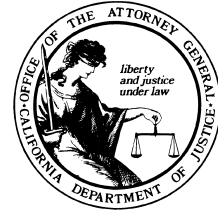




CALIFORNIA DEPARTMENT OF JUSTICE
BUREAU OF FORENSIC SERVICES
PHYSICAL EVIDENCE BULLETIN



FIREARMS EVIDENCE COLLECTION PROCEDURES

INTRODUCTION:

Firearms evidence is usually encountered in crimes against persons such as homicide, assault and robbery; but may also be found in other crimes such as burglary, rape, and narcotics violations.

While comparisons of bullets and cartridge cases to specific firearms are the most common examinations requested, other examinations are possible such as: distance determinations based on powder residue or shot spread; examination of firearms for functioning or modification; sequence of shots fired and trajectories; list of possible weapons used; serial number restoration and ownership tracing.

Evidence of firing or handling a firearm may be detected through the analysis of gunshot residue collected from a persons hands or other body surfaces. (see PEB 15 12/90).

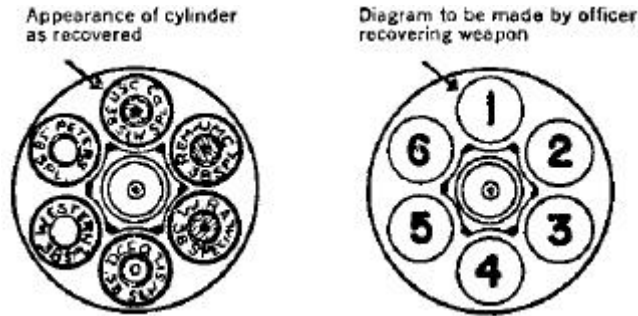
EVIDENCE FIREARMS-HANDLING AND SAFETY:

The location and condition of firearms and related evidence at a crime scene should be diagrammed and photographed before recovering and securing. Although physical evidence is important, safety must be the first consideration. Each situation should be evaluated before deciding to unload an evidence firearm. (Caution, treat a firearm at all times as if it were loaded). If the weapon is a type that can be safely transported in a loaded condition, this can be done. However, depending on the circumstances it may be unnecessary or unwise to transport a loaded firearm. It should then be unloaded, with care taken to preserve all types of possible evidence. This evidence includes fingerprints, blood, hair or fibers, cylinder "halos", and debris in the barrel and/or cylinder. The weapon should be handled on those areas least likely to retain latent fingerprints such as knurled or checkered areas.

UNLOADING REVOLVERS:

Prior to moving the cylinder it should be marked to indicate its position as found. This can be done by two pen or scribe marks on the top of the cylinder along each side of the top strap of the frame. The position of each cartridge/case in the cylinder should be recorded in field notes as diagrammed below. All cartridges/cases removed should be handled so as to preserve possible fingerprints. Each cartridge case should be packaged separately and referenced to the information in the field notes. Do not mark the actual cartridge/case.

FACING REAR OF CYLINDER



EXAMPLE NOTES

Chamber Position	Condition	Cartridge Headstamp
1	Fired	U.S.C. Co.
2	Fired	REM-UMC
3	Fired	WRA
4	Misfired	D.C. Co.
5	Loaded	WESTERN
6	Loaded	PETERS

UNLOADING SINGLE SHOT OR AUTOLOADING FIREARMS:

Before securing the firearm as evidence make a record of the position, as found, of any safety, cocking indicator, loaded chamber indicator, selector, or other control feature. With the firearm pointed in a safe direction, remove the magazine. Next, clear the chamber by slowly drawing back the slide/bolt handle. With the slide/bolt to the rear, examine the chamber visually to insure that no cartridge is in the chamber. Separately package the firearm, any detachable magazine, and/or extracted cartridges/cases. Again, take care to preserve any possible fingerprints or trace evidence. Do not remove cartridges from the magazine, or mark the cartridges/cases directly.

TRACE EVIDENCE AND FINGERPRINTS:

Examine the weapon for possible trace evidence such as blood, hair, fibers, tissue, or paint that may be relevant. If in doubt, do not dust for prints. Submit in person to the laboratory and request that the firearm be processed for prints.

