declaration of facts, findings, conclusions or opinions of the declarant, given with their affirmation that the contents are also true.

The declarant or affiant swears to the veracity (truthfulness) of their statements in front of a court officer authorized to administer an oath to witnesses in that jurisdiction. Notaries public, clerks of a court and government-appointed prosecutors are examples of those individuals frequently authorized to administer an oath by a witness.

## Administering an Oath

The components of an affidavit that may be used as evidence instead of the witness's live testimony are:

1. The witness's promise that the statement is made truthfully.
2. An acknowledgment that the witness is subject to penalties if the statement is untrue.

## Using Affidavits in Place of Testimony

There are five circumstances in which affidavits may be used instead of a witness's in-court testimony:

1. To support an arrest warrant.
2. To present evidence to a grand jury.
3. In preliminary hearings or probable cause hearings.
4. By agreement or stipulation of the parties in a trial.
5. To provide impeachment material of the affiant, who later testifies in person.

## Topic 2: Rules for Arrest Warrants and Affidavits

Each jurisdiction has its own rules regarding the following procedures.

In the U.S., a judge may issue an arrest warrant to "take the body of the person" into custody if there is a reasonable belief that a crime was committed by the person identified. Both the crime and the person alleged to have committed it must be identified specifically in an arrest warrant.

The description of either the crime or the criminal, or both, is made by witnesses whose statements are given under oath. Typically, the affiant is a law enforcement officer, but additional witness affidavits are used when necessary.

Examples of a forensic science expert's affidavit, which may be included in the evidence upon which an arrest warrant is based:

**Example 1:** Identification and description of a person's genetic profile, obtained through forensic DNA typing of a known subject and crime scene evidence.

**Example 2:** An affidavit identifying a subject on the basis of matching known fingerprint standards (e.g., 10-print card) with latent prints of value lifted from a crime scene.

## Grand Juries

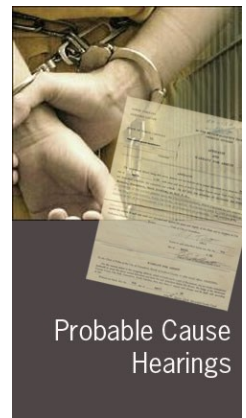
Jurisdictions most frequently use grand juries to determine if there is probable cause to charge an individual with a criminal offense.

Grand juries are created by statute to investigate whether a possible criminal violation has occurred. When the grand jury believes there is probable cause that a criminal violation has occurred and a corporation or individual is culpable, the grand jury will return an indictment (referred to as a "true bill") against the culpable party.

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- The number of individuals comprising the grand jury is determined by statute and may range from seven to 30. The period of time a grand jury is empanelled is also determined by statute.
- The prosecuting authority directs the proceedings of the grand jury. During the process of questioning witnesses, grand jurors may ask questions as part of their broad investigative authority.
- The potential defendant may be absent during grand jury proceedings, depending on the jurisdiction. Whether the potential defendant and his counsel are required to be present during grand jury proceedings is dependent on jurisdictional rules or procedures.
- A grand jury is vested with the same authority as a judge to issue an arrest warrant. A grand jury uses the same standard as a judge regarding the quality or sufficiency of evidence.
- Similarly, in order to decide if there is a reasonable belief that a person committed a particular crime, a grand jury may consider sworn testimony delivered in an affidavit in addition to other evidence.

### Topic 3: Probable Cause Hearings



A preliminary or probable cause hearing is a process used by courts to ensure that a person is lawfully confined before the trial. When such hearings are ordered, affidavits may be admissible as supporting or additional evidence, along with live testimony.

In limited circumstances, attorneys may agree to use an expert witness's affidavit in lieu of their live testimony in the trial itself.

**Example 1:** When the attorneys for both sides in a dispute believe that the affidavit contains evidence they both want to rely upon but know that the expert will be unavailable on the most convenient trial date.

**Example 2:** When the expert witness is unexpectedly unable to appear because of a serious, unforeseen health problem.

When an expert provides an affidavit in a case, it is viewed by the courts as previously given, sworn testimony, albeit in document form. Consequently, as any witness may be questioned regarding their prior testimony, an expert witness may be impeached using the contents of his affidavit(s).

Evidence contained in a sworn affidavit provided by a forensic witness requires the same degree of accuracy and diligence as sworn testimony made by the witness in person during a deposition, hearing or trial.

## Module 6: Being a Court-Appointed Expert

### Learning Objectives

After completing **Module 6: Being a Court-Appointed Expert**, the user should:

- Know that the court may appoint its own expert, even if each side has its own expert on a particular issue.
- Know that testimony can be provided, but actual testing may not be conducted.
- Recognize applicable state statutes or criminal procedure rules.
- Know the role of the judge or special master.
- Know that the judge may ask questions when testimony is given.

Court-appointed experts fall into two general categories:

1. Experts appointed by and for the court to assist the fact finder in a criminal or civil case.
2. Experts appointed by the court to assist an indigent criminal defendant.

Sometimes experts are appointed by the court to provide a "third opinion," reviewing the same factual material and evidence as the parties' experts and testifying to their own conclusions.

The court might also appoint an expert in a technical case exclusively to explain to the jury the basic theories or methods they will need to understand the parties' experts. Such a court-appointed expert does not express an opinion on the facts of the case but rather serves an educational role.

When a court-appointed expert witness testifies, the witness is "called by the court," and all parties may question and cross-examine the expert witness.

### Topic 1: Court-Appointed Experts and Witnesses



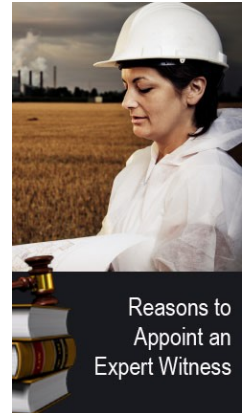
According to the Federal Rules of Evidence (FRE), the court can call witnesses or appoint experts either on its own motion or at the request or suggestion of a party. Court-appointed experts may be cross-examined by either party. [FRE 614(a)].

Any witness may be interrogated by the court [FRE 614(b)]. Parties may object to the calling of a court witness or to interrogation by the court, but such objections must be made outside the presence of the jury [FRE 614(c)].

A district court has the power and discretion to call any witness as the court's witness. If neither party has subpoenaed a witness to testify, the court may still call that person to testify without the agreement of the parties.<sup>1</sup>

<sup>1</sup> *Estrella-Ortega v. U.S.*, 423 F.2d 509 (9th Cir. 1970).

## Topic 2: Reasons to Appoint an Expert Witness



The court may call or appoint its own expert witness for several reasons:

- To select a neutral and impartial expert to educate the court or the jury about a particular aspect of scientific or technical evidence, testing or procedures that require further explanation by someone with special expertise.
- To review the testing procedures of other experts.
- To save the court time and expense.
- The court may appoint an expert witness for the defense when the defendant is indigent, and when the court in its discretion believes the case warrants expert testimony in the service of a just and fair trial.

**Example 1:** The court appointed a DNA expert to educate the jury in a criminal case in which DNA evidence was material. The expert was not hired by or associated with either the prosecution or the defense in the case.

The expert provided the jury with an impartial explanation of the fundamentals of DNA testing: what it is, how it works, and the fact that, in DNA cases, the test is a probability of non-exclusion of a particular person.

Lawyers for both the prosecution and the defense then questioned the court's DNA expert regarding the testimony. The truth or accuracy of the expert's neutral fact testimony may not have been in question. However, lawyers, as advocates for their respective parties, may have specific objectives regarding the court expert's testimony.

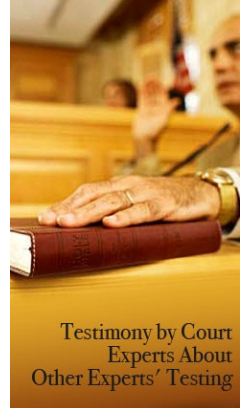
Parties may question the court's expert in the presence of the jury or in the jury's absence, at the court's discretion.

**Example 2:** In an effort to save time and expense, the court requested that the prosecution and defense in a criminal case submit a slate of names of expert witnesses approved by both sides. The court then selected one or more experts from the preapproved slate to testify in the case. Lawyers for both sides had an opportunity to question the court-selected experts.

A key aspect of this selection is that the expert serves the court as a neutral witness, and does not serve either

party in a criminal matter.

## Topic 3: Testimony by Court Experts About Other Experts' Testing



The court may call its own expert to provide an independent, objective review of the testing expert's work. In this situation, the court expert does not conduct any actual evidence testing but instead provides an opinion about testing performed by experts for the state, the defense, or both, at the court's request.

Once qualified by the court, the court expert may, at the court's discretion:

- Review relevant evidence and testing documentation.
- Provide independent analysis.
- Question experts for the state and the defense.
- Form an opinion regarding whether evidence testing adhered to accepted standards and protocols and, if not, bring the matter to the court or the attorneys' attention.
- Provide an opinion on general and specific findings and their interpretation (e.g., "It is my interpretation, based upon my careful review of the findings, that the state's conclusions are not as clear-cut as they claim. There are multiple explanations for the findings, and there is a possibility of evidence contamination, based on ...")

## Topic 4: Federal Rules of Evidence Regarding Expert Witnesses



**Appointment**



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The court may, on its own motion or on the motion of any party, enter an order to show cause why expert witnesses should not be appointed and may request the parties to submit nominations. The court may appoint any expert witnesses agreed upon by the parties and may appoint witnesses of its own selection.

An expert witness shall not be appointed by the court unless the witness consents to act. A witness so appointed shall be informed of the witness's duties by the court and in writing — a copy of which shall be filed with the clerk or at a conference in which the parties shall have the opportunity to participate.

A witness so appointed shall advise the parties of the witness's findings, if any; the witness's deposition may be taken by any party; and the witness may be called to testify by the court or any party. The witness shall be subject to cross-examination by each party, including a party calling the witness. [FRE 706(a)]

### Compensation

Expert witnesses appointed by the court are entitled to reasonable compensation. The compensation thus fixed is payable from funds which may be provided by law in criminal cases [FRE 706(b)].

### Disclosure of Appointment

In the exercise of its discretion, the court may authorize disclosure to the jury of the fact that the court appointed the expert witness [FRE 706(c)].

### Parties' Experts of Own Selection

Nothing in this rule limits the parties in calling expert witnesses of their own selection [FRE 706(d)].

## Topic 5: Cross-Examining Court-Appointed Witnesses



A witness called by the court may be freely cross-examined and impeached by any party.<sup>2</sup> A court is necessarily cautious of exercising that power, especially in calling a witness that neither party wants to call as its own.

An appellate court should not interfere with the district court's discretion in calling a witness (particularly one that neither party wants to call on its own), unless there is a clear showing of an abuse of discretion, resulting in prejudice to the defendant.<sup>3</sup>

<sup>2</sup>*Litsinger v. U.S.*, 44 F.2d 45 (C.C.A. 7th Cir. 1930).

<sup>3</sup>*Smith v. U.S.*, 331 F.2d 265 (8th Cir. 1964).

## Topic 6: Court-Appointed Non-Expert Witnesses

In all jurisdictions where the issue has been raised, the authority of a court has been recognized to call any person as the court's witness on its own motion, or at the request of one of the parties in a state criminal prosecution.

A trial judge's right to call a court's witness is generally not exercised unless the court finds that material injustice would result from the failure to call the witness.

A court's refusal to call a person as its witness has been upheld not to be an abuse of the court's discretion.

## Topic 7: The Special Master

A special master is usually a court-appointed volunteer attorney, pursuant to [Rule 53](#) of the [Federal Rules of Civil Procedure \(FRCP\)](#). The special master is appointed to carry out some action on the court's behalf, often to sort through scientific issues or to evaluate "scientific facts."

Except in matters of accounting and difficulty in computing damages, "a reference to a special master shall be made only upon a showing that some exceptional condition requires it" or, in jury trials, "only when the issues are complicated" [[FRCP 53\(b\)](#)]. The costs of the special master are allocated between the parties as the judge determines.

When special masters are used to make findings of fact based on scientific and technical evidence in a jury trial, much of the scientific evidence heard by the special master will be excluded from the record unless the parties introduce it independently at trial.

For this reason, the special master's findings in a jury trial — but not the scientific evidence upon which they are based — are admissible as evidence and may be read to the jury, subject to objections. When the special master reports scientific and technical evidence, it may also be ruled inadmissible and excluded from the record on appeal.

In nonjury trials, special masters' findings must be accepted by district courts unless they are clearly erroneous. The special master must submit a transcript of the proceedings and the evidence as well as the original exhibits used to prepare the report. The court may then review the evidence on its own motion, or upon a motion by a party, and decide whether the special master's findings are clearly erroneous or must be sustained. Attorneys taking depositions in non-courthouse locations may sometimes anticipate certain problems, such as a particular witness refusing to testify. Upon showing good cause, judges have appointed special masters to appear under such circumstances and make evidentiary rulings.

Court-appointed experts have sometimes functioned much like a special master, in addition to preparing to offer testimony. Such experts have reviewed records and prepared reports that were submitted as evidence in a case.

## Module 7: Discovery

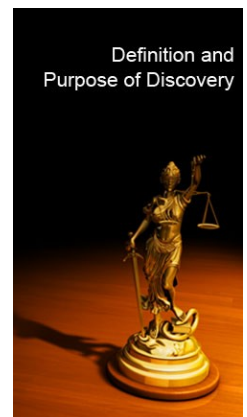
### Learning Objectives

After completing **Module 7: Discovery**, the user should know:

## Law 101: Legal Guide for the Forensic Expert

- That preparation of a discovery packet in response to a filed request is dependent on the court order.
- That a discovery request may include discovery pertaining to a lab, a university, or employer documents, including:
  - ◆ Accreditation documentation.
  - ◆ Conformance with discipline guidelines.
  - ◆ Accreditation requirements.
  - ◆ Available equipment.
  - ◆ Policies and procedures.
  - ◆ Protocols.
  - ◆ Quality assurance and quality control records for lab (e.g., calibration records for equipment, validation records for reagents, temperature logs).
  - ◆ Listing or explanation of requested documents not to be released by the lab.
  - ◆ Reference to a standard discovery request (e.g., CD, sample request).
- To confirm that all requisite documents have been provided to appropriate parties.
- To ensure that documents are current and complete.

### Topic 1: Definition and Purpose of Discovery



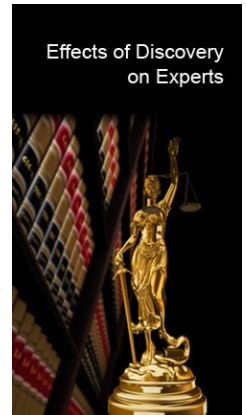
Discovery has been defined as "the pre-trial devices that can be used by one party to obtain facts and information about the case from the other party in order to assist the party's preparation for trial."

Discovery is the pretrial process and ongoing obligation of the attorney that provides for the disclosure of information to the other party regarding the litigation. In general, the rules of discovery provide that the accused is entitled to any information related to the evidence in the case or information that may reasonably lead to discoverable evidence.

In layman's terms, discovery is the sometimes laborious process undertaken to learn the underlying facts surrounding a matter in dispute. Certain devices are available by rules of procedure or practice in various jurisdictions to help uncover the underlying facts.

Discovery includes any known information that will assist in preparing the defense and in preparing for the cross-examination or impeachment of an adverse witness. The rules of discovery also obligate the accused to disclose certain information to the government. Discovery is not unlimited; privileged information or trial strategy is not normally subject to disclosure.

## Topic 2: Effects of Discovery on Experts



Experts are affected by discovery in two distinct ways:

1. The expert can be an important source of information for the state and the retaining attorney to gather data to support the case.
2. The expert's lab testing, procedure, results and conclusions may be the subject of discovery by opposing counsel.

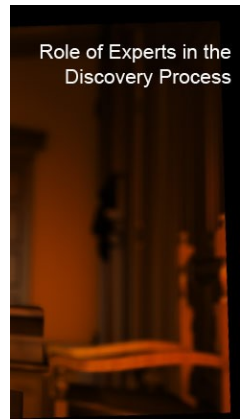
It is important to distinguish the discovery process from the expert's usual testing or technical information-gathering procedures. The expert's evidence testing is undertaken by following customary and routine lab protocols and procedures and the scientific method. The expert proceeds step-by-step, in an orderly and logical way, to obtain the test results, facts and information on which the expert will base the expert conclusion.

Discovery, on the other hand, is structured and driven by time deadlines imposed by the court or by procedural rules. Each item of discovery is undertaken in a set manner, with or without court intervention, by attorneys representing the parties in dispute. **The fundamental distinction between the discovery process and the expert's inquiry is that the discovery process is ultimately subject to the court's supervision.**

If the assignment is court-oriented, the expert may play an important role in pleadings and discovery preparation. He may be called on to draft technical parts of a pleading and also review discovery requests and responses for completeness and technical consistency. In some cases, the expert can help uncover a body of technical data, forms, procedures, protocol, notes or research materials.

It is often essential that the expert participates at the discovery stage to ensure that requisite technical materials are available before deposition and to assist in reducing the costs of discovery.

## Topic 3: Role of Experts in the Discovery Process



The expert becomes involved in formal discovery in three ways:

1. The expert may help generate questions for the opposition in deposition and cross-examination.
2. The expert may advise in response to the opposition's questions.
3. The expert may be the person responding to written and verbal questions before the trial.

To assist or participate in formal discovery in a meaningful way, the expert must be:

- Professionally and technically competent.
- Conversant with current literature, practice and procedure in his area of expertise.
- Familiar with the evidence in the case.
- Close to reaching a preliminary opinion.
- Well-schooled in the art of brevity.
- Informed about ethical guidelines that attend the discovery process.

## Topic 4: Specific Tasks for the Expert

In regard to discovery matters, it has been said that the retaining attorney, or the state, may not win the case during discovery — but the case could well be lost during that stage.

All of the following behaviors by the expert can be detrimental in this phase of the case:

- Talking too much in discovery.
- Revealing more than is required or asked.
- Waxing eloquent or acting egotistical.
- Telling all the expert knows about the entire subject.

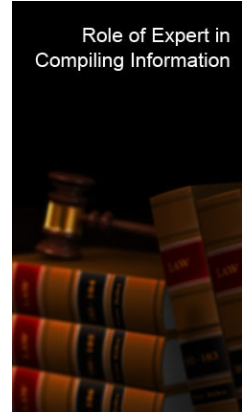
The expert may be called upon to assist in discovery in a number of ways. The expert might be asked to:

- Draft written questions that the opposing party must answer fully and under oath.
- Outline areas of inquiry and construct specific questions to use during deposition of the opposing party or their witnesses or experts.
- Conduct experiments, tests, inspections, observations, or record or photograph operative events with or without the opposition being present.

The expert may also assist the retaining attorney by responding to written interrogatories (mostly in civil cases) requested for production by the opposition. The forensic expert may also be asked to frame responses to requests for production of documents or other items.

See a typical set of interrogatory questions (Appendix — Sample Interrogatories and Request for Production to Expert Witnesses). The expert may be asked to help draft questions of this kind. The forensic expert may expect to be asked and to be prepared to help respond to similar questions.

## Topic 5: Role of Expert in Compiling Information



The retaining attorney will rely on the expert witness to provide the information necessary to comply with the discovery rules. There are three general classes of information the expert may need to compile:

1. Case-specific testing data and materials.
2. Individual qualifications.
3. Information regarding agency operation and practice.

Case-specific information may include:

- Reports.
- Lab testing notes.
- Chain of custody logs.
- Phone logs.
- Testing data.
- Testing procedural information.
- Secondary reviewer identification and notes.
- Any other information normally contained in the case file.

Individual qualifications are normally found in the expert's *curriculum vitae* (CV). Experts should ensure that their CV is current and accurate.

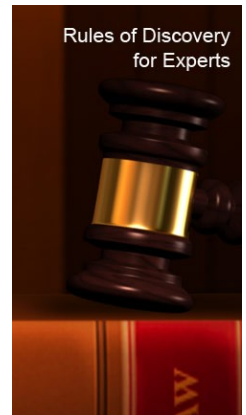
A discovery request may include items pertaining to a lab, a university, or employer documents. Agency background information normally includes:

- Agency policies and procedures manuals.
- Accreditation requirements, documentation and their status.
- Guideline compliance in particular disciplines (e.g., Scientific Working Groups in forensic science, such as SWGMAT, SWGDAM).
- Equipment used and relevant maintenance logs, calibration logs, quality assurance procedures and related logs.
- Quality control protocols and their related logs.
- Identification of external components used during testing (e.g., sexual assault kits, reagents,

chemicals).

- Proficiency standards.
- Testing and results.
- Industry standard inspections and results.
- Proficiency test results.
- Complaints.
- Internal investigations.
- Conformance with discipline guidelines.
- Listing or explanation of requested documents not to be released by the lab.
- Reference to a standard discovery request (e.g., CD, sample request).

## Topic 6: Rules of Discovery for Experts



In both federal and state courts, rules of criminal and civil procedure have been enacted to provide for the discovery process.

Discovery and inspection in federal **criminal** cases are generally governed by Federal Rules of Criminal Procedure (FRCrimP) 16 or state rules of a similar nature. In many state courts, the federal rules have either been adopted directly or used to provide the basis for the state's criminal procedural rules.

Discovery actions in federal **civil** cases are usually governed by Federal Rules of Civil Procedure (FRCivP) 26 through 37. In state court, civil discovery operates under state statutes and rules, many of which are based on FRCivP.

Throughout this module, the primary reference is to the federal rule because it is a common basis for both federal and state courts. The expert witness should be aware that state rules may vary from the federal rules. Therefore, the expert should consult, at the earliest opportunity, with the attorney who has identified him as a witness for the case.

All procedural rules must be liberally construed to secure just, speedy and inexpensive dispute resolution as well as simplicity, fairness and the abolition of unjustifiable expense and delay.

In both criminal and civil contexts, the intent of discovery is to enable both parties to obtain the necessary evidence to evaluate and resolve their dispute expeditiously and to eliminate surprise during trial preparation. These objectives are accomplished by:

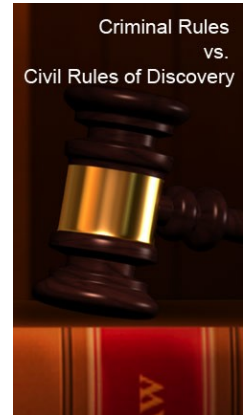
- Compelling disclosure during the period preceding trial rather than during trial.
- Enabling parties to clarify and narrow the basic issues.

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- Educating parties, in advance, of the real value of their defenses and claims.
- Assisting parties with the preparation and presentation of their cases.

(Source: 23 Am. Jur. 2d Depositions and Discovery § 1.)

### Topic 7: Criminal Rules vs. Civil Rules of Discovery



The rules for criminal discovery differ from rules for civil discovery.

In the criminal setting, defendants must usually point to a rule of criminal procedure, statute or other entitlement to obtain discovery from the government. Additionally, there are certain protections for the accused in criminal trials that have an impact on the discovery process.

First, a constitutional guarantee against self-incrimination limits discovery from defendants in criminal cases. This is based on the Fifth Amendment to the Constitution, which holds that defendants in a criminal case cannot be forced to testify against themselves or give evidence against their own interest.

Our nation's founders were concerned about forced confessions to such a degree that protection from self-incrimination is deeply ingrained in U.S. criminal law practice. Because of the fear of forced self-incrimination, the prosecution in a criminal case has limited access to the files, records, documents and projected testimony of a criminal defendant before trial.

Certain identifying items, such as blood, hair, urine, handwriting, breath, fingerprints, footprints or voice exemplars have been carved out as acceptable prosecution discovery products. Search warrant power "on good cause shown" allows government officers access to the files, records and premises of a criminal suspect or defendant.

Second, under the FRCrimP, defendants are allowed a number of remedies in order to probe government files in preparation for trial. The FRCrimP typically allows some discovery by defendants through the prosecution's case preparation files. The practice of many states parallels the federal practice.

Under the FRCrimP, for example, the government must disclose statements of the defendant, the defendant's prior criminal record, documents, other objects which are intended to be evidence at trial, and reports of examinations and tests.

The government does not have to disclose internal government documents, inspections, or reports in connection with an investigation or prosecution of a criminal case, or statements made by government witnesses or prospective government witnesses, except as provided by detailed statutory exceptions. (Source:



18 U.S.C. § 3500.)

Finally, under the FRCrimP, a defendant must provide copies of documents that are intended to be used at trial if the defendant has asked for production from the government. The same is true for reports of examinations and tests. Defense memos or documents created in connection with the investigation or defense of the case by the defendant, the defendant's attorney or their agents (which includes experts) need not be produced.

Note that, although discovery is generally more extensive in civil than in criminal cases, attorneys are not allowed to use civil discovery rules to obtain information that would otherwise be unobtainable through application of the criminal rules of discovery.

(Sources: Giannelli, Paul C., "*Ake v. Oklahoma*: The Right to Expert Assistance in a Post-*Daubert*, Post-DNA World," *Cornell Law Review* 89 (September 2004): 1305, 1417; and 23 Am. Jur. 2d Depositions and Discovery § 232.)

## Rule 15

Rule 15 is typical of the FRCrimP, which holds that depositions may be taken if exceptional circumstances are shown, and specifies what objects the defendant may obtain under criminal procedures disclosure rules:

- Police arrest and crime or offense reports.
- Statements of witnesses.
- Statements of the accused.
- Grand jury transcripts (in some jurisdictions).
- Tangible evidence.
- Results of physical, mental and scientific tests.
- Results of experiments or comparisons.
- Books, papers, documents, photographs, or other tangible things that will be used as evidence in the case.
- Record of prior criminal convictions of the accused or co-defendant.
- Tapes and transcripts of electronic surveillance.

In addition, the following materials may be produced only by court order:

- Material in possession of other governmental agencies.
- Defendant's expert reports or statements.
- Physical or mental examination of the defendant or other witnesses.
- Scientific experiments or comparisons.

## Procedures Which Govern Civil Discovery

Civil discovery is usually governed by procedures such as the Federal Rules of Civil Procedure Rules 26 through 37. Under most rules of civil procedure, discovery tools include:

- Depositions on oral or written questions.
- Written interrogatories.
- Production of tangible items.
- Physical and mental examinations.
- Requests for admission of evidence.

## Rules That Apply to Experts

The expert enters the case as a consulting or testifying expert with knowledge of these rules.

The rules also apply to experts. For example, if the expert is a state-employed toxicologist taking blood samples from a suspected drug or alcohol abuser, the expert must perform the procedures in the correct manner or the test results will not be admissible in court.

## Topic 8: Discoverable Information



Under the federal rules, the following are subject to disclosure:

1. Defendant's oral statement(s).
2. Defendant's written or recorded statement(s).
3. Defendant's prior record.
4. Documents and objects.
5. Reports of examinations and tests.
6. Expert witnesses.

Information may be disclosed in a variety of ways. Some examples of discovery components include:

- A request for production of documents, items, samples, property and specimens.
- Verbal deposition, or the informal process of taking sworn testimony from witnesses (including experts) before trial.
- Disclosure of oral, written or recorded statements (frequently found in law enforcement reports).
- Copying or inspecting documents, books, papers, data, photographs and computer records.
- Test results.
- Written interrogatories or questions posed to an opposing party or witness.
- Physical and mental examination of parties.
- Requests for admission (often designed to eliminate issues from trial).

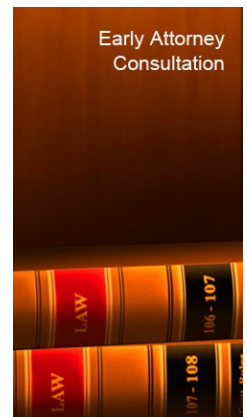
When an expert is expected to provide opinion testimony in the case, a written summary of the anticipated testimony must include a description of the opinions, the bases and reasons for those opinions, and the witness's qualifications.

## Electronic Media and Discovery

Federal Rules of Civil Procedure 26 and 34 address the production of "electronically stored information" with a much broader definition than merely a hard-copy document in electronic format. The rules specifically use the term **information** to avoid too narrow a description of what is subject to production, given the rapid development of new technology. These rules clearly include e-mail as a form of electronic information that is subject to identification, retention, collection and possible production.

As media technology advances, information will be stored in many forms, such as MP3 files, jump drives and iPods. Attorneys are obligated under these rules to advise witnesses in a litigation to identify, preserve and ultimately produce electronically stored information. The expert witness should be mindful of the types of information used in preparing for a case and the possibility that they will be subject to electronic discovery rules.

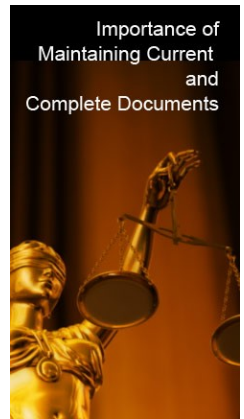
## Topic 9: Early Attorney Consultation



Early consultation with the retaining attorney is important because of variations in federal, state and local rules and procedures. Some examples of local rules and procedures include:

- Discovery conferences by the attorneys.
- Discovery schedules.
- Witness interviews and related court orders (e.g., additional testing, and exclusion of evidence).

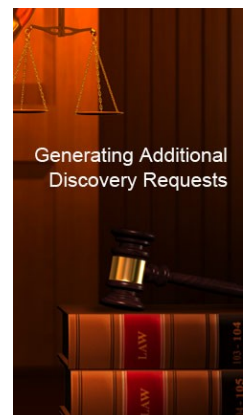
## Topic 10: Importance of Maintaining Current and Complete Documents



Almost all rules of discovery, criminal and civil, make it a mandatory, continuing duty on the part of a responding party to update responses on the basis of additional or newly discovered information. All discovery rules, both criminal and civil, typically have sanction provisions by which the court can enforce its orders and require compliance.

As a responding person, the expert should be aware of the current trend for courts to rule more strictly in imposing sanctions for violations of both the letter and spirit of discovery rules. For the expert, this means that results from the testing of additional new evidence, or the retesting or further testing of previous evidence, must always be made available to the retaining attorney so that all pertinent parties in the case can be notified and given updates.

## Topic 11: Generating Additional Discovery Requests



Additional discovery requests may be generated by reviewing Federal Rules of Evidence (FRE) 702, 703, and 705 in preparation for a challenge to the admissibility of scientific evidence.

FRE Rule 702: If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education may testify thereto in the form of an opinion or otherwise, if:

1. The testimony is based upon sufficient facts or data,
2. The testimony is the product of reliable principles and methods, and
3. The witness has applied the principles and methods reliably to the facts of the case.

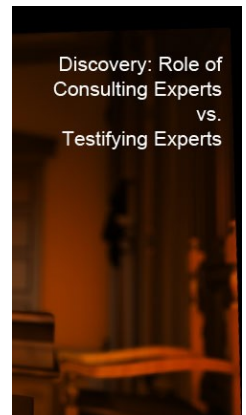
FRE Rule 703: The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data

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need not be admissible in evidence in order for the opinion or inference to be admitted. Facts or data that are otherwise inadmissible shall not be disclosed to the jury by the proponent of the opinion or inference unless the court determines that their probative value in assisting the jury to evaluate the expert's opinion substantially outweighs their prejudicial effect.

FRE Rule 705: The expert may testify in terms of opinion or inference and give reasons therefore without first testifying to the underlying facts or data, unless the court requires otherwise. The expert may in any event be required to disclose the underlying facts or data on cross-examination.

## Topic 12: Discovery: Role of Consulting Experts vs. Testifying Experts



Under Rule 26(b)(4) of the Federal Rules of Civil Procedure (FRCP), a critical distinction is made between experts who do not testify — those who are merely consultants — and those who are retained for litigation purposes. Trial experts are generally subject to full discovery, whereas consultants are usually immune from that obligation. (Source: Daniels, James E., "Managing Litigation Experts," *ABA Journal* 70 (December 1984): 64.)

A major revision to the FRCP became effective in December 2006 under Rule 26(b)(4), which specifically addresses expert witnesses. Normally, an expert who has been retained for consultation, but is not expected to testify at trial, need not provide documents or other material for discovery, unless, as stated under Rule 26(b)(4), it can be shown that a manifest injustice would occur if the materials were not provided. As always, it is important for the expert to discuss the scope of his role with the retaining attorney.

Some criminal courts have also recognized the distinction between experts who serve only as consultants and those who are hired to testify. For example, the Court of Criminal Appeals of Oklahoma has held that a defendant's non-witness psychiatric expert was not subject to prosecutorial discovery because the expert was "consulted ... in the course of preparing for trial or a capital sentencing proceeding." However, this protection against discovery is not absolute in the criminal context and may depend on jurisdiction, constitutional concerns and interpretations of the attorney-client privilege.

(Sources: *Van White v. State*, 990 P.2d 253, 271 (Okla. Crim. App. 1999); Maringer, E.F., "Witness for the Prosecution: Prosecutorial Discovery of Information Generated by Non-Testifying Defense Psychiatric Experts," *Fordham Law Review* 62 (December 1993): 653; Saks, Michael J., "Book Review: Ethics in Forensic Science: Professional Standards for the Practice of Criminalistics," *Jurimetrics Journal* 43 (Spring 2003): 359; Imwinkelried, Edward J., "The Applicability of the Attorney-Client Privilege to Non-Testifying Experts: Reestablishing the Boundaries Between the Attorney-Client Privilege and the Work Product Protection," *Washington University Law Quarterly* 68 (Spring 1990):19.)

On the subject of privilege, an American Bar Association journal article comparing trial and consultation experts suggests that the expert and attorney should confer (keeping in mind the rules of liberal discovery) before placing in the expert's hands a sensitive document or revealing to the expert what could be potentially damaging information. (Source: Daniels, James E., "Protecting Your Expert During Discovery," *ABA Journal* 71 (September 1985): 50.)

## Topic 13: Confidentiality and Privilege Between Expert and Attorney



The expert may be called on to review requests for admission for accuracy and completeness. The expert must be aware of the rules of privilege and confidential communications that might be relevant to items sought by the opposition.

### Basic Rules

Recent case decisions and rules of evidence generally provide that the information the expert uses to form his opinions may be reviewed through the discovery process. That means that any communication with the attorney, client, witnesses, or other experts, or any part of the expert's investigative lab work process that in any way formulates a basis for his opinion can be viewed and investigated by the opposition.

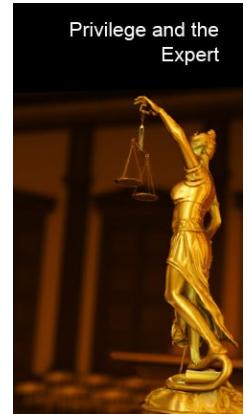
Another potential issue involving privilege arises when the expert's role begins as a consultant but later changes to the role of testifying or investigative expert witness. In such instances, everything in the expert's files can potentially be discoverable. In civil matters, if at any time the expert's client puts medical, legal, accounting or similar matters into issue, this effectively removes the privilege barrier for any communications the expert has in those areas.

In the best of all worlds, communications between the expert and the retaining attorney should remain confidential, if not absolutely privileged. Whatever the expert says to the attorney would seem to be confidential. Communications from the attorney to the expert should also seem protected. However, they may not be.

Certain communications are, by law, not subject to disclosure. Effort is often made to bring attorney, client and expert communications within that protection. Good reasons exist to justify attempts to restrict access to the expert's preliminary work. Any effort the expert renders as a consultant is distinguishable from that generated as a testifying witness in the setting of confidentiality.

There are some precautionary steps the expert can take to avoid disclosure. Ethical considerations also must be examined when dealing with these concepts. *The discovery process is the setting in which disclosure issues most often arise.*

## Topic 14: Privilege and the Expert



*Privileged communications* refer to the exchange of information between individuals in a confidential relationship. The general purpose of categorizing certain communications as privileged is to encourage uninhibited, open discourse between persons. There are both common law and statutory privileged communications.

Statutory privileges exist in many jurisdictions for limited classes of communication. Communications between doctors and patients, attorneys and clients, and lawful religious leaders and their parishioners are privileged. Husband-wife communications, with certain limitations, are privileged. In some jurisdictions, client communications with certified public accountants are protected. That basically covers instances of statutory and common-law privileged communications.

Certain privileges or confidentiality rules exist for consultants, but not for examining, active or testifying experts. Courts have recognized an expert consultant's role as subject to technical advisor privilege.

(Sources: Wigmore, *Wigmore on Evidence*, §2301 at 583 (1961); *People v. Lines*, 13 Cal.3rd 500, 119 Cal. Rptr. 224, 531 P.2d 793 (1975); see also Criminal Justice Mental Health Standards §7-3.3(b) (1984) and Testimonial Privileges § 1:26 (updated June 2009).)

Attorney work products — what the attorney's thoughts are during preparations for trial — are privileged and cannot be reached by opposing counsel during discovery. (Source: *Hickman v. Taylor*, 329 U.S. 495, 91 L.Ed. 451, 67 S. Ct. 385.)

The courts have refined the work-product privilege to include the lawyer's refinement of information, sifting of data, legal theories and strategic plans. These products are not subject to discovery. However, no such privilege accompanies the expert's thought processes for trial preparation.

