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## **FOREIGN EXPERIENCE OF COLLECTING EVIDENCE AT THE CRIME SCENE. THE USA**

Crime scene investigation is the meeting point of science, logic and law. "Processing a crime scene" is a long, tedious process that involves purposeful documentation of the conditions at the scene and the collection of any physical evidence that could possibly illuminate what happened and point to who did it. There is no typical crime scene, there is no typical body of evidence and there is no typical investigative approach. The physical evidence itself is only part of the equation. The ultimate goal is the conviction of the perpetrator of the crime. So while the CSI scrapes off the dried blood without smearing any prints, lifts several hairs without disturbing any trace evidence and smashes through a wall in the living room, he's considering all of the necessary steps to preserve the evidence in its current form, what the lab can do with this evidence in order to reconstruct the crime or identify the criminal, and the legal issues involved in making sure this evidence is admissible in court.

In collecting evidence from a crime scene, the CSI has several main goals in mind: reconstruct the crime, identify the person who did it, preserve the evidence for analysis and collect it in a way that will make it stand up in court.

Body fluids found at a crime scene might include blood, semen, saliva, and vomit. To identify and collect these pieces of evidence, a CSI might use smear slides, a scalpel, tweezers, scissors, sterile cloth squares, a UV light, protective eyewear and luminol. He'll also use a blood collection kit to get samples from any suspects or from a living victim to use for comparison.

If the victim is dead and there is blood on the body, the CSI collects a blood sample either by submitting a piece of clothing or by using a sterile cloth square and a small amount of distilled water to remove some blood from the body. Blood or saliva collected from the body may belong to someone else, and the lab will perform DNA analysis so the sample can be used later to compare to blood or saliva taken from a suspect. The CSI will also scrape the victim's nails for skin -- if there was a struggle, the suspect's skin (and therefore DNA) may be under the victim's nails. If there is dried blood on any furniture at the scene, the CSI will try to send the entire piece

of furniture to the lab. A couch is not an uncommon piece of evidence to collect. If the blood is on something that can't reasonably go to the lab, like a wall or a bathtub, the CSI can collect it by scraping it into a sterile container using a scalpel. The CSI may also use luminol and a portable UV light to reveal blood that has been washed off a surface.

If there is blood at the scene, there may also be blood spatter patterns. These patterns can reveal the type of weapon that was used - for instance, a "cast-off pattern" is left when something like a baseball bat contacts a blood source and then swings back. The droplets are large and often tear-drop shaped. This type of pattern can indicate multiple blows from a blunt object, because the first blow typically does not contact any blood. A "high-energy pattern," on the other hand, is made up of many tiny droplets and may indicate a gun shot. Blood spatter analysis can indicate which direction the blood came from and how many separate incidents created the pattern. Analyzing a blood pattern involves studying the size and shape of the stain, the shape and size of the blood droplets and the concentration of the droplets within the pattern. The CSI takes pictures of the pattern and may call in a blood-spatter specialist to analyze it.

A CSI may use combs, tweezers, containers and a filtered vacuum device to collect any hair or fibers at the scene. In a rape case with a live victim, the CSI accompanies the victim to the hospital to obtain any hairs or fibers found on the victim's body during the medical examination. The CSI seals any hair or fiber evidence in separate containers for transport to the lab.

A CSI might recover carpet fibers from a suspect's shoes. The lab can compare these fibers to carpet fibers from the victim's home. Analysts can use hair DNA to identify or eliminate suspects by comparison. The presence of hair on a tool or weapon can identify it as the weapon used in the crime. The crime lab can determine what type of animal the hair came from (human? dog? cow?); and, if it's human, analysts can determine the person's race, what part of the body the hair came from, whether it fell out or was pulled and whether it was dyed.

