

The real CSI : Investigators' jobs less glamorous, more personal

(CNN) -- The body dominated the room: his hands and ankles bound with a belt, a sheet over his head and a drop of blood on the back of his shirt. For investigators, his corpse held some -- but not all -- of the clues to solve his disturbing murder.

From a broken neck bone, they determined he'd been strangled. The victim's cell phone and jewelry were gone, hinting at a burglary. A cigarette and sunglasses were found, but the apartment's occupant didn't smoke or wear shades. A mangled deadbolt and kitchen knife, together, indicated the killer had struggled to flee the room.

This may read like a script from "CSI" -- short for "crime scene investigation" -- the nation's most popular TV program. But it's a gut-wrenching reality for victim Thomas Clark's friends and relatives, plus those working the case -- a murder not readily resolved like one in an hour-long show.

"It's like hunting down a ghost. Nobody knows him, nobody has seen him before," Miami Police Department Sgt. Moises Velasquez said of the killer. "It's picking a face out of millions."

Forensic investigation has captured the public imagination, with more than 50 million people regularly watching CBS's three "CSI" series. But while crime-solving capabilities have improved tremendously, experts say, real CSI investigators' lives are far less glamorous and their probes less swift and successful than those portrayed on TV.

"Courts, jurors, even cops have this expectation that we can constantly pull rabbits out of a hat," said Barry Fisher,

head of the Los Angeles County Sheriff's Department crime lab. "It is just a physical impossibility that we are able to do that on every single case."

Some homicide detectives and CSI technicians see the cases as puzzles, as opportunities to "apply things that I've learned in real-world situations and hopefully ... help the truth come out," said Robert Silver, a scientist, investigator and professor of medicine at Wayne State University.

For others -- whether in the lab or in the field -- tracking down murderers is more personal.

"It's almost like an insult," said Arnold Yen, a crime scene technician for the Miami Police Department. "You can't have somebody come into your city, your back yard, and kill someone and expect to get away with it."

Thomas Clark, 60, was not just a character in a script or a name on a police blotter. He was a building superintendent, one of 14 children, a frequent churchgoer, the resident of the same apartment for 25 years and "a loving person," said his brother William.

"Twenty-five years he worked in that church," said Det. Freddy Ponce, Velasquez's partner. "They don't know how something like that could happen to him."

Less glamorous, less effective

TV shows, past and present, depict the tough lives of homicide detectives. But the dangers and emotions are much tougher than those portrayed on TV, say those in the field.

"When you're on the scene, trying to console a mother of a child that's been murdered, that is reality," said Miami Police Lt. Joseph Schillaci, adding he has been kidnapped, beat up and hospitalized during his 22 years on the force. "We live with the horrors and pain of these families."

Coroner's offices and laboratories, also, are generally more gritty and less pretty than those on TV -- as are those who work in them. Forensic anthropologist Kathy Reichs, for one, said she's "never gone to a crime scene wearing pumps and pantyhose" like her onscreen "CSI" facsimiles.

CSI experts said they usually have specialties, wait weeks or months for test results and don't question suspects, spending most of their time hunched over books and microscopes in laboratories.

"Forensic scientists are not policemen. We are scientists. We deal with these matters objectively. We do not [act] on our suspicion," said Dr. Cyril Wecht, coroner for Allegheny County, Pennsylvania, and a professor at two Pittsburgh-area universities.

Most CSI labs and morgues, moreover, are not as clean or state-of-the-art as those on "CSI." Miami medical examiner Dr. Satish Chundru also claims that the TV series are often misleading in regularly pinpointing a "time of death" and getting quick and

conclusive test results -- especially for DNA.

"You can't just stick a swab in a computer and it spits out an answer," he said. "It takes time, sometimes months."

Those hoping to become forensic experts get a distorted view from TV, said Shari Julian.

"They picture themselves as kind of a latter-day Indiana Jones," said the criminal expert. "A lot of it is just sitting there with the books and dredging through piles and piles of literature."

Yet the TV shows have boosted interest in forensics as a career. Forensic anthropologist Joanne Devlin said demand has reached record levels at the National Forensic Academy, where she teaches, reflective of a growing trend in the field nationwide.

Tremendous progress, possibility

This surge parallels an influx of forensic technologies that have produced "more advances in the last 10 years than there have been in the previous 100," said Gerald Nance, a "cold case" manager at the National Center for Missing and Exploited Children.

Today, an analysis of bones can reveal details about a victim's sex, race, appearance, size and age, as well as the direction and extent of any trauma and a rough time of death.

