



Gunshot Residue Evidence Submission Guidelines

General Submission Guidelines

The Colorado Bureau of Investigation Forensic Services (CBIFS) recognizes that each case is distinctive. Our submission guidelines will address typical situations encountered by your agency but cannot speak to all of the unique circumstances that are often exclusive to a particular case. With this understanding, the CBIFS provides the following information to assist you in the submission of your evidence.

Types of Cases: Firearms Related Crimes

This examination is done to determine the presence of particles characteristic of gunshot residue on a subject's hands or face. The procedure can identify these particles, but cannot be used to identify a person as a shooter. These particles are created when a gun is fired and may settle onto the hands and faces of persons nearby as well as onto nearby surfaces. The particles are created from ingredients of the ammunition primers. They are not gunpowder particles.

Use a Gunshot Residue (GSR) kit designed for Scanning Electron Microscope (SEM), following the enclosed instructions.

In cases involving multiple subjects, analysis of the GSR kits cannot be used to determine which subject discharged the firearm or determine the positions of any subject relative to the discharged firearm. This analysis cannot determine muzzle-to-target distance. GSR kits from gunshot wound victims including suspected self-inflicted gunshot wound victims are not routinely analyzed.

Inanimate objects may be sampled using the same type of kit. In cases involving a vehicle, the location of a shooter within the vehicle cannot be determined by this test. Label the sample vials and the kit information sheet with sampling location details.

The following items should be collected from the scene:

- A gunshot residue kit from any persons suspected of being involved in a firearms related crime. If a subject must be transported to another location for sampling, cover the hands with paper bags to limit contamination.
- Clothing from any shooting suspect. Air dry the clothing before packaging and wrap in clean butcher paper, if possible, to avoid cross-contamination.

PACKAGING EVIDENCE

- Evidence should be packaged in a manner to preserve the integrity of the evidence and to avoid loss and contamination.
- All packaging should be marked with agency name, agency case number, item number and specific source of the sample.

For further information or questions, please contact Alex Rugh (alex.rugh@state.co.us, 303-239-4629) at the Colorado Bureau of Investigation.