Tools for recovering fingerprints include brushes, powders, tape, chemicals, lift cards, a magnifying glass and Super Glue. A crime lab can use fingerprints to identify the victim or identify or rule out a suspect. There are several types of prints a CSI might find at a crime scene: 1) visible-left by the transfer of blood, paint or another fluid or powder onto a surface that is smooth enough to hold the print; evident to the naked eye. 2) molded- left in a soft medium like soap, putty or candle wax, forming an impression. 3) latent- left by the transfer of sweat and natural oils from the fingers onto a surface that is smooth enough to hold the print; not visible to the naked eye

A perpetrator might leave prints on porous or nonporous surfaces. Paper, unfinished wood and cardboard are porous surfaces that will hold a print, and glass, plastic and metal are nonporous surfaces. A CSI will typically look for latent prints on surfaces the perpetrator is likely to have touched. For instance, if there are signs of forced entry on the front door, the outside door knob and door surface are logical places to look for prints. Breathing on a surface or shining a very strong light on it might make a latent print temporarily visible. When you see a TV detective turn a doorknob using a handkerchief, she's probably destroying a latent print. The only way not to corrupt a latent print on a nonporous surface is to not touch it. Proper methods for recovering latent prints include powders and brushes at the CBI latent-fingerprint lab.

**Powder (for nonporous surfaces):** Metallic silver powder or velvet black powder A CSI uses whichever powder contrasts most with the color of material holding the print. He gently brushes powder onto the surface in a circular motion until a print is visible; then he starts brushing in the direction of the print ridges. He takes a photo of the print before using tape to lift it (this makes it stand up better in court). He adheres clear tape to the powdered print, draws it back in a smooth motion and then adheres it to a fingerprint card of a contrasting color to the powder.

**Chemicals (for porous surfaces)** The CSI sprays the chemical onto the surface of the material or dips the material into a chemical solution to reveal the latent print.

**Cyanoacrylate (Super Glue) fuming (for porous or nonporous surfaces)** The CSI pours Super Glue into a metal plate and heats it to about 120 F. He then places the plate, the heat source and the object containing the latent print in an airtight container. The fumes from the Super Glue make the latent print visible without disturbing the material it's on.

If a CSI finds any firearms, bullets or casings at the scene, she puts gloves on, picks up the gun by the barrel (not the grip) and bags everything separately for the lab. Forensic scientists can recover serial numbers and match both bullets and casings not only to the weapon they were fired from, but also to bullets and casings found at other crime scenes throughout the state (most ballistics databases are statewide). When there are bullet holes in the victim or in other objects at the scene, specialists can determine where and from what height the bullet was fired from, as well as the position of the victim when it was fired, using a laser trajectory kit. If there are bullets embedded in a wall or door frame, the CSI cuts out the portion of the wall or frame containing the bullet -- digging the bullet out can damage it and make it unsuitable for comparison.

A CSI collects and preserves any diaries, planners, phone books or suicide notes found at a crime scene. He also delivers to the lab any signed contracts, receipts, a torn up letter in the trash or any other written, typed or photocopied evidence that might be related to the crime. A documents lab can often reconstruct a destroyed document, even one that has been burned, as well as determine if a document has been altered. Technicians analyze documents for forgery, determine handwriting matches to the victim and suspects, and identify what type of machine was used to produce the document. They can rule out a printer or photocopier found at the scene or determine compatibility or incompatibility with a machine found in a suspect's possession.

Whenever a CSI discovers a piece of evidence at the scene, she photographs it, logs it, recovers it and tags it. An evidence tag may include identification information such as time, date and exact location of recovery and who recovered the item, or it may simply reflect a serial number that corresponds to an entry in the evidence log that contains this information. The crime scene report documents the complete body of evidence recovered from the scene, including the photo log, evidence recovery log and a written report describing the crime scene investigation.

To my mind the USA experience of collecting evidence at the crime scene is one of the most effective in the world and allows police to apprehend a suspect quickly.

It would be a good idea to pay attention to such way of collecting evidence and try to improve our skills using recommendations of Western instructors in order to effectively reducing the level of crime in our country.

Список використаних джерел

1. <https://science.howstuffworks.com/csi4.htm>
2. <https://science.howstuffworks.com/csi.htm>

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## **COMBATING CRIME IN THE UNITED ARAB EMIRATES**

The UAE is one of the world's most stable and secure countries. This prestigious stature requires all of individuals and institutions, to pursue their unrelenting and dedicated efforts to maintain the blessing of security and stability and to protect the highly acclaimed gains achieved by the country in various fields and areas. The UAE will remain a model of modernity and development, and will unceasingly lend its support to drive forward the