Disclosures

I have no relevant financial relationships or conflicts of interest to disclose.

Nomenclature

- Penetrating gunshot wound: a wound where the projectile is still in the body
- Perforating gunshot wound: a wound where the projectile exits the body
GUNSHOT WOUNDS

- Entrance vs exit
- Range of fire
- Direction of wound path
- Injured organs
- Recovery of projectiles

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Entrance wounds

- Round, oval, elliptical
- Usually has a ring of abrasion
- May have microtears
- Margins can not be reapproximated

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SW in scalp
Exit wounds

- Various shapes
- Rare to have a surrounding abrasion
- Tissue is not lost
- Margins of the wound can be reapproximated
Range of fire
- Contact: tight or loose
- Close range or intermediate range
- Distant range

Contact gunshot wounds
- Muzzle of weapon is held in firm contact with the skin or clothing
- Often large and stellate
- May have a “muzzle stamp”
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Close range-intermediate range wounds
- Muzzle of gun is away from the body at time of discharge
- Muzzle is still close enough to produce gunpowder stippling and possibly soot deposition
- Gunpowder stipple: impact of unburned, partially burned or burning gunpowder on the skin

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Close range-intermediate range wounds
- Gunpowder stipple can not be wiped away
- Soot can be wiped away
- Most handguns will not deposit soot beyond 12 inches
- Gunpowder stipple does not generally occur beyond 3 feet

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Distant range wounds

- Muzzle of the gun is far enough from the body so that no soot or gunpowder is deposited on the body
- Exact range depends on the particular weapon and ammunition
Distant range wounds

- Range determination can not be made for distant gunshot wounds
- Bullets fired from 5, 50, or 500 feet produce the same type of entrance wounds

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Projectiles

- Do not attempt to estimate caliber of a bullet from an x-ray
- Do not handle bullets with metal instruments
- Do not engrave your initials on the bullet

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General tips on handling firearm cases

- Do not cut through gunshot wounds
- Do not place chest tubes through gunshot wounds
- Do not attempt to make a distinction between an entrance or an exit wound

Notify the ME/Coroner if projectiles are removed during surgery

- Do not cut through bullet defects in clothing
- Store clothing in paper bags
- All wounds and injuries are potential pieces of evidence
Sharp force injury

- Cut wounds
- Stab wounds
- Puncture wounds
- Chop wounds

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Cut wounds

- AKA Incised wounds
- The length on the skin is longer than the depth within the body
- Produced by knives, razors, broken glass

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Stab wounds

- Depth within the body is greater than its length on the skin
- Need to determine direction, depth, organs involved
- May be able to determine characteristics of weapon
Stab wounds

- Look for blunt edge
- Look for injuries from the hilt or guard
- Look for signs of a serrated knife

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