In general, the presence of a third party at a conference that would otherwise be privileged (i.e., lawyer and client only) breaks the privilege. The issue is thus whether the presence of the expert will destroy the privilege. The fine line seems to be between the expert's role as a consultant for the attorney, in which case privilege may still hold, and his role as an active investigating or testifying expert, in which case it probably will not hold.

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The expert's task is to maximize the possibility that his communication will be subject to the retaining attorney's work product or other privilege to avoid or prevent it from being reached by opposing counsel during discovery.

Why worry about privilege? Why are there things an expert would not want the opposition to know? The reasons are the same as those that attend other confidential communications:

- The expert's work may potentially involve delicate or personal matters that have no bearing on his assignment in the current case.
- The expert may explore various theories or hypotheses, some of which will be discarded along the way.
- In addition, modern rules of discovery usually flush out all relevant information about current applicable areas of inquiry.

## Topic 15: Retaining Confidentiality



There are certain actions the expert can take to help maintain and uphold the rules of confidentiality or privilege:

- Limit the distribution of written communications.
- Hold written communications to an absolute minimum.
- Mark written communications "Confidential" or "Attorney Work Product," if that is really the case.
- Attempt to keep the attorney involved in the communication so that it is indeed the attorney's thought process and work product that are being discussed.
- Have the attorney give the expert summaries of the data rather than the basic data that would otherwise be confidential. That may make the item an attorney work product.
- Segregate confidential and privileged communications in the expert's case file rather than merging them with his general materials.
- Make sure the expert's communication with the attorney responds to the attorney's request for information.
- Protect trade secrets or patent information as confidential.
- Obtain a protective order to suppress the information and make it unavailable for any purpose other than the subject litigation, if the information involves competitive information.
- Attempt to show that production of documents or other items is too burdensome or constitutes an act of harassment.

Facts and information should not be given to an expert unless there is some specific reason for doing so. Always consider how a skillful cross-examiner might use a piece of information.



## Federal Rules of Civil Procedure, Rule 26(b)(4) & Experts

Under Federal Rules of Civil Procedure, Rule 26(b)(4), only experts retained for trial and trial preparation can be subjects of discovery. If the expert is retained only as a consultant but not in anticipation of trial testimony, then his work on the case is probably not discoverable.

In one case, the court considered four factors in determining whether the expert was a retained witness for trial purposes, or an informally consulted expert:

- The manner in which the consultation was initiated.
- The nature, type and extent of information and material provided to the expert.
- The duration and intensity of the consultation relationship.
- The terms of the consultation, such as items of payment and like considerations.

(Sources: Mueller, p. 17, citing *Ager v. Jane C. Stormont Hospital and Training School for Nurses*, 622 F.2d 496-501, 502 (10th Cir. 1980); see also *Olson v. Accessory Controls and Equipment Corp.*, 735 A.2d 881 (1999), judgment aff'd, 757 A.2d 14, 27 (2000), wherein the court, relying partly on a retention letter between an attorney and an environmental consulting company, held that the consulting company's report was privileged because the report was clearly created to facilitate the sharing of legal advice.)

There is also an exception in the discovery rules involving the testimony of an expert who is retained in anticipation of litigation but is not expected to testify at trial. Normally, that witness's files and opinions are not subject to the usual rules of discovery.

If a party can show that exceptional circumstances exist — that the information being sought is not otherwise available — some courts will carve out an exception and allow discovery for a non-testifying expert. In such cases, the opposition usually has to show the following:

- The expert has information about an item that has been destroyed or changed.
- The party seeking discovery cannot otherwise obtain an expert.
- Few experts in this area or discipline exist.
- All other available experts have been retained by the opposition.

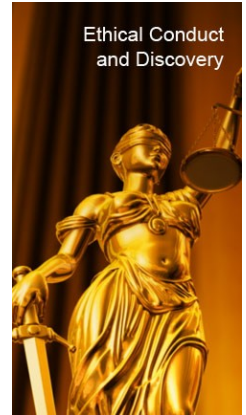
(Source: Mueller, p. 18.)

## Limited Privileges

Some limited privileges that may apply to the expert's files and testimony may be waived by the attorney or client. Privilege can be waived in the following ways:

- The material is inadvertently produced for the opposing side without a claim of privilege.
- A third party is present at the time of the privileged communication.
- Work done as an attorney work product is later used by the expert to help formulate expert opinion.
- Court or statutory tests for existence of the privilege have not been met.
- The subject matter of the privileged communication is placed at issue by the client or attorney.

## Topic 16: Ethical Conduct and Discovery



Finally, the expert should be familiar with the rules of ethical conduct required of experts and attorneys. Experts must be in compliance with those rules at all times. Before the expert undertakes a role in the discovery process, he must know about the case. The expert should have at least enough information for a preliminary report and should have worked through the investigative process to that point before he can be of value in the discovery effort.

The expert should have done as much fact gathering, such as evidence testing, as is available to him from all sources but the opposing party. The expert who has followed his scientifically prescribed testing process correctly will be in a good position to render meaningful assistance at this stage of discovery.

### Discovery Ethics

The rules of discovery also incorporate ethical considerations and sanctions for the failure to disclose information as required. Failure to disclose required information may result in:

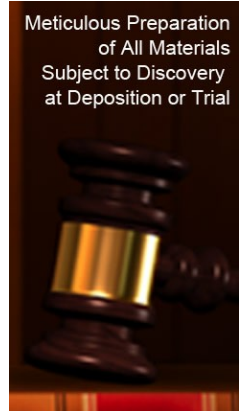
- A court order directing the disclosure or production.
- A motion to continue the case.
- A court order that limits or prohibits the party from introducing the undisclosed evidence.
- An order precluding the expert from testifying.
- Any other order authorized or deemed appropriate under the circumstances.

The U.S. Supreme Court decision, *Brady v. Maryland*, 373 U.S. 83 (1963), significantly impacts the discovery process. In *Brady*, the Court imposed a constitutional duty on prosecutors to disclose evidence that is favorable to the accused.

Withholding of exculpatory evidence by prosecutors may violate the due process clause of the Fifth Amendment to the Constitution and could result in a mistrial, retrial or dismissal. The obligation under *Brady* extends to laboratory and law enforcement personnel as well.

For witnesses testifying for the government in federal court, the cases of *Giglio* and *Henthorn* impose a duty to produce any information that supports the veracity of the witness or could be used to impeach the witness. States may also have similar obligations. Instead, the expert should always ask the retaining attorney what statutory rules or guidelines may apply in the relevant jurisdiction.

## Topic 17: Meticulous Preparation of All Materials Subject to Discovery at Deposition or Trial

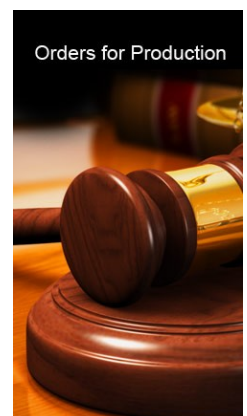


It is good practice for the expert to prepare all materials as if they may be subject to discovery production. The expert should test everything he writes as if it were going to be used against him in open court. A prepared expert should determine whether he could explain or justify the contents of any discoverable memorandum, note, report or technical observation.

The expert should insist that the lawyer for whom he is acting has an opportunity to review the expert's case file before his testimony or deposition has begun. Items that are clearly privileged should be removed.

The expert should note each item removed by date, subject and recipients and deliver the list to the retaining attorney for forwarding to opposing counsel. It is then up to the opposing side to determine whether any of the items removed should be subject to further discovery proceedings and possible orders for production.

## Topic 18: Orders for Production



*Orders for production* occur in a typical order:

- The expert's file is reviewed before deposition or trial.
- Various items are removed; they are identified for the benefit of opposing counsel.
- Opposing counsel then seeks a show-cause order or order for production. (Source: See, for example, Federal Rules of Civil Procedure, Rule 37.)
- Any documents at issue are submitted to the court by the expert's retaining attorney.
- The documents are submitted in a sealed envelope for an *in camera* (in judge's chambers) examination.

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- The court or tribunal examines the documents at issue against the legal arguments.
- The documents are tendered without allowing opposing counsel to view them.
- Orders are entered as to whether the items are privileged.

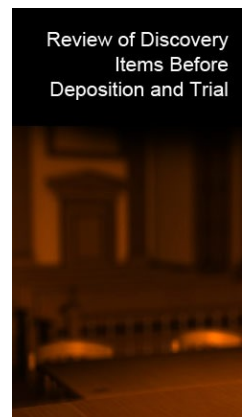
### Deposition

During deposition (an important stage of discovery), the expert may give his own deposition to opposing counsel. He may also be present during the examination of the opposing parties' expert witnesses. (See [Module 9: Depositions](#), for more on this subject.)

The expert should protect himself in the event of discovery by insisting on receiving all materials relevant to his investigation, not just those that support his opinion. The expert should avoid highlighting or annotating written materials until he has formed an opinion on the case. The expert will usually discuss his reports with retaining counsel before he commits his opinion to writing. (Source: Vernon, "Protecting Your Expert from Discovery," *For the Defense*, June 1989, pp. 16-21.)

Remember that, in most cases, both the expert's file and his opinions will be subject to discovery. That being the case, the prudent expert will test everything the witness writes (including notes or reports) or says against the probability that it may fall to the opposition in discovery or may be introduced at trial.

### Topic 19: Review of Discovery Items Before Deposition and Trial

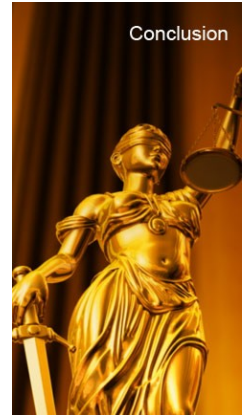


The expert should review discovery items before trial or hearing, particularly in the event that the trial or hearing occurs without an opportunity to first confer with the retaining attorney.

In civil cases, the expert has most likely been provided with copies of interrogatories that he helped answer or draft. The expert should review them before trial. He should also review tests, examinations and pretrial preparation that were the subject of a formal discovery response.

The expert should take sufficient time to review the transcript of his deposition (if one was taken) and the depositions of any concurring and/or contravening experts. All of these documents should be studied by the expert to identify both strong and weak points. This preparation will help the expert anticipate cross-examination at trial.

## Conclusion



The discovery process is designed to facilitate the judicial process. Working communication between the expert and the attorney handling the case should be established at the earliest possible point. This will help facilitate the process, minimize the time demands of the expert witness, and prove invaluable throughout the case.

The expert must be familiar with the discovery rules applicable to the case. This familiarity will aid in the preparation of the discovery material provided to the attorney. It is always good practice for the expert to ask the retaining attorney to provide guidance or an opinion on which discovery rules apply for the litigation jurisdiction. The expert should consult and rely on the attorney handling the case to determine in certain situations if a piece of information is discoverable or not.

Certain cases may present special considerations for the expert witness. For example, cases where there may be proprietary, licensee or relevancy objections to disclosure may necessitate the expert or agency to consult their own independent legal counsel.

Discovery is the general term for the ways in which information is formally gathered to support and supplement the expert's fact and evidence investigation. A thorough understanding of the discovery process will help the expert work more effectively within the legal system. Criminal and civil discovery have certain distinct differences. However, in either setting, constant digging and pressure are necessary to obtain relevant information. Cooperative effort, blending the expert's investigative activity with formal discovery, is likely to yield the best results.

## Module 8: General Testifying Tips

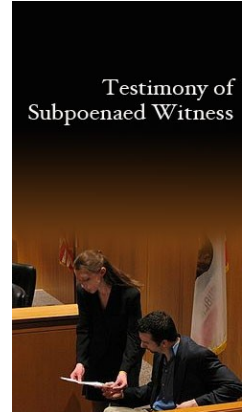
### Learning Objectives

After completing **Module 8: General Testifying Tips**, the user should know:

- Whom to contact after receiving a subpoena to testify.
- What documents to bring to the pretrial meeting and for testimony with the proffering attorney.
- What style of dress is appropriate for the testimony.

- Procedures likely to occur during testimony.
- What constitutes effective testimony.
- What is involved in structuring and organizing expert testimony.

## Topic 1: Testimony of Subpoenaed Witness



If an attorney plans to call the forensic scientist as an expert witness in a hearing, trial or other court proceeding, the expert will usually receive a subpoena indicating the date(s) when the expert's testimony will be expected to take place in the proceeding. However, this documentation is rarely specific and is often subject to change.

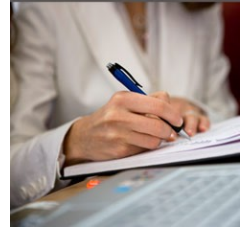
### Handling Schedule Conflicts

The expert should communicate with the proffering attorney or a witness coordinator well before the scheduled proceeding date to avoid unnecessary appearances before the expert is actually needed.

Once the expert receives the subpoena, the expert should notify the witness coordinator or attorney immediately if there are any scheduling conflicts that may prevent the expert from honoring the appearance. Depending on the flexibility of the proceedings, the attorney may put the expert on the stand, out of order, or even attempt to move the proceeding to a new date to ensure that all necessary witnesses are available.

Due to the unpredictability of court proceedings, it may be impossible to pinpoint an exact appearance time. If the expert is traveling from outside the jurisdiction for the court appearance, delays between the expert's required arrival and the actual testimony time may be unavoidable.

## Topic 2: Overview of Expert Testimony Preparation



The expert may be called on to testify:

- At depositions.
- At hearings, including pretrial hearings.
- In open court:
  - ◆ Direct examination (questions from the retaining lawyer).
  - ◆ Cross-examination (questions from the opposing lawyer).

The expert witness should know what to expect in the deposition, at pretrial hearings and during testimony. Anticipate and be prepared for general and specific questions from the opposing counsel. (See: Module 9: Depositions.)

Final trial preparation involves fine-tuning everything the expert knows about the case and sharpening the expert's skills for credible presentation. Organization of materials, staging, timing, bearing, dress and demeanor all assist in the presentation preparation the expert undergoes before trial (See Module 10: Pretrial).

Expert testimony is more interesting and understandable if graphs, charts, drawings, models, demonstrations and similar projections are used. These presentation and teaching visual aids are known as demonstrative materials.

The expert must be creative when planning how to demonstrate investigation, testing, and conclusions. Remember that about 85 percent of what people learn is by observation, and about 15 percent is learned by listening.

The expert's direct examination during trial or hearing presents a major opportunity to present credible, persuasive, and clearly understood opinions and conclusions concerning the matter at issue. During direct examination, the expert will be asked semi-routine questions, such as identifying oneself and sharing background and qualifications that qualify the expert to render opinions as to cause and effect in the disputed matter.

The expert's presentation will include investigation, evidence testing, the standards, protocols or texts on which the expert relied, and findings of fact. From those findings, the expert will then be asked to render opinions supported by reasoning, scientific evidence, and logical interrelationships among the facts found and the conclusions reached (see Module 11: Trial).

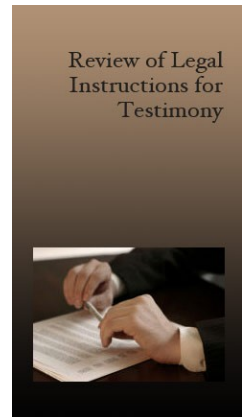
Cross-examination affords the expert witness a significant intellectual challenge. The expert may be called upon to retrace steps, explain and justify a position, and even harmonize views in the case with prior writings, depositions or trial testimony in other matters. Cross-examination actually presents an opportunity to solidify and drive home the conclusions and opinions the expert had previously stated and had testified to on direct

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examination (see [Module 11: Trial, Topic 9: Cross-Examination](#)).

The skilled forensic expert must be sensitive to *ethical issues* and potential conflicts that are inherent to the process. The expert should have a clear sense of what is professionally proper, allowed and allowable. An awareness of interprofessional codes and ethical standards of conduct will help guide the expert through intricacies of the forensic testimony process (see [Module 13: Ethics for Experts](#)).

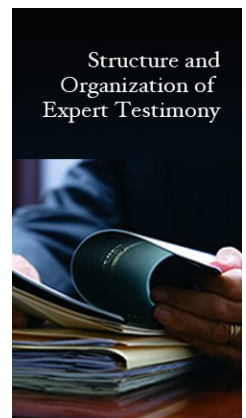
### Topic 3: Review of Legal Instructions for Testimony



If the matter is to be tried before a jury or commission that is subject to legal instructions, the expert should review the instructions as they relate to testimony.

By knowing what legal instructions the fact finder will receive, the expert can focus his testimony on meeting those legal tests or requirements. Consult with the retaining attorney to obtain these instructions.

### Topic 4: Structure and Organization of Expert Testimony



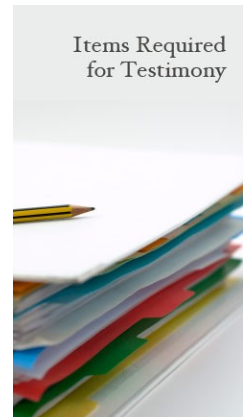
One technique for skillful organization of expert testimony is to outline the main points of testimony, moving from the initial strong points to weaker points (if any) and building to a strong finish.

The expert who appears well organized on the witness stand conveys confidence, competence and credibility to the trier of fact.



All testimony materials should be neatly arranged in notebooks, tabbed and well organized. This preparation conveys professionalism and competence. The notebook should include the expert's case report, a summary of the data relied upon, answers to interrogatories that relate to the testimony, a discovery deposition, a full *curriculum vitae*, and the subpoena that ordered the expert's appearance at trial.

## Topic 5: Items Required for Testimony



It is hoped that the expert will have the opportunity to discuss the details of the testimony with the proffering attorney ahead of time, either in person or by telephone. At times, because of circumstances beyond the expert's control, this may not occur. If schedules do not permit this, the expert should request an arrival time that provides adequate pretrial preparation before the expert is expected to testify.

For this pretrial conference, and for the actual testimony, the expert should bring:

- Copies of all reports generated as a result of testing.
- Any reports generated after reviewing work performed by another expert.
- Copies of the entire case file associated with the work performed on the case.
- Documentation of any communication, including e-mail with others in the case (e.g., law enforcement, other laboratory personnel, attorneys).
- Any items of evidence still in the expert's possession about which the expert may testify.
- Photographs or other documentation of items of evidence tested that may no longer be in the expert's possession.
- Complete chain of custody documentation.
- Copies of the expert's *curriculum vitae* or résumé.

Other items the expert may or may not bring:

- Copies of the laboratory's quality assurance/quality control (QA/QC) documentation.
- Copies of (or at least the results of) any proficiency tests taken.
- Copies of the laboratory's standard operating procedures (SOPs).

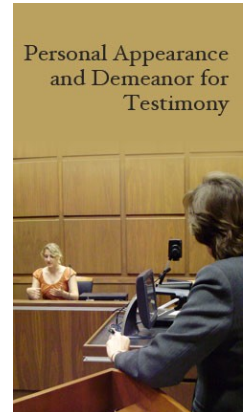
If in doubt about whether or not to bring these additional items, the expert should:

- Consult with the retaining attorney for the case.
- Confer with the lab supervisor.
- Bring the additional items in case the expert is asked to provide them.

## Law 101: Legal Guide for the Forensic Expert

In certain circumstances, the expert may not have an opportunity to discuss details of the testimony with the retaining attorney in advance. The expert must be prepared for this possibility. (More information about self-preparing for testimony is provided in [Module 10: Pretrial](#).)

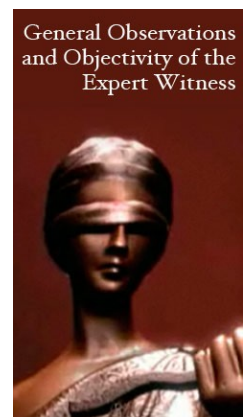
### Topic 6: Personal Appearance and Demeanor for Testimony



For a deposition or court appearance, the expert witness should always appear neat and professional. Business dress and professional demeanor are important. If the expert is in law enforcement or the military, it may be appropriate to testify in uniform. Otherwise, a clean, freshly pressed conservative business suit is recommended.

Flashy jewelry or other accessories are inappropriate for testimony appearances. These personal style items are not recommended, as these may detract from the aura of professionalism and credibility that the expert seeks to project. Fingernails should be trimmed and groomed, especially if the witness plans to use demonstrative aids to assist the jury or judge during testimony. Wedding and engagement rings and wristwatches that are not flashy are fine.

### Topic 7: General Observations and Objectivity of the Expert Witness



If the law has made you a witness, remain a man of science. You have no victim to avenge, no guilty or innocent person to convict or save — you must bear testimony within the limits of science.

- Dr. P.C.H. Brouardel, 19th-century French medico-legalist

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The expert should keep in mind, at all times during testimony, that the expert is present as a witness to educate the fact finder (the jury or, in the case of a bench trial, the judge). Demeanor should be the same toward both attorneys, regardless of which attorney is asking the questions.

When answering questions, the expert's responses should be delivered to the fact finder, even if this means physically shifting your body or attention slightly to face the fact finder while answering.

During direct examination, most retaining attorneys will stand near the jury box, if possible, to facilitate this process. During cross-examination, a savvy opposing attorney will attempt to direct the witness's attention away from the fact finder by standing across the room.

In this cross-examination situation, it is acceptable, and perhaps even advisable, to listen carefully to the question while facing opposing counsel, and then turn with intention and answer directly to the jury or judge.

At no time during questioning should the expert ever become defensive, argumentative, or arrogant in answers to questions or in exchanges with opposing attorneys. The expert must remember that the purpose is to educate the court or jury on a subject about which the expert possesses specific expertise. The expert should never have a personal stake in the outcome of the case.

Testimony should always be based solely on what the specific analysis and test results can support. If the expert does not know the answer to a question, he should never try to guess or attempt to provide an answer beyond the expert's expertise or the scope of the expert's assignment and testing.

"I don't know" is a perfectly acceptable answer to any question, especially if the attorney is attempting to lead the expert outside his area of expertise.

Why would an attorney attempt to lead a witness? The attorney may want to discredit the expert's credibility, and therefore the testimony, in order to win the attorney's case. The expert must remember that the courtroom differs from the laboratory. In court, the expert's duty is to express a scientific opinion that is supported by evidence, whereas the attorney's role is to serve as a legal advocate for the client and the case.

The expert should be aware that, if allowed to stray beyond the area of expertise by attempting to answer questions outside his qualifications, the court may allow the attorney some latitude to continue the line of questioning, to the eventual detriment of the expert's testimony.

## Expert's Answers to Questions

If an attorney asks the expert to answer a question with either "yes" or "no" and the expert feels it is not possible to answer the question accurately without providing more information, the expert may ask the court for permission to further explain the answer.

If the questioning attorney objects, or the court directs the expert to answer "yes" or "no" without allowing explanation, the expert should answer the question as directed. An attentive retaining attorney will recognize the expert's attempt to clarify his answer. There may still be an opportunity to provide the longer answer on re-direct by the retaining attorney.

## Expert Must Stay Within the Confines of Expertise

The testifying expert has a responsibility to stay within the confines of the discipline in which the expert is testifying. Many professional organizations (such as the American Academy of Forensic Sciences, the

International Association for Identification, and the American Society of Crime Laboratory Directors) have codes of ethics to which members are expected to adhere. These codes of ethics usually include the following obligations:

- Testifying in clear and understandable language.
- Not overstating conclusions or misleading the finder of fact.
- Answering only the questions that are asked.

## Topic 8: Fundamental Guidelines for Deposition and Trial Testimony

### Instructions for Witnesses Before Giving Testimony

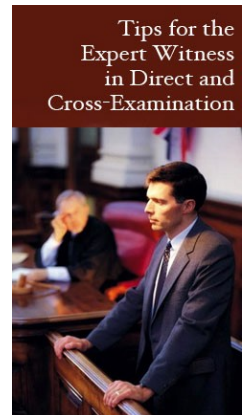
The following guidelines will help make the expert's testimony more effective, more persuasive and less complex. These suggestions are based on trial-tested experience with many expert witnesses in many different cases. The guidelines apply whether the expert is testifying on deposition, in court for testimony, at a hearing, or in some other dispute resolution proceeding. The testifying expert should consider these fundamental suggestions:

1. Tell the truth.
2. Prepare for testimony by reviewing the facts.
3. Remember that most questions can be answered by saying:
  - ◆ "Yes",
  - ◆ "No",
  - ◆ "I don't know",
  - ◆ "I don't remember",
  - ◆ "I don't understand the question,"
  - ◆ or by stating a single fact.
4. Answer "yes" or "no" whenever acceptable.
5. Limit an answer to the narrow question asked. Then *stop talking*.
6. Never volunteer information or answers.
7. Do not assume that an answer must be offered for every question.
8. Be cautious of repeated questions about the same point.
9. Never lose your temper.
10. Speak slowly, clearly and naturally.
11. Establish a forward, upright and alert posture.
12. Provide verbal answers; do not nod or gesture in lieu of a verbal answer.
13. Do not be afraid to ask for clarification of unclear questions.
14. Do not be afraid of the examining attorneys.
15. Be accurate about all fact conditions, evidence testing and lab results.
16. Restrict answers to facts personally known to the expert.
17. State basic facts only, not opinions or estimates, unless they are requested.
18. Be cautious of questions that include the word "absolutely" or "positively."
19. Remember that "absolute" means forever, without exception.
20. Be cautious about time, space and distance estimates.
21. Do not guess, if the answer is unknown.
22. Do not fence, argue or second-guess the examining counsel.
23. Admit having discussed testimony previously, if that is the case.
24. Do not memorize a story.
25. Avoid phrases such as, "I think," "I guess," "I believe" or "I assume."

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26. Maintain a relaxed but alert attitude at all times.
27. Do not answer too quickly — take a calm breath (inhale/exhale) before answering each question.
28. Do not look to the retaining attorney for assistance during testimony.
29. Make sure each question is fully understood before answering. Beware of "trick" questions.
30. Do not answer, if instructed not to do so.
31. Never joke during a deposition or testimony.
32. Do not exaggerate, underestimate or minimize.
33. Dress conservatively in clean, pressed business clothes.
34. Be serious before, during and after testimony.
35. If a mistake is made, correct it as soon as possible.
36. Remain silent if attorneys object during the examination.
37. Listen carefully to dialogue between attorneys.
38. Avoid mannerisms that signal nervousness.
39. Do not use technical language without translating it for a lay audience.
40. Speak simply.
41. Do not discuss the case in the hallways or restrooms.
42. Do not converse with opposing parties, attorneys or jurors.
43. **Tell the truth.**

## Topic 9: Tips for the Expert Witness in Direct and Cross-Examination



### Be an Effective Expert Witness

Seven fundamentals to keep in mind will help the expert become a more effective witness. The expert should:

- Know the professional area.
- Do homework for the case.
- Develop an individual style of delivery and demeanor.
- Be enthusiastic without being an advocate.
- Be prepared for cross-examination.
- Pattern himself after his best teacher.
- Dress to fit the role — dress for success.

It can be most useful for the expert to visualize outstanding and exemplary performance on the witness stand. Use of the word "performance" is intentional. Visualize a sterling performance. Create an image of success that can be built upon without assistance. The expert can do this by becoming a "star" in the expert's own mind — without being showy or pompous. The touchstone of the trial arena for the expert forensic witness is

credibility. Teaching skill is the vehicle.

Being aware and using psychological elements of persuasion, body language, repetition, dress, demeanor and similar characteristics help develop testimonial skill and effectiveness. Do not be a "many splendored" expert. Tribunals and the court system lose confidence in the expert who seems to know everything about everything. Nobody is that smart.

- Only answer the question asked; do not volunteer information.
- Be factual, truthful and concrete.
- Stick to the point and be brief.
- Do not argue with examining counsel or the trier of fact.
- Keep cool and do not display irritation.

## Important Points to Remember

Psychologists observe that several doctrines are at work in the dispute resolution process, some of which can foretell the outcome of an otherwise close case. Among them are primacy, recency, repetition and the probability of human conduct:

- Primacy: The tendency is for people to believe the most and the longest what they hear first.
- Recency: The tendency is for people to believe what they hear last.
- Repetition: The tendency is for people to believe what they hear repeated often.
- The probability of human conduct: People are expected to act in certain ways in light of given circumstances. When they do act as expected, they are believable. When they do not act as expected, they are not believable.

## Some Key Observations

A number of observations and admonitions will help make the expert much more effective and valuable as an expert witness. These are not presented in order of importance:

- Overall demeanor and teaching techniques must be kept in mind at all times.
- Seek to achieve outstanding performance on each testimonial occasion.
- Tone of voice should moderate and modulate to fit the occasion in a realistic conversational pattern.
- Graphics must be able to stand alone, speak for themselves, and yet still be the subject of the expert's teaching techniques as salient points are emphasized throughout testimony.
- The expert must make sure to be heard clearly throughout the room.
- Use clear handwriting on charts.
- Written materials must be readable and understandable.
- Face the audience (judge, jury or hearing panel) at all times.
- Physical position and posture in the courtroom before and after testimony is important; never sit at counsel table or in close proximity to counsel.
- Do not pass notes to counsel during testimony of the opposition.
- Avoid hallway conversations exposing a theory or strategy; someone of the opposition may overhear.
- Avoid casual recess conversations between opposing experts.
- Be sensitive to the pressure and insecurity being felt by the trier of fact.
- Control and avoid any habitual body language, such as an involuntary grimace, an inappropriate smile, a hand tremor, or other physical manifestations that may suggest insecurity or uncertainty.

## Nine Traits of an Effective Expert

The expert must be a good listener and project himself as a reliable source of information. Traits that are beneficial to cultivate as an expert witness include being:

- Honest.
- Open-minded.
- Friendly.
- Well-mannered.
- Warm.
- Fair.
- Polite.
- Dynamic.
- Positive.

## Additional Rules for Excellence

A few additional rules of testimonial excellence are worthy of emphasis and repetition:

- The expert should keep his eyes on the examining attorney when a question is being asked and then shift his gaze to the trier of fact (court, jury or hearing panel) to respond. Talk to each of the panel members, one at a time. Maintain eye contact and hold focal attention.
- If jurors, the judge, or the hearing panel members are looking out the window, around the room, or at the opposing party while the expert is testifying, the expert should regain control of the situation and bring attention back to the testimony. Move to a chart. Draw a picture. Pause talking long enough to regain attention. In extreme circumstances, ask for a brief recess.
- Potential problems in the courtroom could be: uncomfortably warm or cold temperature, lack of enthusiasm on the expert's part, or confusing or illegible demonstrative aids. Listeners may have given up following the expert's testimony or their side of the case. Alternatively, listeners may have made up their minds to support the expert's testimony and felt they did not need to hear anything more.

In certain respects, testimonial communication is no different than living room communication. Speak clearly and simply. Limit responses to the questions asked. If the expert has done his homework well, he will be confident in the conclusions and positive in the testimony.

## Questions That Experts Should Be Prepared to Answer

A series of five basic questions can introduce a range of opportunities for testimony that is necessary to bolster the expert's stated opinions:

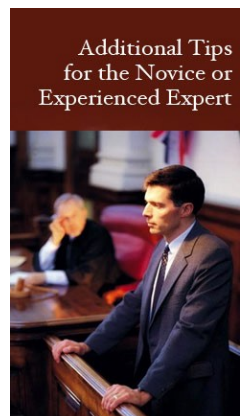
- Who are you?
- What did you do?
- Why did you do that?
- What did you find?
- What does that mean to you?

## Positive Qualities for Effective Testimony

Extensive observation of expert witness testimony in numerous trial settings generates a constellation of positive traits that can further guide the expert in achieving testimonial excellence:

- Knowledge of the science or specialty area.
- Ability to translate the complex into the simple.
- Openness and honesty, even to the extent of admitting fallibility or possibility of error.
- Substantial history of solving similar problems in the past, both actual and theoretical.
- Testimony consistent with that of other experts.
- Use of expert information and investigation in unique ways.
- Creative preparation of models, charts, drawings and demonstrations.
- Irrefutable scientific, technical, factual or professional data back-up.
- Careful attention to factual elements, testing and lab results, measurements and similar components.
- Supportive use of the literature.
- Absence of exaggeration or underestimation.
- Careful testing and documentation.
- Ability to support every conclusion with examples and real-life application.
- Correct use of standard formulas.
- Coordination of verbal testimony with documentary and demonstrative evidence.
- Quietness, calmness and humility, combined with self-confidence and conviction.
- Ability to convey a sense of genuine caring for the outcome and the people involved, while maintaining and projecting an objective attitude of non-advocacy.
- Opinions that are supported by admitted evidence.
- Absorption of opposition testimony that supports the expert's own position.
- Grappling with facts and substantive factors to yield a meaningful result.
- Hands-on participation in a corrective process.
- An outstanding résumé or *curriculum vitae*.

## Topic 10: Additional Tips for the Novice or Experienced Expert



1. Don't be afraid to ask for clarification of unclear questions.
2. Make sure the expert's testimony is consistent with experience and the technical literature.
3. Explain in layman's terms how tests and measurements were performed.
4. Make and maintain eye contact with the examining attorney. This helps to establish credibility.



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5. Be certain of the meaning of definitions used in questions and answers.
6. Do not be too brief when giving answers to questions.
7. Use examples for points of comparison.
8. Limit the use of examples to one good one for each major point.
9. Demonstrative materials require close attention of the trier of fact. Keep them simple.
10. Confirm the use of demonstrative materials with counsel and the opposition.
11. Step to one side of illustrations — face the audience.
12. Draw first and then turn toward the audience.
13. Be sure to make demonstrative drawings VERY LARGE.
14. Do not try to read and talk at the same time.
15. Do not look through the case file and talk at the same time.
16. Meet with the attorney before the trial to discuss testimony.
17. Translate statistics into a form that is meaningful for the case.
18. Have a strong recollection of the facts in the case file.
19. Generally stand firm on your testimony position.
20. Admit errors at once.
21. Be very familiar with your own *résumé* or *curriculum vitae*.
22. Do not cut off questions or answer too quickly. Pause to take a breath.
23. Know the relevant technical literature — particularly "the bible" in the expert's field of expertise — as well as the prominent journals.
24. Ask the retaining attorney what items to take to court or deposition.
25. Raise and lower the tone of voice and volume for effect.
26. Use the "pregnant pause" as an effective response technique for conveying persuasive findings and opinion with confidence.
27. Fix your eyes on the recipient of the information.
28. Remember that court business is always very serious business.
29. Know that it is permissible to laugh at obvious humor — but never be a joker.
30. Refer to notes and notebooks during testimony as needed because they are helpful.
31. Know that your notes and notebook can and will be looked at by the opposition.
32. Let the examiner finish the question before starting to answer.
33. Avoid putting your hands near your face — this signals nervousness and insecurity.
34. Be sure that the preservation of chain of custody and evidence are perfect.

## More Testimony Suggestions

1. Be familiar with the courtroom in advance of testimony, if possible.
2. Be prepared; make sure all "homework" is complete.
3. Engage in a pretrial conference of all experts.
4. Correct errors as soon as they are discovered.
5. Admit any lack of knowledge or absence of investigation.
6. Be careful of courtroom and hallway fraternization.
7. Project conviction, without advocating a position on the case.
8. Maintain poise.
9. Exude warmth and friendliness.
10. Never lose your temper.
11. Practice calming techniques (slow inhale/exhale).
12. Translate all technical terms for the fact finder(s).
13. Consider following the example of an important role model.
14. Modulate the voice's volume for effect.
15. Beware of learned treatises:

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- a. Verify that the material is familiar to you.
  - b. Avoid outdated material.
  - c. Do not accept the treatise as "authoritative" unless certain of its contents.
16. Make certain you are an expert in the particular area about which you are testifying.
  17. Be an astute listener; answers are often embedded within a question.
  18. Respond to the fact finders when you answer.
  19. Do not become defensive or argumentative.
  20. Reinforce testimony with a demonstration when appropriate.
  21. Address the attorneys by name on occasion; it is a great equalizer.
  22. Do not be afraid to say, "I don't know."
  23. Be totally familiar with standard protocol.
  24. Do not be an egoist or egomaniac on the witness stand.
  25. Avoid conferring with or handing notes to counsel in the presence of the fact finder.
  26. Check and recheck preparation, test results and calculations.
  27. Make certain that body language reflects the expert's commitment and openness.
  28. Know tip-off signals to avoid: "Yes, that's true, but let me explain."
  29. Be very familiar with what you have previously written or testified to in prior examinations, both in the current case and in any previous similar cases.
  30. Use cross-examination to reinforce your direct-examination position.
  31. Be confident in your expertise.
  32. Admit any facts that might suggest bias.
  33. Be alert to subtle changes in hypothetical questions.
  34. Do not conceal the obvious; use it to advantage.
  35. Be aware of cross-examination techniques and objectives.
  36. Moderate expression of absolute certainty in the face of overwhelming information to the contrary.
  37. Customary weak points in opinion are based upon the exercise of "judgment."
  38. Be cautious of input from others, even though it is allowed by the rules.
  39. Prior inconsistent statements in the same or similar cases are a testimonial hazard.
  40. Avoid mannerisms of insecurity:
    - a. Flushed face.
    - b. Trembling hands.
    - c. Stammering or hesitant voice.
    - d. Touching the face or mouth.
  41. Change the wristwatch to the opposite wrist or a ring to a different finger before testifying as a personal reminder to keep answers brief and keep focused.
  42. Apply a three-step test to every question that is posed to you as a testifying witness:
    - a. Understand what the question is.
    - b. Quickly determine what the examiner is seeking with the question.
    - c. Decide how to best answer the question.

