

# Projectile Impact Weapons

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# Classroom Correctness

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- Listen, Learn, Participate
- Firearms safety
  - Treat all weapons as if they are loaded
  - Don't point the weapon at anything you are not willing to shoot.
  - Keep your finger off the trigger until you are on target and ready to shoot.
  - Be aware of your backstop.

# Use Of Force

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- Between 15 and 20 percent of arrests involve use of force.
- Citizen injury rates are 17-60%
- Officer injury rates are 10-20%

(2011 NIJ Study, Journal #267)

# Non-Deadly Force

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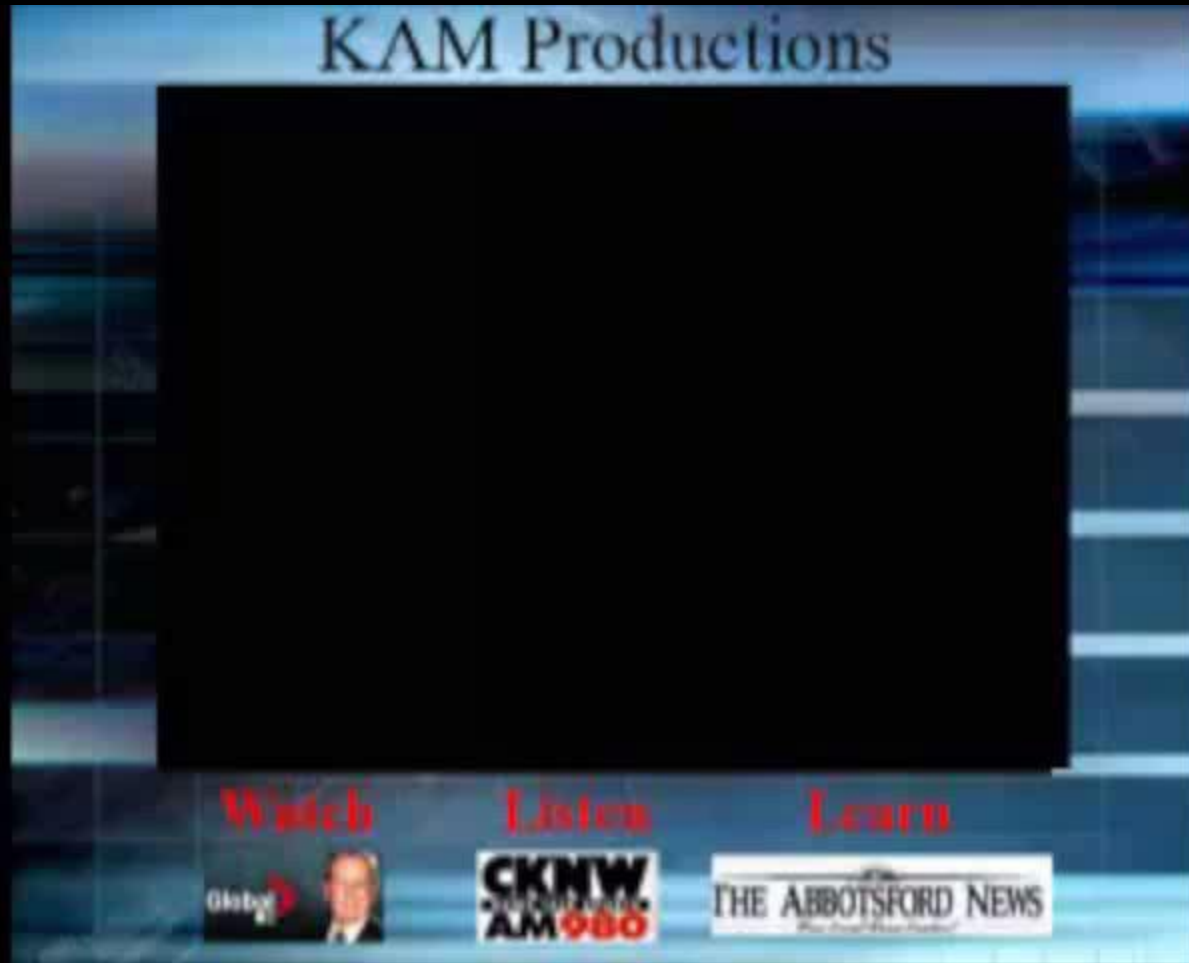
- Lawful application of force
- Delivered with intent to subdue
- non-life threatening
- May be only alternative to lethal force

# Munitions

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- Extended range
- Kinetic energy impact munition
- Used from distance
- To gain compliance
- Within the *Graham v. Connor* reasonable officer standard
  - The severity of the crime at issue
  - Whether the suspect poses an immediate threat to the safety of the officers or others
  - Whether suspect is actively resisting arrest or attempting to evade arrest by flight

