Chapter 4

Crime Scene: Crimes Against Persons

Overview

The results of crimes committed against people, including homicides and assaults, are vividly, and many times graphically, recorded with photography. These photographs can be extremely valuable in explaining such crimes as well as the brutality of these offenses.

Note: Each crime scene has unique characteristics. The type of photographs needed for complete documentation will be determined at the scene by the investigators familiar with the crime. While this chapter includes suggestions for taking some of the common types of photographs of certain subjects and at certain scenes, they should not be considered comprehensive lists of all the photographs needed in every case.

When you arrive at the scene, be sure to have the lead investigator give you a walkthrough of the scene to point out evidence and other aspects of the crime scene that should be photographed.

Photographing Injuries

In addition to photographically documenting the location where the crime occurred, the body of the victim can be considered a crime scene in itself. Injuries must be documented in a thorough, detailed manner.

Injuries are referred to by their type. When discussing injuries with other investigators, medical personnel, and in court, and when documenting injuries in notes and reports, it is important to refer to injuries by their type. The box on the next page contains a list of the common types of injury and their descriptions.

Usually a victim's injuries heal over time, and by the time a case goes to trial the victim may have completely healed. Or the injuries suffered by the victim may have been fatal. In either case, photographs are essential in the trial of the accused so the court and jury can see the extent of the injuries that were inflicted on the victim.

You must also photograph any injuries that are found on the suspect, such as scratches, or any other evidence, such as bloodstain.

The following information on photographing injuries will apply to most injuries including cuts, bruises, bite marks and gunshot wounds.

Equipment for Photographing Injuries

When photographing injuries use color film. Do not use any type of filter, other than close-up filters, over the camera's lens. This is because many filters can affect the colors in a photograph. Color charts can be placed in photographs so that when prints of the injury photographs are made the colors in the photographs can be printed accurately. Some experts can testify to the age of an injury because of its color, or can testify that the differing colors of two injuries indicate they were not made at the same time.

A scale must be used in the close-up photograph. An ABFO #2 scale is the scale used most often for photographs of injuries.

Electronic flash should be used for injury photographs. This is because daylight color print film is color balanced for daylight, electronic flash, and blue flash bulbs. The use of any other lighting sources will result in photographs with incorrect colors. The electronic flash should be diffused, either with a wide angle diffuser or a handkerchief placed over the head of the flash. A ring light flash can also be used for injury photography.

A macro lens or some type of close–up accessory will be needed for close–up photographs of most injuries. This is because normal lenses are designed to focus from about three feet to infinity and therefore cannot focus close enough to record most injuries. To record fine detail when photographing evidence, the injury should fill the frame of the camera's viewfinder. A macro lens or some type of close–up accessory will be needed when a close-up photograph requires the lens to focus

Definitions of Injury Types

Abrasion: A rubbing away of upper skin layers, a forceful rubbing or scraping against another object (e.g., "road rash" or rope burn).

Avulsion: Tissue separated by force, a tearing away from a part.

Bite mark: Puncture or contusion received from human or animal teeth, or from an insect.

Bruise: Impact injury causing superficial hematoma (bleeding) underneath upper skin layers.

Contusion: Injury in which skin is not broken but traumatized with injury to underlying structure.

Defense wound: Wound received in protecting self from an assailant.

Incision: A precise cut to the skin with a sharp or surgical instrument.

Laceration: Skin tissue cut by a dull or blunt object appearing torn or mangled.

Puncture: Injury from a slender sharp pointed object causing a hole-like wound, i.e., nail, ice pick, or teeth.

closer than three feet. Specialized medical lenses are available but they are usually very expensive.

Basic techniques in photographing injuries

When photographing injuries on a body, it is important to remember to identify the body on which the injury is located. The first photograph taken in the series of injury photographs is a photograph of the victim's face. This will identify whose body the injury is on. This is necessary because there have been cases in court where an opposing attorney has challenged injury photographs because it was unclear who the injuries in the photographs belonged to.

