**Evidence Collection**

Investigators should perform the evidence collection process in a systematic and careful manner. The process begins with the preliminary crime scene survey/walk-through, followed by a determination of the evidence collection sequence to be used.

The evidence collection sequence may be based on the following information:

- The scene location: interior, exterior, within a vehicle.
- The condition of the evidence: either fragile or stable.
- Weather conditions which might affect the scene or evidence within.
- Scene management considerations which may alter or contaminate the evidence.
- Additional processing techniques that may need to be conducted at the scene with specialized personnel.

Investigators should use the appropriate equipment when collecting evidence. Collection equipment that may come into contact with evidence should be sterile.

The following equipment may be used in the evidence collection process:

- Latex gloves/nitrile gloves (N-DEX, nonlatex).
- Forceps.
- Tweezers.
- Scalpels.
- Swabs.
- Paper bags.
- Plastic bags.
- Cardboard boxes.
- Wrapping paper.
- Hand tools.
- Thermometer.
- Plastic 5 gallon bucket with lid.
Collection Methods

The swabbing collection technique should be used for the recovery of biological evidence in a dried or liquid state. Best practice techniques include the following:

Dried Material Collection Technique

- With gloved hands, slightly moisten the swab with distilled water. (The swab should be damp but not overly wet.)
- Thoroughly rub the stained area using a single moistened swab for a small stain and multiple swabs for a large stain. When only a small amount of the stain is available, concentrate as much of the stain as possible on the tip of the swab.
- Air-dry the swabs.
- Place each swab into separate package.
- This package may be placed inside a paper envelope.
- Collect a substrate/control sample from an unstained area using the same techniques.

Liquid Material Collection Technique

A. When suspected biological evidence is found on clothing or other absorbent surfaces, transport it to the laboratory in an appropriate container. Wet evidence should not be folded over on itself. Use paper wrapping to prevent contamination during the transfer. This will protect bloodstain patterns and prevent cross-contamination between stains on one item. The item should be air-dried thoroughly in a drying locker and packaged in a container suitable for dried evidence.

B. If the suspected biological evidence is in a liquid form on a fixed surface that cannot be transported (i.e., concrete floor), the substance should be recovered using the following swab technique:

1. With gloved hands, swab the liquid material allowing the swab to absorb as much of the substance as possible. Multiple swabs should be obtained when a large quantity is available.
2. Thoroughly air-dry each swab. Package the swab inside an appropriate container.
3. Collect a substrate/control sample from an unstained area using the same techniques.
Evidence Marking and Packaging

All evidence collected at a crime scene, or received at or during a crime scene investigation, is inventoried and packaged prior to leaving the scene to prevent loss or cross-contamination. Mark the item of evidence when possible. Evidence which cannot be marked, such as soil, hair and stains, should be placed in an appropriate container or envelope. Marking some items directly may interfere with forensic analysis of the item. Always mark the outer packaging.

When marking evidence directly, include the following:

- Agency case number.
- Item number.
- Date recovered or received.
- Investigator’s initials.

Evidence that has been inventoried, marked and prepared for submittal (or to be returned to the investigating agency) is packaged in an appropriate container and labeled per agency protocol.

All outer packaging is marked with the following information:

- Agency case number.
- Item number.
- Description of the item(s).
- Investigator’s name or initials.

Containers that have been inventoried and marked are sealed with agency-approved evidence tape prior to submittal or release to the custody of the investigating agency. Evidence tape is used to seal the packaging and is marked with the investigator’s name or initials and the date sealed.

Establishing the Chain of Custody

The chain of custody is a tracking document beginning with detailed scene notes that document where the evidence was received from or collected. The chain of custody is initially established when an investigator takes custody of evidence at a crime scene, or when evidence is received from an officer or detective at, or from, the crime scene.

The chain of custody is established through a process that includes the following:

- Take notes, including documenting the recovery location, the time and date recovered or received, description of the item, condition of the item and any unusual markings or alterations to the item.
- Collect, preserve, mark and package the evidence.
- Seal the evidence.
- Create the inventory list.
- Prepare the chain-of-custody documentation.
Transfer of Evidence to Property Room

Many agencies transfer evidence to a property room prior to submission to a crime laboratory. Property room documentation or secure electronic transfer is used when the investigator submits evidence to the property room.

