

BRITTANY SHARPS, Dept. of Forensic Science, Fairmont State University, Fairmont, WV 26554.  
Using gun blue to develop fingerprints off of fired and unfired cartridges.

Sweat and oil, produced from eccrine and sebaceous glands, are secreted from the pores and distributed across the skin. If the fingerprint ridges are not hydrated with sweat or oil then the print will not have as much detail. Normal latent prints are extracted with fingerprint powder or superglue fuming. Gun blue is a chemical that is typically used to maintain and improve the metal finish of firearms, protecting against rusting and scratches. In preliminary studies gun blue helps enhance the ridge characteristics on fingerprints because once gun blue is dry its texture is similar to fingerprinting powder. For this project I tested the gun blue theory on gun cartridges collected from a local gun range loaded and fired by a male, female, and unknown. I collected 9mm and 12 gauge cartridges immediately and hours after firing. Cartridges were placed in a super glue fuming chamber then treated with gun blue. Preliminary results so that fingerprints were easier to view and lift after applying gun blue compared to commonly used fingerprint powder.