It is during the deliberation of these three steps that the witness takes a breath, considers and analyzes the question, and frames the response. Taking a breath before answering the question will help the expert appear to deliberate and will give the expert a chance to digest the question and more thoughtfully respond.

43. Listen to each question carefully to avoid potential traps or pitfalls.
44. When testimony is concluded, leave the courtroom unless instructed to stay.
45. Take the opportunity to observe and learn from the expert testimony of others, when the appropriate opportunity arises. An expert who wishes to improve his or her testifying technique and ability can learn much from observing others on the stand — both effective experts and those who are less effective.
46. Be willing to ask for and accept constructive suggestions and criticism of your testimony technique.

47. Use post-testimony review and self-evaluation as tools for self-improvement.

## Testimony Tips From Trial Judges

Trial judges are an excellent source for tips and constructive suggestions for testifying experts. They have presided over many cases involving testifying experts, and they have a unique sense of what mannerisms, abilities and traits work in court — and which ones don't work.

Following are some useful testimony tips and suggestions for testifying experts from trial judges:

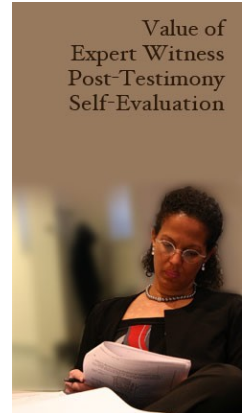
1. Always tell the truth, even if it hurts.
2. Do not be pompous or egotistical.
3. Do not speak down to the fact finders.
4. Use plain English — translate technical terms when necessary.
5. Do not be an advocate for the case — be a knowledgeable expert.
6. Do not evade cross-examination questions.
7. Do not volunteer extraneous information.
8. Do not be a show-off.
9. Be aware of court procedure and practice.
10. Do not be a know-it-all about how the case should progress.
11. Do not testify above the heads of the courtroom personnel.
12. Be lively and vibrant, not boring.
13. Do not stray beyond your area of expertise.
14. Do not feel you need to have an opinion on everything.
15. Answer the question that is asked and then stop talking.
16. State why you cannot answer the question.
17. Tip off the calling attorney to come back to an area of cross-examination ("Yes, but may I explain?").
18. Correct mistakes at once.
19. Do not try to defend a wrong answer.
20. Do not cause the judge to admonish you for any reason.
21. Do not keep repeating the same points over and over.
22. Keep your reputation impeccable.
23. Always maintain credibility.

In addition, a veteran trial judge suggests:

1. When qualifications are presented, use only the highlights of a professional career and not every minute detail.
2. Make sure expert opinions are based on a reasonable degree of technical, scientific or professional probability.
3. Be prepared to explain the "why and wherefore" of expert conclusions.
4. Don't be afraid to undertake a practice session of direct and cross-examination before offering testimony. The expert's poise may increase dramatically as a result of practicing responses and delivery.
5. Expose any weak areas of the case during direct examination, such as frequency of testimony for a particular side, length of examinations, retention by opposing counsel, payment for testimony, and possible disagreement with opinions of other experts.

6. Translate all testimony into nontechnical terms — words that can be understood by everyone in the courtroom.

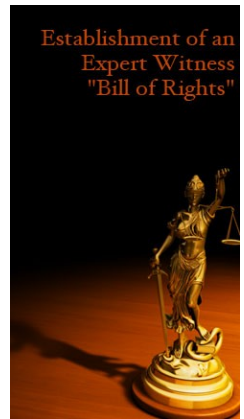
## Topic 11: Value of Expert Witness Post-Testimony Self-Evaluation



To improve effectiveness, the expert can review and evaluate testimony after presenting it. The following list can also provide helpful reminders in advance as the expert prepares to testify. Criteria to review before and after testimony that can enhance self-improvement may include:

- The subject of the expert's testimony.
- The quality of the expert's investigation.
- The quality of the expert's written report.
- Overall integrity and candor.
- Demeanor as a witness.
- Preparation for trial and deposition testimony.
- Overall credibility.
- Effective cross-examination of the expert's credentials or work product.
- Was the expert able to "teach" effectively?
- Did the expert follow a standard investigative protocol?
- Was the expert cooperative with sponsoring counsel?
- Did the expert appear to be a "professional witness"?
- Was the expert able to access a database of prior writings/testimony?
- Was the expert confronted with prior writing or testimony that was inconsistent with that of the case at hand?
- Generally describe the expert's dress, appearance or any distracting mannerisms.

## Topic 12: Establishment of an Expert Witness "Bill of Rights"



The following admonitions regarding expert testimony were proposed in the form of an "Expert Witness Bill of Rights" in 1994 to help experts better understand and assert their rights as testifying witnesses.

## Understanding the Expert's Rights As a Witness

The testifying expert **has the right to:**

1. Abide by the code of ethics of the profession.
2. Fair technical review of the work product.
3. Use reliable scientific, technical, or professionally based data and tests to support conclusions and opinions.
4. Receive adequate and fair compensation for services.
5. Assist the fact finder in reaching a just and fair determination of the matters in dispute (Rule 702, Federal Rules of Evidence).
6. Render his opinions based upon knowledge, training and experience (Rule 702, Federal Rules of Evidence).
7. Rely, in certain cases, on hearsay to support conclusions if it is usual for professionals to regularly rely on such hearsay information (Rule 703, Federal Rules of Evidence).
8. Use relevant and reliable data gained from the scientific method to support his opinions and conclusions (*Daubert v. Merrell Dow*, 509 U.S. 579, 113 Sup. Ct. 2786, 125 L.Ed. 2d 469 (1993)).
9. Tender probative evidence if the offered material outweighs the danger of unfair prejudice to any party (Rule 403, Federal Rules of Evidence).
10. Be given all relevant data by counsel engaging the expert's services.
11. Render unbiased professional, technical and scientific opinions based upon investigation and examination of the relevant facts and data concerning the matter presented.
12. Be kept informed as to new developments and new evidence in the case that could alter the expert opinions.
13. Assume that other investigations relied upon by the expert were conducted correctly. (*Caution: Remember the root configuration of the word "assume."*)
14. Unconditional engagements; that is, engagements that are not outcome driven.
15. Have adequate time to prepare and complete the assignments presented.
16. Be free of threats by attorney or client concerning possible contempt of court or court sanction for not answering all questions presented.
17. Have a deposition conducted in a comfortable and physically agreeable setting.
18. Be permitted reasonable recesses during deposition or testimony episodes to accommodate for fatigue and physical comfort.
19. Adequate notice of his endorsement as an expert witness in any civil proceeding for which he is so denominated.

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20. Have interrogatory and other written discovery responses updated and kept current by the attorney engaging the expert's services.
21. Make reasonable destructive tests of evidence on condition that adequate notice is given to the opposing party, and opposition experts are provided an opportunity to be present during those destructive tests. (*Caution:* Court orders may be required.)

The testifying expert **should not be**:

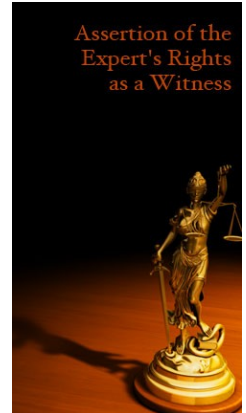
1. Subjected to any coercion by counsel or client.
2. Subjected to corruption of scientific fact to reach a predetermined result.
3. Required to use particular tests that are outcome prescribed.
4. Required to be an advocate for a dispute outcome. (*Caution:* Enthusiasm for one's position or research is not prohibited. To advocate is to argue; to be enthusiastic is good teaching.)
5. Asked to use questionable scientific, technical or professional methods to support research or investigation.
6. Denied written documentation of the test results of other experts.
7. Subjected to threats of demotion or transfer for test results.
8. Subjected to any external or distorting pressure of any kind that would shade, color, alter or amend his professional, technical, or scientific judgment or findings.
9. Subjected to the withholding of key documents or facts by counsel or the client.
10. Subjected to questions regarding the expert's private life during the deposition or trial process.
11. Subjected to frivolous discovery requests.
12. Required to tender false evidence in any dispute resolution process or proceeding.
13. Required to ever use tests of questionable scientific validity.
14. Tricked or misled by engaging counsel or cross-examining counsel.
15. Subjected to selective fact gathering or being "blindsided" by inadequate presentation of facts.
16. Forced to recant prior inconsistent positions without ample and adequate fact or research justification.
17. Pressed to accept assignments beyond the expert's competence.
18. Subjected to testimonial situations that create conflicts of interest.
19. Required to serve as a forensic expert on a contingent fee basis.
20. Subjected to inquiry about personal finances, unless that inquiry could directly relate to the expert's bias, prejudice or partiality.
21. Subjected to repetitive, argumentative, redundant or insignificant questioning.
22. Subjected to badgering or overly aggressive examinations.
23. Physically threatened in any way in any dispute resolution proceeding.
24. In a position to have the opinion as an expert sought without affording the expert an opportunity to conduct an appropriate investigation of the data, premises or tests used.
25. Put in the position of having to render a favorable opinion in order to be paid for professional services.
26. Forced to wait inordinate lengths of time to testify while under subpoena.
27. Contacted by opposing counsel without notice to the attorney retaining the expert's services.
28. Forced to testify if retained only as a consulting witness (subject to very narrow, limiting exceptions).
29. Asked about a case merely to disqualify the expert witness in that matter.
30. Asked to testify without adequate deposition or trial preparation.
31. Subjected to inquiry into any aspect of personal or private life or habits that would embarrass, humiliate, intimidate or harass the expert when such questions do not relate to competency as an expert witness. This includes inquiry into religion, political beliefs, sexual preference, health or finances.

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32. Forced to make disclosure of confidential business, commercial, industrial or other trade secret information.
33. Subjected to an examination protocol that is designed to wear down the expert rather than discover relevant information.
34. Subjected to any examination or treatment that is beyond the bounds of professional common sense and courtesy.

(Source: *Succeeding as an Expert Witness*, by Harold A. Feder, Tague Press 3<sup>rd</sup> edition 2000.)

### Topic 13: Assertion of the Expert's Rights as a Witness



Counsel sponsoring or retaining the expert's services as a testifying witness has a considerable obligation to maintain the examination, either in deposition or trial, on a proper course. The expert and retaining counsel should determine in advance what procedures will be followed if abusive, harassing, antagonistic or improper questioning is encountered.

Following is a list of many of the devices available to the expert for self-protection. Knowing what an expert may properly do to protect the expert witness role and position may mean the difference between success and failure as an expert in a particular case, or in general.

- Understand thoroughly the extent of your rights as an expert witness.
- Develop a prearranged signal between you and retaining counsel that alerts counsel of your belief that a particular line of questioning is outside the scope of propriety. For example, ask, "Is that a proper question?" or "May I have that question again?" to cue your counsel.
- You may ask the court reporter in deposition to mark a particular question and answer for future reference in the event you believe, for any reason, that a question is improper.
- You could, in a polite and professional way, refuse to answer an objectionable question or to be examined in an objectionable way. Control of your voice, emotions and the moment are essential in such a setting.
- During a deposition proceeding, you may ask for a recess at reasonable times to consult with your own private attorney (whom you may have engaged to assist you in deposition or trial matters). Your personal attorney is to be distinguished from the attorney who has engaged your professional services as an expert witness. It is often necessary in grossly abusive situations to engage and have your personal attorney present during deposition or trial proceedings. You have the right to your own counsel, in or out of the deposition.
- If an abusive situation develops, maintain professional politeness, and a calm and cool demeanor. Tell the examining attorney, on the record, that you believe the questioning or the question is abusive, uncalled for, improper, badgering, harassing or otherwise outside the scope of propriety. In that

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setting, you may respectfully request that the line of questioning be stopped and that additional or new matters be taken up by examining counsel.

- In the event that improper questioning continues, ask for an opportunity to contact the trial judge before whom the case is pending so the matter might be resolved by the court, literally from the deposition room by telephone. All of this proceeding should be conducted on the record during the deposition. In such an event, the court will need to hear the objectionable deposition questions that are being asked in order to determine whether they are indeed abusive.

## Observations

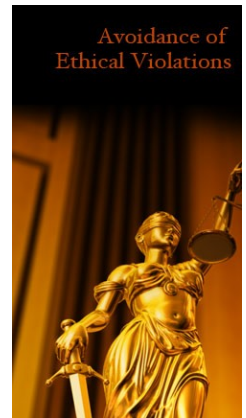
The expert should treat opposing counsel courteously, no matter how abusive or aggressive the attorney might become. The expert should never engage in a one-upmanship discourse with opposing counsel.

To point out that opposing counsel does not understand the testimony or the scientific field results in the expert appearing arrogant and adversarial. Such a demeanor is certain to antagonize. Expertise should be evident without being overstated.

Understanding and asserting your rights as an expert witness requires constant attention to detail. Maintaining a professional, polite and calm demeanor will produce better results during overly aggressive examinations. Know your rights. Be ready to assert your rights but do not "shoot from the hip"; assess the situation and the consequences of your actions.

Understanding your rights, and knowing how to preserve and protect those rights, helps create a better mindset with which to develop your strategy, apply the appropriate techniques, and avoid repercussions when confronting abusive, improper or inappropriate conduct.

## Topic 14: Avoidance of Ethical Violations



Ethical violations that may affect an expert's testimony must obviously be avoided.

Examples include:

- Falsifying or altering data.
- Improperly or incompletely performing the investigation or testing.
- Conditionally engaging the expert (threatening retaliation).
- Providing false testimony.
- Intentionally ignoring available data.
- Recanting prior counter positions.



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- Engaging in assignments beyond one's competence.
- Accepting unauthorized attorney influence.
- Providing inadequate support or time to complete the assignment.
- Reaching a conclusion before the research is completed.
- Permitting conflicts of interest.
- Producing fraudulent credentials.
- Making payment contingent on desired testimony.

### Examples of Abuses by Experts

- Selling the report to the other side after the first side decided not to retain the expert.
- Failing to update or keep current the expert's interrogatory responses.
- Failing to disclose all opinions intended to be rendered and required by pretrial order.
- Withholding information obtained during the expert's investigation of the case.
- Destroying evidence during testing (spoliation).
- Volunteering to testify as a "consulting" expert against the side retaining the original expert.
- Switching allegiance and testifying on behalf of the other side.
- Tendering false credentials.
- Rendering a false opinion or report.
- Tendering an opinion based on "vast experience" only, without doing any scientific, technical or professional investigation.
- Being argumentative and telling examining attorney that he is "wrong" or "stupid."
- Generating a long, rambling preamble to every answer.
- Accepting an assignment involving disclosure of confidential information received from the opposite party in an earlier matter.

### Topic 15: Response to Claims of "Junk Science"



The catchphrase "junk science" has been popularized to describe situations in which the testifying expert, or the expert's testimony and conclusions, is considered or found questionable due to an allegedly poor or insufficient scientific foundation. The testifying expert should be aware that cross-examiners may pursue some of the following lines of questioning in an attempt to challenge a supposedly inadequate, incompetent or unprofessional forensic witness.

Examples:

- Showing that the witness is not very knowledgeable on the subject.

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- Exposing a lack of meticulous attention to detail that the expert witness failed to follow in preparation.
- Cross-examining the expert as to lack of activity in the professional field, particularly with regard to current education and training, and lack of appropriate seminar and workshop attendance.
- Avoiding acceptance of the "charlatan" as an expert whenever possible.
- Establishing that the witness has never testified to the same effect previously, which can be damning during cross-examination.
- Establishing that the findings of the testifying witness are not consistent with studies of others, thereby eroding the credibility of the witness.
- Suggesting that the expert's findings often lead to erroneous results, which again jeopardizes the expert's credibility.
- Often an expert will indicate that present methods are positively related to prior methodology. If that linkage and connection can be dispelled, the weight of testimony and credibility of the witness are threatened.
- The witness should be pressed for literature that tends to support the testimony. Absence of such literature bolsters the claim of lack of competence and credibility.
- If tests or examinations conducted by the forensic expert have never been admitted as evidence in a court or other dispute resolution process, this can bring the validity of the extant testimony into question.
- The aggressive cross-examiner will often show that there is no government regulation or statutory support for the expert testimony, or show that the expert testimony is not approved by the scientific community nor by any government-sponsored methodology.
- If the cross-examining attorney can establish that the scientific, technical or professional community does not rely on the same tests, procedures or techniques followed by the expert, the expert witness's testimony is seriously eroded.

## Countering Claims of "Junk Science"

1. Be a knowledgeable professional.
2. Be meticulous in detail.
3. Be active in the field as well as being an expert witness.
4. Have an opposing expert recognize you as an expert.
5. Show that you have testified to the same effect previously.
6. Show that your findings are consistent with studies by others.
7. Show that your findings seldom lead to erroneous results.
8. Prove that the new methods are positively related to prior methods.
9. Identify literature that establishes your approach.
10. Show prior admission of these same tests in other cases.
11. Relate your tests to the same type of tests by the opposition.
12. Show government approval of your methodology.
13. Establish the scientific community's reliance on these same tests.

## Module 9: Depositions

### Learning Objectives

After completing **Module 9: Depositions**, the user should:

- Know the purpose of a deposition.

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- Know who may and may not be present at a deposition.
- Discuss with the proffering attorney what documents are discoverable or privileged.
- Know what items/records to bring to a deposition.
- Prepare for the deposition as one would for the trial.
- Know that a deposition constitutes prior sworn testimony that can be admitted at the trial or used for impeachment.
- Know that the expert has a right to review deposition testimony before further proceedings.

### Topic 1: Definition of a Deposition

Definition of a Deposition



A deposition is the recorded sworn oral testimony of a party or witness before trial. Depositions are used to explore the strengths and weaknesses of the opposing party's case.

It is extremely important for the expert to prepare thoroughly before providing answers on deposition and in trial. The expert is testifying under oath. The expert's testimony may be used to impeach him if inconsistencies develop. If the expert admits crucial facts during his deposition, the expert will be hard-pressed to deny those facts later on in court.

The expert witness, or deponent, is sworn to tell the truth, as he is when testifying in court or in an administrative hearing. The expert's deposition may be taken and recorded, usually by a court reporter.

A transcript of the deposition will be prepared, and all witnesses deposed will have a limited time in which to review the transcript and make necessary corrections.

### Topic 2: Purpose of a Deposition

The deposition testimony of an expert may serve many useful purposes. In approaching and preparing for the deposition, it is helpful for the expert to have a clear sense of the opposition's objectives. In general, these include:

- Securing, under oath, background information and evidence that may be used at trial.
- Confirming the facts and gathering new information.
- Allowing the opposing counsel to ascertain:
  - ◆ The expert's opinions.
  - ◆ The factual basis for those opinions.
  - ◆ The expert's qualifications, experience and training in the field of expertise.

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- ◆ How effective the expert's testimony may be at trial.
- ◆ What sort of witness the expert will be.
- Locking the witness into a position, conclusion or account that may be difficult for the expert to maintain later at the trial or hearing.
- Developing what appears to be a lie or an inconsistency in testimony, and then using it in an attempt to impeach the expert later at trial.
- Providing an opportunity for deposing counsel to uncover strengths and weaknesses of the opposing party's case.
- Demonstrating to the expert's attorney the extent of knowledge and expertise that the opposition possesses.

Several states currently allow discovery depositions in criminal cases, including Iowa, Missouri, New Hampshire, Florida, North Dakota, Vermont, Texas and Arizona (in limited circumstances). In some of these states, depositions are permitted only in felony cases; others either allow depositions in "any criminal case" or in both felony and more serious misdemeanor cases. Depositions in these states supplement other forms of discovery.

The discovery rules in these states are consistent with rules in many other jurisdictions. If anything, these states' discovery rules tend to be less restrictive. Thus, depositions are not a substitute for other means of discovery. Depositions need not be used in every case to obtain adequate discovery because other avenues of discovery may be sufficient. Some of these jurisdictions specifically combine discovery of prior witness statements with the taking of the deposition.<sup>1</sup>

Due process does not require that a criminal defendant be given the right to take a deposition for discovery purposes. A refusal to permit the taking of a prospective witness's deposition does not violate a criminal defendant's constitutional right to have compulsory process to obtain a witness because a witness who is within the jurisdiction may be subpoenaed to appear at trial. Likewise, an inherent right to take depositions has not been granted by constitutional provisions granting a criminal defendant the right to examine witnesses for and against him on oath or provisions authorizing the state legislature to provide for the taking of depositions in criminal cases.

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<sup>1</sup>See, e.g., Vt. R. Crim. P. 15(d)(1):

The state shall make available to the defendant or his counsel for examination and use at the taking of the deposition any relevant written or recorded statement of the witness being deposed which is in the possession or control of the state and to which the defendant would be entitled at trial.

Also see Ariz. R. Crim. P. 15.3(d), stating that where a discovery deposition is allowed,

[a]ny statement of the witness being deposed which is in the possession of any party shall be made available for examination and use at the taking of the deposition to any party who would be entitled to it at trial.

## Authorization of Depositions

In some states, and under federal rule, a two-pronged materiality standard applies that permits a court to order depositions in exceptional circumstances and in the interest of justice to preserve testimony for trial. Under a state statute governing depositions in criminal cases, the burden is on the defendant requesting a deposition to establish necessity.

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Federal Rule of Criminal Procedure 15 authorizes the taking of depositions under certain circumstances in criminal cases. Unlike civil cases, depositions in criminal matters may be required only by court order and may not be used for discovery purposes. Rule 15(a)(1) permits a party to move for such an order only to depose its own witnesses, as opposed to those of another party. Such orders are granted only when, "in the interest of justice," the testimony must be taken and preserved before trial in order to cope with "exceptional circumstances."

### Topic 3: Notification of an Expert Before a Deposition

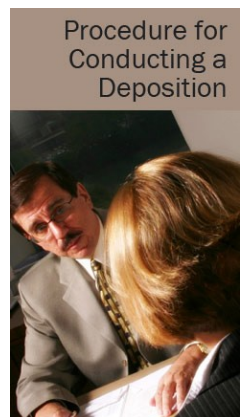


Agreement of counsel or court approval is usually necessary before the expert may be deposed.

Depositions may be taken either for discovery or in lieu of testimony in court because the expert witness is beyond the jurisdictional limits of the court's subpoena power.

Obtaining prior court approval for the expert's presence at deposition is a reasonable precaution. In some jurisdictions, such matters would be referred to local counsel, who would then determine whether the expert should attend the deposition.

### Topic 4: Procedure for Conducting a Deposition



Testimony is a way of conveying information from the expert as a specialized witness to the judge, jury or dispute resolution body that will decide the case.

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Deposition is a form of testimony under oath. At deposition, the expert may be asked questions by lawyers representing either side of the case. Most often, opposing counsel conducts the deposition and questions the expert. A court reporter may record the witness's answers in shorthand or on a stenographic machine, or the deposition may be videotaped for later transcription.

A deposition may last from 20 to 30 minutes, to several hours, to a day or more, depending on the:

- Complexity of the case.
- Complexity of the expert's role in the case.
- Degree of detail to which opposing counsel wishes to explore.

Generally, those present at a deposition are the attorneys for both parties, a court reporter, the expert witness and sometimes a videographer. The deposition examination is usually conducted by opposing counsel. Few, if any, questions are asked by the proffering attorney. The other parties are typically present only to observe. The proffering attorney is often silent, but he may interject, interrupt, offer caution, comment or object for the record, if and when appropriate.

Juries and judges are never present at a deposition. Because there is no judge present to rule on conflicts, even if the proffering attorney objects to a question, the witness must answer. Whether the answer can be used later at trial may have to be resolved through a subsequent motion.

The deposition setting is generally informal, scheduled in advance, and conducted in the presence of a certified court reporter. Recording by video, as well as stenographic transcripts, is common.

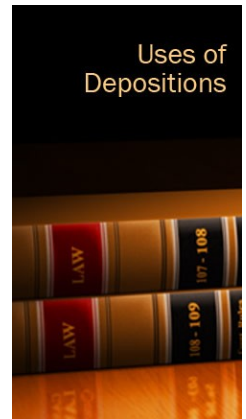
The deposition location is most often a law office conference room or the expert's place of work. The physical location is usually determined by counsel ordering the deposition and selected to accommodate experts and other witnesses as well as counsel. Depositions may take place in a predetermined hotel conference room, if that is agreed upon as more convenient for all parties.

Unless the deposition occurs at the expert's place of work, it will usually involve some degree of travel for the expert, either within the general area where the expert works and resides or sometimes out of town, depending on the location and jurisdiction of the proffering entity (city, county, municipality, state, federal).

The entire deposition proceeding is later transcribed and made available in hard copy form for the expert's review and approval. Changes to the deposition transcript should be made by the expert to correct transcription errors.

The expert may also be asked to assist the examining attorney at the deposition of opposing experts: by assessing their qualifications, capabilities and demeanor, and by framing questions for them. This assessment may occur at the physical deposition of opposing experts or, later, by reviewing their deposition transcripts.

## Topic 5: Uses of Depositions



Deposition transcripts may be introduced at trial as evidence. Practice varies in the use of deposition testimony in lieu of the witness testifying at trial and depends on whether it is a criminal trial (see confrontation clause) or a civil matter.

The attorneys may also make stipulations regarding the use of deposition material. The opposing party's experts will certainly read deposition transcripts of the other expert witnesses in preparation for their deposition as well as for trial.

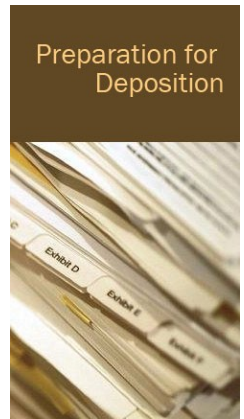
## Defendants' Access to Postconviction DNA Testing

The issue of whether the Constitution provides a sentenced prisoner a right to DNA testing independent of a state postconviction statute was largely but not entirely resolved in *DA's Office for the Third Judicial Dist. v. Osborne*, 129 S. Ct. 2308 (U.S. 2009). Although federal law and the law of 46 states provide for at least some access to postconviction DNA testing, Alaska did not. In *Osborne*, the Court declined to hold that an Alaskan sentenced inmate had a constitutional right to postconviction testing enforceable, under civil rights laws as a due process claim, *because*, as the Court majority concluded, Alaska's law provided sufficient procedures for presenting "new" evidence to satisfy due process concerns, procedures the majority contended that Osborne had not invoked.

## States' Postconviction Statutes

*Osborne* is a case of limited applicability. The Court majority's conclusion, that Alaska state law provided an avenue for Osborne to seek testing, did not answer the question of when a state postconviction statute might be unreasonably narrow, or strict in its conditions, so that the denial of access to evidence for DNA testing might violate federal constitutional rights. What is clear from *Osborne* is that any incarcerated person who wants postconviction testing must first attempt to use state law procedures before seeking relief in federal court under a claim of a denial of due process rights.

## Topic 6: Preparation for Deposition



## Documents and Materials the Expert May Bring to Deposition

Preparing for deposition should be a joint effort between the expert and the proffering attorney(s). If no attorney is available (which may occur), the expert should proceed on his or her own.

Before a deposition, the expert should meet with the proffering attorney to determine the likely focus and scope of the testimony and what documents, if any, the expert is expected to produce. These items might include:

- All documents relating to any communication between the expert and opposing counsel, including such items as engagement letters.
- All documents regarding communication relating to the engagement, including any communications with witnesses.
- All documents relating to any preliminary opinions or conclusions.
- All documents consulted or relied upon by the expert in connection with the engagement, including those that were used to formulate preliminary opinions or conclusions.
- All documents relating to the expert's educational, employment and professional history, and any other documents reflecting or relating to the expert's qualifications to testify.
- Copies of all professional articles that the expert has written, either individually or as a contributing author.
- All documents reflecting or relating to other cases in which the expert has testified, including any documents (including transcripts) that reflect the substance of the expert's testimony, the terms of the expert's engagement, the court in which the action was pending, or the outcome of the case.
- All other documents relating to the engagement, the opinions the expert expects to give, or the opinions the expert was asked to consider giving.

## Documents and Materials the Expert Should Review Before Deposition

Before the deposition, the expert should review and be familiar with the following information:

- Technical and fact data from the case.
- The expert's investigative and technical materials.
- Products of discovery, such as interrogatories, document production and other relevant depositions.
- All case-related materials including work product, tested evidence, laboratory reports and raw data.
- Standard scientific works relevant to the subject.



## Topic 7: More Specific Preparation for Deposition

In many respects, preparing for deposition is a mini-preparation for trial. The expert can expect to go through some of the same steps for both key testimony events. Rehearsing, by giving a practice deposition on videotape, can be useful and valuable. The attorney can drill the witness with practice questions.

The expert can benefit from observing physical mannerisms and the method of answering questions for purposes of self-improvement. Not every case warrants videotaped deposition preparation. However, for cases that do, the results of rehearsal and practice can be dramatic.

The expert should not attend a deposition without thorough preparation. The expert should study and review the guidelines and suggestions for deposition and trial testimony provided in Module 8: General Testifying Tips to help guide the deponent's performance.

### Checklist: Things to Do Before and During the Deposition

- Review the entire case file.
- Carefully check the accuracy of the final report or preliminary report (depending on which stage the expert is being deposed).
- Confer with the proffering attorney.
- Review guidelines for testimony, made available by the proffering attorney, the lab or other sources.

See Deposing An Adverse Witness in the Appendix.

### Advanced Preparation for Deposition

The five areas that the expert should be aware of for deposition are:

- Conversations conducted to prepare the expert for deposition may be discoverable.
- The lawyer who attends the deposition with the expert may not be able to instruct him about whether the expert can or cannot answer specific questions.
- If the expert has published or testified to something inconsistent with the current position, discuss this potential conflict with counsel in advance.
- The expert should be open to constructive suggestions from counsel about behavior, attitude and posture during testimony.
- Prior drafts of the expert's reports may be required to be produced, in some jurisdictions.

Other avenues of cross-examination may affect deposition. The deposition may be preceded by a required written report and a series of written interrogatories. A typical set of written interrogatories taken under Rule 26(b)(4) may be found in Module 7: Discovery, Topic 4 - Specific Tasks for the Expert and/or Appendix, Sample Interrogatories and Request for Production to Expert Witnesses).

Review these sample interrogatories to prepare for verbal deposition. The expert should be prepared to answer the same questions in writing or verbally. Examining counsel has the right to select any reasonable means of discovery. Written interrogatories may be used.

## Topic 8: Prior Writings and Testimony Contrary to the Case's Position

Before taking on an assignment, the expert should consider prior testimony tendered in trial or deposition. The expert should review all publications on the same or similar subjects as well, such as articles in books, technical journals and reviews.

The expert should compare the contemplated investigation, conclusion and testimony with the cross-examination effect that might occur if the expert has written or testified in a similar case that is contrary to the position being tendered. One of the major areas of deposition examination is to determine the extent of prior inconsistent writings or testimony by the expert. Opposing counsel will spend considerable hours and great effort in uncovering inconsistent prior testimony or writings, which can then be used to impeach or discredit the expert as a testifying witness.

### Organizing Prior Writings and Testimony

It is difficult to remember everything one has said or written in the past. To help remember, the expert should devise and maintain a reliable system for categorizing all prior testimony and writings. Always consult these records at the outset of a potential assignment. This system can avoid professional embarrassment to the expert, a destructive effect on the case, and the potential of legal liability for nondisclosure.

Ways to organize prior publications include listing by:

- Case name.
- Location of property, evidence or event.
- Description of the evidence-testing event.
- Date of event.
- The general or specific area of expertise involved.

The expert's system should include:

- All reports rendered.
- All articles and books written and published.
- Transcripts of all of the expert's depositions and trial testimony.

Extensive cross-indexing when the matter is fresh in the expert's mind, such as immediately after the deposition or trial testimony, will prove useful later.

### Maintaining Credibility

An expert's most valuable asset is the expert's credibility. The expert should never exaggerate qualifications, experience, or any other items on the curriculum vitae. Similarly, all relevant information pertaining to an expert's history should be included in the curriculum vitae. Omitting information can diminish an expert's credibility just as much as exaggerations. Experts should remember that professional qualifications are easily verifiable. A thorough and honest curriculum vitae can be used as a defense against opposing counsel's attacks; conversely, a curriculum vitae with omissions or exaggerations can be used to impeach the expert's credibility.

## **Topic 9: Exercising Caution About Opinions, Omissions and Responses at Deposition**

During a deposition, the expert should be presented as an expert only in the expert's field of expertise. An expert's training and experience will be carefully examined. Exaggerations or deficiencies can minimize the value of any testimony about the subject at hand. An expert should advise counsel to seek additional experts if the expertise is not adequately comprehensive for the case or subject matter for which the expert is being consulted or retained.

The expert should remember that theories and opinions are only as valid as the facts upon which they are based. Therefore, the expert should be prepared to identify every document, note, memorandum, research study, evidence test result, photograph and transcribed conversation that was used in rendering his opinion.

Frequently, an expert will render an opinion at the deposition. When asked what facts and/or professional tests or publications were relied upon to render such an opinion, the expert may tend to abbreviate the response or may forget items.

At trial, the expert will be asked for the opinion and what items were relied upon to render the opinion. If the trial response differs from the deposition response, the expert can explain that such omissions of material facts were due to the expert's summarization or an honest memory lapse at the deposition.

These omissions may lead to an expert's impeachment at trial, however, and are better avoided. A preferable response is to answer questions completely during deposition, avoid summarizing for the sake of brevity (unless instructed to do so by the proffering attorney), and be so well-prepared that no memory lapses occur regarding important items.

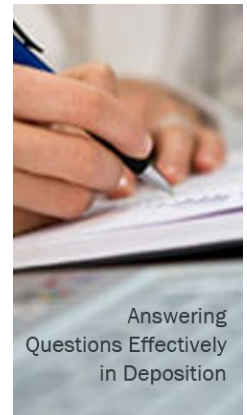
The expert's opinions may be sound, but if they cannot be supported by identifiable, admissible evidence and test results based upon facts developed in the case, the expert's theories may be rejected by the jury and limited by the court. At deposition, an expert may also be asked to render additional opinions that have not been previously provided or for which the expert may be inadequately prepared. The expert should discuss this possibility with counsel before the deposition. The opinion rendered before the deposition was probably based on evidence testing and a review of reports, facts and relevant scientific literature and was provided only after thorough review and with due consideration. The expert should never feel pressured to render an opinion if not prepared to do so or if not fully informed on the facts and evidence.

The expert will most likely be asked by opposing counsel what communications the expert had with counsel before the deposition. This is not unusual, and the expert should prepare for this question with counsel in advance so that the answer betrays no awkwardness.

Despite an expert's background and knowledge, there is no obligation to educate the deposing attorney about the subject matter of the case or litigation. The expert should answer the attorney's questions directly and succinctly without volunteering information.

If the attorney neglects to ask certain questions about specific areas during the deposition, the expert is not precluded from testifying about those areas later. Direct examination at trial is the proper place for the expert to address key areas that may have been ignored (intentionally or unintentionally) during deposition.

## Topic 10: Answering Questions Effectively in Deposition



Some examples of good and bad answers to deposition questions will help the expert prepare and hone the expert's ability to respond more effectively. The following are **poor answers** in this deposition involving a personal injury civil dispute:

### **Example 1:**

*Question:* Mr. Witness, please state your name.

*Answer:* My name is Harvey Doright. I live at 1224 Main. My phone number is (707) 333-8811. My consulting company is known as Doright Consulting.

*Comment:* The witness has violated several cardinal rules of deposition examination, right from the start:

- He did not listen carefully to the question he was asked.
- He answered the direct question he was asked and then continued talking.
- He responded with much more information than he was asked to provide.
- He tipped off the opposing counsel that he will probably continue to listen carelessly to further questions and respond with excessive detail — all to the possible detriment of the case.

### **Example 2:**

*Question:* Did you inspect the parking lot?

*Answer:* I did, and I will tell you there is no way that the parking lot complies with the Uniform Building Code, the architect's design, or the National Safety Council requirements.

*Comment:* The correct answer would have been "Yes." Mr. Doright's answer opens up a whole series of questions about what items and evidence he may (or may not) have examined. In his desire to be the consummate expert, Mr. Doright tries to tell all that he knows. If he had not disclosed the three items on which he relied, examining counsel might never have asked about them. As a result of this answer, opposing counsel may pursue further avenues of questioning regarding these three items for which Mr. Doright may be insufficiently prepared. If it were shown that the three items did not support Mr. Doright's conclusion, some back-pedaling would then be required at trial.

### **Example 3:**

*Question:* Mr. Doright, do you have an opinion as to why Mrs. Smith fell in the parking lot?

*Answer:* Yes, I do. She fell because the concrete parking bumper she tripped over was not painted the required color. It was dark between the cars, and she had her arms full of groceries. She followed her daughter into the parking lot. The daughter stepped over the parking bumper. Mrs. Smith failed to see the concrete bumper, tripped, and fell. There is absolutely no question in my mind that failure of the store to paint the parking

bumper yellow was the direct cause of the fall.