The associated information may include the following:

- Agency case number.
- Type of evidence.
- Officer responsible for the investigation: the name, rank and identification number of the officer for whom the evidence was recovered. The official laboratory report is addressed to this officer.
- Transporting officer: the name, rank, identification number and assignment of the investigator.
- Signature or other identifier of responsible officer and date prepared; the date the evidence is submitted to the property room.
- Comment: the address where the incident was located, or where the evidence was recovered.

The list of the evidence/property may include:

- Number each evidence item sequentially.
- Quantity of items included, e.g., 10 spent shell casings.
- Serial number of the item, e.g., VCR, handgun.
- Item description.
- Status: e.g., Submit for analysis, Hold, or RTC (releasable, return to claimant or owner).

Chain of Custody

The chain of custody documents the transfer of evidence/property from an investigator to another individual, location or agency.

The following information is included in the chain of custody:

- List of evidence: the item number and a brief description.
- All transfers must include the date and time of transfer.
- The signature of the individual releasing the evidence to another individual or location.
- The signature of the individual transporting the evidence.
- The signature of the individual receiving the evidence from another individual or location.
- Reason for the transfer as needed.
Reporting

Two reporting formats may be used by an agency. The crime scene report is used to report crime scene activities and processing results. The second is used when analyzing evidence in the laboratory.

- A crime scene report may be used for reporting scene activities. Investigators may prepare a draft/outline of their scene report per agency policy and later prepare a final report.

- A laboratory examination report is used for reporting evidence analysis performed by laboratory personnel.

Both types of reports are reviewed. The process may include an administrative and a technical review. Generally, a copy of the completed report is distributed to the prosecutor and the submitting agency.

Content courtesy of the Indiana State Police.
CRIME SCENE PROCEDURES II.

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Contact at the Scene

Upon arrival at the crime scene, the crime scene investigator will make contact with either the detective/officer who requested the crime scene processing services, or with the detective/officer assigned to oversee or manage the crime scene.

1) Information exchange.

After contact with the detective or officer in charge of the crime scene, the crime scene investigator will obtain the following information:

- Agency case number assigned to the investigation.
- Type of agency investigation.
- Exact location of the scene.
- Detective and reporting officer’s names and identification numbers.
- Names of victim(s) and personal information, if needed.

Additional information may be required due to the type of crime scene investigation including the following:

- Suspect information.
- Vehicle(s) information.
- Witness names.
- Additional crime scene locations.

2) Scene processing request or specific directions.

- Each crime scene investigation is unique, and as such, the establishment of a clear and direct method of communicating scene information is required.

- Crime scene investigators will discuss with the detective, or officer in charge of the crime scene, information regarding the type of investigation that is under way. Any relevant information regarding the processing of the scene and any specific scene-processing directions or evidence collection should be made known prior to scene entry.

- In any crime scene investigation, new or additional information may be developed from outside the scene by the investigating agency. When new or additional information is developed concerning the crime scene, the agency should communicate that information to the crime scene investigator. This new or additional information may cause the crime scene investigator to make changes in scene processing such as expanding to other areas and additional items of evidence or narrowing the scope of the scene and items of evidence.

- Crime scene investigators may develop additional information while processing the scene that may support the agency’s theory or may be in conflict with statements made by individuals involved in the investigation. In either case, the crime scene investigator advises the detective or officer in charge of the crime scene of findings so the agency can proceed with its investigation.
**Preliminary Survey or Crime Scene Walk-Through**

A preliminary survey or walk-through of the crime scene with the detective or officer in charge should take place after the exchange of information. The investigator establishes a path to enter and exit the scene, avoiding the pathway used by the suspect, if possible, and preserving the scene from possible contamination. During this walk-through the crime scene investigator will do the following:

- Evaluate the crime scene to help in formulating a plan for processing the scene and the collection and preservation of evidence.
- Make appropriate notes of the scene, evidence located within the scene and the condition of the evidence.
- Determine if any additional equipment or personnel are needed to process the scene, i.e., blood-spatter analysis or alternate light sources.
- Confer with the detective or officer to determine what potential evidence needs to be recorded, recovered, and what processing will occur at the scene.

