



## E25 Unique Dangers in the Medicolegal Death Investigation Process

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**Learning Overview:** After attending this presentation, attendees should be able to recognize potential dangers encountered during the medicolegal death investigation process. Attendees will also understand how, when unrecognized, these dangers could potentially lead to illness, injury, and even death of individuals involved in such investigations.

**Impact on the Forensic Science Community:** This presentation will impact the forensic science community by illustrating the dangers involved in medicolegal investigations that may not be readily apparent. These unusual scenes generate concerns by law enforcement, medicolegal investigators, forensic technicians, and forensic pathologists because of the potential for illness, injury, or death.

Unrecognized, the unique dangers in the medicolegal death investigation process could potentially lead to illness, injury and even death of individuals involved in such investigations. This could include law enforcement, medicolegal death investigators, forensic autopsy technicians, pathologists, and threats to public health. Attendees will also understand how these types of dangers necessitate the utilization of a multidisciplinary medicolegal investigative approach to be able to identify and minimize or neutralize potential hazardous situations, elements, or environments.

The presentation of potential dangers in investigation, while not always foreseeable, often follow familiar patterns consistent with the suspected cause of death. Suicidal deaths involving the utilization of vehicle exhaust present the foreseeable risk of carbon monoxide poisoning within the investigation environment. Individuals dying from high-voltage electrocution present an environment that could be a risk for electrical shock. Persons dying from firearm deaths often present a scene where a loaded weapon is present and is an intimate part of the investigation. Conversely, death scenes often arise in which both the cause and manner of death are not immediately apparent, nor are potential hazards. This presentation describes multiple cases in which the dangers involved in the medicolegal investigation were not readily apparent. These unusual scenes generated concerns by law enforcement, medicolegal investigators, forensic technicians, and forensic pathologists because of the potential for illness, injury, or death.

**Case 1: Ricin**—Law enforcement and the coroner/medical examiner's office were summoned to the home of a 36-year-old Caucasian male. The death was reported as a possible suicidal overdose. At the scene, apparent drug paraphernalia was found as was a suicide note. After the initial investigation, the medicolegal death investigation found castor beans, acetone, and other materials that could be used for the production of ricin. This was communicated to law enforcement, who had observed the material but had not recognized this to be a potential threat. This led the medicolegal death investigator to discount her initial concerns and transport the decedent without taking further precautions.

**Case 2: Grenade**—Law enforcement and the coroner/medical examiner's office responded to a reported gunshot wound suicide that had occurred in a car. Upon arriving at the scene, the decedent was noted to have suffered an apparent perforating gunshot wound to the head. A semi-automatic handgun was in the vehicle in close proximity to the body. Photographic documentation was initiated and the firearm removed. During the examination, the body was leaned forward to visualize the back before removal from the vehicle. At that time, a safety pin from a hand grenade was heard, then visualized to have fallen to the ground. A grenade was then identified behind the back of the decedent. All personnel were evacuated and the bomb squad alerted. The grenade was removed and detonated by the bomb squad.

**Case 3: Firearm**—Law enforcement responded to the traffic crash deaths of two individuals attempting to elude police. The fleeing persons were driving at a high rate of speed within a business district. As they turned a corner, the vehicle struck a production class wheel loader. Both individuals were unidentified at the scene, and the vehicle was stolen. While the medicolegal death investigator was examining and photographically documenting the decedent, a cellular telephone began to ring from within the vehicle rubble. The medicolegal death investigator was asked to "grab the phone" before it stopped ringing. Upon picking up a pile of rubble, the medicolegal investigator felt something slip from the debris. He then observed a firearm falling to the pavement. It fell and stuck the pavement with the barrel pointing in the direction of the investigator. Inspection of the weapon revealed it to be loaded and ready to fire with the safety not engaged.

These usual cases required a multidisciplinary approach to facilitate and complete the medicolegal investigation process. These and additional cases illustrate the importance of remaining vigilant during the investigation process and how the utilization of a multidisciplinary approach may be necessary to assure the safety of all persons involved.

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### Dangers, Multidisciplinary, Medicolegal