*Comment:* Mr. Doright has done quite a number of things wrong here. The correct answer is simply "Yes." Instead of just answering the question with a simple "yes," he proceeded to explain everything he knew about the subject. Each separate piece of information he volunteered constitutes a trail for the skillful examiner to follow. Any of these now-additional lines of questioning could lead to further testimony that might question or discredit the expert's opinions, conclusions, and methodology and create reasonable doubt.

The next thing the witness did wrong was to state his opinion in absolute terms. He forgot that anything is possible. He also forgot that all he has to state is his opinion based upon a probable cause, not an absolute one. He also opened up the defense of contributory or comparative negligence by noting that Mrs. Smith failed to see what her daughter clearly saw.

**Example 4:**

*Question:* Is it possible, Mr. Doright, that you've made a mistake in your opinion?

*Answer:* Absolutely not, and I resent you even suggesting that idea. I did my work. I made my measurements. I studied everything there was to study. I've been in this field for 35 years. Young lawyers don't know anything. I don't know why I have to stand for these insulting and insidious innuendoes.

*Comment:* Mr. Doright has now violated several more rules of good testimony procedure. He has lost control, allowed himself to get angry with the attorney, insulted him, and suggested his own infallibility. In all respects, he has done no service to himself or his case.

The following are examples of **better answers** to the questions that the examining counsel asked Mr. Doright. After proper preparation and some video practice and rehearsal, Mr. Doright becomes a much improved witness.

**Example 1:**

*Question:* Mr. Doright, do you have an opinion as to why Mrs. Smith fell?

*Answer:* Yes.

**Example 2:**

*Question:* On what do you base your opinion?

*Answer:* Could you clarify that question?

**Example 3:**

*Question:* What is the basis for your opinion?

*Answer:* My investigation of the case.

*Comment:* At this point, examining counsel has a choice. The answer can either be accepted or probed further. A good examiner would probe further, but if it is getting late and the witness seems to be in control of the examination, the attorney may move on to something else. That would be beneficial to Mr. Doright's case and his position as a testifying expert. He can tell all that he knows at trial but not at deposition.

**Example 4:**

*Question:* Mr. Doright, in light of all the circumstances of this case, and with a view toward your testimony at the time of trial, just what is it that you are saying, and how do you explain your position at this time?

*Answer:* I don't understand your question; it is really two questions.

**Example 5:**

*Question:* Which part did you not understand?

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*Answer:* If you could break the question down into separate questions, I'll try to answer each one as accurately as I can.

*Comment:* This shows that Mr. Doright understands the process of complex and compound questions. Numerous questions, some of which were vague and unclear, were built into the attorney's long and rambling question. Doright did right by politely asking the attorney to break the question down into separate parts.

### **Example 6:**

*Question:* Mr. Doright, did you talk with anyone about your testimony before coming into this deposition room today?

*Answer:* Yes.

### **Example 7:**

*Question:* Who did you talk to?

*Answer:* I talked to the attorney who engaged my services.

### **Example 8:**

*Question:* What did he tell you to say?

*Answer:* He told me to be truthful with you in all respects.

*Comment:* The attorney will have little success with this question-and-answer exchange. He should move on to something else. From that response, Mr. Doright has done right again and has been truthful and honest in his answer.

### **Example 9:**

*Question:* Mr. Doright, what do you think could have been done to remedy this parking lot situation?

*Answer:* Are you asking for my opinion?

### **Example 10:**

*Question:* I want to know what you think.

*Answer:* My opinion is that, in all probability, standard lighting and painting would have avoided the situation.

*Comment:* The attorney is trying to obtain a guess or speculation. Mr. Doright, sensing that trap, persists in rendering his opinion. In trial, that opinion will be enhanced and embellished on the basis of reasonable scientific and technical probability.

### **Example 11:**

*Question:* Mr. Doright, are you absolutely certain the parking bumper was not painted yellow at the time of Mrs. Smith's fall?

*Answer:* I'm reasonably certain that was the situation.

### **Example 12:**

*Question:* Isn't it possible that the paint wore off between the time of her fall and the time of your inspection?

*Answer:* Many things are possible, sir, but in my opinion, that did not occur here.

*Comment:* The attorney is attempting to lock Mr. Doright into an absolute position, knowing that given the rules of human conduct there are few absolutes. Because the witness framed the answer in terms of his investigation and reasonable probability, he avoids the trap.

**Example 13:**

*Question:* Is it not true, Mr. Doright, that part of the responsibility for this fall must be squarely placed on Mrs. Smith for not having watched her step?

*Answer:* If I am not mistaken, that decision is not for me to make.

*Comment:* Here, Mr. Doright has shown his careful preparation of the case and his recognition of the legal principles involved. His field of expertise and technical examination does not extend to the ultimate weighing of comparative fault or contributory negligence. He knows that matters of the claimant's contributory or comparative negligence are jury questions and not for determination by the design-and-construction expert.

**Example 14:**

*Question:* Is it correct that the amount of light available at the site of Mrs. Smith's fall is measured by your guesstimate?

*Answer:* No, that is not correct.

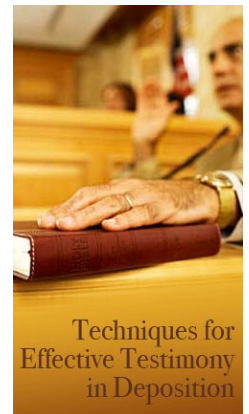
**Example 15:**

*Question:* Well, how is the light measured?

*Answer:* By use of standard test equipment that measures light intensity in terms of candlepower.

*Comment:* At this point, Mr. Doright is tempted to, but did not go into, techniques of measurement, description of standardization equipment, recognized scientific procedures, methods by which lighting was tested, or precautions he took to make sure the test was done at the same time of day that Mrs. Smith fell. If examining counsel wishes to go into those items, he will. If not, the matter is best left for sponsoring counsel to explore at trial.

## Topic 11: Techniques for Effective Testimony in Deposition



The expert's deposition examination may well follow the general content of Module 7: Discovery, Topic 4 and Appendix — Deposing an Adverse Witness, although the degree of detail may vary, depending on the deposing attorney's objectives and inclinations. This format is not applicable in every case, but the following general guidelines are:

- The papers and materials the expert uses to refresh his memory before or during testimony may be ordered to be produced. Revealing these documents, one at a time, may be best:
  - ◆ If the expert has not been subpoenaed to produce documents, or
  - ◆ If the expert's report was provided to opposing counsel ahead of time. Reviewing each document jogs the memory.
- The expert should not hesitate to ask for a recess if questioning seems intentionally tiring, or if the

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questions appear to be coming too rapidly. A short recess and stretch may allow the expert to feel more refreshed and focused.

- Remember that any discussions the expert has with counsel during the recess may be inquired into by the examining attorney when the deposition resumes. For that reason, the expert should not discuss inconclusive evidence, facts or hypotheses in dispute with counsel during recess consultation.
- It may be appropriate and proper for the expert to have his own attorney attend the deposition, in case inquiries are made into other clients' confidential matters about which the expert is prohibited from disclosing.
- The deposition room represents a "full court press." There should be no off-the-record or informal discussions with proffering counsel. Such conversations are a trap for the unwary and inexperienced expert. When the deposition is concluded, the expert should not ask the proffering attorney how the expert did. The expert will learn soon enough.
- The expert should gauge the method and manner of approach of the examining attorney early in the deposition process. Is the approach aggressive and tenacious? Does he play "Mr. Nice Guy" to the hilt with the expert? The expert's early analysis will be important, for both deposition and trial. The opposing attorney might vary his style to throw the expert witness off balance. Be alert to such changes in demeanor; they may signal an attempt to trip or trap the expert by creating a false sense of security.
- The expert should treat everyone at the deposition politely. Jokes or flippant comments are inappropriate. Maintain a professional demeanor at all times but do not appear cold.

Part of the expert's effectiveness will be measured by his ability to anticipate what the cross-examination may entail. Deposing an Adverse Witness (Appendix) can help the expert practice and prepare for almost any eventuality.

At some point after the deposition, a transcript should be made available for the expert to review. The expert should make the minimum number of corrections or changes possible because any changes he makes can become the basis for cross-examination at trial. An important "yes" when the expert should have said "no" will probably be a target for the opposing counsel.

The expert should always consult with counsel for an explanation of the possible implications of any changes in the transcribed deposition testimony. After examining the transcript, the expert will be asked to sign an affidavit that approves the transcription as written, or with modifications.

If the expert does not examine the transcript, then most local rules provide that the deposition may be filed without the expert's signature, with approval being assumed. Therefore, the expert should always review the transcription for transmission or typographical errors.

## Topic 12: Inside Information About Attorneys for Expert Deponents





It may be helpful for the testifying expert to have some inside knowledge about how attorneys prepare and conduct their depositions. Prior to the deposition of an opposing expert, the deposing attorney will often:

- Subpoena all documents in the expert's possession relating to the matter at hand.
- Obtain copies of such documents far enough in advance of deposition to permit review by the lawyer and consultants, possibly including opposing experts.
- Obtain a biographical sketch of the expert and check its accuracy.
- Prepare an outline to use as a guide during deposition.

Expert witnesses should not underestimate a deposing attorney's knowledge. The properly prepared deposing attorney will have read other experts' materials on the subject matter, reviewed reports and correspondence, communicated with the other party's experts, and anticipated the theories that will be introduced in the deposition.

The deposing attorney is likely to have prepared carefully for the deposition, and the testifying expert should do the same. This may include re-reading relevant articles, books and publications that the expert authored as well as reviewing the expert's deposition testimony in other cases. The deposing attorney frequently obtains such information before a deposition. Perhaps the most damaging evidence to impeach an expert's credibility is the expert's own authored publications or his or her deposition testimony in other cases.

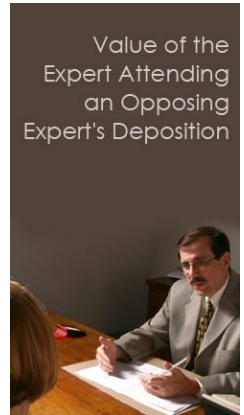
Before a deposition of the expert, the proffering attorney may:

- Review the expert's files and work papers.
- Inform the expert of the purpose of the deposition.
- Instruct the expert to answer honestly and concisely but not to volunteer information.
- Inform the expert of the meaning of objections raised during the deposition.
- Convey the importance of the instructions and suggestions the lawyer may make to the expert during the deposition.
- Inform the expert of the importance of a careful review and correction of the deposition transcript, within the allotted time, before signing it.

During deposition of an opposing expert, the deposing attorney will often:

- Strive to maintain a noncombative atmosphere in order to maximize results.
- Restrain the normal cross-examination approach to maximize learning new information while revealing as little information as possible to the expert and opposing counsel.

## Topic 13: Value of the Expert Attending an Opposing Expert's Deposition



The expert may be asked to attend the deposition of an opposing expert. Following are some preparatory steps the expert should take to maximize the value and effectiveness at the deposition of an opposing expert or adverse party. The expert should:

- Survey applicable literature.
- Examine available reports of the evidence testing and any other relevant events.
- Complete the preliminary examination.
- Find out the proffering attorney's objectives for the deposition.
- Outline areas of inquiry the expert thinks the attorney should follow.
- Examine the preliminary report to identify which areas are still unclear or unresolved, and suggest how the deposition responses could help provide answers.
- Learn as much as possible about the opposing expert.

If the expert is present at the deposition of the opposing party or their expert, the expert can assist the proffering attorney in a number of ways. The expert should keep the following guidelines in mind at such times:

- Observe all of the attorney's admonitions.
- Take notes.
- Do not confer with the attorney during examination; instead, wait for an appropriate break.
- Carefully observe the witness's demeanor and make appropriate notes.
- Observe what items are kept available to refresh the witness's recollection.
- Note possible areas of further inquiry.
- Try to determine the outline being followed by the examining attorney.
- Write a summary memo of all of the notes shortly after the deposition, when impressions are still fresh.
- Use the deposition as a tool to help the expert become a better witness. The ability to respond to questions will be improved by observations of the opposing expert.

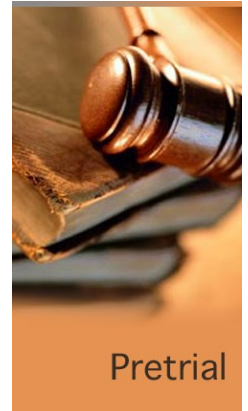
## Module 10: Pretrial

## Learning Objectives

After completing **Module 10: Pretrial**, the user should know:

- The legal procedures that can occur before the trial and that potentially involve the expert.
- The difference between discovery production, motion to compel and disclosure hearings.
- The parameters of motions *in limine*.

## Topic 1: Pretrial Summary



Before trial, the expert will assist in preparing exhibits and demonstrative charts, tests and documents. Any demonstration should be tested before the trial or hearing.

Trial exhibits should be shown to opposing counsel in advance of trial, and either stipulation or court order approval should be obtained. These are easy ways to guarantee the admissibility of a key chart, exhibit, document or demonstration.

It is proper for the expert to ask the proffering attorney if these details have been satisfied. It is very disappointing if the expert prepares costly demonstrations or exhibits and they are rejected at trial because of inaccuracy or lack of foundation.

Exhibits and demonstrations must be accurate and technically correct. To be admissible, demonstrations must be substantially similar to the subject under litigation.

The expert, the attorney, and any other experts who will be testifying should be present at a final pretrial conference of experts. At this conference, all weaknesses in the case should be exposed and all strengths of the opposition should be examined. All testifying experts should coordinate testimony among themselves. A recalcitrant expert can be identified at this time. Inconsistencies in expert testimony should be disclosed.

This pretrial conference is a dress rehearsal for trial. Experts and attorneys should be brought to the peak of performance, using video or audio monitoring if necessary to identify flaws, weaknesses and idiosyncratic behavior.

Unnecessary exhibits and testimony should be eliminated before trial. The expert's calculations should be rechecked. Data should be summarized whenever possible. Raw data may be available in the courtroom, but the expert should refer to summaries for voluminous documents or other materials. New rules of evidence allow this use of summary data:

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The contents of voluminous writings, recordings, or photographs which cannot conveniently be examined in court may be presented in the form of a chart, summary, or calculation. The originals, or duplicates, shall be made available for examination or copying, or both, by other parties at a reasonable time and place. The court may order that they be produced in court. (Source: Federal Rule of Evidence 1006: Summaries.)

The large amount of evidence testing and raw material the expert may have evaluated before trial can enhance the weight of testimony. The data from which summaries are made must in all cases be available for examination by opposing counsel. Good practice dictates that such information be available well before trial and also be present in court for examination.

Preparation for trial is somewhat different from preparation for deposition. The attorney should explain to the expert the objectives of testimony and describe the physical setting of the hearing room or courtroom in detail, including positioning of the parties, the attorneys, and the judge and jury.

The attorney should outline the functions of the witnesses, attorneys, jury or other fact finder. In the absence of an outline, the information in this module will sufficiently prepare the expert for trial.

## Topic 2: Pretrial Conference



The expert witness should be aware that the following legal events may occur before the trial takes place. Consult with the retaining attorney regarding the outcome of any legal procedures and the possible effect on the expert's testimony. Well before the trial, the attorneys usually meet with the judge to discuss the possibilities of resolving the case or reaching a settlement, which is followed by several events that determine how the trial will be scheduled and conducted. These events are referred to as the pretrial conference.

During the pretrial conference, the parties clarify the issues in dispute and begin to set parameters for the admissibility of evidence. A certain type of motion, called a motion in limine, may be submitted to the judge during the pretrial proceedings to limit the admissibility of evidence. (This motion may also be brought during trial.)

The motion *in limine* requests that certain types of evidence not be allowed at trial, for various prejudicial, irrelevancy or constitutional reasons. Before the trial, the judge rules on these pretrial motions to determine whether the evidence in question will be admissible during the trial.

## Discovery Production

The purpose of discovery proceedings is to obtain all of the evidence relevant to the case and to allow all parties to have equal access to this evidence. Discovery of information and evidence is traditionally conducted by interrogatories, depositions and requests for production.

## Admissibility

Admissibility refers to the determination of whether evidence will be allowed at trial.

Although any information that tends to prove or disprove an issue in a case is referred to as evidence, not all evidence is admissible. Challenges to evidence, though the evidence may be true and relevant to the issue at hand, can be raised before trial begins. These challenges may result in evidence being ruled as inadmissible or excluded from trial.

Challenges to exclude or limit the admissibility of evidence are known as evidentiary challenges. Evidentiary challenges raised before the trial begins are called pretrial motions.

## Topic 3: Pretrial Motions



### Motion to Compel Discovery

A motion to compel discovery occurs when a party does not comply with discovery requests or requirements. The other party may make a motion to compel, asking the court to issue an order compelling the noncompliant party to answer the discovery. If the court determines that the party has failed to comply, then the court will order the party to produce the evidence, testify or respond to the interrogatory.

## Disclosure Hearing

Disclosure hearings are court-ordered conferences convened to ensure that the case will continue moving toward trial and meet the needs of the case and of the parties.

During an initial discovery conference, the parties normally meet informally to prepare a discovery plan:

1. To identify the legal and factual issues toward which discovery will be directed.
2. To establish a schedule and deadlines for all aspects of discovery.

Further disclosure hearings are convened to ensure that discovery is proceeding according to the agreed-upon plan and to settle any disputes that may arise.

## Motion to Suppress

A party may move to suppress the use of a piece of evidence, an expert or a deposition. This motion is normally made if the use of the person or object under question would be invalid or would cause prejudice that would outweigh its value in court or to the jury.

Motions to suppress evidence are generally based on constitutional grounds, citing that the evidence, though relevant, was obtained improperly. The constitutional grounds, primarily applicable in criminal actions, help ensure three key provisions:

1. Ensure the safeguards of due process.
2. Preserve limitations on self-incrimination.
3. Provide protections against unreasonable search and seizure.

A potential for prejudice by the jury is often determined by observing an error or irregularity. The motion to suppress must be made promptly after the error or irregularity is noted. The burden of proof rests on the moving party to prove the need to suppress the item of evidence, the deposition or the expert.

This means that the moving party must persuade the court that the value of the evidence is outweighed by the prejudice caused by introduction of the item. If the burden of proof is met, then the court will rule to exclude the evidence before the trial begins.

## Additional Evidence Testing

Scientific evidence is highly technical by nature. It requires an expert witness with a specialized knowledge to interpret the scientific technicalities and establish a baseline understanding for the trier of fact.

If a testing procedure or piece of evidence is challenged, then the expert witness is called to evaluate the challenges to both the testing and the results.

## Chain of Custody

The chain of custody should be maintained at all times by all laboratories with access to the evidence.

The chain of custody is a recorded means of verifying where the evidence has travelled and who handled it before the trial. The reason for establishing a chain of custody is to prevent substitution of, tampering with, mistaking the identity of, damaging, altering, contaminating, misplacing or falsifying the evidence.

This principle and procedure creates legal integrity of the evidence. The chain of custody verifies both the legal integrity and the authenticity of all evidence. Without proof of an intact chain of custody, the evidence may be excluded from trial or afforded less weight by the trier of fact.

All laboratories that have access to the evidence must maintain accurate accountability of the chain of custody. It is best for the laboratory to keep the evidence in safe, properly controlled storage facilities and to limit the number of people who come in contact with the evidence.

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Throughout the collection, handling, testing and storage procedures, strict protocols must be followed to ensure that the evidence remains verifiable in terms of authenticity and integrity. Each person that handles the evidence must be identified, and all periods of custody must be properly accounted for and recorded.

Failure to establish identity, authenticity, legal integrity, and a complete chain of custody for any item of evidence that passes through the laboratory may result in exclusion of the evidence or a limiting instruction to the jury regarding how to weigh the testimony.

For more on chain of custody issues, see [Module 1: Sources of Scientific Evidence, Topic 2: Testing or Evaluating Evidence and Writing Reports](#).

### **Retesting by the Offering Party**

If it is determined that the results of the original testing are inconclusive or irresolvable, then additional testing may be completed by the offering party.

### **Independent Testing**

In some cases, the defense may request independent testing to be completed by a third-party laboratory. In most cases, the court would need to approve the request and allocate the funds for testing.

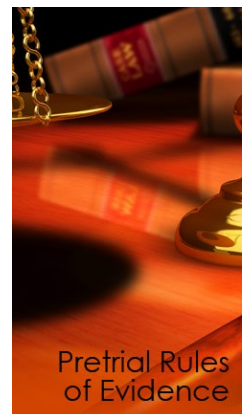
### **Replicate Testing**

If adequate evidence remains and resources allow, the opposing party may complete replicate testing of the original results.

### **Additional Testing by the Opposing Party**

The opposing party may conduct additional testing based on the results of the tests completed by the offering party.

## **Topic 4: Pretrial Rules of Evidence**



The Federal Rules of Evidence state that evidence should be admitted if it is helpful, reliable, trustworthy, and assists one party or the other in proving or disproving an issue in a case. The purpose of the Federal Rules of Evidence is to secure fairness, eliminate unnecessary expense, and assist in the just determination of disputes

(Federal Rule of Evidence 102).

Objections to the admission of evidence must be made in a timely fashion. Specific grounds for the objection must also be stated (Federal Rule of Evidence 103).

An offer of proof should always follow the court's ruling on exclusion of tendered evidence (Federal Rule of Evidence 103). Preliminary questions concerning qualifications of a person to be a witness, the admissibility of evidence, or the existence of a privilege are to be determined by the court. A party may always produce relevant evidence dealing with the weight of testimony or the credibility of witnesses (Federal Rule of Evidence 104).

## Relevance

The relevance of evidence is the tendency to make the existence of a fact more probable or less probable than it would be without the evidence (Federal Rule of Evidence 401).

Evidence that is relevant is admissible unless prohibited by law. Evidence that is not relevant is not admissible (Federal Rule of Evidence 402).

A critical rule in trial practice allows the court to eliminate evidence that might be relevant if its value is outweighed by dangers of prejudice, confusion, being misled, or tending to delay, waste time or be cumulative (Federal Rule of Evidence 403).

## The Frye "General Acceptance" Standard

The prior long-held standard for scientific evidence and expert witness testimony was determined in 1923 in the landmark *Frye* case (*Frye v. United States*, 54 App. D.C. 46, 293 F. 1013). Under *Frye*, methods used by the expert witness had to gain "general acceptance" within the scientific community. A longstanding concern over the standard established in *Frye* has been that new methods, findings and testing procedures could be excluded if they have not yet achieved "general acceptance" status within the relevant field.

## Daubert and Kumho Decisions

The standard that changed the admissibility criteria set forth in *Frye* was the 1993 decision in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579; 113 S. Ct. 2786 (1993). In this landmark decision, the U.S. Supreme Court established a new standard by determining that the Federal Rules of Evidence assign the trial judge the role of gatekeeper, which allows the judge broad discretion in determining the admissibility of all scientific evidence into the courtroom.

The judge, as gatekeeper, may rule to admit expert testimony that rests on a reliable foundation and is relevant to the inquiry at hand by considering such factors as whether:

- The subject of testimony is falsifiable or testable.
- The testimony is derived from techniques with known error rates.
- The testimony has been subjected to peer review, and whether the testimony is generally accepted in the relevant scientific community.

In addition to relevance and reliability, the decision in *Daubert* also established general factors based on the Federal Rules of Evidence and is meant to assist the judge. Pertinent evidence based on scientifically valid



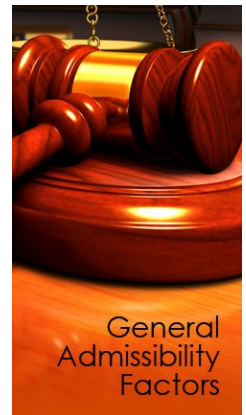
principles will usually satisfy those factors. "Guestimates" and speculation will not.

The current trend in federal courtrooms, based on the U.S. Supreme Court decision *Kumho Tire v. Carmichael*, is to allow expert opinion when the trial judge finds that the testimony is relevant and reliable, is based on principles set forth in *Daubert*, or meets any other set of reasonably reliable criteria. The rules in some state courts may differ.

For more on *Daubert* and *Kumho Tire* and their importance to testifying experts, see [Module 3: Importance of Case Preparation, Topic 3: Preparation: Qualities of an Effective Expert.](#)

Also, see "Expert Testimony in the Wake of *Daubert*, *Joiner*, and *Kumho Tire*" by Sidney W. Jackson, III. <http://www.crcnetbase.com/doi/abs/10.1201/9781420051636.axh>

## Topic 5: General Admissibility Factors



*Daubert* enumerated several factors that the court can consider when determining the reliability of evidence. The court made it clear that this list was not exhaustive and that not every factor need be considered in every case.

## Testing Methodology

The methodology and reasoning of the scientific technique or theory must be relevant to the specific case. The testing methodology will only be accepted if it is applicable to the particular facts of the case, and if the theory or technique has been or can be tested.

## Qualifications of the Expert

The credentials of the expert witness may be challenged before trial to determine whether or not the expert is qualified to give testimony on the relevant topic(s) at issue.

## Peer Review

In determining the scientific validity or reliability of a piece of evidence, the court looks to peer review standards for guidance. Determine whether the particular technique or theory in question has been subjected to peer review and publication and has been validated.

## Error Rates of Techniques and Laboratory Testing

When determining whether the evidence has scientific validity, it is important to show the known or potential rate of error for the technique.

The laboratory must maintain standards for controlling the technique or application of the theory.

## General Acceptance

General acceptance, the main criterion for assessing scientific admissibility under *Frye*, is also addressed in *Daubert* as one of several factors a judge considers when deciding whether to admit expert testimony.

## Evaluation and Use of Visual Aids

Using visual aids often allows the expert or other parties to communicate more effectively with the judge and jury. The opportunity and necessity for this type of courtroom technology should be evaluated for each case.

Presentation software can:

- Enable the court and jury to better retain visual information.
- Engage the audience in technical or factual details.
- Create a more persuasive and effective argument.
- Graphically depict concepts such as non-exclusion and statistical error in DNA cases.

Visual technology and displays can create:

- Illustrations of scientific results.
- Schematics of mechanical evidence.
- Diagrams of crime scenes.
- Medical models of procedures or physiological injuries.

The court must grant permission for these types of demonstrative aids to be used in the courtroom.

For more on visual aids and their use and opportunities, see [Module 3: Importance of Case Preparation, Topic 10: Visual and Demonstrative Aids.](#)

## State Standards for Admissibility

Individual states may have additional standards for the admissibility of evidence. Some states apply *Daubert* admissibility standards, some states continue to follow *Frye*, and still others have applied other combinations of admissibility standards.

The expert should consult with the proffering attorney to ensure that any applicable state standards for the case are clearly understood.

Although states may differ on admissibility rules, the standards as set forth in *Daubert* are mandatory for cases in federal courts.

For more on admissibility issues, see [Module 3: Importance of Case Preparation](#), [Topic 10: Visual and Demonstrative Aids](#) and [Topic 14: Rules for Experts](#); [Module 7: Discovery](#), [Topic 8: Discoverable Information](#).

## Topic 6: Final Trial Preparation

The issues surrounding a matter set for litigation becomes clearer during the final stages of trial preparation. This is true whether the case is tried for a day or a month. The final status conference between the expert witness, any other witnesses and the attorney serves to further clarify the issues.

Experts sometimes meet with other experts before the trial. Final trial preparation assistance can come from other experts and the attorney who engaged the expert. Other professionals and the expert's own observations and reading should answer most questions about final preparation for trial.

### Final Status Conference

A final status conference between the experts and the engaging attorney before trial provides the following benefits:

- The expert meets the other experts in the case.
- All of the experts review their findings together to ensure that their conclusions do not conflict.
- Any inconsistencies in findings, conclusions or methodology are exposed.
- Each expert can explain or practice the use of courtroom charts, drawings, models and demonstrations.

Counsel usually sets the time and place for the final status conference. If the attorney does not suggest a conference, the expert may do so. Such conferences should take place in person rather than by telephone. Every effort should be made to have all experts and attorneys present.

The conference allows each expert to encapsulate the presentation. Given a summary of each expert's assignment, processes and conclusions, the forensic analyst can integrate the information into the results and conclusions.

The expert should approach this session with an open mind and a thick skin. If any errors or mistakes have been made, it is far better for them to be exposed at the final status conference than in the courtroom. If errors in the expert's process or methodology are found, the expert should admit them and correct the work.

All prior considerations and observations about confidentiality apply to the final status meeting. Although the discovery phase is probably over by the time of the conference, the opposition may attempt to probe for disclosures at the meeting.

To enhance confidentiality, all materials and information about the meeting should be labeled as attorney work products, if appropriate. Whenever possible, all information at the conference should be couched in terms of the attorney's thought processes in preparation for trial. Any memoranda generated for the use of experts should be labeled as such.

The final status conference is an exercise for the benefit of the experts and for gauging the attorney's thought processes and trial preparation effort. Several precautionary steps should be followed, on the assumption that matters discussed at the final status conference might be discoverable during trial or through subsequent discovery. The expert should:

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- Test statements for courtroom disclosure.
- Ask whether statements would sound appropriate if they were disclosed while on the witness stand.
- Determine whether the assistance received from other experts at the status conference is that customarily used by experts in their investigative processes.

In other words, if the expert receives help from other experts at the final status conference, the expert should accept or request such assistance in customary terms of professional, technical or scientific consultation. In that way, under the Federal Rules of Evidence, it is possible that the inquiry would be treated as proper and would not have to be disclosed. If disclosed, the data would be considered a professionally proper consultation.

## Proceeding to Trial Without a Final Status Conference

The expert can complete the final preparation for trial without a formal conference by taking the following steps:

- Review the case file.
- Ensure that graphic displays, models, drawings, charts and diagrams are in proper order and complete and that all visual aids are self-explanatory.
- Ensure that the final report is complete and accurate. Check it for incorrect calculations, typographical errors and omissions. All attachments should be in place and every page should be legible.
- Explain the assignment, the testing process and the conclusion to someone who is unfamiliar with the case. Encourage this listener to ask questions. Can the expert explain, describe and demonstrate everything he was asked to do, how it was done, and what was found in the process?
- Present the findings and conclusions to other lab peers or staff. The expert will find that telling the story in court will be easier if the expert has already presented it to an audience. Timing, pacing, rhythm, clarity of statements and documentation are all enhanced by such a practice session. The expert should be especially receptive to the comments of the audience.

## Other Sources of Help

Other steps toward being a more effective expert witness:

- Visit a mentor — a former college professor, lab director, first or previous employer — someone who has assisted the expert in developing his career. Describe the case and discuss possible strategies.
- Talk to others in the field about possibly troublesome areas in the case.

## Topic 7: Final Trial Preparation Checklists



Create trial preparation checklists with or without assistance from counsel.

A. Preparing *With* Assistance From Counsel.

1. Focus on a trial theme.
2. Decide the order of proof (see Topic 8, Useful Steps for Self-Preparation Appendix, Step 1).
3. Practice and refine testimony.
4. Re-examine tangible evidence.
5. Obtain preapproval of demonstrative materials and visual aids.
6. Stage the testimony:
  - a. Confirm time and place for testimony.
  - b. Establish order of presentation.
  - c. Determine movements around the hearing room.
  - d. Determine what tools, devices or equipment will be needed.
7. Review the discovery.
8. Anticipate any evidence problems.
9. Translate any technical terms.
10. Structure and organize the testimony.
11. Consider the audience and venue.
12. Meet with the other experts and the attorney(s).
13. Consider practical matters.
  - a. Use appropriate dress and demeanor.
  - b. Transport all needed materials, visual aids and equipment to court.
  - c. Ensure in advance that all equipment works properly.
14. Anticipate the opposition's plans and questions.
15. Read and review testimony tips (See Module 8: General Testifying Tips).
16. Remember the expert's **role**:
  - a. **R**elax.
  - b. Be **O**pen.
  - c. **L**isten carefully and lean forward.
  - d. Keep your **E**yes on the questioner and the intended audience (judge or jury).

B. Preparing *Without* Assistance From Counsel.

1. Determine the main task.
2. Determine how the materials will be presented.
3. Tell the evidence story succinctly.
4. Revisit the evidence.
5. Practice and refine all demonstrations.

6. Review all depositions and interrogatories.
7. Is the expert's evidence admissible?
  - a. Helpful.
  - b. Reliable.
  - c. Relevant.
  - d. Trustworthy.
  - e. Nonrepetitive.
  - f. Well-founded.
  - g. Accurate.
  - h. First-hand data.
8. Ensure that all technical terms are translated.
9. Ensure that the visual aids are ready.
10. Consider the forum and the attorneys.
11. Meet with other experts if possible.
12. Suggest key questions for the attorney.
13. Deal with scheduling problems.
14. Dress to look professional.
15. Transport materials to the hearing.
16. Study potential cross-examination from the opposing side.
17. Find out when and where to be, and be there.

## Topic 8: Trial Preparation Without Assistance From Counsel

Trial  
Preparation  
Without  
Assistance  
From Counsel



Sometimes, it may be necessary for the expert to prepare for trial without meeting or working with the engaging attorney. Because the process works much better when the attorney and expert collaborate, it is unfortunate that some cases proceed to trial without this happening. Nevertheless, if this does happen, the expert can still be prepared.

### Useful Steps for Self-Preparation

There are 19 steps which will help guide the expert in preparing for testimony at a hearing or trial, even if the expert has not had the opportunity to prepare with counsel's assistance.

Beginning these steps presupposes that the expert has done everything right to this point; that is, engagement, investigation, preliminary report, discovery and final report have all been accomplished successfully. Only final trial preparation and trial remain.

See [Useful Steps for Self-Preparation](#) in the Appendix.

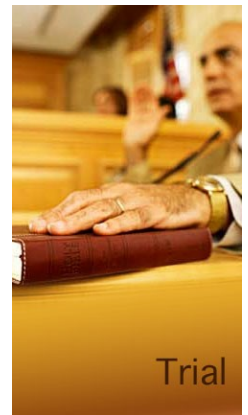
## Module 11: Trial

### Learning Objectives

After completing **Module 11: Trial**, the user should know:

- The definitions of trial and fact finder.
- The essence of a trial.
- How to differentiate between types of evidence.
- When an expert witness is permitted to give opinion in testimony.
- What makes evidence admissible.
- The parameters of motion in limine and sequestration.
- The process of voir dire and appreciate its importance.
- The implications of stipulation and hearsay.
- The two factors that govern the design of the direct examination of an expert witness.
- The importance of primacy and recency in direct examination.
- The differences in conducting direct and cross-examination.
- The process of witness examination.
- Jury instructions.

### Topic 1: Definition of a Trial



In a criminal case, the essence of a trial is the presentation of evidence (proof) sufficient to convince the fact finder that every element of a criminal charge has been proved beyond a reasonable doubt. The fact finder (the entity that determines which evidence to believe, if any) may be the judge alone, or a jury.

In certain cases, where the accused seeks to raise a particular defense, the fact finder must also decide whether the defendant has proved the elements of that defense.

### Topic 2: Types of Evidence



Evidence can be any perceptible thing that tends to demonstrate, establish or disprove a fact. In addition to testimonial proof (e.g., witness testimony based on perceiving an event or based on an opinion rendered by a qualified person), evidence may be physical (data created pursuant to forensic examination, photographs, digital evidence or ballistics) or demonstrative.

Demonstrative evidence refers to an item that is not from the crime scene itself but that can illustrate (demonstrate) a concept. An example of demonstrative evidence is an anatomically correct model used to show where the victim was injured.

There are many laws, rules and cases that control the admissibility, the method of admission, the form, the weight to be given, the order of evidence presented in a trial, and the correct objections to unreliable, inappropriate evidence.

In order to be considered by the finder of fact, evidence must be **relevant** and **admissible**.

### Topic 3: Relevancy of Evidence



Relevancy means that the information is probative: The information tends to prove or disprove a material fact. Relevant evidence can be both direct and circumstantial in form.

Direct evidence is straightforward: It is a witness's testimony or a physical object.

A witness's testimony may be:

- What was seen, heard, smelled, tasted or felt.
- What was told to the witness.
- What the witness created.



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- What the witness thinks.

Some testimony may be recorded before trial or, although live, may be brought into trial through technological means, such as closed-circuit or video television.

Direct evidence that is physical in nature can be an object retrieved from a location, a living person or a dead body. Direct physical evidence can be created outside of trial, such as:

- A crime scene photograph.
- A tire impression cast.
- Data from a testing instrument.

Direct physical evidence can also be created at the time of trial as an illustration, such as a child drawing or indicating the part of their body that was allegedly touched or injured.

Conversely, circumstantial evidence is *indirect* proof of a fact. Circumstantial evidence is information that can be relied on to infer the existence of another fact. Circumstantial evidence describes or defines parameters or situations from which a reliable conclusion may be drawn. Examples of circumstantial evidence are:

- Reports on weather conditions.
- Possession of recently stolen property.

For more on relevancy, see [Module 10: Pretrial, Topic 4: Pretrial Rules of Evidence, Relevance.](#)

## Topic 4: Requirements for Evidence Admissibility



In order to be admissible, evidence must:

- Be authentic.
- Be in good condition.
- Be able to withstand scrutiny of its collection and preservation procedures.
- Be presented into the courtroom in specific ways.

All of those requirements are intended to ensure that the fact finder makes his decisions on the basis of reliable information.