**Scene Search for Trace Evidence**

Trace evidence is any material such as hairs, fibers, glass, soil, paint, etc., found at a crime scene on a person or object. Trace evidence may be used to associate an individual(s) with a crime scene or another individual.

Crime scene investigators should be trained to recognize trace evidence, understand the potential value of trace evidence, and collect and preserve the sample and the control sample. When encountering noticeable items of trace evidence, document and collect the item immediately. Document and collect additional items, depending upon the conditions at the scene and stability of the item of evidence.

The investigators should have the following equipment available for use in the search and collection of trace evidence:

- Flashlight/hand lanterns – a portable light source that is equivalent to a rechargeable flashlight having a high intensity light output and operational for an extended time period.
- Studio lights – a light source requiring access to AC current (electricity). The light bulb is a tungsten halogen projector lamp type of bulb with a 600-watt light output having a 75-hour rating.
- A portable alternate light source (variable visible light wavelengths).
  - A more powerful, longer lasting light source may be transported to a crime scene, though bulky and requiring AC current (electricity) to operate. For example: Luma Lite.
  - A portable, lightweight and compact light source that may be transported to a crime scene. The light source can operate on AC current (electricity) or with the rechargeable battery pack. When searching for blood or other biological fluids, use the narrow band 415nm interference filter. Goggles or filters do not need to be used when searching for this type of evidence. For example: Poliray® light.
• Vacuum – a portable vacuum that operates on AC current. They are typically equipped with filters and an attachment to prevent the trace evidence from being drawn into the vacuum.

If trace evidence is found, it should be photographed and noted to include the following:

• Location where the evidence was recovered.
• Type of material.
• Amount of material collected, or specify if only a sample was collected.
• Condition of the evidence, i.e., wet or powder.
• Controls or standards obtained, and locations from where obtained.
• Packaging used for transportation to the laboratory.

**Scene Search for Biological Evidence**

Crime scene investigators may search a crime scene, other locations associated with a crime scene or individuals for suspected biological evidence (i.e., blood, semen, spit).

When suspected biological evidence is identified, collect a sample for biological analysis or collect the entire item. When collecting the item, make a mark near the area where the sample was found (with a Sharpie or other marker). An arrow, line or circle should be made clearly indicating the location of the substance. Document the notes appropriately including:

• Whether an alternate light source was used to locate the stain.
• Location of the stain.
• Size of the stain.
• Substrate control sample location.
Crime Scene Photography

Crime scene photography is one of the most important duties that the crime scene investigator performs. Visual communications are substantiated and verified by quality, concise and accurate photographs of both the scene and the evidence as it was found. Photography of the scene and of evidence is one of the first procedures performed at a scene. This generally occurs after the note-taking process has begun.

- Take the photographs so that the area and items of evidence will be identified and oriented with other areas in the overall scene.
- The technique used at crime scenes is primarily a three-step process:
  i) A long or wide-angle view, sometimes referred to as an establishing shot.
  ii) A medium or midrange view which focuses on particular objects, areas or evidence items.
  iii) A close-up view that clearly shows what the item is, its condition and its position at the scene.
- Photograph all collected evidence at its original location.
- An extreme close-up photograph may be taken of a small item, such as a bloodstain, hair, fabric stain or fingerprint in blood. For an extreme close-up shot, the item should be photographed at least twice, once with a scale (ruler) and at least once without a scale.
- Investigators should use rulers and markers at crime scenes to identify items or areas being photographed. The markers may be cones with numbers or letters affixed to the cone, plastic evidence cards or index cards which have been marked identifying the evidence being photographed. When using markers, take a photograph of the object or area with and without the marker.
- When evidence has been identified as having been moved from its original position at a crime scene, the investigator should make note of that. If the investigator is directed to photograph the evidence item in its original location, a detailed note should be made that the item was photographed in the area where it was originally located.