Do not have distracting backgrounds in the photographs when photographing injury victims. When the photographs are displayed in court jurors may become distracted by the things that appear in the background. Photograph victims with a blank wall, curtain, or a neutral backdrop behind them. Some crime scene photographers carry white and black pieces of cloth to use as backdrops.

Photograph the victim's face in the first photograph in the series. Do not, however, have a cluttered or distracting background as in this photograph.

After photographing the face of the victim, photograph the area of the body that includes the injury so that the location of the injury can clearly be identified. For example, if the injury is a bruise on a victim's upper right arm, photograph enough of the upper right arm so the area shown in the photograph is identifiable as an upper right arm. If photographed too close, the area might not be clearly identifiable and could be mistaken for another part of the body.

Next, take a close-up photograph of the injury. A scale must be used in the close-up photograph. An ABFO #2 scale is the scale used most often for photographs of injuries that may be compared with an instrument suspected of causing the injury (handprint, belt buckle, teeth, etc.). The scale must be placed on the same plane as the injury and the camera oriented so the film plane is parallel to the injury.

Focus carefully. When taking close-up photographs one of the most common problems encountered is shallow depth-of-field. Therefore, accurate focusing is critical. One important technique regarding focusing for injury photography is to

avoid focusing on the scale. Instead, be sure to focus on the evidence. While it is frequently easier to focus on the markings or edge of the scale, the scale may not always be on the exact plane of the injury. It is better to have a sharp image of the injury and a slightly out of focus scale than to have a sharp image of the scale and the injury out of focus.

If you are hand-holding the camera while taking a close-up photograph of an injury you should first rough size (scale) the injury by focusing with the lens focusing ring. When you have the injury just about focused in your viewfinder stop focusing the lens with the focusing ring. Then you can fine focus on the injury by moving the camera in and out. While maintaining the fine focus by moving the camera in and out slightly, lightly depress the shutter button to take the photograph.

Injury, hand print from a slap, photographed with oblique lighting from a diffused electronic flash.

Lighting is usually provided by an electronic flash. A small electronic flash with a wide angle diffuser or white handkerchief over the flash head works well. When using a small (low power) electronic flash it is often possible to mount the flash on top of the camera and achieve satisfactory results. With more powerful flash units it is likely the flash will wash out detail due to the intensity of the flash. In this case you will have to remove the flash from the camera and position it further away from the injury to prevent washing out detail. Lighting injuries requires practice to find the best combinations of flash units and flash distances for the best results.

Knife wound on a suspect's hand photographed to document his involvement in an assault with a deadly weapon.

Continue by photographing all the remaining injuries. If there are multiple injuries it may be necessary to number them in the photographs in order to clearly identify each one. An adhesive number, or an adhesive label with a number written on it, can be placed near each injury and included in the photograph for identification purposes.

Be sure to photograph any old scars and fading bruises that you notice. These may be signs of previous injuries which may indicate a pattern of abuse over time.

When necessary, take additional photographs 24 to 48 hours after the offense when the coloring and size of the victim's bruises become more visible.

Ultraviolet lighting techniques can be used to produce high resolution photographs of skin surfaces. It is a good technique for photographing bite marks, cuts, and scratches. Bruises with blood accumulation close to the skin surface can also be photographed with ultraviolet photography.

To photograph using ultraviolet light you will need a camera, high speed black–and–white film, a Kodak Wratten 18A filter and a lens capable of transmitting light between 320nm and 400nm. A light source rich in ultraviolet light is necessary. Such light sources include tungsten lights, photoflood lights, fluorescent lights and electronic flash.

A Kodak Wratten 18A filter is placed over the camera's lens during the exposure. The 18A filter blocks visible light while allowing ultraviolet light to pass through. Exposure settings are determined by evaluating test photographs. You can find a starting point for exposures by using the exposure settings indicated by the camera's internal exposure meter with the filter in place or with an external exposure meter using a filter factor of 80 (+6.5 stops). Exposures should be bracketed by two f–stops.

When taking ultraviolet photographs, use an ultraviolet ABFO #2 scale. Also, be sure to take both white light and ultraviolet light photographs of the injury. These can be used for comparison and for explaining your technique in court.