Admissible evidence is what it purports to be: It is genuine and not fabricated, contrived, forged or materially altered.

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Admissible evidence is offered by an attorney as founded on an indicator of authenticity: A witness or a rule is used to confirm that the evidence is what it is asserted to be.

Evidence is admitted for trial, once the circumstances of collection and preservation are identified:

- Who seized it?
- When was it seized?
- Where has it been since then?
- How was it preserved?
- What records exist that confirm the preservation?

Evidence is admitted on the appropriate basis: either testimony from a witness or application of a rule or an agreement.

Most, if not all, of the conditions and circumstances required for evidence admission are established by **foundational** or **predicate** questions and/or records.

Before the ultimate question may be asked or the physical object may be shown to the jury or judge, several foundational facts must be established by the attorney seeking its admission. Often, these establishing facts provide answers to the most basic questions:

- Who?
- What?
- When?
- Where?
- Why?
- How?

Foundational questions must be answered before items created by an expert witness can be admitted as evidence, including the expert's own data, report or opinion.

## Experts Can Give Their Opinion

An expert witness is the only witness permitted to **give their opinion** in testimony. The expert may do so only after the following conditions are all met to the satisfaction of the presiding judicial officer:

1. The expert's opinions are likely to be helpful.
2. The expert is able to provide an opinion based on specialized education, training, experience and knowledge.
3. The expert is able to speak about methods, instruments and techniques established and relied on throughout the expert's peer community.
4. The expert is able to demonstrate that only accepted and reliable methods were used in the specific case.
5. The expert is able to identify evidence that he or she has personally examined.

The sufficiency of all predicate or foundational evidence is a legal determination, typically made by the judge.

## Some Admissibility Determinations

Because orderly presentation of evidence during trial saves time and focuses attention, some admissibility determinations are made in pretrial hearings, often referred to by the case name or procedural rule that is used in that jurisdiction. Examples in the U.S. Federal Court system pertaining to admission of forensic scientific evidence are the following landmark U.S. Supreme Court cases: *Daubert v. Merrell Dow Pharmaceuticals* (509 U.S. 579 (1993)) and *Frye v. United States* (421 U.S. 542 (1975)).

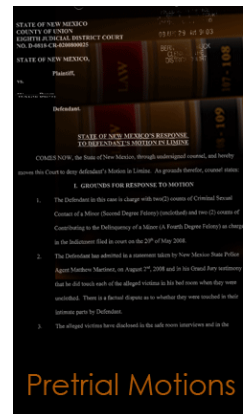
A formal process is imposed to compel parties to disclose or share their evidence in advance of trial to maximize fairness, minimize wasted time and sharpen the focus on the contested issues. Consequently, jurisdictions require litigants (private and public) to make their evidence available **before trial** or risk having the evidence admitted **at trial**.

Although the length of time required in advance varies, an expert witness's examinations, testing, findings and concluding opinions are required in the form of a report, which is provided to all counsel.

In general, the final legal determination regarding admission of evidence is the finding that all procedures for sharing or providing evidence that either party intends to use at trial have been properly executed **before trial**.

For more on admissibility issues, see [Module 3: Importance of Case Preparation, Topics 3, 10, 13 and 14;](#) and [Module 10: Pretrial, Topics 1, 2, 4 and 5.](#)

## Topic 5: Pretrial Motions



Some evidence may be subject to challenge. For example, it may:

- Be novel scientific evidence (i.e., not widely accepted by the scientific community).
- Carry a risk of unfair prejudice.
- Involve hearsay (some, but not all, of which is inadmissible).

See [Key Issues in Reference to Hearsay](#) and [Hearsay Exceptions](#). Also see [Federal Rules of Evidence Regarding Hearsay](#).

Skilled prosecutors and defense attorneys know that the time to resolve such admissibility issues is before trial, not in a fight in front of the jury.

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The mechanism used to resolve such disputes is a *motion in limine*. The party seeking to either ensure admission or bar use of an item of evidence will file such a motion, identifying the evidence at issue and setting forth the legal arguments governing admissibility.

Judges may decide the issue solely on the basis of motion papers submitted and any written responses from the opposing attorney after hearing oral argument from both sides. In some cases, the judge may refrain from ruling and wait to see how the trial develops and whether the challenged evidence is appropriate in light of other trial proof.

## Motions in Limine & Forensics

In a forensics case, motions *in limine* may address topics as diverse as whether:

- Crime scene photographs are inadmissible because of the gruesome nature of the injuries depicted.
- A "chain of custody" is sufficient to admit physical evidence.
- A novel scientific technique or the nature or scope of the expert's conclusions is valid.
- There is inadmissible hearsay evidence or privileged information that cannot be disclosed.
- Evidence also conveys information about other crimes or bad acts, or the character of the accused.

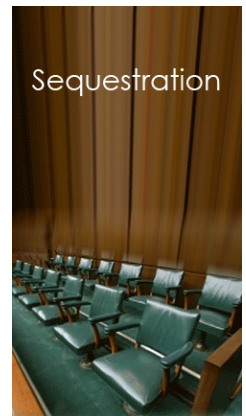
At its most fundamental, a *motion in limine* will seek a determination of whether the evidence is relevant, a term defined as the tendency to make a fact of issue either more or less probable.

Relevance includes issues such as chain of custody and authentication. Even if relevant, evidence may be excluded if its probative value (the power of an item of evidence to prove a particular point) is substantially outweighed by the risk of introducing unfair prejudice.

Relevant evidence may also be excluded if it includes inadmissible hearsay or privileged information.

For more on admissibility issues, see Module 3: Importance of Case Preparation, Topics 3, 11, 14 and 15 and Module 10: Pretrial, Topics 2 and 3.

## Topic 6: Sequestration



A typical motion at trial is for all witnesses to be sequestered, that is, to be kept out of the courtroom while all other evidence is presented. The theory of sequestration is simple: By isolating the witnesses, no witness will hear the questions posed and answers given by others, or attempt to conform to the others' testimony.

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A typical sequestration order directs the witnesses to remain out of the courtroom *and* not to discuss their testimony with others until the trial has concluded.

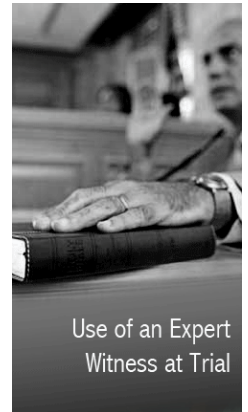
There are exceptions to the order of sequestration. In many jurisdictions, the case agent or lead investigator is permitted to remain in the courtroom throughout the trial, even though the investigator will also have a role as a testifying witness.

In some cases, judges will permit expert witnesses to remain during the testimony of others — as experts are permitted to comment on facts adduced from other witnesses — and to address the contentions of opposing experts.

Finally, the accused person in a criminal trial is never subject to a sequestration order, as criminal defendants have the constitutional right to be confronted by the witnesses against them.

There is no fixed rule that sets consequences for the violation of a sequestration order. Courts consider whether the violation was inadvertent or intentional, and the extent and duration of the violation. Consequences may range from an instruction, telling jurors to be aware of the violation when deciding the case, to the extreme sanctions of witness preclusion and contempt citations.

## Topic 7: Use of an Expert Witness at Trial



### Expert Opinion Testimony

The expert plays a special function in the trial process. The forensic analyst's right to testify is based on the need of the fact finder for some specialized knowledge beyond that of the average juror.

The general standard for expert testimony is whether "scientific, technical or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue" (FRE 702). If the fact finders (usually jurors but, in some cases, judges) already have the basic knowledge at issue, there is no need for an expert to testify in that capacity.

Once the above standard is met, it must be shown that the particular expert is qualified. Qualifications may come from a variety of sources: "by knowledge, skill, experience, training, or education" (FRE 702).

### Qualifying the Expert

To show that the witness is indeed an expert, a qualification inquiry, often called a voir dire, is conducted by the attorney for the party presenting the evidence.

The witness will typically be questioned about the expert's:

- Experience.
- Education.
- Training.
- Publication history.
- Previous testimony as an expert witness.

In the fields of forensic science, this questioning may also focus on:

- Performance reviews.
- Accreditation.
- Proficiency testing.
- Work in a supervisory capacity.
- Previous time devoted to the type of testing/analysis at issue in the trial.
- The type(s) of equipment or processes with which the expert works.
- Professional honors and society memberships.

## Importance of Demonstrating Lack of Bias

Wherever possible, it is also critical to demonstrate the witness's lack of bias. For example, if a DNA analyst has also been called to testify for the defense or has participated in testing that has led to exonerations, this information will support and substantiate a claim of scientific neutrality.

The opposing party has the right to question (cross-examine) the expert regarding forensic or specialized credentials before the judge makes a determination as to the witness's fitness to testify.

In general, that questioning is likely to focus on bias, asking about:

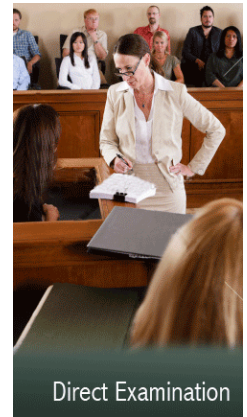
- The amount of money the witness is being paid for investigating and testifying.
- The fact that the witness routinely testifies solely for one side.
- The witness's lack of accomplishments in a particular area, such as academia or publications.

If the witness is known to have failed a proficiency test or has otherwise committed some demonstrable error, it is likely to become a subject of the cross-examination as well.

When the witness has strong credentials, it is not uncommon for the opposing party to shortcut the process by agreeing to stipulate to (i.e., concede to) the witness's fitness to testify as an expert. When this is offered, the smart attorney will still ask the court for permission to summarize the witness's credentials so that they can be enumerated for the fact finder.

If there is no stipulation, the judge will then make a determination as to whether the witness has sufficient background to permit their testimony as an expert. If the ruling is favorable, the lawyer for the party who called the witness now turns to the substance of that individual's testimony through questioning referred to as direct examination.

## Topic 8: Direct Examination



The design of the direct examination of an expert witness is governed by two factors:

1. The jurisdiction's governing laws or evidence code, which may place limits on how the expert testimony is offered.
2. The skill of the lawyer in crafting an interesting presentation.

Evidence codes, such as the Federal Rules of Evidence, often place restrictions on the method and scope of expert opinion testimony. One such limit applies to whether or not an opinion may be given without the expert first describing all of the underlying facts in detail.

The Federal Rules of Evidence permit the opinion to come first, stating that "[t]he expert may testify in terms of opinion or inference and give reasons therefore without first testifying to the underlying facts or data, unless the court requires otherwise" (FRE 705). Other jurisdictions may require the expert to first state the underlying facts or research, and only then explain the opinion to which those facts lead.

A second and significant limitation applies to whether and when an expert may repeat information from third parties (hearsay). The law recognizes that the expert often does not work alone. Instead, the forensic analyst confers with colleagues, or bases conclusions on patient interviews or similar sources of data.

As long as this third-party information is of the type upon which experts in the relevant field normally rely, there is no problem with the opinion or conclusion itself. However, it is one thing to base an opinion on what others have said, and quite another to simply repeat what the third parties said. The latter directly implicates the concerns underlying the rule that prohibits hearsay evidence (see Module 11: Trial, Topic 5: Pretrial Motions: Motions in Limine and Hearsay).

## A Typical Balance Struck by FRE

A typical balance is that struck by the Federal Rules of Evidence. They provide as follows:

If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject,

the facts or data need not be admissible in evidence in order for the opinion or inference to be admitted.

Facts or data

that are otherwise inadmissible shall not be disclosed to the jury by the proponent of the opinion or inference unless the

court determines that their probative value in assisting the jury to evaluate the expert's opinion substantially outweighs

their prejudicial effect. [FRE 703]

## Criminal Defendant Can Be Confronted by Accusers

A criminal defendant has the right, under the U.S. Constitution, to be confronted by his accusers. The U.S. Supreme Court has interpreted this right by banning the admission of some categories of hearsay.

In a forensics case, this will impact on whether the testifying expert may utilize and discuss the lab report of a colleague (or of an expert at another laboratory). The problem will also arise if the expert who conducted the testing has retired or is otherwise unavailable. Accordingly, an expert who is testifying, at least in part, on what others have done or reported must make this clear to the lawyers in the case, well before trial, so that the issue of hearsay admissibility can be resolved before the trial.

At the same time, it must be understood that much hearsay *is* admissible on its own; thus, talking about it during the expert's testimony will present little or no problem. Examples of types of hearsay that are admissible include:

- Certain business records (such as hospital reports).
- Statements made by an individual for the purpose of medical diagnosis or treatment.
- Excited utterances by a crime victim or witness seeking emergency assistance.

## The Structure of Direct Examination

The design of the direct examination is the choice of the sponsoring attorney, subject to the limits of the Federal Rules of Evidence.

Direct examination requires that the attorney ask non-leading questions; that is, questions that do not suggest the answer. Prototypical non-leading questions are ones that begin with "who," "what," "when," "where," "why" and "how."

Another way of conducting direct examination of the expert is to present five basic questions that introduce a range of opportunities for the expert to testify in defense of the expert's stated opinions:

- Who are you?
- What did you do?
- Why did you do that?
- What did you find?
- What does that mean?

Psychologists state that several doctrines are at work in the dispute resolution process, some of which can foretell the outcome of an otherwise close case. Among them are primacy, recency, repetition, and the probability of human conduct:

- Primacy: The tendency that a person believes most and longest what is heard first.
- Recency: The tendency to believe what a person hears last.
- Repetition: The tendency for a person to believe that which is often repeated.
- The probability of human conduct: The expectation that people act in certain typical ways in given circumstances. When they do, they are believable; when they do not, they are not believable.

An exemplary direct examination is built on the principles of primacy and recency, principles that address how audiences retain information that is presented orally. Because listeners remember best what they hear first (primacy) and last (recency), lawyers will frequently organize their questions to begin and end with high



points.

For example, in a DNA case, the primacy point may be that the analyst was able to obtain a DNA profile from the crime scene evidence. The recency "finale" would be to ask the expert whether the profile is consistent with that of the accused.

Once the primary point has been elicited, the questioner will usually circle back and walk the expert through his testimony. Topics to cover may include:

- The science (e.g., "Please explain to the jury what DNA is, and how it can be used to uniquely identify people").
- A listing of the evidence obtained and examined in this case.
- A description of the testing performed.
- A conclusion with the findings from those tests.

If there are any weaknesses in the case, either in the substance of the expert's findings or a problem in his background, they are best brought out on direct examination but somewhere in the middle. This strategy:

- Takes the "sting" out of such information.
- Establishes the objectivity of the side presenting the expert.
- Allows the deficit to be put in the best possible light.

## Consequences of Not Dealing With Weaknesses

The consequence of not dealing with weaknesses or problems on direct examination is that they may instead surface on cross-examination, with potentially devastating effects on the expert's testimony and the case.

Part of an expert's testimony may involve responding to a hypothetical question. The attorney presents a set of facts and then asks the expert whether those facts were correct. Hypothetical questions are permitted with expert witnesses.

## Exhibits and Visual Aids

Expert testimony is not limited to oral answers. In the appropriate case, actual or demonstrative exhibits may be used.

An actual exhibit in a forensics case might be a PowerPoint or overhead illustration of the DNA report, showing the genetic types found in the evidence and the suspect's sample, and showing whether they are the same or different.

When actual evidence is displayed or used during the expert's testimony, chain-of-custody procedures must be addressed. The expert will have to show that the evidence has been properly preserved and is the same evidence that was obtained at the crime scene or other pertinent location. Often, opposing counsel will **stipulate** (concede) that proof of the chain of custody is established.

A demonstrative exhibit might be a display showing the DNA double helix. When a demonstrative exhibit is to be used, the attorney will often check first with opposing counsel and/or the trial judge to ensure that there will be no admissibility issue.

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The expert must be clear that the demonstrative exhibit is *not* evidence from this case and is only an illustrative tool. It may be important to clarify who created the exhibit: the expert, the attorney or a third party.

When using an exhibit (either demonstrative or actual), the expert may need to stand to one side or otherwise move to make full use of the exhibit's potential. Permission to do so must be requested from the judge, as witnesses are ordinarily restricted to the witness stand/chair. The request may come from counsel or from the expert himself.

### Referring to Notes or the Report

During questioning, it is not inappropriate for the expert to refer to his report or notes if necessary to accurately relate data or detail. To do so, permission must be sought from the judge. The expert may simply state, "I need to refer to my report for that detail; may I do so?"

FRE 612 permits such a procedure and allows witnesses to "refresh their recollection" when they cannot fully recall a fact or an event. Any document, or other item used to refresh recollection or testify from, must be disclosed to the opposing attorney.

If the expert simply can't remember the fact or opinion, even after reviewing the relevant report(s), there may still be a way to present the information to the jury.

The expert's report may constitute a record of a regularly conducted activity (commonly known as a business record) or, if it was an accurate memorandum prepared or adopted when the facts were fresh in the expert's mind, the report may be admitted as a hearsay exception called "past recollection recorded." The admissibility argument will come from the attorney. The important point is for the expert to be clear about when there is a memory lapse or gap.

Regardless of any memory lapse, the expert's **curriculum vitae** and **report** will often be marked and accepted as trial exhibits.

However, the **contents** of the report will not necessarily be reviewable by the jury during deliberations, again making necessary a clear verbal articulation of the expert's findings and the facts that support them.

### The Expert's Role

To maintain credibility, it is critical to remember the expert's role. The expert is not in court as an advocate; rather, the expert is present to teach or inform and/or to express an **objective opinion** based on solid science and the facts, never overstepping his role or overstating the conclusion.

It is critical that the expert answer each question directly, succinctly, and in terms that are comprehensible to the audience: the fact finder (usually the jurors). That means technical terms should be translated into layman's language. Where concessions are appropriate, the expert should make them.

### Effective Expert Testimony

The primary objective of effective expert testimony is for the expert to present himself as a well-organized and credible person. The fact finders need not become experts as a result of the expert's testimony. They only need to be convinced that the expert is a believable person with something important to say and who will materially assist them in doing the job of deciding the case.

Whether the case is decided in support of the expert's position is not the true measure of the effectiveness of the expert's testimony. The true test of testimonial excellence is whether the expert is credible. The best opportunity the expert has to establish credibility is through direct examination.

## Five Main Parts of Direct Testimony

At trial, the expert's direct testimony is divided into five main parts:

- Qualifications as an expert to render opinion testimony.
- The expert's assignment and how it was performed.
- Findings of fact based on research and testing.
- The expert's opinions.
- Reasons that support the conclusions.

Expert opinions may be based on facts found, testing or research conducted, or a series of hypothetical questions developed with the expert by the sponsoring attorney and based on facts, evidence and proof developed at trial.

## Seven Fundamentals for the Effective Expert

There are seven fundamentals to keep in mind to be an effective expert witness at trial. The expert should:

- Know the professional area.
- Do all of the homework for the case.
- Develop an individual style of delivery and demeanor.
- Be enthusiastic without being an advocate.
- Be prepared for cross-examination.
- Pattern oneself after a best teacher.
- Dress conservatively for court to fit the professional role.

The expert must be professionally competent and perform a thorough job of analysis, investigation, testing and reporting. Individual style and demeanor must be developed. The expert should display enthusiasm without advocacy. The expert will do well to pattern a style and delivery after exceptional teachers and be prepared to illustrate testimony graphically or with demonstrations.

Before actually testifying, the expert can mentally visualize the best possible performance as a witness. Use of the word "performance" is intentional because, in a way, the analyst is performing a key role in a real-life drama. The expert's credibility will be established by the effective use of teaching skills.

## Important Traits That Enhance Expert Witness Credibility

Extensive observation of expert witness testimony in numerous actual trial settings generates a series of positive traits that can guide the expert in achieving testimonial excellence:

- Knowledge of the specialty area.
- Ability to translate the complex into the simple.
- Open-handed honesty, even to the extent of admitting fallibility or possibility of error.

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- Substantial history of solving similar problems in the past, both actual and theoretical.
- Testimony consistent with that of other experts.
- Use of expert information and investigation in unique ways.
- Creative preparation of models, charts, drawings and demonstrations.
- Irrefutable scientific, technical, factual or professional data back-up.
- Careful attention to factual elements, measurements and similar components.
- Supportive use of the literature.
- Absence of exaggeration or underestimation.
- Careful testing and documentation.
- Ability to support every conclusion with an example and real-life application.
- Correct use of standard formulas.
- Coordination of verbal testimony with documentary and demonstrative evidence.
- Quiet, calm and humble demeanor, combined with self-confidence and conviction.
- Opinions that are supported by the admitted evidence.
- Use of opposition testimony to support the expert's own position.
- Ability to combine facts and substantive factors to yield a meaningful result.
- Hands-on participation in a corrective process.
- An outstanding résumé.

A number of important factors help the testifying expert establish credibility:

- Believability.
- Integrity.
- Respectful treatment.
- Expertise.
- Credentials.
- Ability.
- Experience.
- Honesty.
- Sincerity.
- Truthfulness.
- Ability to demonstrate and convince.
- Effective preparation and presentation.
- Ability to be neutral, objective and open.
- Consistency in performance.
- Being knowledgeable.
- Up-to-date information.
- Professional practice and diligence.

There are several useful ways to present and enhance these factors, including:

- Establishing the main points early in testimony.
- Recognizing the need for common-sense explanations.
- Repeating key points.
- Having positive and open body language.
- Repeating the main points at the conclusion of testimony.

Testifying experts have found several admonitions most useful in their testimonial experience:

- Answer only the question asked, and do not volunteer information.
- Be factual, truthful and concrete.

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- Stick to the point and be brief.
- Do not argue with counsel, the court or the tribunal.
- Keep calm and never display irritation.

The essence of trial competence centers on the expert's ability to project an image of credibility from beginning to end. This requires:

- Accurate citation.
- Precise factual presentation.
- Articulate organization of graphic materials.
- An organized presentation of testimony and documentary evidence.

As part of the expert's credibility effort, the expert must project an attitude of honesty, integrity and believability. Given the fact that both sides in a dispute tend to present their own conflicting views, the expert must serve as a beacon of believability. In this context, "expertness" is the extent to which the witness appears to be:

- Competent.
- Intelligent.
- Authoritative.
- Well-trained.
- Experienced.
- Skilled.
- Informed.
- Professional.
- A source of valid information.

Additional traits that are beneficial to the expert witness include being:

- Honest.
- Open-minded.
- Friendly.
- Well-mannered.
- Warm.
- Fair.
- Polite.
- Dynamic.
- Positive.

These factors, traits, characteristics and techniques can be readily projected in the testimonial process, which is initially displayed on direct examination. The expert can:

- Convey the fact that the forensic witness is a professional who is dedicated to accurate and detailed work.
- Avoid any impression that the testifying expert is a "hired gun" by not being drawn into biased or exaggerated statements.
- Emphasize the specialized task(s) performed in the case, and that testimony represents professional investigation and careful analysis.
- Be ready to bolster opinions with recognized technical publications.
- Not be afraid to expose the weakness of the case to counsel.
- Project oneself as a reliable source of information.

- Be a good listener.

## Teaching Skills and Direct Examination

An analysis of teaching skills is fundamental for direct examination because teaching helps establish credibility — the key factor for an effective expert witness.

Some qualities of persuasive and effective teaching transfer to the forensic arena. Good teachers are well-informed, enthusiastic, provocative and inquisitive. They use lots of examples and illustrations.

Years ago, the U.S. Navy developed a standard teaching format, represented by the acronym TOMIPASTA, which includes nine main elements that the forensic expert may find useful for organizing scientific and opinion findings for trial testimony:

- Title.
- Objective.
- Materials.
- Introduction.
- Presentation.
- Application.
- Study.
- Testing.
- Assignment.

## Important Points to Remember for Direct Examination

The following guidelines will help the expert prepare for direct examination:

1. During the trial, the expert should be aware of the importance of careful testimony, particularly the hazard of inconsistent testimony between the previous testimony (e.g., grand jury, deposition) and the trial.
2. The expert is admonished to tell the truth and prepare for trial testimony by reviewing the facts of the case and the work the expert performed.
3. The expert should never lose his temper while testifying. The expert should always speak slowly, clearly and naturally.
4. The expert should not memorize testimony, opinions or conclusions.
5. Exaggeration, underestimation and overestimation are all indications of an unwary and ill-prepared witness.
6. The expert must translate technical terms into common and understandable language at every opportunity.
7. The expert should be careful in demeanor and behavior before, during and after testimony.
8. The expert should review clothing and posture with the sponsoring attorney before trial.
9. The expert's assistance during trial may mean the difference between success and failure. A court order may be necessary to allow the expert to remain in a court or hearing room during trial, if either side has sought to exclude witnesses.
10. If the expert continually passes notes and confers with the attorney, the case will appear weak to the fact finder. It is better for the expert to take notes and confer discreetly with the attorney during recess.

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11. At all costs, the expert must be viewed as a professional interested in a factual presentation and not as an advocate for either side.
12. Courtroom devices that make testimony more effective should be used. Lapel microphones, overhead projectors and telescoping pointers allow comfortable movement and clear presentation.
13. Psychological elements of persuasion, voice tone and quality, body language, repetition, dress, demeanor and similar factors all help to develop testimonial skill and effectiveness.
14. The expert should avoid being an all-purpose expert. Tribunals and the court system lose confidence in the expert who seems to know everything about everything.

## Key Advice Learned by Experience

There are some useful points that only experience teaches. They are enumerated here to highlight observations — and mistakes — made by experienced expert witnesses and trial attorneys. These suggestions may further serve the expert's goal of increased credibility during direct examination.

1. The expert should display common courtesy to everyone upon entering the testimonial location. One important reason for this: The expert never knows whether a person is a juror, a hearing officer or a judge.
2. In this setting, the expert witness will do well to remain discreet about the expert's name, title or position, and reasons for being present in court with people who are unknown. The expert should avoid hallway conversations that expose a theory or strategy.
3. Contact with opposing experts, regardless of degree of friendship or acquaintance, should be minimal and formal; a casual greeting will suffice. Potential fact finders will observe and recall hallway demeanor.
4. When asked to examine a document, the expert should stop talking. People cannot read and talk at the same time. The fact finder(s) may note this fact if the expert attempts to do both at the same time.
5. During any recess, the expert should maintain distance from everyone. Casual recess conversations between opposing experts should be avoided. If the expert needs to confer with counsel, the expert should meet out of sight of the fact finder and opposition. The expert should be particularly cautious about casual conversation or discussion about testimony, theories or strategy in hallways, restrooms and public areas. Conversations with or near opposing parties, attorneys and jurors should be avoided.

Other suggestions for the expert's behavior in the courtroom include:

- Avoid passing notes to counsel during any part of the proceedings, including testimony of the opposition.
- Never sit at counsel's table or in close proximity to counsel; the expert's position in the courtroom before and after testimony is important.
- Leave the court after completing testimony unless instructed otherwise.

## More Observations for the Effective Expert Witness

- The expert may be the most important witness in the trial.
- The expert's overall demeanor and teaching techniques must be foremost at all times.
- The expert should seek to achieve an outstanding performance on each testimonial occasion.
- The expert should be sensitive to the pressure and insecurity being felt by the trier(s) of fact.
- The expert should keep his eyes on the examining attorney while a question is being asked, then shift his gaze to the trier of fact, be it the court or a jury.

## Tone of Voice

Throughout expert testimony, the witness should be aware of proper breath control and maintain an upright posture.

The expert should convey confidence to the audience when called to testify and should walk to the witness stand with a natural gait and with purpose. The witness should make sure that his voice, at the first "I do" when sworn under oath to tell the truth, comes across clear, strong and audible to everyone in the room.

The expert should use voice tone, volume and modulation to:

- Maintain interest in the testimony.
- Vary the presentation.
- Keep everyone alert.

A conversational tone is the norm, but the expert should capture the attention of the fact finder(s) and make sure that testimony can be heard throughout the room. As the expert begins speaking, audience observation will verify that no one in the room, particularly the judge or jurors, is straining to hear the testimony.

Testimonial communication is no different than normal communication. The expert should speak clearly and simply. Responses should be limited to the question asked. The expert who has completed all of the homework will be confident in every conclusion, and positive in tone and testimony.

## Enhancing Direct Examination

Certain elements can tip the scales in favor of one expert as opposed to another. Those elements include the ability to:

- Coordinate verbal testimony with documentation.
- Support opinions with admitted evidence.
- Absorb opposing views to support the expert's opinions.

## Qualities of Effective Direct Examination

A veteran trial judge, who was also an experienced litigator and public defender, concluded that the most significant qualities of the most effective expert witnesses during direct examination with courts and juries are believability, credibility and persuasiveness. To achieve these qualities, the expert witness should pay attention to the following:

- At the outset, presentation of credentials should deal only with the highlights and eliminate the details.
- Hypothetical questions should be stated with clarity, when used.
- All opinions should be clearly stated as such, as based on "a reasonable degree of (scientific, technical or professional) certainty."
- The persuasive expert should be prepared to give reasons for his conclusions and testify using nontechnical terms that can be understood by everyone.
- Weak opinions or testimony should be exposed during direct examination, such as the frequency of previous testimony for a particular side, the length of past examinations, the rate of retention by opposing counsel, payment for testimony, and possible disagreement with other experts' opinions.



- The outstanding expert witness should practice how to respond during direct examination so he can be poised and self-assured.

## Tips for Trial Testimony

The expert may find the following tips useful for testifying:

### Do:

Communicate ideas.  
Be interesting.  
Consider testifying as an opportunity.  
Grab the audience's attention.  
Be pleasant.  
Practice breathing and relaxation.  
Learn to relax.  
Smile when appropriate.  
Communicate attitudes and feelings.  
Vary the pitch and rate.  
Gesture for emphasis.  
State ideas clearly and emphatically.  
Prepare your testimony.  
Practice vocal and facial exercises.  
Concentrate on the material.  
Talk, chat or converse.  
Deliver a verbal summary.

### Don't:

Read words.  
Be dull and lifeless.  
Consider testifying as a chore.  
Bore your audience.  
Be intimidated.  
Ignore the importance of relaxation exercises.  
Get tense and stay that way.  
Frown continually.  
Rely purely on logic.  
Speak more loudly than necessary.  
Wring your hands or wave them in the air.  
Merely recite words from a page.  
Trust to luck.  
Assume you will be animated under stress.  
Think only about yourself.  
Read, preach or orate.  
Present a detailed, wordy recitation.

## Becoming a Better Witness

There are a number of ways the expert can become a better witness, including:

- Observing others.
- Watching, listening and reading.

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- Visualizing testimony as a witness.
- Observing one's testimonial performance on videotape. A practice session of direct and cross-examination before actual testimony may increase the expert's level of poise, confidence and effectiveness dramatically.
- Reviewing one's testimony to ensure that the answers are clear.
- Undertaking forensic assignments that allow the expert to sharpen his skills, style and technique.

Detailed guidelines to assist the expert at becoming a more effective witness on direct and cross-examination are included in Module 8: General Testifying Tips. The expert may wish to review these guidelines each time before testifying.

## Simplifying the Complex During Direct Examination

Statistical data and expert testimony are often difficult for juries, judges and hearing panels to understand. The reason is simple: The presentation is boring!

The presentation of statistics does not have to be uninteresting if the expert takes certain precautions. Studies have shown that lengthy statistical data can be vitalized by a single hypothetical case example.

For instance, if a statistical chart demonstrates a particular conclusion, that drab numerical summary can be brought to life by the use of a "factitious" example. If a summary chart of 1,000 instances of drug administration suggests the likelihood of an adverse drug reaction, the expert could proceed during direct examination as follows:

*Question:* Doctor, you have examined the chart, Exhibit A; isn't that correct?

*Answer:* Yes, I prepared it for purposes of this trial.

*Question:* What does a chart like that really mean?

*Answer:* It means that if I see 1,000 patients, only 1.2, or say a maximum of 2.0, will ever experience the drug reaction that occurred in this case. It really says the chance of this adverse reaction occurring is quite remote.

To present statistics clearly, the expert must explain how the statistics were gathered and that each part of the statistical analysis consists of many real-life cases. The expert should explain how information from each case is compiled with that of other cases to compute the numeric probability, and thus the scientific or technical credibility, of a proposition.

## The Attorney's Role

It may be useful to the expert witness to be aware of the sponsoring attorney's actions and objectives before and during the expert's direct testimony.

**Before** the expert's direct testimony, the sponsoring attorney should:

- Rehearse testimony and expected cross-examination with the expert.
- Remind the expert to reread any prior testimony and review all work done by staff members as part of the pretrial preparation.

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- Brief the expert on how to behave in court and what the likely reactions of the judge and opposing counsel will be.
- Instruct the expert regarding appropriate conduct in or near the courtroom:
  - ◆ Avoid contact with the lawyer when the jury is present.
  - ◆ Avoid comments that might be overheard and misinterpreted by a juror or other witnesses or parties.
  - ◆ Remind the expert that witnesses are being observed at all times.
  - ◆ Remind the expert to appear to be a dispassionate professional, not an advocate, and to avoid overreaching.
- Tell the expert what materials to bring to court and to the witness stand.
- View all exhibits and examples the expert expects to use during testimony.
- Understand the expert's opinions and their basis; otherwise, rehabilitation during redirect testimony is impossible.
- Instruct the expert to direct answers to the judge or jury, not the examiner.
- Inform the expert of prior testimony by other witnesses that bears on the subject matter of the expert's testimony; provide the expert with pertinent deposition transcripts or portions of the daily trial transcript.
- Provide copies of the expert's exhibits to opposing counsel in a timely manner.
- Make sure that all information upon which the expert's opinion relies has been admitted in evidence.
- Recommend that the expert link testimony whenever possible to data in evidence.
- Inform the expert of the technical meaning of such words as "speculative."
- Maintain control of the form and content of the expert's proposed testimony.

**During** the expert's direct testimony, the sponsoring attorney should:

- Give sufficient time and thought to the qualifications of the expert.
- Refuse opposing counsel's offer to stipulate that the witness is an expert.
- Disclose information about the expert's fee.
- Listen attentively to the expert's responses.
- Request amplification of points that are unclear or require emphasis.
- Avoid lengthy hypothetical questions.

## Visual Aids

The expert can illustrate presentations with lively, clear and persuasive visual aids. The expert should relate the statistics to the facts of the case being tried. The above example does that by humanizing the result and making it applicable to the subject case.

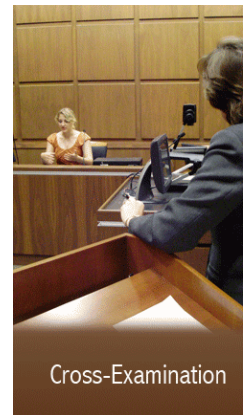
A simple, well-organized graphic display can convey vast amounts of information in support of the expert's verbal testimony and enhance the witness's effectiveness. To present statistical data with visual aids during direct examination in a positive and understandable way, the expert should:

- Use simple, familiar presentations.
- Make all items large and easy to read and understand.
- Present details in spoken testimony, and add and integrate information with overlays from chart to chart.
- Use solid colors like red, green and blue for graphic software programs (which may not present well otherwise).

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- Use charts and graphs to show the clearest contrast between the expert's position and that of the opposition.
- Use slides to present graphic information, which can be discussed during direct examination.
- Know that simple poster boards or flip charts are sometimes more effective for a small audience.
- Employ the services of a graphic artist or technician (i.e., have visual aids prepared professionally).
- Develop visual aids with counsel's assistance.
- Explain complex financial, statistical or technical data by using a simple analogy.
- Provide graphics that can stand alone, are self-explanatory and emphasize the salient points of testimony.
- Write on the poster boards or charts in clear, legible handwriting.
- Ensure that written materials are easy to read and understand.
- Be a good presenter and never turn away from the jury.
- Always step to one side to present visual material.

## Topic 9: Cross-Examination



### Challenges of Cross-Examination

Cross-examination is one of the most misunderstood aspects of the adversary system. However, it does not have to be a fearful experience for the expert. Cross-examination is designed to guarantee a fair trial. It has six general purposes with regard to the expert witness. These are to establish the expert's:

- Lack of perceptive capacity or application (i.e., failure to do homework).
- Inadequate recollection of the applicable facts.
- Bias, prejudice, interest in the outcome, or the motivation for particular testimony.
- Questionable character, reputation or qualifications.
- Prior inconsistent statements or conduct (i.e., if the expert testified to different conclusions in another case in which the facts and evidence were approximately the same, that can be used to impeach testimony).
- Inconsistency with recognized published authorities or learned treatises.

The expert should not be afraid of cross-examination. It allows the expert to solidify the impression made through prior direct testimony.

The likely place for concessions will be during cross-examination. Unlike direct examination, cross-examination may be conducted using leading questions; that is, questions that state a fact and ask the expert to agree with it. A well-designed cross-examination will avoid letting the expert repeat his conclusions. Instead, it will focus on attacking the expert's credibility, methodology or result(s) and on seeking

concessions.

Again, the Federal Rules of Evidence identify the grounds on which cross-examination is permissible. A witness may be impeached (challenged) with:

- Proof of bias.
- Prior inconsistent statements (written or oral, under oath or unsworn).
- Prior convictions.
- Proof of having a dishonest character.