The "gold standard" in solving crimes, said Nance, is DNA -- "the one thing ... consistent through all the stages of life and the processes of death."

"DNA is the fingerprint of the 21st century," said John Walsh, author and anchor of "America's Most Wanted." "DNA has caught a lot of individuals; it has also freed a lot of innocent people ... It's a really powerful tool."

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-- Miami, Florida, medical examiner Dr. Satish Chundru

These tools come together with old-fashioned detective work. In the case of Thomas Clark, test results and video security footage led authorities to a suspect -- Michael Merchison, 36.

Authorities claim that the DNA found on the sunglasses in Clark's apartment and the lone drop of blood on the victim's shirt match Merchison's genetic profile.

Although Merchison has been charged with second-degree murder and robbery, the case is not over. On April 18, he pleaded not guilty -- forcing prosecutors to prove their case in court.

An 'imperfect science'

The Los Angeles County's coroner's office -- the world's largest such contained facility -- runs 24 hours a day, 364 days a year. Twenty-four forensic investigators, aided by up to 40 specialists, examine the 8,000 to 10,000 bodies that come through annually.

"I can look at dead bodies all day, every day. It doesn't bother me," said Craig Harvey of the coroner's office. "It becomes a task -- a whodunit ... How do I identify this person and locate their next of kin?"

This office and CSI laboratories nationwide teem with cases -- the backlog particularly pronounced for DNA test results, an increasingly popular crime-solving tool. Technology's high cost, in a time of local and state budget crises, further impedes growth.

"We can help in so many cases, so our success is the reason we have the backlog," said Jennifer Luttmann, a forensic DNA examiner for the Federal Bureau of Investigation.

Those successes, coupled with the popular "CSI" TV shows, might put criminals on edge, said Frank Antonino, an Illinois chiropractor and certified medical investigator.

"It may increase the awareness to people who are criminals, to help them understand they are going to get caught, that they can run but they cannot hide," he said.

But those in the field said people should not expect miracles. However grand the technology and techniques, real CSI investigations still involve a great deal of time, luck and guesswork.

"We've got all kinds of new equipment and available opportunities [yet] the issue is always the same," said exhumations expert James Starrs, a George Washington University professor. "We have an imperfect human being using imperfect science striving for a perfect conclusion."

Toobin: "CSI" makes jurors more demanding

Is popular show guilty of influencing U.S. courtrooms?

(CNN) -- CBS's popular "CSI" programs -- the initials stand for crime scene investigation -- have thrown a curve at the U.S. legal system, according to experts.

CNN talked with its legal analyst, Jeffrey Toobin, about the impact of the "CSI" shows on jurors, law enforcement authorities, prosecutors and defense attorneys.

CNN: What is the so-called "CSI" effect?

TOOBIN: "CSI" has created an expectation among many jurors that the prosecution can produce scientific evidence of guilt. [But] prosecutors can't always deliver the goods.

Some people are calling it the "CSI" effect -- jurors demanding scientific proof of guilt or refusing to produce convictions.

CNN: What positive and negative consequences have these programs had on the legal system?

TOOBIN: The good effect of these shows is that they force police departments and prosecutors to make the efforts and spend money to get the good technology that really does produce reliable results.

The bad effect can be creating unrealistic expectations on the part of jurors that simply can't be met by existing technologies.

There are some juries that have created almost impossible-to-meet standards for the prosecution, saying, "We demand scientific proof of guilt,"

when either the technology isn't there or the evidence isn't the kind that can be tested to give that kind of proof.

Jurors are getting more demanding. Sometimes human DNA evidence isn't enough. They want testing of other evidence, [using] technologies that may exist only on television. That's a real problem for prosecutors when that happens.

CNN: What about defense attorneys?

TOOBIN: Defense attorneys have capitalized on this so-called "CSI" effect, too, by saying to jurors: "Why didn't the government do a test? Why didn't the government use all of the technology available?"

Sometimes it's a good point; sometimes it's creating unrealistic expectations on the part of jurors as to what the government can do.

CNN: What's the biggest difference between real crime cases and what's seen on TV?

TOOBIN: The efficiency of "CSI" is rarely matched in the real world. Things just happen a lot more slowly. It takes a long time to process DNA, and there are lots of backlogs. You can't simply collect blood one day, put it into the data bank the next day, and get your killer. Things take a long time, and sometimes they don't work at all.

“ Some juries ... have created almost impossible-to-meet standards for the prosecution. ”

-- CNN legal analyst Jeffrey Toobin