# Use of Sock Rounds



# Less Lethal Weapons

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- Less Lethal Impact munitions are used to:
  - Disorient
  - Incapacitate
- Injury should be expected
- Low Energy – pain compliance

# Deorle v. Rutherford

- Officers have a duty to warn
- If at all possible
- Before using a force option, including bean bags





# Langford v. Gates

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- Proper documentation of training
- And operational use procedures
- Upheld in favor of LAPD due to documented training

# Whiteley v. Warden

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- Sets standard for full documentation
- If the circumstances are in the agencies benefit
- And it is not in writing
- It did not happen

# Plakas v. Drinkski

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- No constitutional duty
- To use non-deadly alternatives
- Prior to the employment of deadly force

# Prioritization Of Human Life

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- Citizens
- Police Officers
- Suspects

# Learning Activity

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- Discuss and list
- The appropriate circumstances
- For the employment of less lethal munitions

# Use of Munitions

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- Riot/Crowd Control
- Non-Compliant Suspects
- Corrections
- Tactical Operations
- Armed Suspects
- Diversionary Purposes
- 5150 Suspects
- Animal Control
- Suicide By Cop Suspects

# Effective Use

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# Launching Systems

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- 37/40MM Launchers –
  - Single Shot
  - Multi-Shot 40MM Launchers
- 12 Gauge Pump Shotguns –
  - Smooth Bore Barrels
  - Semi-Auto Shotguns Will Not Function



# 37/40MM Launchers

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# 40mm Impact Rounds

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- CTS  
Foam  
Baton



- Def Tech  
Exact  
Impact

# 40mm Impact Rounds

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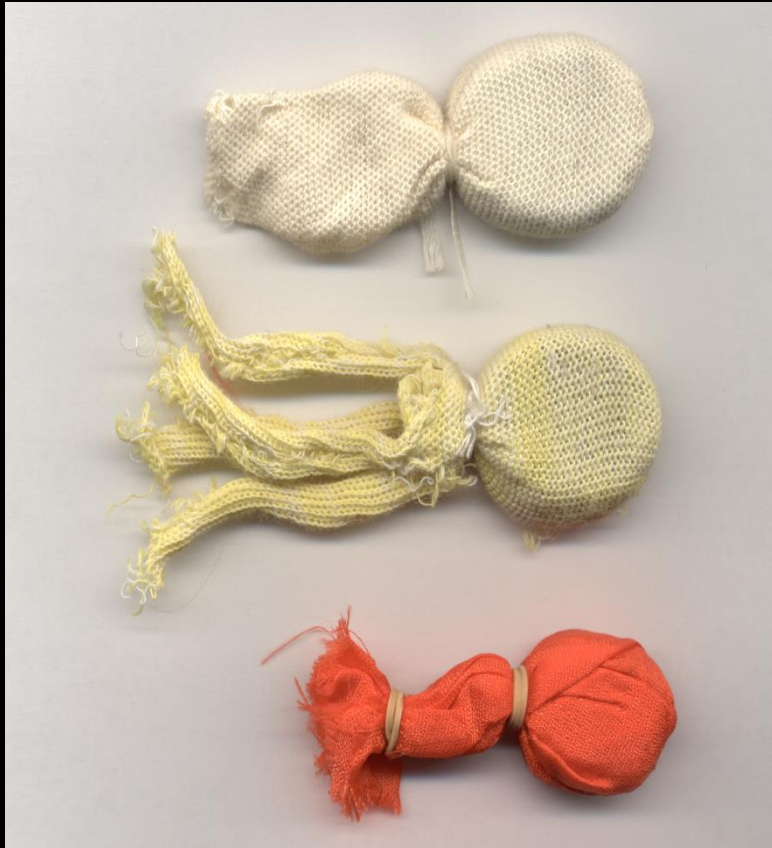
# 12 ga Less Lethal Shotgun

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# 12 Gauge Bean Bag Rounds

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- CTS Super Sock Round
- Def-Tec Drag Stabilized Round
- MK Ballistics Aero Sock Round

# Kinetic Energy

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- Form of energy
- Created by movement of a mass
- As it strikes an object
- Expressed in foot pounds

# Kinetic Energy

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- CPR chest compressions = .5 foot pounds
- Thrown fastball = 97 foot pounds
- .38 caliber round = 377 foot pounds
- 40 gram bean bag round = 120 foot pounds



# Blunt Force

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- Upon contact with a human body
- The object creates an impact shock wave
- Product of the energy delivered as well as the shape of the projectile





# Blunt Force Trauma

- Compression of tissue beyond the recoverable limit
- Temporary Wound Cavity –
  - Shock wave traverses body tissue, displacing vital organs in its wake