The last item may be accomplished either by questioning the expert witness about some dishonest act he committed or by bringing in witnesses to testify to the expert's character as a dishonest person.

## Effective Tips for Cross-Examination

Discussion of the following items can help to develop an effective cross-examination.

1. Attack Field of Expertise.
2. Bias.
3. Chain of Custody.
4. Didn't Do.
5. Equipment.
6. Factual Basis.
7. Going Beyond Scope of Expertise.
8. Help Opponent's Case.
9. Impeach.
10. Journals and Treatises.
11. Keep Leading.
12. Laboratory Protocol.
13. Money.
14. No Personal Knowledge.
15. Others' Work Forming Basis of Opinion.
16. Proficiency Testing.
17. Qualifications.

## Impeachment in Context of Forensics

In the forensics context, the impeachment may be an attack on the science or the conclusions rather than on the expert.

The expert must be prepared to acknowledge lab error rates, or errors in or limitations of the science or technology. An attempt may also be made to show that the expert was not provided with all of the facts by the attorney or that the expert failed to consider additional circumstances.

Finally, where the expert is employed in a police or government lab, it is likely that some attempt will be made to show a collusive or at least collaborative relationship with law enforcement. This attack may be overt, or it may be suggested in questioning that tries to establish some sort of bias.

As noted above, the expert should answer each question directly and accurately, even if the response will be adverse to the party who presented the witness. That party has the opportunity for redirect examination, a second round of questioning meant to respond to or clarify points raised by or during cross-examination.

However, if a cross-examination question is misleading or cannot be answered with a simple "yes" or "no," there is nothing wrong with the expert carefully stating that "I cannot answer that question with a simple 'yes' or 'no.'"

## Seven Key Traits for Successful Cross-Examination

Seven key qualities identify the effective, credible expert witness. See [Module 3: Importance of Case Preparation, Topic 3: Preparation: Qualities of an Effective Expert](#). Consistently applying these qualities can help the expert to use cross-examination in a positive way.

The expert must:

- Perform a thorough investigation.
- Demonstrate effective teaching ability.
- Be generally competent.
- Be believable.
- Persuade, using factual accuracy but without advocacy.
- Demonstrate enthusiasm.
- Be prepared.

## Preparation for Cross-Examination

Several fundamental techniques are often used to cross-examine an expert witness. The examiner may:

- Attempt to make the expert a witness for the opposition by trying to turn the testimony to support the opposite position.
- Attack the field of expertise, or show lack of recognition of the professional field.
- Attack the witness's qualifications, or establish gaps in the professional résumé.
- Expose the witness's bias, or give reasons why the testimony is slanted.
- Attack the witness's fact basis by trying to show that:
  - ◆ The investigation was inadequate.
  - ◆ Preparation was not accurately accomplished.
  - ◆ The expert is unfamiliar with the scene of the event.
  - ◆ Accurate measurements were absent.
  - ◆ Personal verification or testing was absent.
  - ◆ Inappropriate second-hand information was relied upon.
- Change the hypothetical question(s) used on direct examination, and vary the facts to support the opposition, if use of hypothetical question(s) is the basis for expert opinion.
- Impeach the witness with learned treatises and journals. Any recognized text that is authoritative in nature can be used to cross-examine the testifying expert.
- Attack the witness head-on, and find prior contrary writings by the witness.

Of highest value to the cross-examining attorney are writings and prior testimonies of the testifying witness that might contain recitations, statements or affirmations of fact, or scientific, technical or professional conclusions that are directly contrary to the witness's stated testimony in the instant case.

## Addressing Claims of "Junk Science"

The catch-phrase "junk science" has been popularized to describe situations in which the testifying expert, and/or the expert's testimony and conclusions, are considered or found questionable because of an allegedly poor or insufficient scientific foundation.

The testifying expert should be aware that cross-examiners may pursue some of the following lines of questioning in an attempt to address a supposedly inadequate, incompetent or unprofessional forensic witness:

- The cross-examiner may try to show that the witness is not knowledgeable on the subject.
- The cross-examiner may try to expose a lack of meticulous attention to detail that the expert witness failed to follow in preparation.
- The cross-examiner may try to show the expert witness as having a lack of activity in the professional field, particularly with regard to absence of current education and training, and lack of appropriate seminar and workshop attendance.
- Whenever possible, the cross-examining attorney should avoid allowing their expert to recognize the "charlatan" as an expert. Establishing that the witness has never testified to the same effect previously can be damning cross-examination.
- If the cross-examiner can establish that the findings of the witness are not consistent with studies of others, credibility of the testifying witness may be eroded.
- If cross-examination can suggest that findings of the expert often lead to erroneous results, the expert's credibility may be jeopardized.
- Often an expert will indicate that present methods are positively related to prior methodology. If that linkage and connection can be dispelled, the weight of testimony and credibility of the witness can be threatened.
- The witness should be pressed for literature that tends to support the testimony.
- Absence of such literature bolsters the claim of lack of competence and credibility.
- If tests or examinations conducted by the forensic expert have never been admitted as evidence in a court or other dispute resolution process on previous occasions, such lack of admission seriously questions the validity of the extant testimony.
- Expert witnesses who use animal tests to support their conclusions can be cross-examined by establishing the differentiations between animal testing, animal subjects, human subjects and human results.
- The aggressive cross-examiner will often show that there is no government regulation or statutory support for the expert testimony or that the expert testimony is simply not approved either by the scientific community or by any government-sponsored methodology.
- If the cross-examining attorney can establish that the scientific, technical or professional community does not rely on the same tests, procedures or techniques followed by the expert, a serious erosion of the expert witness's testimony may occur.

There are specific steps the expert can take to be more prepared and less vulnerable to cross-examination:

1. The expert's résumé must accurately reflect verifiable accomplishments. The expert should not exceed the bounds of personal expertise.
2. In accepting assignments and answering questions, the expert should not venture beyond areas of professional qualification and proficiency. The temptation is great to move into areas in which the expert is not qualified, but image and credibility are enhanced by sticking to the expert's field of knowledge, training and experience.

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3. The expert's preparation must be complete. Whatever investigative steps have been taken must be completed and fully documented. Thorough preparation to testify will be exemplified on direct examination. Accurate investigation creates a dense fabric of fact that becomes difficult to penetrate on cross-examination.
4. The expert should make direct examination persuasive. If the expert is believable and has done all of the homework, persuasive abilities will be obvious. Psychological persuasion conveyed by body language, repetition of theme, and appropriate dress and demeanor all add to a positive impression.
5. The smooth, solid presentation the expert makes on direct examination must be maintained throughout cross-examination. When the examiner asks a potentially damaging question, the expert should use the same air of certainty displayed on direct examination. The expert may say, "Yes, that is correct, but let me explain." This does two things: First, the expert has signaled the sponsoring attorney to come back and ask for an explanation on redirect. Second, the expert has displayed credibility in a forthright, unapologetic manner.
6. The witness who is certain of the technical effort and preparation is questioned more cautiously on cross-examination. The cross-examining attorney quickly senses the expert's truthful and positive answers.
7. The expert exercises an ability to teach. Part of the stimulation of a classroom setting is the ability to field questions from students. The skill with which those questions are responded to is often the mark of a great teacher. The expert's function as a teacher is an extension of that exercise. The cross-examiner who probes the expert's qualifications, preparation, conclusions and opinions will press for answers.
8. The expert must be familiar with previous writings and testimony. The expert may have written articles, books or reports during a professional career. The forensic analyst may have testified in depositions or at trial on prior occasions. The expert's personal library should include reprints of every authored article ever published, and every deposition and court transcript. The testifying expert should know his complete bibliography and transcripts, which are all potentially accessible to a diligent opposing counsel.
9. Opposing counsel seeks to find prior statements, in either the expert's writings or testimony, that contradict the opinions tendered in the current case and use them in cross-examination. The expert may be asked to produce some of those inconsistent statements during the discovery phase.
10. The proffering attorney will need to know about the expert's prior opinions. Therefore, the expert should index all prior writings and testimony. These can supply positive support or rebuttal material for cross-examination as well as alerting counsel to vulnerable areas of cross-examination.
11. If the expert has written or testified contrary to the position now taken in the current case, awareness of the potential conflict is important. The basic premise that supported the testimony in the former case may be different from that of the current matter.

Understanding the rationale and principles upon which prior writings or testimony were based, and distinguishing those of the current case, can minimize the effects of cross-examination and, in some situations, solidify the expert's direct testimony.

## Further Preparation Points for Cross-Examination

As further preparation for cross-examination, the expert should:

- Explore the literature that supports the technical conclusions.
- Be sensitive to expert/attorney communication confidentiality. If possible, have the sponsoring attorneys prepare summaries of relevant facts and documents rather than providing the documents and leaving the summary up to the expert.
- Not be afraid to develop a list of projected questions, even before counsel provides them.



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The expert can assist in guiding the examination by careful preparation, including the following:

1. Make sure there is scientific, technical, professional or other recognized confirmation for the theories that are relied upon.
2. Test the opinion. Does it make sense? If it does not, the expert should go back to the drawing board.
3. Be logical, simple and as brief as possible.
4. Make sure all of the language is understandable and that technical terms are translated into laymen's terms.
5. Whenever appropriate, prepare an illustration or perform a test or an experiment that will demonstrate the conclusion. Be liberal in the use of charts, models, drawings, diagrams and any other device that could enhance the visual impact of testimony.
6. Maintain familiarity with current state and federal rules regarding expert testimony and admissibility.
7. Stay current by attending conferences and seminars on the subject, both generally and within the field of expertise.
8. Subscribe to recognized publications on expert testimony.

## Use of Hypothetical Questions

Use of hypothetical questions is still a valid method of examination. In preparation for direct examination, the expert and counsel may prepare a list of hypothetical questions that encompasses all facts that have been established. The technique on cross-examination is to insert into a hypothetical question facts which could lead the expert to reach a conclusion opposite to that tendered on direct examination.

Attacking the expert by using an authoritative publication is one of the most effective devices in the cross-examiner's toolkit. Federal Rule of Evidence 803(18) states that the expert does not have to recognize a learned treatise as authoritative to be cross-examined about it. At least in the federal courts, if any expert witness testifies that a particular treatise is authoritative, the expert, as a testifying witness, may be examined about it. This rule makes the expert potentially responsible for mastering vast amounts of information.

A direct attack on the expert's position is difficult to undertake, yet the effort will be made in a proper case. On occasion, the expert may be tempted to maintain a position of absolute certainty, even in the face of overwhelming contradictions. That dogged adherence to a position can destroy the expert's credibility.

## Important Points to Remember During Cross-Examination

- The expert who becomes familiar with the trial process will not fear the examining attorney or the setting.
- The expert must answer only the questions asked. The expert should never volunteer information beyond the scope of the question presented. The witness need not have an answer for every question.
  - ◆ "Yes."
  - ◆ "No."
  - ◆ "I don't know."
  - ◆ "I don't remember."
  - ◆ "I don't understand the question."
  - ◆ By a simple factual answer.
- The expert should avoid such phrases as "I think," "I guess," "I believe" or "I assume." These are weak and insufficient to meet scientific and technical burdens of proof of reasonable probability.
- Taking a breath before answering a question is always a good idea. This allows the expert to appear deliberate and provides time to digest the question and frame an answer.

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- The expert should be careful of "trap" words such as "absolutely" or "positively." Be cautious about estimating time, space and distance. Precise measurements or data should be used whenever possible.
- The expert should avoid fencing, arguing with or second-guessing examining counsel.
- The expert should not deny having had prior discussions about testimony in the case, if such is the fact.
- If technical information is involved, the expert should give specifics, not estimates, in the answer. Refer to files or notes to refresh recollection, if needed.
- If the testifying expert makes a mistake, the expert should correct it as soon as possible.
- If a negative or apparently damaging fact or omission has been elicited, the expert should admit it and move on quickly. To fence, hedge, argue, equivocate or become angry only exposes the expert to further cross-examination and a resultant loss of credibility. It also draws attention to the weakness.
- One way to handle such a situation is to answer the question and then add, "But please let me explain." The examining attorney will probably not let the expert do that, but the proffering attorney should ask the expert to explain on redirect examination.

## More Ways to Reduce Vulnerability on Cross-Examination

Certain areas of weakness attend some expert testimony. Those areas will certainly be the grounds for attack by a cross-examining attorney. Knowing the following areas of jeopardy will help the expert prepare in advance for the cross-examination.

1. Is the expert's opinion based in whole or in part on judgment as opposed to measurable fact? It is always proper for cross-examination to probe the basis for the expert's well-established conclusions. If that basis is technical and scientific testing, the expert will not be vulnerable. However, if subjective judgment and opinion are the sole basis for the expert's opinion, the expert is vulnerable.
2. Is the expert's opinion based on input from others?
3. Has the expert made prior inconsistent statements? The questioner will ask about whatever the witness may have written and testified to in the past. Aggressive cross-examining counsel will comb those written materials for inconsistency.
4. Does the expert's behavior suggest insecurity? The skillful cross-examining attorney will observe the expert witness carefully. A hand near the mouth or face may suggest a witness withholding information, according to the attorney's way of thinking. If the expert flushes or a hand trembles, that may signal insecurity. If the expert hesitates and stammers or fumbles through papers and files, that may betray a lack of confidence in ability. Skillful examining attorneys sense a weak, inadequately prepared or unsure witness.
5. Is the expert in control? The basic tenet of cross-examination for the attorney is control of the witness. Therefore, the expert must stay in control and resist being led by the cross-examiner. A pattern of yes/no questions and answers should warn the expert that the examining attorney is attempting to control the situation. But the expert has another option besides a "yes" or "no" answer.  
*Question:* "Mr. Expert, isn't it correct that traffic lights sequence green to yellow to red?"  
The easy answer to the question is "Yes," but the better answer is "Yes, in most cases, unless there is a malfunction." In this way, the expert has avoided the trap of a yes/no answer.
6. The expert should make sure that the theories on which testimony and conclusions rely:
  - a. Are relevant to the case.
  - b. Rest on a reasonably reliable foundation.
  - c. Meet the conditions in *Daubert* (testing, peer review, error rates and "general acceptability") or *Frye*, depending on the jurisdiction.

The usual admonition for cross-examining counsel is to:

- Stop when ahead.
- Use restraint.
- Do not overplay.

The same admonitions are equally true for the expert witness undergoing cross-examination. The testifying expert should:

- Not overplay the expert role.
- Not overemphasize superior knowledge.
- Be accurate with the facts.
- Be firm without being an advocate.
- Maintain control of the situation.

## Examiner Techniques on Cross-Examination

One of the frequent keys to weakness in an expert opinion occurs when the forensic witness uses the phrases "in my judgment," "I believe" or "I think." That is almost a red flag to experienced counsel to move in and attack.

These preface statements imply the absence of fact or pragmatic input. The suggestion is that the testimony may be unsupported conjecture by the expert, hardly sufficient to meet the threshold of probability that is generally required.

## Body Language

The specific methods to attack a forensic witness start with visual examination of the witness. Experienced counsel pays special attention to body language. Typical tip-off signs that the witness may be uncomfortable and insecure include:

- A frequent hand to the mouth or face.
- Complexion flush.
- Fidgeting.
- Facial tics.
- Toying with ear, hair or clothing.
- Dilating pupils.
- A nervous finger or foot tap.

The expert must develop an awareness of these behaviors and control them. As the frequency and degree of insecure behavior increases, so will the pace and force of the cross-examination.

Experienced cross-examiners will look for the witness who is out of control or who gets angry, flustered, or makes the vain effort of trying to locate documents in a file while trying to answer questions.

## Additional Examiner Techniques

From the standpoint of keeping a forensic witness under control, the examiner's goal is to "keep the witness on a short leash." Questions are framed that require "yes" and "no" answers and that do not give the witness an opportunity to expand or explain. The aggressive forensic witness who attempts to explain on simple yes/no questions is likely to receive an admonition from the court to "just answer the question."

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A favorite cross-examining technique is to establish an inconsistency in testimony from the witness that arises from a prior writing or testimony of the witness to a contrary position.

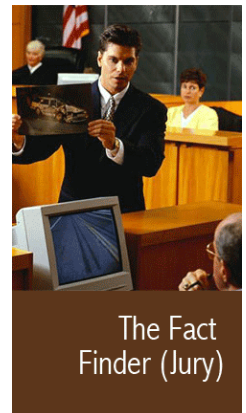
Witnesses can be impeached with prior writings from a testimonial experience in other cases, articles they have written, chapters or entire books they have authored, or teaching materials that have been used to conduct seminars, workshops and other lectures. The embarrassment to the forensic witness who is unfamiliar with prior writings is magnified by the devastation such prior inconsistent writings do to a bit of testimony to the contrary.

## The Attorney's Role

During the opposing expert's cross-examination, the attorney should:

- Avoid excessive review of the expert's exhibits by the jury.
- Keep the expert witness sitting in the witness chair as much as possible rather than letting the witness move about the room.
- Avoid questions that request or permit the witness to express an opinion.
- Thoroughly understand the importance of the examiner's own questions, and the likely responses, to permit appropriate follow-up.
- Listen carefully to the witness's responses.
- Be brief.
- Sit down when the desired responses have been obtained.

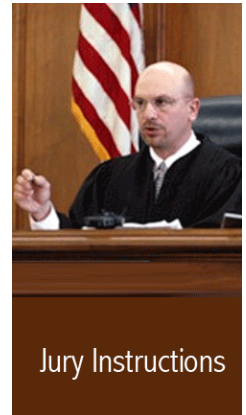
## Topic 10: The Fact Finder (Jury)



Throughout all of this process of cross-examination, it is vital for the expert to remember that the priority is for the fact finder to hear and see the expert clearly and to receive information in plain, comprehensible language and clear photos and displays.

It may be appropriate for the witness to turn toward the fact finder when answering questions rather than face the lawyer who posed the inquiry. The exception to this rule occurs when the question has come from the judge. In such instances, the witness should face the bench and address the judge while still making sure that the answer is audible to the jury.

## Topic 11: Jury Instructions



Jurors will be instructed on how to receive and evaluate an expert's testimony. A typical instruction will explain that an expert is not restricted to testifying about facts for which the witness has personal knowledge, and that the expert may express an opinion.

At the same time, jurors are reminded that an expert is like any other witness, with no special "badge" or presumption of credibility. Jurors are expected to evaluate the expert like they would any other witness. Jurors are typically instructed that they are free to accept all, some or none of the expert's proffered testimony.

Federal court jury instructions advise juries concerning expert witnesses as follows:

The rules of evidence ordinarily do not permit witnesses to testify as to opinions or conclusions. An exception to this rule exists as to those whom we call "expert witnesses." Witnesses who, by education and experience, have become expert in some art, science, profession, or calling, may state an opinion as to relevant and material matter, in which they profess to be expert, and may also state their reasons for the opinion.

You should consider each expert opinion received as evidence in this case and give it such weight as you may think it deserves. If you should decide that the opinion of an expert witness is not based upon sufficient education and experience, or if you should conclude that the reasons given in support of the opinion are not sound, or that the opinion is outweighed by other evidence, you may disregard the opinion entirely.

(Source: Devitt and Blackmar, *Federal Jury Practice and Instructions*, 3rd ed., Vol. 1, St. Paul, Minn.: West Publishing Company, 1977, §15.22, p. 482.)

Many state courts offer a similar typical expert witness jury instruction:

You have heard evidence in this case from witnesses who testified as experts. The law allows an expert to express opinions on subjects involving their special knowledge, training, skill, experience or research. You shall determine what weight, if any, should be given such testimony, as with any other witness.

## Module 12: Post-Trial, Pre-Sentencing

### Learning Objectives

After completing **Module 12: Post-Trial, Pre-Sentencing**, the user should know:

- The complexities and importance of post-conviction proceedings.
- The basis of a motion for new trial.
- The complexities and importance of retesting evidence.
- The importance of testimony and affidavits.

### Topic 1: Post-Conviction

In order to establish prejudice in a **motion for a new trial** due to ineffective assistance of counsel, the defendant must show that, but for the act or omission in question, the outcome of the trial would have been different.

In a post-conviction **motion for testing of evidence**, the burden of establishing reasonable probability, that the defendant would not have been prosecuted or convicted if forensic testing was done, falls upon the defendant. Additionally, forensic evidence must still exist and must be readily available for retesting.

An actual innocence claim is equivalent to an assertion of at least a 51-percent chance that the defendant would not have been convicted if exculpatory test results had been obtained at the time of trial. In a case involving DNA evidence, a successful Actual Innocence claim entitles the defendant to DNA testing. The testing is funded by the state, not by the defendant.

The Justice for All Act of 2004 provides for post-conviction DNA testing for federal prisoners with Actual Innocence claims for whom DNA testing may produce evidence of innocence. The act also creates grants to states to fund post-conviction DNA testing.

### Topic 2: Motion for a New Trial

The court may grant a motion for a new trial for several reasons:

- Fundamental error (including a judge's error of including or excluding evidence when it was improper, or when incorrect instructions burdening the wrong party are given).
- Error by counsel (including ex parte communication with a juror).
- Error by the parties (including ex parte communication with a juror).
- Newly discovered evidence.
- Insufficient evidence.
- Juror nondisclosure

Intentional juror nondisclosure occurs:

1. When there exists no reasonable inability of a prospective juror to comprehend the information asked in a question.
2. When a prospective juror actually remembers an experience, or it was of such significance that the juror's purported forgetfulness of an experience is unreasonable.

Nondisclosure of information may only occur after a clear question is asked on *voir dire*.

### Topic 3: Evidence Retesting

In cases where biological evidence was collected, still exists and was initially subjected to DNA testing, exclusionary results could support a claim of innocence.

However, reasonable individuals might not agree that the results raise a reasonable doubt about guilt. This includes cases where there is disagreement for policy and/or economic reasons about whether DNA testing should be permitted at state expense for anyone and/or for indigents.

These cases may raise difficult policy issues about how far post-conviction relief should reach. Factors that bear on the decision to test will include:

- Additional evidence in the case.
- Whether conviction was based on a guilty plea, a no-contest plea, or a trial.
- The availability of DNA testing at the time of trial.
- The availability of appropriate DNA technology at the time of trial.

The preceding factors are moot if no biological evidence was available for testing, or if the existing biological evidence sample size is too small to retest.

### Topic 4: Special Circumstances (Death Penalty)

The capital sentencing hearing (death penalty) is considered a part of the trial. Capital trials are bifurcated as required by the U.S. Supreme Court.

If the accused is found guilty of capital murder, the same jury sits for the sentencing phase. At sentencing, the prosecution must prove that the crime requires the death penalty. The defense may offer mitigating evidence.

The death penalty hearing can be viewed as a trial within a trial. It includes:

- Examination and cross-examination of witnesses.
- Opening statements and closing arguments.
- Judge/jury instructions.
- Jury deliberation to determine a life-or-death fate.

There is a possibility for findings of reversible error in the capital sentencing hearing, just as in the initial trial.

### Topic 5: Post-Testimony Self-Evaluation

To improve performance in future trial assignments, the expert may find it useful to conduct a self-review or self-evaluation after testifying. Important factors to consider in the post-testimony self-evaluation include:

1. Subject of the expert's testimony.
2. Quality of the expert's investigation.
3. Quality of the expert's written report.
4. Overall integrity and candor.
5. Demeanor as a witness.

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6. Preparation for trial and deposition testimony.
7. Overall credibility.
8. Expert's effectiveness in response to cross-examination of credentials and work product.
9. Expert's ability to "teach" effectively.
10. Expert's adherence to the standard testing and investigative protocol.
11. Expert's cooperation with the sponsoring counsel.
12. Expert's impression as "professional witness."
13. Expert's ability to access a database of prior writings and testimony.
14. Expert's effectiveness in handling confrontation about prior inconsistent writings or testimony.
15. Appropriateness of expert's dress, appearance, or mannerisms.

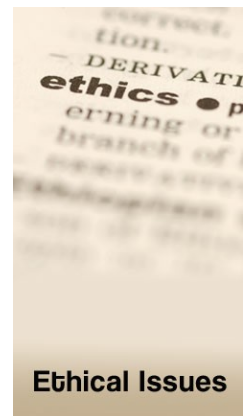
## Module 13: Ethics for Experts

### Learning Objectives

After completing **Module 13: Ethics for Experts**, the user should:

- Know that there are ethical standards of conduct; four of them may create conflict for the expert witness.
- Recognize proper, allowed and allowable procedures of conduct.
- Know how to avoid or use certain ethical violations strategically.
- Comprehend methods of challenging forensic fraud and unethical behavior.
- Appreciate the need to improve expert and counsel relationships.
- Recognize the ethical obligations under the ethics codes of certifying bodies and professional associations.

### Topic 1: Ethical Issues



Forensic experts must be aware of ethical standards of conduct and the procedures that are proper and allowed.

Expert witnesses should remember that, in the legal system, attorneys are advocates. Their duty is to present a set of facts and proofs that support the state's (or the client's) position. Occasionally, zeal for the cause may unintentionally interfere with professional and intellectual independence.

The expert's integrity, reputation, and personal and professional self-esteem require that the conclusions reached and opinions espoused are supportable and based on the available body of facts and operative

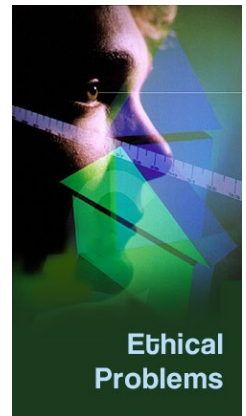


knowledge. **Experts must always follow the scientific method**, regardless of the final outcome.

The correlative of each of the negatives contained in this module should provide ample warning to the professionally responsible forensic witness and sponsoring attorney as to which methods and procedures should be used to avoid attacks by the opposition based upon fraudulent, unethical or improper conduct by the expert.

The objective is always to improve the quality of the criminal justice system. It is not designed to trap or trick serious and dedicated forensic witnesses who are attempting to assist the judicial system in resolving disputes.

## Topic 2: Ethical Problems



Four categories of ethical problems may create conflict for the expert witness in the legal system:

- Unethical conduct of forensic witnesses (i.e., dishonest expert testimony).
- Admissibility of expert testimony. Module 3: Importance of Case Preparation, Topic 14: Rules for Experts; Module 10: Pretrial, Topic 5: General Admissibility Factors; and Module 11: Trial, Topic 4: Requirements for Evidence Admissibility.
- Negligent performance of expert service.
- Inter-professional relations.

An examination of problems and solutions can provide guidance for ethical conduct, keeping in mind that objectivity is for the expert, and advocacy is for the attorney.

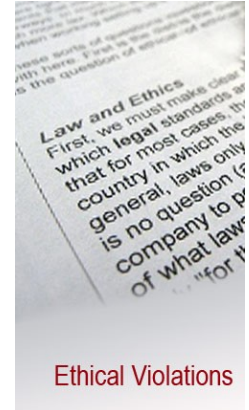
## Primary Ethical Issues

The primary ethical issues are as follows:

- Providing outright false data.
- Not conducting an investigation.
- Altering data.
- Giving false testimony.
- Intentionally ignoring available data.
- Recanting prior contra positions.
- Accepting assignments beyond one's competence.
- Accepting improper attorney influence.
- Reaching a conclusion before research is conducted or completed.
- Allowing conflicts of interest.

- Using fraudulent credentials.
- Overstating conclusions.
- Giving confusing or misleading testimony.

## Topic 3: Ethical Violations



Some issues covered in previous modules describe ethical violations by the forensic witness. However, other ethical violations that may occur in forensic testimony of experts can be avoided — or used for cross-examination.

**Providing outright false data.** The cross-examination process is charged with the obligation of exposing falsified information, reports, records or other basic data. This requires the most meticulous preparation and investigation by cross-examining counsel, well before the time a fallacious expert takes the witness stand.

**Not conducting an investigation.** The approach of counsel is to look at records, filed reports, bench notes and standard protocol to establish that purported investigations were, in fact, performed.

**Altering data.** Resorting to the original documentation is the most effective way of discovering alterations; alterations consist of changes to data or documents that are not supported by analysis. Obliterations through correction fluids, erasures or digital tampering may be exposed by original document examination. Proper corrections (e.g., in the medical field and for ASCLD-LAB accreditation) require that a single line be drawn through an erroneous record, with the author's initials. Anything short of that is suggestive of document tampering.

**Giving false testimony.** On occasion, a witness will falsely testify on the basis of information either erroneously provided or carelessly gathered. False testimony rarely arises from an intentional desire on the part of the witness to support the claim of the sponsoring party with no regard for the truth or falsity of the statement. Here, the weight of cross-examination provides strength for the opposition.

**Intentionally ignoring available data.** This oversight can occur through counsel, a sponsoring party who does not reveal to the expert all of the requisite data, or by the expert who turns a professional cold shoulder on salient facts. In either case, a cross-examination may expose such blind-siding.

**Recanting prior contra positions.** Often an expert has testified to or written concerning a particular proposition. The cross-examiner who uncovers a prior contra-position in another related or similar case has in hand the tools to expose the expert in a potential contradiction. The expert should be mindful of what is said on the witness stand, understanding that those statements may come back to haunt the witness. The expert that has a legitimate reason for changing a position should be certain that the reasons for doing so can be

sufficiently documented.

**Accepting assignments beyond one's competency.** This area of cross-examination applies, not to admissibility of expert testimony, but rather to the weight given to an expert's testimony. An expert clearly out of his or her depth should be exposed by careful cross-examination indicating that the assignment was simply beyond the witness's experience and capability.

**Allowing improper attorney influence.** Communication between the expert and attorney is the best way to uncover efforts by the sponsoring counsel to influence the expert's opinions. Normally, such correspondence is not privileged in any way, except if it is a pure attorney work-product and was not relied on by the expert in forming a professional opinion. In the event the witness has relied in whole or in part on the attorney statement, such information is proper for production and examination.

**Reaching conclusions before research is conducted or completed.** One of the opportunities for cross-examining attorneys is to have an expert jump to a conclusion before any study or research has been done to buttress or support the conclusion. Through cross-examination and meticulous file analysis, it may be possible to uncover the fact that an expert opinion or conclusion was reached before adequate research was done. This issue pertains to the weight assigned to the testimony and not to its admissibility. If the circumstances are sufficiently egregious, the witness's entire testimony may be stricken.

**Allowing conflicts of interest.** Conflicts of interest can provide a legal basis for expert challenge and a court-ordered disqualification of an expert witness. In the event materials were made available to an expert on the other side of an assignment before the current assignment, there is case law that prohibits an expert from testifying in the current case. Aside from circumstances that justify disqualification, a conflict of interest situation presents a viable area of cross-examination that may apply to the weight assigned to the testimony and may impinge on the expert's integrity.

**Using fraudulent credentials.** This involves the task of checking the details of an expert's curriculum vitae and personal résumé. Although experts are admonished to maintain a careful recitation of historic accomplishments, some tend to exaggerate their own credentials. By verifying the data contained in the resume before trial, it is possible to expose outright falsehoods. Falsehoods in the résumé/curriculum vitae can lead the fact-finder to the conclusion that there are falsehoods in the report as well.

**Overstating conclusions.** This can occur when an expert uses terms to indicate that the results are more probative or useful than are actually supported by the data (e.g., stating that a match occurred with microscopic hair comparison testing). Although the defendant may not be excluded as a potential source, this is far less meaningful than stating a match which jurors would take to mean it *is* the defendant's hair.

**Giving confusing or misleading testimony.** This is similar to overstating, but it could also mean failing to explain technical processes so jurors can understand and put results in context.

See: "Asserting the Expert's Rights as a Witness" — [Module 8: General Testifying Tips, Topic 13: Assertion of the Expert's Rights as a Witness](#), "Ethical Violations and Examples of Abuses by Experts" — [Module 8: General Testifying Tips, Topic 14: Avoidance of Ethical Violations](#), "Addressing and Countering Claims of 'Junk Science'" — [Module 8: General Testifying Tips, Topic 15: Response to Claims of 'Junk Science'](#), "Ethical Conduct and Discovery" — [Module 7: Discovery, Topic 17: Meticulous Preparation of All Materials Subject to Discovery at Deposition or Trial](#) .

## Topic 4: Methods of Challenging Forensic Fraud and Unethical Behavior



Surveys have established that jurors rely heavily on forensic testimony in a high percentage of cases. In many cases, jurors report that forensic witnesses were very persuasive in the ultimate outcome of the case.

For the forensic witness to continue in this posture of pre-eminence in the legal process, it is essential for the witness's expert testimony to be able to withstand the challenges of rigorous cross-examination.

Effective cross-examination is often an objective technique to attack or impeach the testimony of a fraudulent or unethical forensic witness. Cross-examining attorneys can challenge forensic testimony based upon:

- Fraud.
- Unethical behavior.
- Incomplete or inadequate investigation.
- Lack of preparation.
- Inexperience.

### Inadequate Preparation and Ethical Violations

Only sometimes are expert witnesses actually found culpable for preparing fraudulent or false scientific, technical or professional research. Unfortunately, those cases attract a tremendous amount of attention and bring massive disfavor to an otherwise honorable profession.

Horror stories circulating in legal and forensic fields about scientific witnesses who have actually falsified data to support either a prosecution or a defense posture in a criminal case are well known. The use of false DNA, blood, alcohol or chemical substance tests, resulting in wrongful incarceration of accused defendants, stands as the most reprehensible of all forensic witness abuses.

On occasion, experts will tender testimony to the court based on supposed scientific, technical or professional findings and research when they did not, in fact, do the work represented by their report.

Occasionally, the courts are faced with the problem of forged, altered or otherwise falsified documents, data or lab reports that support supposedly expert testimony. In those situations, when exposed, the resulting exclusion of expert testimony seems most appropriate. Sanctions should also be imposed by the courts on both the witnesses and the attorneys who were informed beforehand of the hoax.

## Law 101: Legal Guide for the Forensic Expert

Sometimes, an expert witness will recant prior testimony in a similar case because it does not particularly fit facts and circumstances of the present case. Inconsistent or unprofessional testimony is often exposed in the courtroom by aggressive cross-examination. Articulate cross-examination and stringent professional grievance practices may help eliminate such practices from the courts and the dispute resolution process.

Occasionally, expert witnesses display a lack of knowledge or professional competence to render the opinions that are sought. In those circumstances, the likely result is that expert testimony will be admitted (subject to cross-examination) and discounted by the fact finder because it has insufficient weight to be persuasive. Alternatively, the witness may fail to qualify as an expert and be denied the opportunity to testify.

### Topic 5: Improving Expert and Counsel Relationships



Several proposed codes of conduct for attorneys who deal with expert witnesses are in the drafting stages. One such code encompasses 11 major points to assist in the attorney-expert witness relationship. [A Proposed Code of Conduct, American Academy of Forensic Sciences, Jurisprudence Section.](#)

Although the AAFS code has not yet been adopted, members of both professions feel that the level of performance, conduct and ethical relationships must be raised.

The tendered code states that attorneys shall not knowingly proffer to the court an expert with fraudulent credentials. Such conduct would certainly subject an attorney to severe sanctions, if not criminal penalties.

In addition, the American Bar Association has published **Standards for Criminal Justice**. This publication includes both prosecution and defense standards for dealing with experts. It emphasizes the expert's independence and the need for impartiality.

Typical of the effort to improve the relationship between attorneys and forensic witnesses is the development, in several states, of interprofessional guides for expert witnesses and lawyers. The purposes of these guides are to:

- Promote better understanding between lawyers and expert witnesses.
- Improve communication between them.
- Minimize disputes.

## A Typical Code of Conduct

**A Typical Code of Conduct:** A code of conduct for attorneys and expert witnesses typically covers the following general areas:

**Role of the expert witness.** The expert's role is that of a consultant to perform experiments, tests or analyses; prepare written reports; provide testimony at deposition and trial; and serve in an advisory capacity at trial or for litigation preparation.

**Communication.** Frequent communication should occur between the expert and attorney to avoid unnecessary misunderstandings.

**Prior contacts precluding retention.** If information of a confidential nature is provided to an expert, the expert should keep records of that consultation. Later disclosure could serve to disqualify the expert from future assignments in the same case.

**Written retainer contract.** Agreements — including fee estimates, scope of services, and the expert's qualification if necessary — are to be part of a written retention agreement. Payment responsibilities regarding fees, deadlines, advance payment and cancellation requirements should also be included.

**Fee guidelines.** Factors to be considered in setting fees for forensic assignments include:

- Time spent on the case.
- Degree of knowledge and skill required.
- Amount of effort expended.

**Itemized billing.** Itemized billings are to be provided on a regular basis to expedite payment.

**The expert's lawyer.** Experts often have to hire their own counsel when certain ethical or procedural matters present themselves. It would be improper for the state's or client's attorney to serve as the expert's attorney. The expert may need an independent attorney on matters regarding production of documents, production of prior studies, and guidance for deposition or trial testimony.

**Disclosure and discovery guidelines.** Four issues are covered:

- Confidentiality and privilege.
- Formal methods of disclosure and discovery, including the procedure by which answers are to be provided.
- Informal contacts with third parties, including opposition experts.
- Releases to authorize disclosure.

By far, the most troublesome area is the matter of informal contacts by third parties. The guide instructs that the retaining lawyer shall be contacted if third parties attempt to discuss a case with a retained expert. This precaution usually suffices to protect the interests of the client and the attorney work-product, which could be exposed by such contacts.