Bite marks

Usually, photographs are the only means available for an expert in forensic odontology to evaluate bite marks. Bite marks should be carefully photographed using the equipment and techniques described above. The ABFO #2 scale should be used for bite mark photography.

Assault Scenes

Assault scenes, from sexual assault to domestic violence cases, usually consist of two primary subjects for photography—the victim and the crime scene. In some cases a third subject must be photographed—the suspect. Whenever possible, all three should be photographed to document the crime.

When photographing victims of assault it is important to photograph all visible injuries using the techniques described earlier. It is also important to photograph any other evidence relating to the victim. This would include the condition of the victim's clothing. The victim's clothing may have been torn, blood-spattered or stained with semen. If the victim is wearing the clothing when you arrive to document the crime, be sure to photograph the clothing as it appears while worn by the victim. Often, clothing will be collected as evidence, especially in sexual assault cases. The clothing can be photographed in greater detail in the laboratory to document ripped material, semen stains (usually when illuminated with a forensic light source) and other trace evidence.

The location of the crime must be photographed. Photographs can document the appearance of the assault scene including overturned furniture, bloodstain, and other indications of a struggle.

It is usually a good idea to photograph the suspect, if the suspect can be located. Assault suspects frequently have injuries received from the victim during the assault. Scratch marks, bite marks, and cut or bruised knuckles are a few examples of injuries that can be observed on suspects. Suspects may also have bloodstain on them as well as torn clothing and trace evidence, such as hair, from the victim. All injuries on a suspect should be documented using the techniques described earlier.

There have been numerous cases where a victim has described a physical characteristic that would help to identify the suspect, such as a birthmark or mole. If you locate the suspect be sure to photograph the presence or absence of such characteristics described by the victim. This will assist the investigation by either identifying or exonerating the suspect.

Homicide

When photographing a homicide, take a series of photographs that will help other investigators, the District Attorney and perhaps a jury understand where and how the crime was committed. These photographs can also be used to recreate the crime and to prove or disprove a theory or a suspect's explanation.

Homicide scene

Be sure to use color film when photographing homicide scenes. Switch to black-and-white film as necessary to photograph certain evidence, such as fingerprints and

impressions. You usually have just one opportunity to photograph a homicide scene, so it is best to be thorough. If you are using a digital camera, check your review screen frequently. When in doubt, take extra photographs. In a significant case, such as a homicide, it is better to be criticized for taking too many photographs than for missing any important ones.

Photographs to consider

When photographing a homicide inside a building, such as a residence, photographs should include the exterior of the building including all sides of the building, all doors, windows, and other means of entrance or exit, and escape routes. Consider photographing the general neighborhood, street, and vehicles. In some cases aerial photographs may provide valuable perspectives of the scene.

Photograph any evidence discovered outside the building, such as impressions, signs of forced entry, blood trails, and dropped items.

Photograph the entrance into the scene, the room in which the body was found, and any adjoining rooms, hallways, and stairwells. In residential homicides you should photograph all the rooms in the residence. These photographs should show any signs of the victim's or suspect's activity prior to the homicide, such as lights on, food cooking, cigarettes in an ash tray, empty beer cans, etc. Also any evidence of a struggle, such as overturned furniture or broken items, should be illustrated with photographs.

Photograph the body. Start by photographing the body from as many of five angles (or views) as are available. The five angles are from both sides of the body, both ends of the body, and overhead (straight down). In many cases you will not be able to photograph all five angles due to the position of the body. When the body is against a wall, in a closet, or in the trunk of a car you will be limited in the number of angles available for photographs.

After photographing the five angles you should photograph body wounds and injuries that are visible. Take two photographs of each body wound—the first to show the location of the wound on the body and second to show the detail (with a close–up photograph) of the wound. This is not usually a time to take photographs with scales. More detailed photographs using scales will be taken at the autopsy. You just want to document the presence of the wounds in photographs of the body at the scene.

At some point the body will be removed from the homicide scene. Be certain to photograph the area under the body after the body is moved.

Photograph a body from five angles when available including both sides of the body (due to the position of this body against a wall, only one side of the body could be photographed).