# Blunt Trauma Injuries

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- 82% of impacts resulted in bruising/abrasion
- 7% resulted in no injury
- 6% resulted in laceration
- 3% resulted in fractures
- 2% resulted in penetration or death
- No impacts to chest stopped the heart

# Select Proper Equipment



# Deployment

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- 47% involved suicidal suspects
- 19% involved barricaded suspects
- 33% involved suspect with an edged weapon
- 21% involved suspect with a handgun

# Use Against Edged Weapons

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# Deployment

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- 61% of engagements took place inside 21 feet
- 19% of engagements took place between 21 and 42 feet
- 43% required one shot
- 22% required two shots
- 18% required three or more shots

# Fatality Statistics

Deaths	Round Used	Contact Point
4	12 ga. Bean Bag	Chest
3	37mm spin stabilized	Chest
1	37mm Bean Bag	Throat
4	Non-Square Bean Bag	Chest (2), Head (1), Abdomen (1)



# Bean Bag Penetration

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# Bean Bag Characteristics

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- Fabric bags
- Intended to strike flat against target
- 40 Grams at 240-300 FPS
- Filled with small lead shot or silica

# Shot Distance

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- Sponge Rounds –
  - 5 to 75 Feet
- Bean Bag Rounds –
  - 15-60 Feet (5-20yds)
  - Can cause serious injury at distances less than 15 ft.
- Sock rounds are fully deployed as it leaves the muzzle

# Shot Placement

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- Consider the need for immediate incapacitation as well as the potential for causing injury – then balance these factors while making the point of aim decision.
- Shots to “Center Mass” provide for the highest probability of causing immediate incapacitation, but also have the potential to cause serious injury or death.
- Areas such as the head, neck , spine, and groin should be avoided if possible.

# Shot Placement

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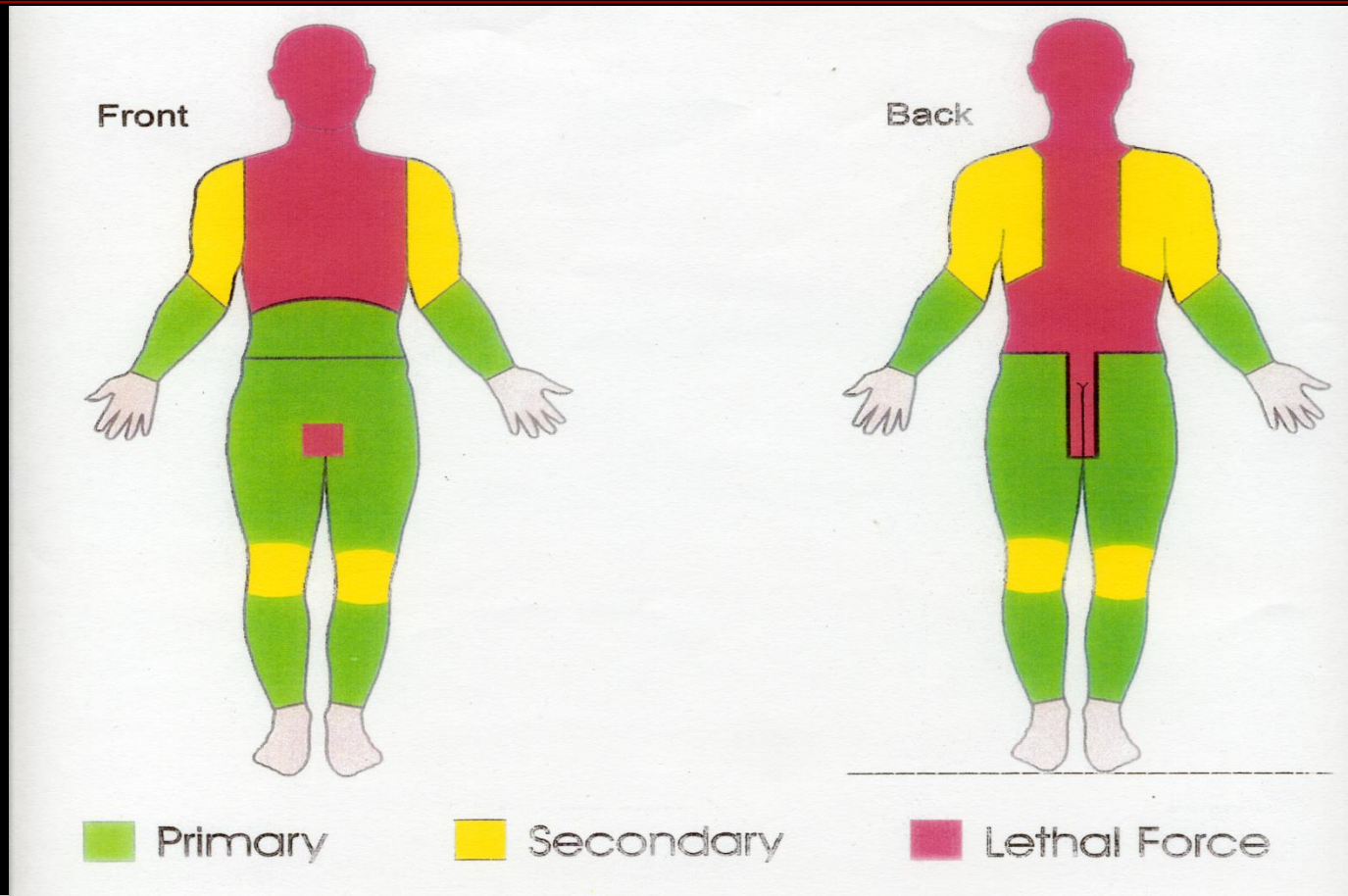
## ■ Front –

