CSI MYTHS VS. FACTS

Do you know the difference?

WHAT'S REAL & WHAT'S NOT

The investigative and scientific techniques you see on television crime scene dramas are intriguing and entertaining, but often may be more fiction than fact. Can a DNA sample rapidly identify a perpetrator? Not likely. Are laboratory tools available that can uncover all available evidence? Nope. Do forensic scientists wear glamorous clothes? Definitely not.

Even without the TV-style trappings, crime scene investigators and forensic scientists perform a key function within the criminal justice system. While they can provide crucial evidence to crack a case, numerous myths exist regarding the use of forensic techniques during a criminal investigation and subsequent trial.

CRIME SCENE INVESTIGATION

MYTH: A single investigator trained in forensic science can collect and analyze all evidence from a crime scene.

FACT: Most crime scene investigators do not work in the lab and most analysts never actually visit the crime scene. Crime scene investigation and analysis requires a team of experts. These professionals usually specialize in a particular forensic science discipline such as fingerprints, firearms or DNA analysis. Initially, investigators or technicians collect all possible evidence without knowing what may be relevant to an investigation. In the next step, specialized laboratory-based analysts from various disciplines examine the evidence and report their findings.

ALTERNATE LIGHT SOURCE (ALS)

MYTH: Investigators can detect the presence of blood at a crime scene using a blue light.

FACT: Television programs often depict the use of a special light to detect blood. However, blood does not fluoresce, or glow, without the addition of special chemicals. To find other bodily fluids, such as saliva and semen, an alternate light source (blue light used in combination with an orange filter or goggles) can be used. This will make these fluids fluoresce for easier detection.

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FINGERPRINTS

MYTH: All fingerprint records in the United States are stored in a single database.

FACT: The FBI's Integrated Automated Fingerprint Identification System (IAFIS) contains fingerprint records for individuals arrested for a crime and for those who apply for civil employment. However, other fingerprint databases exist at the local, state and federal levels. To match a crime scene print, investigators may search multiple fingerprint databases including those from local and state jurisdictions that have not entered records in IAFIS.

DRUGS & EXPLOSIVES

MYTH: A trained crime scene investigator can usually identify an unknown powder by sight, smell or taste.

FACT: Contrary to television portrayals, crime scene investigators never taste an unknown substance to determine its composition. This could be highly dangerous and result in poisoning or burning. Instead, investigators use hand-held, portable kits to get preliminary, "presumptive" information about unknown powders before determining what to send to the laboratory for testing.

DNA

MYTH: Advanced DNA analysis can automatically identify an individual within minutes.

FACT: Analyzing a DNA sample takes several hours for even simple cases, although a laboratory typically takes 30 days or more to complete DNA testing because of heavy caseloads, batching of samples for efficiency, database searches, and reporting requirements. When the analysis is complete, results are then compared to several DNA databases to look for a match. The national, state, and local databases do not contain personally identifiable data.

LEARN MORE!

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