Vehicles

Vehicles recovered at a crime scene or other location should be photographed along with an associated landmark. Take photographs of the vehicle from a distance, if necessary, in order to include the landmark.

- Take photographs of all four sides of the vehicle, with special attention to damage on the exterior of the vehicle.
- Photograph the license plate and the VIN.
- Take the following photographs at the scene if the vehicle will not be seized as evidence and transported to a facility:
  o The odometer, if it can be recorded.
The interior of the vehicle.

- The trunk and contents.
- Any items of evidence/property identified or recovered from the vehicle.

**Biological Evidence**

Some biological evidence which is not easily identified with the naked eye may be visualized with chemical enhancement or observed with an alternate light source.

Investigators may use chemical enhancements, such as luminol, when visualizing areas with small amounts of blood. Luminol causes a chemical reaction to occur with blood, resulting in luminescence or glow. This process must be conducted in darkened areas to see and document the chemical reaction.

Filtered photography techniques may be used at a crime scene to document evidence that is viewed with an alternate light source. A Luma-Lite or a Poliray® light is an example of an alternate light sources. Both units are transportable and may be taken to crime scenes to search for evidence. The alternate light sources are primarily used in the following manner:

- Searching for biological fluids, such as saliva stains and semen stains.
- Searching for other evidence items with dyes, inks, powders, substances or other fluids that may react when examined using an alternate light source.
- Develop latent print evidence by using a chemical process followed by the examination of the area with an alternate light source.
Case Files/Notes

Case files may be prepared for each of the following:

- Each crime scene processed.
- Video assignments of crime scenes.
- Requests for services requiring photographs only.
- Requests for services requiring the issuing of a formal laboratory report.
- Follow-up assignments.

Case files may contain the following:

- All crime scene notes.
- All rough sketches or diagrams.
- Formal diagram, if required, based upon the type of investigation, or if requested.
- Any photographs taken which were not released to the detective, the coroner or submitted with the pathologist report.
- Written forms or printed secure electronic documentation, including the following:
  - Chain of custody.
  - Vehicle information sheet.
  - Vehicle outline sheet.
  - Weapons data form.
  - Evidence processing sheet.
  - Evidence room (evidence in/out form).
  - Property room voucher.
  - Property withdrawal or return receipt.
  - Laboratory notes.
  - Laboratory examination report.
  - Criminalistics information sheets.
  - Pathologist outline sheet.
  - Miscellaneous forms used to support or document casework performed or requested.
- Any significant case-related conversations communicated by phone, e-mail or electronic communication (fax).
- Subpoenas, only if received and testimony was provided in the case.
Diagrams/Sketches

Rough sketches, diagrams and formal diagrams should be drawn on approved agency forms or graph paper.

- Sketches/diagrams drawn to scale should identify the scale ratio on the diagram or "no scale" if none used.
- Sketches/diagrams should be drawn using pencil, blue ink or black ink.
- Crime scene sketches/diagrams should contain the minimum following information on the drawing:
  - Case number.
  - Date.
  - Investigator's name or initials.
  - Page numbering (i.e., page 2 of 4).
  - Arrow or indicator showing the north direction, relative to the scene diagram.
  - Incident location address.

Sketches and diagrams should document the scene fully, including the following:

- Locations of evidence items recovered from the scene.
- Furniture, vehicles, property items or other objects at a crime scene.
- Bullet holes and/or damage caused at the scene by criminal action. This should illustrate the holes or damage with exact standard measurements, and permit another specialist or analyst to re-create the damage or bullet holes on a scaled diagram.
- Finger, palm or foot impressions with the location(s), the surface material and measurements noted.
- Shoe and tire impression, including a sketch of the pattern or tread design, and length and width measurements.
- Supplemental sketches and diagrams of individual items of evidence with the exact measurements of the item on the drawing and whether the item is drawn to scale.
- Blood-spatter interpretation diagram, when requested. This should be precise, with detailed notes and sketches of blood stains, stain size, patterns, distributions, locations, and relationships between the body and objects at the scene. This also includes detailed diagrams of evidence submitted or recovered with exact measurements recorded.

Content courtesy of the Indiana State Police.