



### **D10 Unusual Suicides Using Common Mechanical Devices — Case Series and Literature Review**

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After attending this presentation, attendees will understand the scene investigation autopsy performance, and, reporting of unusual methods of suicide using common mechanical devices. Additionally, attendees will be better prepared to identify clues in these cases that have led to a ruling of suicide as the manner of death.

This presentation will impact the forensic science community by providing key information to help identify the manner of death in rare cases.

Suicide is the 11th leading manner of death in the United States of America. Suicides are classified by the Centers for Disease Control and Prevention in one of three ways: firearm suicides, suffocation suicides, and poisoning suicides. The forensic community is very familiar with scene investigation and autopsy procedures for these types of suicides. More unusual methods of suicide may pose a challenge for scene investigators and forensic pathologists. By becoming familiar with some of the interesting and creative ways with which persons have committed suicide, scene investigators, coroners, and forensic pathologists will be better equipped to process and evaluate such scenarios. Additionally, this information can serve as a knowledge base which can be applied to unique but similar cases that are scarce within the academic literature.

The use of a circular saw and a power drill which yielded unfamiliar findings upon scene investigation as well as injuries rarely encountered on the autopsy table are reviewed. Interpretation of this information can yield more specific and accurate results if investigators are familiar with the type and severity of wounds that these devices inflict. It is of particular concern that these unusual methods might lead an investigator to consider homicide or accident as a manner of death when a case is actually a suicide.

Cases of suicide using common household mechanized devices are presented. These previously unpublished cases include death by circular saw, chain saw, and elastic-cord-saw apparatus.

Additionally, the existing literature to further supplement the information gleaned from the cases presented are reviewed. Although rare, reports in the literature have described suicides using electric drills, circular saws, band saws, pneumatic hammers, nail guns, and chain saws. Each scenario may have unique scene and autopsy findings important to consider when determining the manner of death.

The violent, unusual, and seemingly painful nature of these injuries may raise doubt as to whether they were truly self-inflicted, considering the numerous, well-known, and often minimally painful methods readily available. It is important to evaluate each individual case empirically, based on the history, the evidence documented at the scene, and the autopsy findings. This information must then be interpreted in the context of the relevant literature and the investigator's experience. The goal of this presentation is to assist investigators, coroners, and forensic pathologists in determining the manner of death in these rare cases.

**Suicide, Forensic Pathology, Mechanical Devices**