Photographs are also taken from each end of the body.

The purpose of this series of photographs is to establish the position and condition of the body.

Photographs are taken from above the body.

Photograph any weapons found at the crime scene. If the weapon and body can be included in one view, take photographs to show the location of the weapon in relation to the body. If there are bullet holes in walls or other objects at the scene, photograph them using at least two photographs. One photograph must show the location of the bullet hole and a second photograph showing a close–up of the bullet hole (include a scale). If you have multiple bullet holes, be sure to number them with adhesive numbers or adhesive labels with numbers written on them.

The series of photographs of the body is followed with more detailed, closer views to show injuries and other related evidence.

Photograph of a hammer wound to the victim's head.

Photograph trace evidence, such as bloodstain, fingerprints, and footprints in dust or blood. When photographing fingerprints and impressions use black-and-white film. Black-and-white film provides more contrast than color film and will show more detail in the evidence. When using digital photograph in color, you can convert the color digital image to grayscale in Adobe® Photoshop®.

While photographing the homicide scene you should be aware of the theories under consideration by investigators. Many times theories can be tested through photography. One example is the view of suspects, witnesses, or victims during the homicide. You can place the camera at a subject's viewing position and, using a 35mm lens, demonstrate what the subject could have seen.

Suicide

Suicide scenes should be photographed much the same as homicides. Some photographers will do a less than thorough job of photographing a scene if it appears to be a suicide. However, in some cases it may take weeks to determine if a death was in fact a suicide. If the case should turn out to be a homicide, and you photographed it as thoroughly as a homicide, you should have the photographs necessary for an effective investigation.

Hanging

When photographing a suspected hanging suicide the body must be photographed from several different angles to show the location and position of the body. Photograph the hanging device (e.g., rope) any knots, and how and to what it was fastened. Photograph any visible injuries including injuries to the victim's neck.

Photograph the location where the victim was located and anything that would indicate the death is a suicide. Photograph doors and windows locked from inside, a kicked over chair, suicide note, etc.

Gunshot Suicide

When photographing a suspected gunshot suicide, photograph the location where the victim was located and anything that would indicate the death is a suicide. Photograph doors and windows locked from inside, suicide note, etc.

Photograph the body from several different angles to show the location and position of the body. Photograph the gunshot entrance and exit wounds, soot or tattooing at entrance wound and gunshot residue on the victim's hands.

Photograph gunshot entrance and exit wounds on the bodies of suicide victims.

Photograph gunshot residue on the hands of suicide

Photograph the weapon and its location. Also include photographs that show position of weapon in relation to the body.

Other suicides

Other suicides, such as intentional drug overdoses and jumping from buildings, should be photographed in much the same manner as the examples above. Photograph the body from several different angles to show the location and position of the body. Empty prescription bottles, suicide notes, and other indications that the death was a suicide should also be photographed.

Autopsy

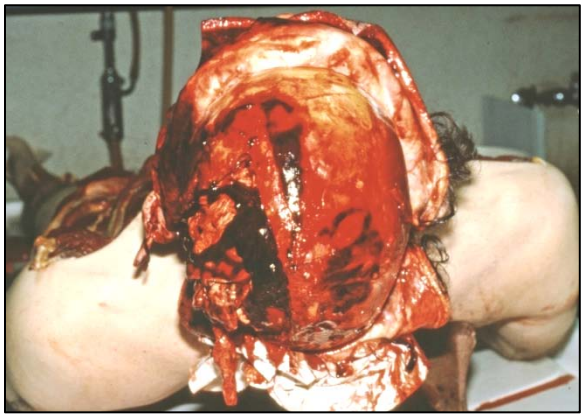
Photographs are normally taken at autopsies to document the condition of the body and support the findings (cause and manner of death) of the medical examiner or forensic pathologist.

The investigating agency is usually encouraged, or even required, to attend the autopsy to exchange information with the medical examiner or pathologist. Most medical examiners and pathologists, or members of their staff, take photographs at the autopsy. However, the investigating agency may be allowed to take additional photographs during the autopsy.