**Subpoenas and scheduling of testimony.** The attorney should respect the expert's time. Every effort should be made to ensure that the expert is available to testify at a certain time; avoid detaining the expert an inordinate length of time in order to testify.

**Deposition testimony and the obligation of payment.** The party taking the deposition of an expert shall be obligated, under the rules, to pay for the costs of preparation, the time taken, and a review of the deposition transcript.

**Mutual understanding of roles in preparation for testimony.** Five points should be covered:

- The manner in which reports, tests, records, documentary evidence and exhibits are to be prepared, filed and maintained.
- The types of information on which expert opinion can be based, keeping in mind the evidentiary rules that might apply.
- The importance of answering questions asked by opposing counsel in a forthright manner, using simple and understandable language.
- Scheduling requirements, and other areas requiring cooperation between the lawyer and expert.
- Preparation of an updated résumé or *curriculum vitae* by the expert whenever major changes occur in the expert's credentials.

**Dispute resolution procedure.** An interprofessional committee composed of experts and lawyers is established for resolution of any dispute that arises between forensic experts and attorneys. Both parties are urged to utilize the interprofessional committee, rather than court processes, to resolve disputes.

## Topic 6: Ethics Codes and the Expert's Ethical Obligations



It is important for the expert to become aware of the ethical obligations under the ethics codes of the appropriate certifying bodies and professional associations.

For example, members of the American Academy of Forensic Sciences (AAFS) are prohibited from making material misrepresentations of their education or of the data upon which their professional opinions are based. If an AAFS member is found to have violated the code, an ethics committee may impose sanctions, such as censure, suspension or expulsion from the organization.

Some courts have sanctioned experts for their unethical behavior. Attorneys have been sanctioned by the American Bar Association (ABA) for abusing an expert witness on cross-examination.

The ABA standards relating to the **Administration of Criminal Justice** also set forth standards for prosecutors and defense counsel to follow when working with expert witnesses in criminal trials. The standards indicate that the attorney should:

- Respect the expert's independence.

- Not dictate the formation of the expert's opinion.
- Not pay excessive or contingent fees, which is considered unprofessional conduct.

## Forensic Professional Codes of Ethics

The major professional forensic organizations have codes of ethics for their memberships. The codes of ethics for the American Academy of Forensic Sciences, the International Association for Identification, and the American Society of Crime Laboratory Directors are provided in the Appendix document: Forensic Professional Codes of Ethics and Conduct.

## Topic 7: Expert Malpractice



In recent years, the field of law has been developing a new cause of action designed to hold expert witnesses responsible for their negligent professional behavior, as are doctors and lawyers. The laws concerning expert witness negligence have developed largely in response to a recent recognition that such negligence is not uncommon.

Erroneous conclusions have been reported, even within well-accepted scientific techniques such as fingerprint identification. In 1987, federal and state officials had to review 159 criminal cases in North Carolina after local authorities discovered what they determined to be questionable fingerprint identifications. A similar situation arose in 1993 in New York.

Pathologists have been shown to have faked hundreds of autopsies or committed grievous errors in determining the cause of death.

Solutions offered by the scientific and legal communities to curb abuses by experts include:

- Capping expert witness fees.
- Prescreening experts.
- Using only court-appointed experts.
- Adhering to a strict code of ethics.
- Conducting peer review.
- Establishing a science court.

Additional suggestions include prosecuting fraudulent experts and, most significantly, allowing the opposing counsel to cross-examine.



## Law 101: Legal Guide for the Forensic Expert

The reality, however, is that most lawyers do an inadequate job of cross-examining experts. One reason for this is improper preparation. Another reason may be that lawyers are often reluctant to incur the risks involved in challenging experts in their own fields.

Many lawyers do not even avail themselves of experts' assistance in preparing for cross-examination and are therefore unable to effectively challenge statements made by the experts. Finally, the vast majority of civil and criminal cases are settled or plea bargained before trial. Thus, the expert may never be subjected to rigorous questioning during the adversary process.

To date, none of the solutions offered to curb abuses by experts have succeeded in accomplishing their goal. Arguably, attempts at monitoring expert testimony may serve to deter some expert negligence and may also result in experts being held personally accountable.

### **Expert Malpractice Cause of Action**

Only *a malpractice cause of action* brought against an expert witness will protect and compensate injured individuals as well as deter future misconduct. It will ensure "quality control" of expert opinions by encouraging experts to be careful and accurate.

Elements of an expert malpractice cause of action are:

1. A negligent act or omission by the expert in breach of that duty.
2. Causation.
3. Damages.

The standard of care for a forensic scientist is that of the reasonably prudent practitioner in the relevant scientific field. Standards of professional practice and ethical codes, as promulgated by the discipline, may be used to help define the duty of care. Most disciplines within the forensic sciences have adopted such standards of conduct.

The very existence of the cause of action will ensure that experts are held accountable for their opinions. The full and accurate development of evidence in civil and criminal litigation is not served by protecting the negligent, incompetent or dishonest expert witness. The justice system as a whole benefits when such causes of action are permitted. The forensic sciences themselves will enjoy greater respect and admiration when it is known that their practitioners are accountable for their misdeeds, and that the professions favor eliminating the unethical individuals among them.

### **Topic 8: Serious Deficiencies in U.S. Forensic Science**

## Law 101: Legal Guide for the Forensic Expert



### Serious Deficiencies in U.S. Forensic Science

In 2009, a report from the National Research Council (NRC) of the National Academy of Sciences (NAS) found serious deficiencies in the nation's forensic science system and called for major reforms and new research.

The report found a lack of:

- Current rigorous and mandatory certification programs for forensic scientists.
- Strong standards and protocols for analyzing and reporting on evidence.
- Evidence to support reliability of many techniques, such as fingerprint analysis.
- Peer-reviewed, published studies establishing the scientific bases and reliability of many forensic methods.
- Funding, staff or effective oversight at many forensic science labs.

Forensic evidence is often offered in criminal prosecutions and civil litigation to support conclusions about individualization — in other words, to "match" a piece of evidence to a particular person, weapon or other source. However, with the exception of nuclear DNA analysis, the NRC report says, no forensic method has been rigorously shown to be able to consistently, and with a high degree of certainty, demonstrate a connection between evidence and a specific individual or source.

According to the report, non-DNA forensic disciplines have important roles, but many need substantial research to validate basic premises and techniques, assess limitations, and discern the sources and magnitude of error. Even methods that are too imprecise to identify a specific individual can provide valuable information and help narrow the range of possible suspects or sources.

The report urged Congress to establish a new, independent National Institute of Forensic Science to lead research efforts, establish and enforce standards for forensic science professionals and laboratories, and oversee education standards.

In addition, the report indicates that, to ensure the efficacy of the work done by forensic scientists and other practitioners in the field, public forensic science laboratories should be independent from or autonomous within police departments and prosecutors' offices.

See: [Forensic Professional Codes of Ethics and Conduct](#) (Appendix)

Sources: ['Badly Fragmented' Forensic Science System Needs Overhaul; Evidence to Support Reliability of Many Techniques Is Lacking](#); and [National Academy of Sciences Finds 'Serious Deficiencies' in Nation's Crime Labs](#).

## APPENDIX

This collection of documents amplifies detailed, lengthy concepts.

### Sample Engagement Letter From Retaining Attorney - Module 3

#### Appendix Content

- [Sample Engagement Letter From Retaining Attorney](#)
- [Sample Engagement Letter From Expert Witness](#)
- [Sample Interrogatories and Request for Production to Expert Witnesses](#)
- [Deposing An Adverse Witness](#)
- [Key Issues in Reference to Hearsay](#)
- [Hearsay Exceptions](#)
- [Federal Rules of Evidence \(FREs\)](#)
- [Federal Rules of Evidence Regarding Hearsay](#)
- [Forensic Professional Codes of Ethics and Conduct](#)

#### I. SCOPE OF WORK

[Description of assignment]

#### II. TIME REQUIRED

Work under this agreement will commence upon receipt of authorization to proceed. It is estimated that work under Part I can be completed in \_\_\_\_\_ to \_\_\_\_\_ weeks.

Delays caused by major changes in the project plans or by circumstances beyond the control of the expert will extend the time of completion.

#### III. PAYMENT

Payment for services is based on the time required to accomplish the work and is computed by multiplying direct salary cost by a factor that accounts for overhead, including payroll, unemployment and other taxes, general and administrative expenses, and profit. Hourly rates currently in effect are \$60.00-\$95.00 for principals and associates, \$30.00-\$65.00 for engineers and hydrologists, and \$25.00-\$35.00 for technicians, draftsmen and secretarial assistance.

Personnel are assigned to the job in accordance with the type of work involved and the professional services required. Expenses incurred directly in connection with the project are billed at cost plus 10 percent to cover handling and administration.

The work described under Part I above represents our best estimate of what will be required and is based on the information provided. As the work proceeds and additional facts are developed, it may be necessary to undertake additional work, and some items described may not be needed.

## Law 101: Legal Guide for the Forensic Expert

For these reasons, we can provide only an estimate of the time and cost of doing the work. We believe the work described under Part I can be accomplished for between \$\_\_\_\_\_ and \$\_\_\_\_\_.

Every effort will be made to complete the work as economically as possible. Invoices will be submitted monthly for time and expenses incurred. Terms of payment are net 30 days. Overdue accounts are subject to an interest charge of 1.5 percent per month, and work will stop whenever payment is overdue more than 75 days.

### IV. SPECIAL SERVICES

Services in addition to those described under Part I will be performed or obtained for the client's account upon request at rates currently in effect. Special services may include expert testimony; appearances at public meetings; soil investigations; and topographic and land surveys (including establishment of boundaries, well drilling, well and aquifer testing, electric logging, water quality sampling and analysis, preparation of construction drawings and specifications, and material testing).

Acceptance of this proposal and authorization to proceed with the work can be indicated by signing one copy of this proposal and returning it to us for our files. The terms of this proposal will be honored for a period of 30 days from the date of submission. We appreciate your considering our firm and look forward to working with you.

Very truly yours,

[Name of Authorized Person]

For: [Contracting Agency]

By: [Authorized Signature/Title]

Date: \_\_\_\_\_

## Sample Engagement Letter From Expert Witness - Module 3

### Appendix Content

- [Sample Engagement Letter From Retaining Attorney](#)
- [Sample Engagement Letter From Expert Witness](#)
- [Sample Interrogatories and Request for Production to Expert Witnesses](#)
- [Deposing An Adverse Witness](#)
- [Key Issues in Reference to Hearsay](#)
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### Sample Engagement Letter From Expert Witness

(On letterhead)

Law 101: Legal Guide for the Forensic Expert

[Date]

[Client's Name/Mailing Address]

Re: [Subject Name/Matter]

This letter will set forth my understanding that I am to serve as an expert witness in the above-noted matter. At this time, I will serve as a consultant on your behalf with regard to the pending litigation and specifically with regard to this proposition:

1. I am to determine whether there is probable cause under the professional negligence statute of the State of \_\_\_\_\_ to file the Amended Complaint in this case.
2. I am to examine the theories of liability and determine whether they are legally supported on the basis of allegations in the Complaint and such other preliminary investigations as we may feel necessary to reach that conclusion.
3. I am to determine whether there is a legal and factual basis for the allegations of negligence, breach of fiduciary duty, negligent misrepresentation, fraud, breach of contract, or negligent supervision in accordance with the law and the facts and particular reference to the Code of Professional Responsibility and the [State] statute on professional negligence claims.
4. I am to render opinions, as requested from time to time, regarding damage theories that are supportable in law and fact in this case.

A retainer of \$5,000 would be appropriate. I expect that the sum necessary to render a preliminary opinion in this matter will range between \$4,000 and \$5,000 at my hourly rate of \$250.00 per hour.

We will, of course, bill for any additional and incidental expenses in this assignment, such as legal research, copying costs and the like, but I expect those expenses to be minimal.

If this engagement is in line with your understanding, kindly forward your retainer check of \$5,000, execute the agreement in the space provided below, and forward a copy to my office.

[Your Firm's Name]

[Your Signature]

[Your Name]

Enclosures

CONTENTS NOTED AND APPROVED:

[Client's Name]

By \_\_\_\_\_

(Client's Signature)

(Date)

# Sample Interrogatories and Request for Production to Expert Witnesses - Module 7

## Appendix Content

- [Sample Engagement Letter From Retaining Attorney](#)
- [Sample Engagement Letter From Expert Witness](#)
- [Sample Interrogatories and Request for Production to Expert Witnesses](#)
- [Deposing An Adverse Witness](#)
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\_\_\_\_\_ by counsel of record, \_\_\_\_\_, submits the following Interrogatories to \_\_\_\_\_ to be answered concerning that party's expert witness, pursuant to Rules 26(b)(4) and 34, of the Federal Rules of Civil Procedure, which are to be answered separately and fully in writing, under oath, within thirty (30) days after service. Answers must be updated as additional responses become available.

1. Identify each person assisting in answering this discovery and denote which questions are answered by which person.
2. State the names, addresses and occupations of such persons.
3. State all areas of specialization of the expert's occupation or profession.
4. Describe all professional or social relationships the experts have with \_\_\_\_\_ at the present and at any time in the past.
5. State when the experts were hired and by whom. Attach copies of all correspondence or notes of telephone conversations between experts and the hiring party or counsel.
6. What relationships of a social or professional nature do the experts have with \_\_\_\_\_'s counsel? Have the experts ever been engaged as an expert or testified for \_\_\_\_\_'s counsel previously? If so, provide all details of each testimonial or forensic engagement.
7. What is the expert's formal education and employment experience in detail? Attach a current curriculum vitae or detailed resume.
8. What is the expert's agreement for compensation with the hiring party? Include all amounts paid or to be paid and attach copies of the engagement agreements, billing and timekeeping sheets.
9. State the exact manner in which the expert became familiar with the facts of this case. Detail each and every one of the expert's efforts and include the time devoted to each step.
10. What was the expert's specific assignment? Describe each and every action taken in completing such assignment.
11. What is the subject matter of the expert's prospective testimony in the case? How was that assignment given? Produce all documentation of that assignment. Produce all of the expert's files with regard to assignments as they now exist, in original form, without addition or subtraction, and in the original file folders. If material is in computer storage, print it out and produce the printout.
12. Provide copies of all documents obtained or generated in the course of employment as an expert in this case including, but not limited to:
  - a. All notes made of conversations with other witnesses, parties, other experts, or attorneys for the hiring party;
  - b. All reports or writings examined in arriving at the expert's opinion;
  - c. All correspondence with the hiring party and their counsel;
  - d. Any other documentation generated in arriving at conclusions;

## Law 101: Legal Guide for the Forensic Expert

- e. All investigative reports obtained that were prepared by others, or generated by the expert;
  - f. Any photographs, recordings, drawings of calculations prepared as part of the expert's study;
  - g. Any documents which the expert located, specifying the source of such documents.
13. How much time has the expert spent on this project? Allocate such time to each particular task performed.
  14. Give the name, address, and telephone number of any attorney, witness, party or other expert with whom the expert has conferred about this assignment. Detail the response or information obtained from any such person.
  15. State what experience the expert has had with similar or comparable projects. What prior expert testimony or reports has the expert ever prepared or given concerning a project similar to that of this case.
  16. State whether any field investigation was performed. Give the name, address and telephone number of any person with whom the expert met during such field investigation. Detail the time devoted to such effort.
  17. Provide a bibliography of all documents, books, publications, treatises, or any other written material upon which the expert relied in forming opinions. Be page specific.
  18. Provide a bibliography of all documents, books, publications, treatises, or any other written material considered by the expert to be authoritative on the subject matter of projected testimony.
  19. State the facts, opinions and conclusions to which the expert intends to testify at a trial or hearing in this case.
  20. What other additional specific opinions and conclusions did the expert reach concerning this project?
  21. Give a summary of the technical, factual, professional, or scientific basis and ground for each opinion reached by the expert to support each conclusion or opinion.
  22. State the expert's reasoning by which each conclusion or opinion (in paragraphs 19 and 20) is supported or reached, based on the information in paragraph 21 above, or otherwise.
  23. What additional assignments has the expert been given which have not yet been completed?
  24. What additional work do you believe will be necessary for the expert to complete prior to trial or hearing?
  25. When is the expert expected to complete such assignments?

These are continuing interrogatories and requests for production. Experts must supplement their responses in a prompt and timely fashion.

## Useful Steps for Self-Preparation - Module 10

### Appendix Content

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The following 19 steps will help guide the expert in preparing for testimony at a hearing or trial, even if the expert has not had the opportunity to prepare with counsel's assistance.

## Law 101: Legal Guide for the Forensic Expert

Beginning these steps presupposes that the expert has done everything right to this point; that is, engagement, investigation, preliminary report, discovery and final report have all been accomplished successfully. Only final trial preparation and trial remain.

1. **Decide on the order of proof.** Consider how the assignment and report may best be presented.

Usually, identifying questions will come first:

- ◆ Who are you?
- ◆ What was your assignment?
- ◆ What did you do?
- ◆ How did you do it?

Evidence testing, observations and results come next, followed by the expert's conclusions, opinions and reasoning. The expert should decide when visual aids and models will most effectively illustrate his testimony.

2. **Refine the testimony.** The expert should spend time summarizing the research, testing, findings, conclusions and opinions. Practice delivering the testimony to neighbors, friends and family members. Is it clear? Does it make sense? Do others understand it? Are they persuaded? If others do not understand or are not persuaded by the practice testimony, the expert should refine it.

3. **Examine the exhibits and the venue.** If the case involves a place or tangible objects that are reasonably accessible, the expert should inspect it/them one last time before trial. If the expert has access to the opposition's visual aids or expert reports, the expert should review them. If necessary, the expert should contact the engaging attorney for assistance in obtaining access to these items.

4. **Obtain advance approval of any demonstration items.** The expert may need counsel's assistance to obtain advance approval to use demonstrations. These items should be disclosed to opposing counsel before trial, even if this requires contacting the engaging attorney for assistance.

5. **Stage the testimony.** The expert should become familiar with the trial setting. If possible, visit in advance the place where testimony will be taken. In particular, the expert witness should determine the location of electric outlets, open walls or projection screens and how visual aids will be projected. Will an extension cord be necessary? The expert should ensure that charts and visual aids can be seen clearly from important positions in the room: the judge's bench and the jury box. The expert should check the equipment and prepare for emergencies such as power failure or bulb burnout.

It is also a good idea to review testimony tips and guidelines at this time (see [Module 8: General Testifying Tips](#)).

6. **Review the discovery response.** The expert is usually provided with copies of interrogatories the expert helped to answer or draft. The expert should review them before trial as well as the review tests, examinations and pretrial preparation, all of which were the subject of the formal discovery response. The expert should pay particular attention to the transcript of deposition and the depositions of concurring and contravening experts. Study all of these documents for their strong and weak points, which will help the expert anticipate the cross-examination.



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7. **Anticipate any evidence problems.** The expert should examine any documents or tangible items the expert expects to sponsor as a testifying witness. Are they technically trustworthy? Do they need only minimal explanation to be understood? Who prepared them? If they were prepared by others, will they be admissible in the ordinary course of the expert's professional experience? Are they reliable? The expert witness should develop an alternative plan if the items expected to be offered into evidence are rejected. The attorney who engaged the expert will appreciate any observations about motions to limit or accept evidence.
8. **Check any technical terminology.** The expert should consider use of a glossary if testimony will require the use of technical terms. This will build credibility, assist the teaching process, and enhance the expert's position as reliable and believable. Obtain approval to use the glossary from all counsel in advance. If permission is denied, definitions can be written on a flip chart or chalkboard during testimony.
9. **Structure and organize the testimony.** The expert should outline the main points of the testimony, building from the initial strong points to any weaker points in the middle, and concluding with a strong finish. The trier of fact will determine the expert's level of confidence, competence and credibility by how well-organized he appears on the witness stand. The testifying expert who has materials in neatly arranged and well-organized notebooks creates a professional and competent presentation.

The notebook should include:

- ◆ The expert's report.
  - ◆ A summary of the data.
  - ◆ Answers to interrogatories that relate to the testimony.
  - ◆ The expert's discovery deposition.
  - ◆ The subpoena that commanded the expert's appearance at trial.
10. **Prepare the exhibits and demonstrations.** Whatever exhibits the expert needs should be orderly and easily accessible. They should be filed by date, witness or party, and subject matter, and cross-indexed for easy access. If necessary, the expert can use computer-assisted filing.

The expert should decide which of the exhibits are to be enlarged or set up for slide or overhead projection. The exhibits should be ready for presentation. If the expert plans to sponsor a number of documents, an accurate exhibit list should be prepared. The expert should include enough copies of all exhibits for the expert, the court or hearing officer, and each of the parties represented at trial. The expert must make certain that the experiments and demonstrations work every time.

11. **Meet with other experts.** The benefits of consultation with other experts involved in the case have been discussed. A meeting of the experts must be approved by counsel, so check with them first. This meeting is of benefit to the expert whether or not counsel attends.
12. **Obtain instructions that bear on testimony.** If the matter is to be tried before a jury or commission that is subject to legal instructions, the expert should review the instructions as they relate to testimony. Knowing what legal instructions the fact finder will receive allows the expert to tailor

## Law 101: Legal Guide for the Forensic Expert

testimony to meet legal tests and requirements. The expert should consult with the proffering attorney to obtain these instructions.

- 13. Resolve scheduling problems.** The expert must know when and where to testify. Trials and hearings are sometimes delayed by sickness, unavailability of witnesses or emergencies. If the attorney has not informed the expert of whether and when he will testify, the expert should call the clerk, the judge of the court, or the court secretary to determine the schedule.

The expert should prepare a schedule addressing these questions:

- ◆ When will the materials arrive?
- ◆ How will they get there?
- ◆ When will the expert arrive?
- ◆ When might the expert be called to testify?
- ◆ How long is the expert likely to testify on direct examination?
- ◆ How long might cross-examination last?

Finally, the expert should discuss with counsel whether or not it is necessary to remain present before or after giving testimony.

- 14. Respond to subpoena to appear.** It is better for the expert to be subpoenaed rather than volunteering to appear for trial. Being subpoenaed enhances the expert's independence and credibility.
- 15. Select appropriate clothing.** The expert should dress conservatively and appropriately. Avoid flashy jewelry, accent handkerchiefs or scarves, dark sunglasses, and obviously expensive or provocative clothing.
- 16. Transport the materials.** On a complicated case, the expert's materials may consist of numerous files, boxes, experiments, models, mockups, drawings and other bulky items. The expert should determine well in advance who will move the materials, and how and when that will be accomplished.
- 17. Anticipate the opposition's plan.** The expert should try to gather information about the facts, law and positions the other side is relying on. Analyze the opposition's likely strategy and anticipate how the expert would cross-examine himself or herself on the facts and evidence of the case.
- 18. Charts and visual aids.** Charts are best presented in simple black letters or numbers on a white background and with no dark borders. Use yellow highlighter for emphasis. See Module 3: Importance of Case Preparation, Topic 10: Visual and Demonstrative Aids.
- 19. Key concepts.** Keep in mind the four key concepts that underlie all effective expert testimony:
  - ◆ **Credibility:** Be conservatively dressed, organized and well-prepared, and follow procedures based on the scientific method.
  - ◆ **Teaching:** Clearly communicate the techniques used, results of any testing, and the conclusions drawn.
  - ◆ **Demonstration:** Use visual aids effectively.
  - ◆ **Simplicity:** Focus on key points, do not volunteer information, and be succinct.

## Key Issues in Reference to Hearsay - Module 11

### Appendix Content

- [Sample Engagement Letter From Retaining Attorney](#)
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Facts on which an expert bases an opinion can be learned by the expert either at a hearing or before a hearing. The expert can rely on hearsay if the hearsay is of a type "reasonably relied upon by experts in the particular field in forming opinions." [FRE 703].

### Hearsay

Hearsay is a statement or conduct made by a declarant other than while testifying, which is offered "to prove the truth of the matter asserted." [FRE 801(c)].

Some things are not hearsay, such as testimony of a witness at a prior trial when the right of cross-examination existed. Admission of testimony by the opposing party is not hearsay; however, it must be:

- The party's own statement.
- Assertively based on truth.
- Made by a person authorized to make such statements.
- Made by a party's agent or employee.
- Made by a co-conspirator in furtherance of the conspiracy.

[FRE 801(d)].

## Deposing An Adverse Witness - Module 9

### Appendix Content

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## Law 101: Legal Guide for the Forensic Expert

- Federal Rules of Evidence (FREs)
- Federal Rules of Evidence Regarding Hearsay
- Forensic Professional Codes of Ethics and Conduct

(Citation: "Deposing an Adverse Witness," by Clifford L. Somers. *For the Defense* 31(7) (July 1989): 24-29. Courtesy of Defense Research Institute. Used with permission. Cited from: *Succeeding as an Expert Witness*, 3rd ed., 2000, Appendix 1.13: 230-234.)

The following outline was prepared for deposing attorneys and is intended as an aid in taking the deposition of an adverse expert. Attorneys are advised to consider it as a guide, not as a script. This outline may be useful to the expert preparing for deposition as an example of the depth, detail, and degree of specific questioning he or she might expect from opposing counsel:

### I. Background and Qualifications

A. Accomplishments: resume, curriculum vitae, bibliographies and lists of presentations.

#### B. Education and Training

1. What schools or training courses has the expert attended?
2. What on-the-job training was received?
3. What degrees or certificates were obtained, and when?
4. What licensing, specialty certification, or other professional accreditation was received, from whom and when?
5. Have the expert's accreditations ever been questioned, investigated, suspended or removed?
6. Has the expert ever been sued as a result of professional activities?

#### C. Litigation Experience

1. Has the expert testified in a lawsuit before?
2. Where, when and how often?
3. How much of the witness's income is derived from testifying or preparing to do so?
4. Does the expert advertise his or her services? If so, where and when?
5. How did the witness get into this case?
6. Has the witness ever served for this lawyer or his or her firm, and how often?

#### D. Publications

1. Has the expert ever published any original work on the subject of this lawsuit?
2. Review the expert's bibliography and presentations with him or her as to their bearing on the current action.

#### E. Research

1. Has the witness ever done research relevant to the subject at issue?
2. If so, when, where, under what circumstances, and for whom (provide details).
3. Were the results published? If so, where can you get a copy?

#### F. Professional Organizations

## Law 101: Legal Guide for the Forensic Expert

1. For a physician, membership on hospital staffs.
2. For all experts, membership in organizations (current or past positions).
3. Have they ever had their privileges or memberships questioned, investigated, suspended or removed?  
Get details.

### I. Materials Provided

#### A. Records

1. Do you have a complete list?
2. From what source were they derived?
3. Are they copies? If so, from what source were they copied?
4. Is the witness expecting to examine more records? If so, what records, when and from where?
5. Were there any records the witness wanted but did not receive?

#### B. Literature, Tables and Standards

1. From what precise source were they obtained?
2. Who obtained them?
3. Were copies retained by the witness?
4. Is this material authoritative, useful, persuasive, and generally relied on in the industry?
5. Is the expert aware of any literature that is relevant but still in preparation or in the process of being published? Get details.

#### C. Oral Information

1. From whom was the information obtained and when?
2. What information was obtained?
3. What part did the information play in the witness's activities?
4. What notes or records were made of the oral information, and where are these?

#### D. Other Materials

1. What other materials or information were gathered and used?
2. When, where, and from whom were they obtained? Where are these materials now?
3. Is anything else expected? If so, what, when and from whom?

### III. The Task of the Expert Witness

#### A. What Was the Task?

1. Has the expert ever done this task before? Get details.
2. Did they do what they were asked to do in this case?
3. Did they do anything beyond what they were asked to do?

#### B. Standards

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1. What is your definition of "standard of care?"
2. In this case, how do you know what the standard is?
3. Describe any field experience you may have in practicing under these standards.
4. If the standards are derived from a publication, which one specifically?
5. If there are governmental or industry standards, did you help to prepare such standards? Give relevant details.

### IV. Who Gathered Information for the Expert?

- A. Did you personally do all the work that led to your opinions?
- B. Give full names, addresses, titles, and qualifications of others involved in gathering and evaluating data.
- C. What did each of these people do?
- D. Were you actively involved in their work or did you supervise?
- E. Were you present at all times while the others performed their work?
- F. Give full names, addresses, titles, and qualifications of any independent consultants whose input was received.
- G. What did they produce?
- H. How was it used?
- I. Explore qualifications and hearsay problems.

### V. Terminology

- A. All non-lay terms of any complexity or strangeness must be defined.
- B. Never forget that the jury may not know a term that you are familiar with.
- C. Never fear appearing ignorant. Require the expert to explain, in simple language, all technical terminology.

### VI. Resources and Background Research

#### A. Records Reviewed

1. Describe the time spent and the thoroughness of your review.
2. What part did records play in the formation of opinions?

#### B. Technical Publications

1. How were manuals and other technical publications obtained?
2. Do you have copies?
3. What part did the publications play in the formation of opinions?

#### C. Products

1. Who examined or worked on the products at issue?
2. What was done with or to the products?
3. What were the findings?
4. What is the significance of the findings?
5. Were photographs, microscope slides, videotapes, X-rays, or other pictorial or graphic records made?
6. Who has these visual records?
7. What do they demonstrate?

#### D. Computers

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1. Describe the types of computers used in gathering and analyzing the information.
2. Who used the computers?
3. What special software was used?
4. What was done with the computers?
5. Do you have copies of any printouts of results?
6. How did the results affect the expert's opinions?

### E. Other Equipment

1. Describe all scientific or technical equipment used in gathering and analyzing the information.
2. Was the equipment calibrated? If so, when and how?
3. Who operated the equipment, and what did he or she do?
4. What were the results?
5. Where are the results recorded?
6. How did the results affect the expert's opinions?

### F. Other Testing

1. What was done?
2. Who did it?
3. What were the results?
4. How did the results affect the expert's opinions?

## VII. Opinions

### A. List the Opinions Reached

1. Have the witness list each professional opinion or category of opinion reached.
2. Read the list of opinions aloud to check for accuracy.
3. Get agreement from the witness that you have a complete and accurate list.

### B. Facts

1. With respect to each opinion, get a recitation of the operative facts on which it is based.
2. If it is not stated or clear, get a citation to the source of each fact.
3. Get a list of any assumptions made about the facts.
4. State the basis of the assumptions.
5. Make the witness agree that you have all the relevant facts for each opinion.

### C. Reasoning

For each opinion, get an explanation of the reasoning process from facts to conclusions.

### D. Causal Relationships

1. For each opinion, get an explanation of its causal or other relationship to the case.
2. Get an explanation of the interrelation of multiple factors.

### E. Standards

1. Are the opinions based on proper industry or professional standards?
2. Would the majority of the expert's peers agree with the stated opinions?

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3. Are there any respected minority opinions in the field?
4. Does the witness concede the legitimacy of minority or differing views in the field?

### VIII. Concluding Questions

#### A. Other Work

1. What additional responsibilities or participation does the expert expect to undertake in this case?
2. When will it be done?
3. If nothing more is to be done, does the witness feel that what was done is a sufficient basis for the opinions rendered?

B. Have all of the witness's professional opinions or conclusions in this case been explored in the deposition?

1. If not, what else is there? Follow up as above.
2. Does the witness feel that he or she has had a fair chance to state these other opinions or conclusions?
3. Is there anything the witness would like to add so as not to be misunderstood?

## Hearsay Exceptions - Module 11

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Generally, hearsay is not admissible [[FRE 802](#)]. However, there are numerous exceptions to the hearsay rule. The following statements, records and judgments may be admitted as testimony, although they are technically hearsay:

1. Statements made while witnessing an event.
2. Excited utterances.
3. Statements about a declarant's state of mind or emotional sensation at the time.
4. Statements for diagnostic purposes such as medical history.
5. Recorded recollections, which will help refresh the witness's memory later.
6. Records of regularly conducted activity, or the **business records exception**:
  - a. Made at the time.
  - b. From information transmitted by a person with knowledge.
  - c. In the course of regularly conducted business activity.



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- d. If it was the regular practice to keep such a record.
- e. If the record is maintained by a qualified witness or the usual custodian.
- f. If the circumstances indicate general trustworthiness.
7. The absence of a regular business entry record.
8. Public records and reports.
9. Vital statistics.
10. The absence of a public record.
11. Records of religious organizations.
12. Marriage, baptismal and similar ancient certificates.
13. Family records.
14. Recorded documents concerning interest in property.
15. Statements in documents affecting title to property, if otherwise relevant.
16. Statements of other kinds in historical documents.
17. Market reports and tabulations.
18. Learned treatises, if recognized as a "reliable authority" by the testifying witness or another expert in the case, or by judicial notice.
19. Reputation concerning personal or family matters.
20. Reputation concerning boundaries.
21. Reputation as to character.
22. Judgment of a prior criminal conviction.
23. Judgment as to personal, family or general history or boundaries.

All of the foregoing exceptions are part of [FRE 803](#).

In addition, a series of exceptions exists to the hearsay rule if a declarant (witness) is unavailable for various reasons. [[FRE 804](#)].

If a hearsay statement is admitted into evidence under one of the exceptions, the credibility of the declarant (the witness) may be attacked for prior inconsistent statements. [[FRE 806](#)].

Characteristics of other statements that are exceptions to the hearsay rule [[FRE 807](#)]:

- They must be trustworthy.
- They must be a statement of material fact.
- They must be more probative than the contrary evidence.
- Justice will be served by admission of the statements as evidence.
- Intent to rely on this exception must be given well in advance of the hearing or trial.

## Federal Rules of Evidence (FREs) - Module 11

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## Law 101: Legal Guide for the Forensic Expert

- Federal Rules of Evidence (FREs)
- Federal Rules of Evidence Regarding Hearsay
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Are the body of evidentiary rules, used in federal court and adopted in many state courts, which generally constitute a summary of the law of evidence in many jurisdictions. Also known as "Rules". (Source: <http://www.law.cornell.edu/rules/fre/rules.htm>)

### FRE 101:      **Scope.**

These rules govern proceedings in the courts of the United States and before United States bankruptcy judges and United States magistrate judges, to the extent and with the exceptions stated in Rule 1101.

### FRE 102:      **Purpose and Construction.**

These rules shall be construed to secure fairness in administration, elimination of unjustifiable expense and delay, and promotion of growth and development of the law of evidence to the end that the truth may be ascertained and proceedings justly determined.

### FRE 103:      **Rulings on Evidence.**

#### **(a) Effect of erroneous ruling.**

Error may not be predicated upon a ruling which admits or excludes evidence unless a substantial right of the party is affected, and

**(1) Objection.** In case the ruling is one admitting evidence, a timely objection or motion to strike appears of record, stating the specific ground of objection, if the specific ground was not apparent from the context; or

**(2) Offer of proof.** In case the ruling is one excluding evidence, the substance of the evidence was made known to the court by offer or was apparent from the context within which questions were asked.

Once the court makes a definitive ruling on the record admitting or excluding evidence, either at or before trial, a party need not renew an objection or offer of proof to preserve a claim of error for appeal.

#### **(b) Record of offer and ruling.**

The court may add any other or further statement which shows the character of the evidence, the form in which it was offered, the objection made, and the ruling thereon. It may direct the making of an offer in question and answer form.

#### **(c) Hearing of jury.**

In jury cases, proceedings shall be conducted, to the extent practicable, so as to prevent inadmissible evidence from being suggested to the jury by any means, such as making statements or offers of proof or asking questions in the hearing of the jury.

#### **(d) Plain error.**

Nothing in this rule precludes taking notice of plain errors affecting substantial rights although they were not brought to the attention of the court.

**FRE 104. Preliminary Questions.**

**(a) Questions of admissibility generally.**

Preliminary questions concerning the qualification of a person to be a witness, the existence of a privilege, or the admissibility of evidence shall be determined by the court, subject to the provisions of subdivision (b). In making its determination it is not bound by the rules of evidence except those with respect to privileges.

**(b) Relevancy conditioned on fact.**

When the relevancy of evidence depends upon the fulfillment of a condition of fact, the court shall admit it upon, or subject to, the introduction of evidence sufficient to support a finding of the fulfillment of the condition.

**(c) Hearing of jury.**

Hearings on the admissibility of confessions shall in all cases be conducted out of the hearing of the jury. Hearings on other preliminary matters shall be so conducted when the interests of justice require, or when an accused is a witness and so requests.

**(d) Testimony by accused.**

The accused does not, by testifying upon a preliminary matter, become subject to cross-examination as to other issues in the case.

**(e) Weight and credibility.**

This rule does not limit the right of a party to introduce before the jury evidence relevant to weight or credibility.

**FRE 105. Limited Admissibility.**

When evidence which is admissible as to one party or for one purpose but not admissible as to another party or for another purpose is admitted, the court, upon request, shall restrict the evidence to its proper scope and instruct the jury accordingly.

**FRE 106. Remainder of or Related Writings or Recorded Statements.**

When a writing or recorded statement or part thereof is introduced by a party, an adverse party may require the introduction at that time of any other part or any other writing or recorded statement which ought in fairness to be considered contemporaneously with it.

**FRE 401. Definition of "Relevant Evidence".**

"Relevant evidence" means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence.

