



## Pathology Biology Section – 2010

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### **G60 Analysis of an Unusual Misfire of a Common Handgun**

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After attending this presentation, attendees will be informed of an unusual mechanism accounting for the misfire of a common handgun.

This presentation will impact the forensic science community by illustrating the utility of cooperation between experts from different disciplines in reconstructing incidents.

There are many circumstances in which an apparent live cartridge may misfire even though the firing pin has struck the primer. Factors that contribute to those circumstances include design, manufacture, and condition of the ammunition and firearm as well as the actions of the individuals involved in the case.

In this report, a case will be illustrated in which two unusual misfired cartridges were found at the scene of the suicide of a 53-year-old woman by means of gunshot using a Glock 9 millimeter handgun.

Expert examination of the firearm and ammunition involved determined that the main factors contributing to the misfiring of the cartridges were likely the design of the firearm in conjunction with the actions of the decedent. The examination supported the conclusion that the misfires were caused by the decedent pressing the firearm slightly against her head in such a way that a safety mechanism was activated.

Questions outside of particular investigators' areas of expertise can arise during any investigation. In such cases, cooperation between experts from different disciplines is essential to understand the complexities of reconstructing incidents.

**Misfire, Handgun, Glock**