When photographing an autopsy be sure to follow any protocols required by the medical examiner or forensic pathologist. Protocols may include protective gear worn by the photographer and decontamination procedures.

When photographing autopsies use color film. Do not use any type of filter, other than close-up filters, over the camera's lens. A scale must be used in many of the close-up photographs taken at autopsies. Standard six-inch scales and ABFO #2 scales are used in photographs of autopsies.

Electronic flash should be used for autopsy photographs. The electronic flash should be diffused, either with a wide angle diffuser or a handkerchief placed over the head of the flash. A ring light flash can also be used for injury photography.



Photograph taken into the skull to show injuries sustained in a beating with a hammer.

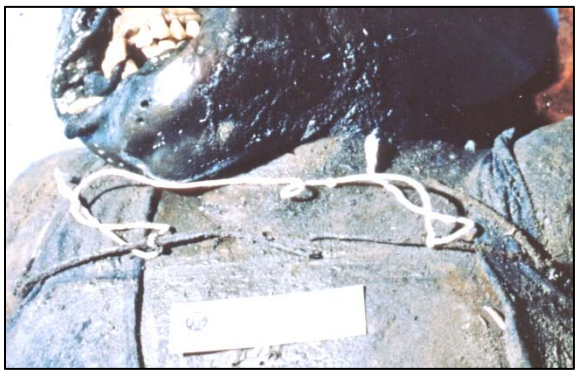
Photograph taken at the direction of the forensic pathologist to show damage to the victim's brain.

A macro lens or some type of close–up accessory will be needed for close–up photographs of most injuries. Specialized medical lenses are available but they are usually very expensive.

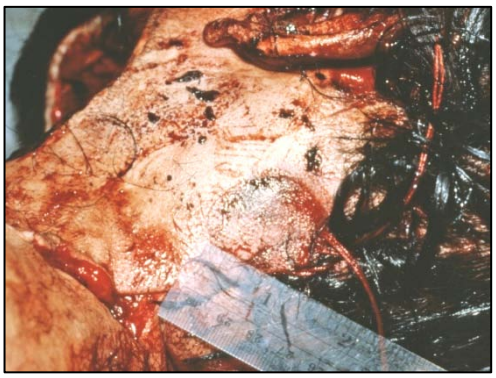
Photographing autopsies is done much like photographing injuries on other victims. Many of the photographs you take will be directed by the medical examiner or forensic pathologist (e.g., damage to a body organ). Other photographs are considered standard views. These standard views include overview photographs of the body before the body is unclothed or cleaned up, tattoos, marks and scars (include a scale) and any other identifying photographs. Also, it is important to photograph all surfaces of the body to indicate where there is an absence of wounds (e.g., the victim was not shot in the back).

Overall photographs of the body before the body is unclothed or cleaned up.

Overall photographs of the body after the body is unclothed.



Knots tied in bindings on the victim are photographed.



Close-up of neck wound caused by a hammer.

Photograph gunshot wounds, any visible pattern of gunshot residue and the victim's hands if there is any gunshot residue (include a scale).

Take close-up photographs of the injuries. A scale must be used in close-up photographs. An ABFO #2 scale is the scale used most often for photographs of injuries that may be compared with an instrument suspected of causing the injury

(handprint, belt buckle, teeth, etc.). The scale must be placed on the same plane as the injury and the camera oriented so the film plane is parallel to the injury.

Focus carefully. When taking close-up photographs one of the most common problems encountered is shallow depth-of-field. Therefore, accurate focusing is critical.

If you are hand-holding the camera while taking a close-up photograph of an injury you should first rough size (scale) the injury by focusing with the lens focusing ring. When you have the injury just about focused in your viewfinder stop focusing the lens with the focusing ring. Then you can fine focus the injury by moving the camera in and out from the subject. While maintaining the fine focus by moving the camera in and out slightly, lightly depress the shutter button to take the photograph.

Summary

Most “crimes against persons” involve injuries. By utilizing the simple concepts and steps discussed in this chapter most injuries can be documented to further the investigation and, in many cases, inform the jury.