**FRE 402. Relevant Evidence Generally Admissible; Irrelevant Evidence Inadmissible.**

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All relevant evidence is admissible, except as otherwise provided by the Constitution of the United States, by Act of Congress, by these rules, or by other rules prescribed by the Supreme Court pursuant to statutory authority. Evidence which is not relevant is not admissible.

### **FRE 403. Exclusion of Relevant Evidence on Grounds of Prejudice, Confusion, or Waste of Time.**

Although relevant, evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence.

### **FRE 404. Character Evidence Not Admissible To Prove Conduct; Exceptions; Other Crimes.**

#### **(a) Character evidence generally.**

Evidence of a person's character or a trait of character is not admissible for the purpose of proving action in conformity therewith on a particular occasion, except:

- (1) Character of accused - In a criminal case, evidence of a pertinent trait of character offered by an accused, or by the prosecution to rebut the same, or if evidence of a trait of character of the alleged victim of the crime is offered by an accused and admitted under Rule 404 (a)(2) evidence of the same trait of character of the accused offered by the prosecution;
- (2) Character of alleged victim - In a criminal case, and subject to the limitations imposed by Rule 412, evidence of a pertinent trait of character of the alleged victim of the crime offered by an accused, or by the prosecution to rebut the same, or evidence of a character trait of peacefulness of the alleged victim offered by the prosecution in a homicide case to rebut evidence that the alleged victim was the first aggressor;
- (3) Character of witness - Evidence of the character of a witness, as provided in Rules 607, 608, and 609.

#### **(b) Other crimes, wrongs, or acts.**

Evidence of other crimes, wrongs, or acts is not admissible to prove the character of a person in order to show action in conformity therewith. It may, however, be admissible for other purposes, such as proof of motive, opportunity, intent, preparation, plan, knowledge, identity, or absence of mistake or accident, provided that upon request by the accused, the prosecution in a criminal case shall provide reasonable notice in advance of trial, or during trial if the court excuses pretrial notice on good cause shown, of the general nature of any such evidence it intends to introduce at trial.

### **Rule 405. Methods of Proving Character.**

#### **(a) Reputation or opinion.**

In all cases in which evidence of character or a trait of character of a person is admissible, proof may be made by testimony as to reputation or by testimony in the form of an opinion. On cross-examination, inquiry is allowable into relevant specific instances of conduct.

#### **(b) Specific instances of conduct.**

In cases in which character or a trait of character of a person is an essential element of a charge, claim, or defense, proof may also be made of specific instances of that person's conduct.

**FRE 607. Who May Impeach.**

The credibility of a witness may be attacked by any party, including the party calling the witness.

**FRE 614. Calling and Interrogation of Witnesses by Court.**

**(a) Calling by court.**

The court may, on its own motion or at the suggestion of a party, call witnesses, and all parties are entitled to cross-examine witnesses thus called.

**(b) Interrogation by court.**

The court may interrogate witnesses, whether called by itself or by a party.

**(c) Objections.**

Objections to the calling of witnesses by the court or to interrogation by it may be made at the time or at the next available opportunity when the jury is not present.

**FRE 701. Opinion Testimony by Lay Witnesses.**

If the witness is not testifying as an expert, the witness's testimony is limited to those opinions or inferences which are (a) rationally based on the perception of the witness, (b) helpful to a clear understanding of the witness's testimony or to determining a fact about a case, and (c) not based on scientific, technical or other specialized knowledge within the scope of Rule 702.

**Rule 702. Testimony by Experts.**

If scientific, technical or other specialized knowledge will help the jury understand the evidence or determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training or education may testify and provide an opinion. The testimony must be based upon sufficient facts or data and the product of reliable principles and methods. The witness must have applied the principles and methods reliably to the facts of the case.

**Rule 703: Opinion Testimony by Experts.**

The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. If facts or data can be reasonably relied on by experts in the particular field when they form opinions or inferences about the subject, the facts or data need not be admissible as evidence in order for the opinion or inference to be admissible in the courtroom. Facts or data that are inadmissible shall not be disclosed to the jury unless the court determines that their probative value in assisting the jury to evaluate the expert's opinion substantially outweighs their prejudicial effect.

**FRE 704: Opinion on the Ultimate Issue.**

**(a)** Except as provided in subsection (b), admissible testimony in the form of an opinion or inference is not objectionable because it embraces an ultimate issue that will be decided by the jury.

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(b) No expert witness testifying about the mental state or condition of a defendant in a criminal case may state an opinion about whether the defendant had the mental condition when committing the crime. Such ultimate issues are matters for the jurors to decide.

### **Rule 705: Disclosure of the Facts or Data Underlying an Expert Opinion.**

The expert may testify in terms of opinion or inference and give reasons for that opinion without first testifying to the underlying facts or data, unless the court requires otherwise. The expert may be required to disclose the underlying facts or data on cross-examination.

### **Rule 706: Court-Appointed Experts.**

(a) **Appointment.** The court may, on its own motion or on the motion of any party, enter an order to show cause why expert witnesses should not be appointed and may request all parties to submit nominations. The court may appoint any expert witnesses agreed upon by all parties and may appoint expert witnesses of its own selection. An expert witness shall not be appointed by the court unless the witness consents to act. A witness so appointed shall be informed of the witness's duties by the court in writing, a copy of which shall be filed with the clerk or at a conference in which the parties shall have the opportunity to participate. A witness so appointed shall advise the parties of his or her findings. The witness's deposition may be taken by any party, and the witness may be called to testify by the court or any party. The witness shall be subject to cross-examination by each party, including a party calling the witness to the stand.

(b) **Compensation.** Expert witnesses are entitled to reasonable compensation in whatever sum the court may allow. The compensation is payable from funds which may be provided by law in criminal cases and civil actions and proceedings involving just compensation under the Fifth Amendment. In other civil actions and proceedings, the compensation shall be paid by the parties in such proportion and at such time as the court directs, and thereafter charged like any other costs.

(c) **Disclosure of Appointment.** The court may disclose to the jury that the court appointed the expert witness.

(d) **Parties' Experts of Own Selection.** Nothing in this rule limits the parties from calling expert witnesses of their own selection.

### **Rule 801. Definitions.**

The following definitions apply under this article:

#### **(a) Statement.**

A "statement" is (1) an oral or written assertion or (2) nonverbal conduct of a person, if it is intended by the person as an assertion.

#### **(b) Declarant.**

A "declarant" is a person who makes a statement.

#### **(c) Hearsay.**

"Hearsay" is a statement, other than one made by the declarant while testifying at the trial or hearing, offered in evidence to prove the truth of the matter asserted.

**(d) Statements which are not hearsay.**

A statement is not hearsay if--

(1) *Prior statement by witness.* The declarant testifies at the trial or hearing and is subject to cross-examination concerning the statement, and the statement is (A) inconsistent with the declarant's testimony, and was given under oath subject to the penalty of perjury at a trial, hearing, or other proceeding, or in a deposition, or (B) consistent with the declarant's testimony and is offered to rebut an express or implied charge against the declarant of recent fabrication or improper influence or motive, or (C) one of identification of a person made after perceiving the person; or

(2) *Admission by party-opponent.* The statement is offered against a party and is

(A) the party's own statement, in either an individual or a representative capacity or

(B) a statement of which the party has manifested an adoption or belief in its truth, or

(C) a statement by a person authorized by the party to make a statement concerning the subject, or

(D) a statement by the party's agent or servant concerning a matter within the scope of the agency or employment, made during the existence of the relationship, or

(E) a statement by a coconspirator of a party during the course and in furtherance of the conspiracy.

The contents of the statement shall be considered but are not alone sufficient to establish the declarant's authority under subdivision (C), the agency or employment relationship and scope thereof under subdivision (D), or the existence of the conspiracy and the participation therein of the declarant and the party against whom the statement is offered under subdivision (E).

**Rule 802. Hearsay Rule.**

Hearsay is not admissible except as provided by these rules or by other rules prescribed by the Supreme Court pursuant to statutory authority or by Act of Congress.

**Rule 803. Hearsay Exceptions; Availability of Declarant Immaterial.**

The following are not excluded by the hearsay rule, even though the declarant is available as a witness:

(1) **Present sense impression.** A statement describing or explaining an event or condition made while the declarant was perceiving the event or condition, or immediately thereafter.

(2) **Excited utterance.** A statement relating to a startling event or condition made while the declarant was under the stress of excitement caused by the event or condition.

(3) **Then existing mental, emotional, or physical condition.** A statement of the declarant's then existing state of mind, emotion, sensation, or physical condition (such as intent, plan, motive, design, mental feeling, pain, and bodily health), but not including a statement of memory or belief to prove the fact remembered or believed unless it relates to the execution, revocation, identification, or terms of declarant's will.

(4) **Statements for purposes of medical diagnosis or treatment.** Statements made for purposes of medical diagnosis or treatment and describing medical history, or past or present symptoms, pain, or sensations, or the

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inception or general character of the cause or external source thereof insofar as reasonably pertinent to diagnosis or treatment.

(5) **Recorded recollection.** A memorandum or record concerning a matter about which a witness once had knowledge but now has insufficient recollection to enable the witness to testify fully and accurately, shown to have been made or adopted by the witness when the matter was fresh in the witness' memory and to reflect that knowledge correctly. If admitted, the memorandum or record may be read into evidence but may not itself be received as an exhibit unless offered by an adverse party.

(6) **Records of regularly conducted activity.** A memorandum, report, record, or data compilation, in any form, of acts, events, conditions, opinions, or diagnoses, made at or near the time by, or from information transmitted by, a person with knowledge, if kept in the course of a regularly conducted business activity, and if it was the regular practice of that business activity to make the memorandum, report, record or data compilation, all as shown by the testimony of the custodian or other qualified witness, or by certification that complies with Rule 902(11), Rule 902(12), or a statute permitting certification, unless the source of information or the method or circumstances of preparation indicate lack of trustworthiness. The term "business" as used in this paragraph includes business, institution, association, profession, occupation, and calling of every kind, whether or not conducted for profit.

(7) **Absence of entry in records kept in accordance with the provisions of paragraph (6).** Evidence that a matter is not included in the memoranda reports, records, or data compilations, in any form, kept in accordance with the provisions of paragraph (6), to prove the nonoccurrence or nonexistence of the matter, if the matter was of a kind of which a memorandum, report, record, or data compilation was regularly made and preserved, unless the sources of information or other circumstances indicate lack of trustworthiness.

(8) **Public records and reports.** Records, reports, statements, or data compilations, in any form, of public offices or agencies, setting forth (A) the activities of the office or agency, or (B) matters observed pursuant to duty imposed by law as to which matters there was a duty to report, excluding, however, in criminal cases matters observed by police officers and other law enforcement personnel, or (C) in civil actions and proceedings and against the Government in criminal cases, factual findings resulting from an investigation made pursuant to authority granted by law, unless the sources of information or other circumstances indicate lack of trustworthiness.

(9) **Records of vital statistics.** Records or data compilations, in any form, of births, fetal deaths, deaths, or marriages, if the report thereof was made to a public office pursuant to requirements of law.

(10) **Absence of public record or entry.** To prove the absence of a record, report, statement, or data compilation, in any form, or the nonoccurrence or nonexistence of a matter of which a record, report, statement, or data compilation, in any form, was regularly made and preserved by a public office or agency, evidence in the form of a certification in accordance with Rule 902, or testimony, that diligent search failed to disclose the record, report, statement, or data compilation, or entry.

(11) **Records of religious organizations.** Statements of births, marriages, divorces, deaths, legitimacy, ancestry, relationship by blood or marriage, or other similar facts of personal or family history, contained in a regularly kept record of a religious organization.

(12) **Marriage, baptismal, and similar certificates.** Statements of fact contained in a certificate that the maker performed a marriage or other ceremony or administered a sacrament, made by a clergyman, public official, or other person authorized by the rules or practices of a religious organization or by law to perform the act certified, and purporting to have been issued at the time of the act or within a reasonable time thereafter.



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- (13) **Family records.** Statements of fact concerning personal or family history contained in family Bibles, genealogies, charts, engravings on rings, inscriptions on family portraits, engravings on urns, crypts, or tombstones, or the like.
- (14) **Records of documents affecting an interest in property.** The record of a document purporting to establish or affect an interest in property, as proof of the content of the original recorded document and its execution and delivery by each person by whom it purports to have been executed, if the record is a record of a public office and an applicable statute authorizes the recording of documents of that kind in that office.
- (15) **Statements in documents affecting an interest in property.** A statement contained in a document purporting to establish or affect an interest in property if the matter stated was relevant to the purpose of the document, unless dealings with the property since the document was made have been inconsistent with the truth of the statement or the purport of the document.
- (16) **Statements in ancient documents.** Statements in a document in existence twenty years or more the authenticity of which is established.
- (17) **Market reports, commercial publications.** Market quotations, tabulations, lists, directories, or other published compilations, generally used and relied upon by the public or by persons in particular occupations.
- (18) **Learned treatises.** To the extent called to the attention of an expert witness upon cross-examination or relied upon by the expert witness in direct examination, statements contained in published treatises, periodicals, or pamphlets on a subject of history, medicine, or other science or art, established as a reliable authority by the testimony or admission of the witness or by other expert testimony or by judicial notice. If admitted, the statements may be read into evidence but may not be received as exhibits.
- (19) **Reputation concerning personal or family history.** Reputation among members of a person's family by blood, adoption, or marriage, or among a person's associates, or in the community, concerning a person's birth, adoption, marriage, divorce, death, legitimacy, relationship by blood, adoption, or marriage, ancestry, or other similar fact of personal or family history.
- (20) **Reputation concerning boundaries or general history.** Reputation in a community, arising before the controversy, as to boundaries of or customs affecting lands in the community, and reputation as to events of general history important to the community or State or nation in which located.
- (21) **Reputation as to character.** Reputation of a person's character among associates or in the community.
- (22) **Judgment of previous conviction.** Evidence of a final judgment, entered after a trial or upon a plea of guilty (but not upon a plea of nolo contendere), adjudging a person guilty of a crime punishable by death or imprisonment in excess of one year, to prove any fact essential to sustain the judgment, but not including, when offered by the Government in a criminal prosecution for purposes other than impeachment, judgments against persons other than the accused. The pendency of an appeal may be shown but does not affect admissibility.
- (23) **Judgment as to personal, family or general history, or boundaries.** Judgments as proof of matters of personal, family or general history, or boundaries, essential to the judgment, if the same would be provable by evidence of reputation.
- (24) [Other exceptions.][Transferred to [Rule 807](#)]

**Rule 804. Hearsay Exceptions; Declarant Unavailable.**

**(a) Definition of unavailability.**

"Unavailability as a witness" includes situations in which the declarant--

- (1) is exempted by ruling of the court on the ground of privilege from testifying concerning the subject matter of the declarant's statement; or
- (2) persists in refusing to testify concerning the subject matter of the declarant's statement despite an order of the court to do so; or
- (3) testifies to a lack of memory of the subject matter of the declarant's statement; or
- (4) is unable to be present or to testify at the hearing because of death or then existing physical or mental illness or infirmity; or
- (5) is absent from the hearing and the proponent of a statement has been unable to procure the declarant's attendance (or in the case of a hearsay exception under subdivision (b)(2), (3), or (4), the declarant's attendance or testimony) by process or other reasonable means.

A declarant is not unavailable as a witness if exemption, refusal, claim of lack of memory, inability, or absence is due to the procurement or wrongdoing of the proponent of a statement for the purpose of preventing the witness from attending or testifying.

**(b) Hearsay exceptions.**

The following are not excluded by the hearsay rule if the declarant is unavailable as a witness:

- (1) *Former testimony.* Testimony given as a witness at another hearing of the same or a different proceeding, or in a deposition taken in compliance with law in the course of the same or another proceeding, if the party against whom the testimony is now offered, or, in a civil action or proceeding, a predecessor in interest, had an opportunity and similar motive to develop the testimony by direct, cross, or redirect examination.
- (2) *Statement under belief of impending death.* In a prosecution for homicide or in a civil action or proceeding, a statement made by a declarant while believing that the declarant's death was imminent, concerning the cause or circumstances of what the declarant believed to be impending death.
- (3) *Statement against interest.* A statement that:
  - (A) a reasonable person in the declarant's position would have made only if the person believed it to be true because, when made, it was so contrary to the declarant's proprietary or pecuniary interest or had so great a tendency to invalidate the declarant's claim against someone else or to expose the declarant to civil or criminal liability; and
  - (B) is supported by corroborating circumstances that clearly indicate its trustworthiness, if it is offered in a criminal case as one that tends to expose the declarant to criminal liability.
- (4) *Statement of personal or family history.* (A) A statement concerning the declarant's own birth, adoption, marriage, divorce, legitimacy, relationship by blood, adoption, or marriage, ancestry, or other similar fact of personal or family history, even though declarant had no means of acquiring personal knowledge of the matter stated; or (B) a statement concerning the foregoing matters, and death also,

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of another person, if the declarant was related to the other by blood, adoption, or marriage or was so intimately associated with the other's family as to be likely to have accurate information concerning the matter declared.

(5) [**Other exceptions.**][Transferred to [Rule 807](#)]

(6) Forfeiture by wrongdoing. A statement offered against a party that has engaged or acquiesced in wrongdoing that was intended to, and did, procure the unavailability of the declarant as a witness.

**Rule 805:      Hearsay Within Hearsay.**

Hearsay included within hearsay is not excluded under the hearsay rule if each part of the combined statements conforms with an exception to the hearsay rule provided in these rules.

**Rule 806:      Attacking and Supporting Credibility of Declarant.**

When a hearsay statement, or a statement defined in [Rule 801\(d\)\(2\)\(C\), \(D\), or \(E\)](#), has been admitted in evidence, the credibility of the declarant may be attacked, and if attacked may be supported, by any evidence which would be admissible for those purposes if declarant had testified as a witness. Evidence of a statement or conduct by the declarant at any time, inconsistent with the declarant's hearsay statement, is not subject to any requirement that the declarant may have been afforded an opportunity to deny or explain. If the party against whom a hearsay statement has been admitted calls the declarant as a witness, the party is entitled to examine the declarant on the statement as if under cross-examination.

**Rule 807:      Residual Exception.**

A statement not specifically covered by [Rule 803](#) or [804](#) but having equivalent circumstantial guarantees of trustworthiness, is not excluded by the hearsay rule, if the court determines that (A) the statement is offered as evidence of a material fact; (B) the statement is more probative on the point for which it is offered than any other evidence which the proponent can procure through reasonable efforts; and (C) the general purposes of these rules and the interests of justice will best be served by admission of the statement into evidence. However, a statement may not be admitted under this exception unless the proponent of it makes known to the adverse party sufficiently in advance of the trial or hearing to provide the adverse party with a fair opportunity to prepare to meet it, the proponent's intention to offer the statement and the particulars of it, including the name and address of the declarant.

## Federal Rules of Evidence Regarding Hearsay - Module 11

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FRE 703: Facts on which an expert bases an opinion can be learned by the expert either at a hearing or before a hearing. The expert can rely on hearsay if the hearsay is of a type "reasonably relied upon by experts in the particular field in forming opinions."

FRE 801(c): Hearsay is a statement or conduct made by a declarant other than while testifying, which is offered "to prove the truth of the matter asserted."

FRE 801(d): Some things are not hearsay, such as testimony of a witness at a prior trial when the right of cross-examination existed. Admission of testimony by the opposing party is not hearsay; however, it must be:

- The party's own statement.
- Assertively based on truth.
- Made by a person authorized to make such statements.
- Made by a party's agent or employee.
- Made by a co-conspirator in furtherance of the conspiracy.

FRE 802: Generally, hearsay is not admissible. However, there are numerous exceptions to the hearsay rule. The following statements, records and judgments may be admitted as testimony, although they are technically hearsay:

1. Statements made while witnessing an event.
2. Excited utterances.
3. Statements about a declarant's state of mind or emotional sensation at the time.
4. Statements for diagnostic purposes such as medical history.
5. Recorded recollections, which will help refresh the witness's memory later.
6. Records of regularly conducted activity, or the **business records exception**:
  - a. Made at the time.
  - b. From information transmitted by a person with knowledge.
  - c. In the course of regularly conducted business activity.
  - d. If it was the regular practice to keep such a record.
  - e. If the record is maintained by a qualified witness or the usual custodian.
  - f. If the circumstances indicate general trustworthiness.
7. The absence of a regular business entry record.
8. Public records and reports.
9. Vital statistics.
10. The absence of a public record.
11. Records of religious organizations.
12. Marriage, baptismal and similar ancient certificates.
13. Family records.
14. Recorded documents concerning interest in property.
15. Statements in documents affecting title to property, if otherwise relevant.
16. Statements of other kinds in historical documents.
17. Market reports and tabulations.
18. Learned treatises, if recognized as a "reliable authority" by the testifying witness or another expert in the case, or by judicial notice.

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19. Reputation concerning personal or family matters.
20. Reputation concerning boundaries.
21. Reputation as to character.
22. Judgment of a prior criminal conviction.
23. Judgment as to personal, family or general history or boundaries.

FRE 803: All of the foregoing exceptions are part of FRE 803.

FRE 804: In addition, a series of exceptions exists to the hearsay rule if a declarant (witness) is unavailable for various reasons.

FRE 806: If a hearsay statement is admitted into evidence under one of the exceptions, the credibility of the declarant (the witness) may be attacked for prior inconsistent statements.

FRE 807: Characteristics of other statements that are exceptions to the hearsay rule:

- They must be trustworthy.
- They must be a statement of material fact.
- They must be more probative than the contrary evidence.
- Justice will be served by admission of the statements as evidence.
- Intent to rely on this exception must be given well in advance of the hearing or trial.

# A Proposed Code of Conduct, American Academy of Forensic Sciences, Jurisprudence Section, Code of Professionalism

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## Preamble

This Code of Professionalism was proposed by the Jurisprudence Section of the American Academy of Forensic Sciences to provide guidance to its members in the performance of their professional relationships with forensic experts. The goal of the Code is to assist members in achieving the highest quality of professional conduct and to promote the cooperation between lawyers and forensic scientists which is essential to protect the legal interests of the public they serve.

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In order to meet the public's need for legal services, lawyers and the quality of the service they provide must command the respect of the public as well as the other participants in the legal process. The fundamental principles set out in this Code are to provide an ethical framework for the Jurisprudence Section's members, although each lawyer must decide for himself the extent to which his conduct should rise above these minimum standards. The desire for the respect and confidence of the members of the society in which he serves and of the members of his profession should motivate him to maintain the highest possible degree of ethical conduct.

Lawyer professionalism includes accepting responsibility for one's own professional conduct as well as that of others in the profession and includes a desire to uphold professional standards and foster peer regulations to ensure each member is competent and public spirited. Professionalism also includes reinforcing and communicating the ideals of professionalism among our membership and eliminating abrasive or abusive conduct with others, particularly our colleagues in the forensic sciences. Such behavior does not serve justice, but tends to delay and sometimes deny justice.

Compliance with the rules depends primarily upon voluntary compliance, secondary upon reinforcement by peer pressure and public opinion, and finally, when necessary, by enforcement by the Court's inherent powers and ethics rules already in existence. The Academy, of course, may still sanction its members who are in violation of its Code of Ethics contained in the By-laws. Also, each state where the attorney is individually licensed may sanction the attorney for any violations of his state's Codes or Rules of Professional Conduct.

### Terminology

1. "Belief" or "Believes" denotes that the person involved actually believed the fact in question to be true. A person's belief may be inferred from circumstances.
2. "Expert" denotes a person who possesses special skill, training and knowledge in a vocation or occupation.
3. "Knowingly," "Known," or "Knows" denotes actual knowledge of the fact in question. A person's knowledge may be inferred from circumstances.
4. "Reasonable" or "Reasonably," when used in relation to conduct by a lawyer, denotes the conduct of a reasonably prudent and competent lawyer.
5. "Reasonable belief" or "Reasonably believes," when used in reference to a lawyer, denotes that the lawyer believes the matter in question and that the circumstances are such that the belief is reasonable.

### Rules

1. I shall treat all expert witnesses with professional courtesy and will acknowledge their obligations to their codes of ethics or conduct, and will not ask them to breach their legitimate confidential relationships with their clients or patients.
2. I shall verify the credentials of any expert witnesses I use.
3. I shall not knowingly proffer an expert witness with fraudulent credentials.
4. I shall report fraudulent experts to the appropriate authorities.
5. I shall not pay an excessive fee for the purpose of influencing an expert's testimony or fix the amount of fee contingent upon the content of his testimony or the outcome of the case. I will communicate to the expert that he is being paid for his time and his expertise, not the nature of his opinion.
6. I shall refrain from making any material misrepresentation of the education, training, experience or expertise of the expert witness. I shall not misrepresent nor mischaracterize an expert witness's credentials, qualifications, data, findings or opinion. I will not withhold nor suppress any relevant facts, evidence, documents or other material at my disposal that may be relevant to the expert's opinion.

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7. I shall not request nor require an expert to express an opinion on matters outside his field of expertise or within his field of qualifications to which he has not given formal consideration.
8. I shall not attempt to prevent opposing counsel from communicating with my expert witness, nor will I instruct my expert witness to not communicate with opposing counsel about the subject of a lawsuit unless such contact is otherwise prohibited or regulated by law and the parties' attorneys have consented.
9. Any and all demonstrative evidence shall not be intentionally altered or distorted with a view to misleading the court or jury.
10. I shall keep all consulting and testifying experts reasonably informed of the status of the matter in which they are engaged and promptly comply with reasonable legally permissible requests for information.
11. I shall compensate the expert for the total amount of the undisputed portion of the fee agreed upon between the expert and the client or attorney representing the client.

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# Forensic Professional Codes of Ethics and Conduct - Module 13

## Appendix Content

- [Sample Engagement Letter From Retaining Attorney](#)
- [Sample Engagement Letter From Expert Witness](#)
- [Sample Interrogatories and Request for Production to Expert Witnesses](#)
- [Deposing An Adverse Witness](#)
- [Key Issues in Reference to Hearsay](#)
- [Hearsay Exceptions](#)
- [Federal Rules of Evidence \(FREs\)](#)
- [Federal Rules of Evidence Regarding Hearsay](#)
- [Forensic Professional Codes of Ethics and Conduct](#)

**Resources:** [American Academy of Forensic Sciences \(AAFS\) Code of Ethics and Conduct](#); [International Association for Identification](#); [American Society of Crime Laboratory Directors](#); [Proposed Code of Conduct AAFS](#); [American Academy of Forensic Sciences \(AAFS\)](#)

## American Academy of Forensic Science - Article II. Code of Ethics and Conduct

### Section 1 — The Code

As a means to promote the highest quality of professional and personal conduct of its members and affiliates, the following constitutes the Code of Ethics and Conduct which is endorsed and adhered to by all members and affiliates of the American Academy of Forensic Sciences:

1. Every member and affiliate of the American Academy of Forensic Sciences shall refrain from exercising professional or personal conduct adverse to the best interests and purposes of the

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Academy.

2. Every member and affiliate of the AAFS shall refrain from providing any material misrepresentation of education, training, experience or area of expertise. Misrepresentation of one or more criteria for membership or affiliation with the AAFS shall constitute a violation of this section of the code.
3. Every member and affiliate of the AAFS shall refrain from providing any material misrepresentation of data upon which an expert opinion or conclusion is based.
4. Every member and affiliate of the AAFS shall refrain from issuing public statements that appear to represent the position of the Academy without specific authority first obtained from the Board of Directors.

### **Section 2 — Member and Affiliate Liability**

Any member or affiliate of the American Academy of Forensic Sciences who has violated any of the provisions of the Code of Ethics (Article II, Section 1) may be liable to censure, suspension or expulsion by action of the Board of Directors, as provided in Section 5h. below.

### **Section 3 — Investigative Body**

There shall be constituted a standing Ethics Committee (see Article V for composition), the primary function of which shall be:

1. To order or conduct investigations and, as necessary, to serve as a hearing body concerning conduct of individual members or affiliates which may constitute a violation of the provisions of Article II, Section 2.
2. To act as an advisory body, rendering opinions on the ramifications of contemplated actions by individual members or affiliates in terms of the provisions of Article II.

### **Section 4 — Investigation Initiating Action**

The following are the principal forms by which the Ethics Committee may initiate investigative proceedings:

1. A member or affiliate of the Academy may submit a formal written complaint or allegation of violation(s) concerning a member or affiliate to the Secretary of the Academy (see section 5, Rules and Procedures, below) or to the Chair of the Ethics Committee.
2. The Ethics Committee may institute an inquiry based on any evidence brought to its attention which, in its opinion, indicates the need for further query or action under the provisions of these Bylaws. Appropriate to this form of action, Section Officers, upon receipt of a complaint or allegation concerning the professional or personal conduct of a member or affiliate of their sections, may refer the complaint or allegation to the Ethics Committee in writing, accompanied by a recommendation, if any, concerning the need for further investigation. However, such recommendations shall not be binding on the Ethics Committee.

### **Section 5 — Rules and Procedures**

The following procedures shall apply to any written complaint(s) or allegation(s) of unethical or wrongful conduct against a member or affiliate of the Academy, whether initiated by a member or affiliate or resulting from an inquiry originated by the Ethics Committee:

1. Written complaints or allegations against a member or affiliate delivered to the Academy Secretary shall be transmitted promptly to the Chair of the Ethics Committee.



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2. The Ethics Committee shall determine whether the complaint(s) or allegation(s) fall(s) within its jurisdiction and whether there is probable cause to believe that the complaint(s) or allegation(s) may be well founded.
3. If the Ethics Committee, in its preliminary determination, finds that it does not have jurisdiction or that there is a lack of probable cause to believe that the complaint(s) or allegation(s) may be well founded, it shall dismiss the complaint(s) or allegation(s). It shall issue a report of such determination to the Board of Directors, setting forth the basic facts but omitting the names of the parties, and stating the reasons for its decision to dismiss. Notice of the filing of the complaint or allegation shall also be given to the accused.
4. If the Ethics Committee finds that it has jurisdiction and that there is probable cause to believe that the complaint(s) or allegation(s) may be well founded, it shall give notice of the filing of a complaint(s) or allegation(s) to the accused and, in accordance with Rules and Regulations formulated by the Ethics Committee and approved by the Board of Directors, shall assemble such written data from both the accused and the accuser(s) which shall permit the Ethics Committee to determine whether the complaint(s) or allegation(s) requires further investigation.
5. The Ethics Committee may appoint an Academy Fellow or Fellows to investigate the complaint(s) or allegation(s) and, if necessary, to present the charge(s) on behalf of the Academy to the Committee.
6. If, as a result of an investigation, the Ethics Committee decides to dismiss the charge(s) without a formal hearing, it may do so. It shall notify the accused and the accuser(s) of its decision and shall issue a report to the Board of Directors setting forth the basic facts but omitting the names of the parties and stating the reason(s) for its decision.
7. If the Ethics Committee decides to formally hear the charge(s), it shall give both the accused and the accuser(s) a reasonable opportunity to be heard and to confront each other. It shall then make a decision and notify both parties of its decision. The Ethics Committee shall then make a report to the Board of Directors on its decision, including reasons and any recommendation for further action.
8. Following receipt of a report of the Ethics Committee and upon a vote of three-fourths (3/4) of the members of the Board of Directors present and voting, the party accused of unethical or wrongful conduct may be censured, suspended or expelled. No member of the Board of Directors who is the subject of a pending accusation under the provisions of this Article shall sit in deliberation on any matter concerning ethics. Suspension of the accused shall be qualified by the permissible method of reinstatement.
9. The accused has the right to appeal from the action of the Board of Directors to the membership of the Academy. In effecting an appeal, the appellant must file a brief written notice of the appeal, together with any written statement he or she may wish to submit in his or her behalf, with the Academy Secretary not less than one hundred twenty (120) days prior to the next Annual Meeting of the Academy. The Secretary shall immediately advise each member of the Board of Directors of the appeal and shall forward to each a copy of the supporting papers submitted by the appellant.
10. The Board of Directors shall then prepare a written statement of the reasons for its actions and file the same with the Academy Secretary not less than forty (40) days prior to the next Annual Meeting.
11. Within twenty (20) days thereafter, the Academy Secretary shall mail to each voting member of the Academy a copy of the appellant's notice of appeal and supporting statement, if any, and a copy of the Board of Directors' statement.
12. A vote of three-fourths (3/4) of the members present and voting at the Academy's annual business meeting shall be required to overrule the action of the Board of Directors in regard to censure, suspension or expulsion of a member or affiliate.
13. The Ethics Committee shall formulate internal Rules and Procedures designed to facilitate the expeditious, fair, discreet and impartial handling of all complaints or matters brought before it. The Rules and Procedures, and any subsequent deletions, additions or amendments thereto, shall be subject to the approval of the Board of Directors.

### Section 6 — Suspension of Members and Affiliates

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Members or affiliates who have been suspended may apply for reinstatement once the period of suspension is completed. A suspended member or affiliate shall not be required to pay dues during the period of suspension. If reinstated, the required dues payment shall be the annual dues less the prorated amount for the period of suspension.

### **International Association for Identification**

As a member of the International Association for Identification, and being actively engaged in the profession of Scientific Identification and Investigation, I dedicate myself to the efficient and scientific administration thereof in the interest of Justice and the betterment of Law Enforcement:

- To cooperate with others of the profession, promote improvement through research, and disseminate such advancement in my effort to make more effective the analysis of the expert.
- To employ my technical knowledge factually, with zeal and determination, to protect the ethical standards of the profession of Scientific Identification and Investigation.

I humbly accept my responsibility to Public Trust and seek Divine guidance that I may keep inviolate the Profession of Law Enforcement.

### **American Society of Crime Laboratory Directors (ASCLD)**

The entire ASCLD Code of Ethics is available at [www.asclcd.org](http://www.asclcd.org).

#### **Section 2 - Code**

As members of the American Society of Crime Laboratory Directors, we will strive to foster an atmosphere within our laboratories which will actively encourage our employees to understand and follow ethical practices. Further, we shall endeavor to discharge our responsibilities toward the public, our employers, our employees and the profession of forensic science in accordance with the following ASCLD Code of Conduct.

1. **2.1** No member of ASCLD shall engage in any conduct that is harmful to the profession of forensic science including, but not limited to, any illegal activity, any technical misrepresentation or distortion, or any scholarly falsification.
2. **2.2** No member of ASCLD shall use their position to impose undue pressure on an employee to take technical shortcuts or arrive at a conclusion that is not supported by scientific data.
3. **2.3** No member of ASCLD shall discriminate against any current or prospective employee in his or her organization based on race, color, religion, national origin, sex, age or disability.
4. **2.4** No member of ASCLD shall engage in any conduct that is detrimental to the purpose of ASCLD as outlined in Article II of the Bylaws.
5. **2.5** No member of ASCLD shall misrepresent his or her expertise or credentials in any professional capacity.
6. **2.6** No member of ASCLD shall offer opinions or conclusions in testimony which are untrue or are not supported by scientific data.
7. **2.7** No member of ASCLD shall misrepresent his or her position or authority in any professional capacity.
8. **2.8** No member of ASCLD shall make written or oral statements which imply that the member is speaking on behalf of ASCLD or the Board of Directors without the permission of the President.

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9. **2.9** No individual may gain membership in ASCLD nor shall he/she retain membership if they have been convicted of a felony offense.
10. **2.10** All members shall report, to the extent permitted by law, to the Board of Directors any potential ethics violation committed by another member of ASCLD.

### **A Proposed Code of Conduct, American Academy of Forensic Sciences, Jurisprudence Section, Code of Professionalism**

#### **Preamble**

This Code of Professionalism was proposed by the Jurisprudence Section of the American Academy of Forensic Sciences to provide guidance to its members in the performance of their professional relationships with forensic experts. The goal of the Code is to assist members in achieving the highest quality of professional conduct and to promote the cooperation between lawyers and forensic scientists which is essential to protect the legal interests of the public they serve.

In order to meet the public's need for legal services, lawyers and the quality of the service they provide must command the respect of the public as well as the other participants in the legal process. The fundamental principles set out in this Code are to provide an ethical framework for the Jurisprudence Section's members, although each lawyer must decide for himself the extent to which his conduct should rise above these minimum standards. The desire for the respect and confidence of the members of the society in which he serves and of the members of his profession should motivate him to maintain the highest possible degree of ethical conduct.

Lawyer professionalism includes accepting responsibility for one's own professional conduct as well as that of others in the profession and includes a desire to uphold professional standards and foster peer regulations to ensure each member is competent and public spirited. Professionalism also includes reinforcing and communicating the ideals of professionalism among our membership and eliminating abrasive or abusive conduct with others, particularly our colleagues in the forensic sciences. Such behavior does not serve justice, but tends to delay and sometimes deny justice.

Compliance with the rules depends primarily upon voluntary compliance, secondary upon reinforcement by peer pressure and public opinion, and finally, when necessary, by enforcement by the Court's inherent powers and ethics rules already in existence. The Academy, of course, may still sanction its members who are in violation of its Code of Ethics contained in the By-laws. Also, each state where the attorney is individually licensed may sanction the attorney for any violations of his state's Codes or Rules of Professional Conduct.

#### **Terminology**

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