TRANSPORTATION TO LABORATORY:

Personal delivery is preferred. A loaded handgun may be transported in a specially constructed box which has a means of securely holding the firearm and has a metal plate blocking the muzzle. If the firearm is to be sent by mail it must be unloaded and securely packaged.

NOTE TAKING AND EVIDENCE MARKING:

Make a sketch of the area which shows the location of each evidence item collected. The sketch should contain location measurements which reference each evidence item to a fixed object or a reference point. Photographs should be used to supplement notes and sketches, but not as a substitute for them. For later identification the serial number of a firearm should be recorded. Some older rifles and shotguns, however, may not have a serial number. If the firearm is marked for identification by scribing, the marks should be placed in a location where they will not damage the appearance or value of the firearm.

BULLETS EMBEDDED IN WOOD OR PLASTER:

Do not attempt to dig a bullet out. Remove by cutting out a portion of tile material in which the bullet is embedded. Send the piece of material containing the bullet to the laboratory.

REMOVAL OF AN EVIDENCE BULLET FROM THE BODY OF A DECEASED PERSON:

X-ray the body first. Ask the doctor not to use forceps, but, if possible, to use his fingers or rubber-tipped forceps to remove bullets. Bloody bullets should be washed in running water without scrubbing. Do not wash a projectile if trace evidence might be present such as may occur in a ricochet or deflection. If a bullet is washed do not use a brush or other item for cleaning. After washing it is **IMPERATIVE** bullets be dried prior to packaging. Dry the bullets by blotting (not rolling) with a soft dry facial or toilet tissue. Sealing a bloody or wet bullet in an air-tight package can cause corrosion of identifiable detail on the bullet. Wrap in soft tissue paper and seal in a labeled paper envelope or box. Package each bullet separately. **DO NOT MARK** the bullet or allow it to be marked. Mark the sealed container with a description of the bullet and all other pertinent data. You may wish to make a sketch of the bullet for your records. If you wish consultation on these procedures as they relate to your specific case, call the local criminalistics laboratory.

FIRED CARTRIDGE CASES, WADS AND PELLETS:

CARTRIDGE CASES: It may be possible to determine the position of a shooter by the location of ejected cartridge casings. Make a sketch with **ACCURATE** measurements of the location of fired cartridge cases. Again, package each item separately and mark the packages with the pertinent information.

SHOT WADS: When a shotgun is fired, the wads travel along with, or behind, the shot charge for a short distance. In those cases involving close shots, wadding may be found in either the victim's body or in his clothing. Follow same packaging procedure as for bullets.

SHOT PELLETS: For pellets embedded in wood, plastic, etc., handle in same manner as bullets embedded in solid objects. If it is not possible to submit the material in which pellets are embedded, pellets may be dug out, taking care not to mutilate them any more than is absolutely necessary. In removal of pellets from the body of a deceased person, x-rays can help locate the pellets. Use special care in recovering pellets so that there will not be undue damage to them. Rubber-tipped forceps should be used. After washing, wrap collected pellets in soft tissue paper and place in a labeled pill box, or small envelope.

LOADED SHELLS OR CARTRIDGES: Collect and submit to the laboratory all ammunition associated with a case. It can be used for test firing and distance determinations. Exactly duplicating the ammunition used may be critical. Document where such ammunition was found. If the number of cartridges are relatively few, they can be handled in the same manner as fired bullets. Large quantities should be placed in a cardboard box or wooden container. Label, seal, and deliver to the laboratory. Note: Postal regulations prohibit shipment of explosive substances through the mail. Loaded ammunition should be personally delivered or sent by UPS with the proper warning labels.

DISTANCE DETERMINATIONS:

In some cases, such as suicides and alleged struggles for the gun, the distance between the muzzle of the gun and the victim may become an issue and it will be desirable to examine garments for powder residue and other indications of close firing. For protection in transporting, the clothing of the victim should be rolled (after air drying) with paper on each surface. Package separately so that the area surrounding the bullet hole does not rub against other clothing or objects. When bullets have passed through garments into the body, a clear photograph of the bullet hole positions in the victim is desirable. Include a ruler in all photographs. Submit the firearm and the unfired ammunition associated with the incident. The use of identical ammunition is an essential part of firing distance determinations.

Further information on firearms evidence can be obtained from the local criminalistics laboratory serving your agency.