- Arm below elbow
- Lower Abdomen
- Thigh
- Leg below knee

## ■ Rear –

- Buttocks
- Arm below elbow
- Thigh
- Leg below knee

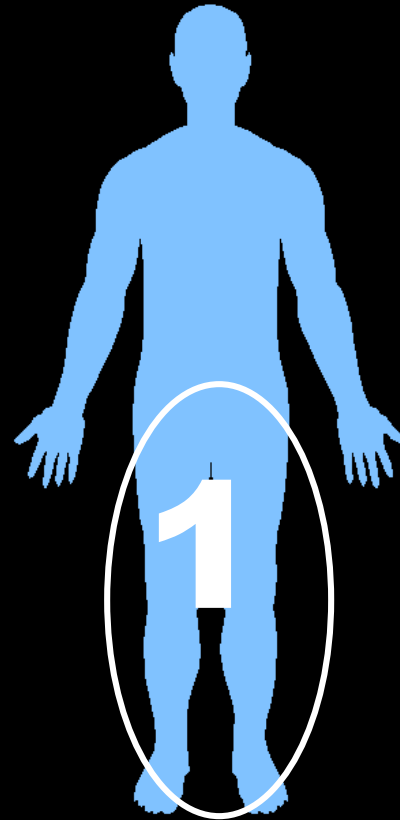
# Recommended Target Areas



# Zone 1

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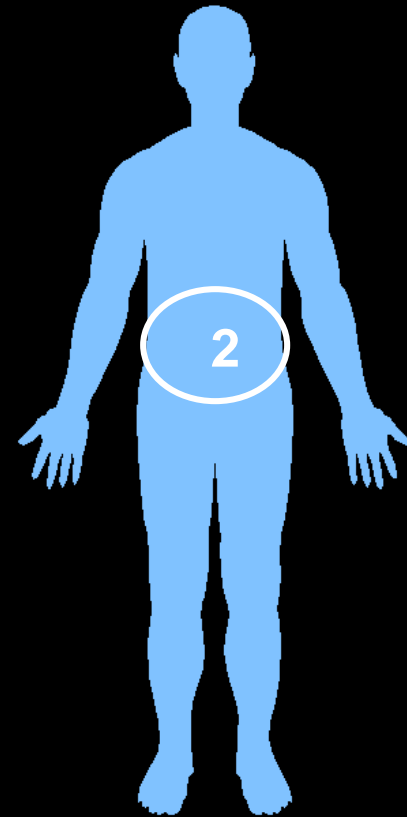
- Consists of large muscle groups. Where the threat level is appropriate and this zone is viable, it should be considered first
  - Buttocks
  - Thigh
  - Calf
  - The groin area should not be intentionally targeted



# Zone 2

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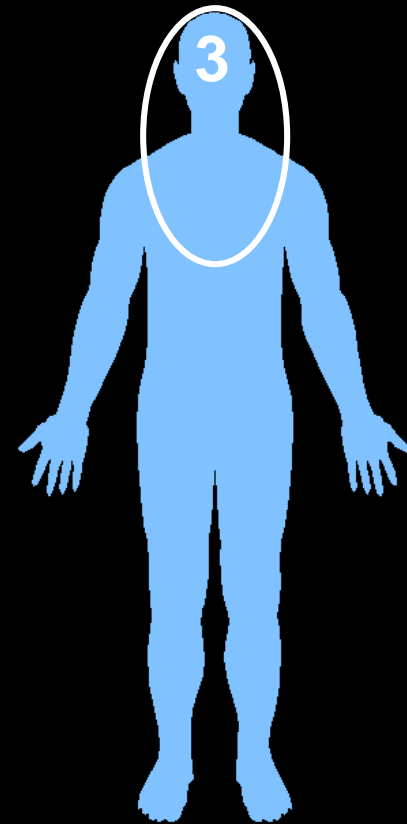
- Consists of medium muscle groups
  - Abdominal area



# Zone 3

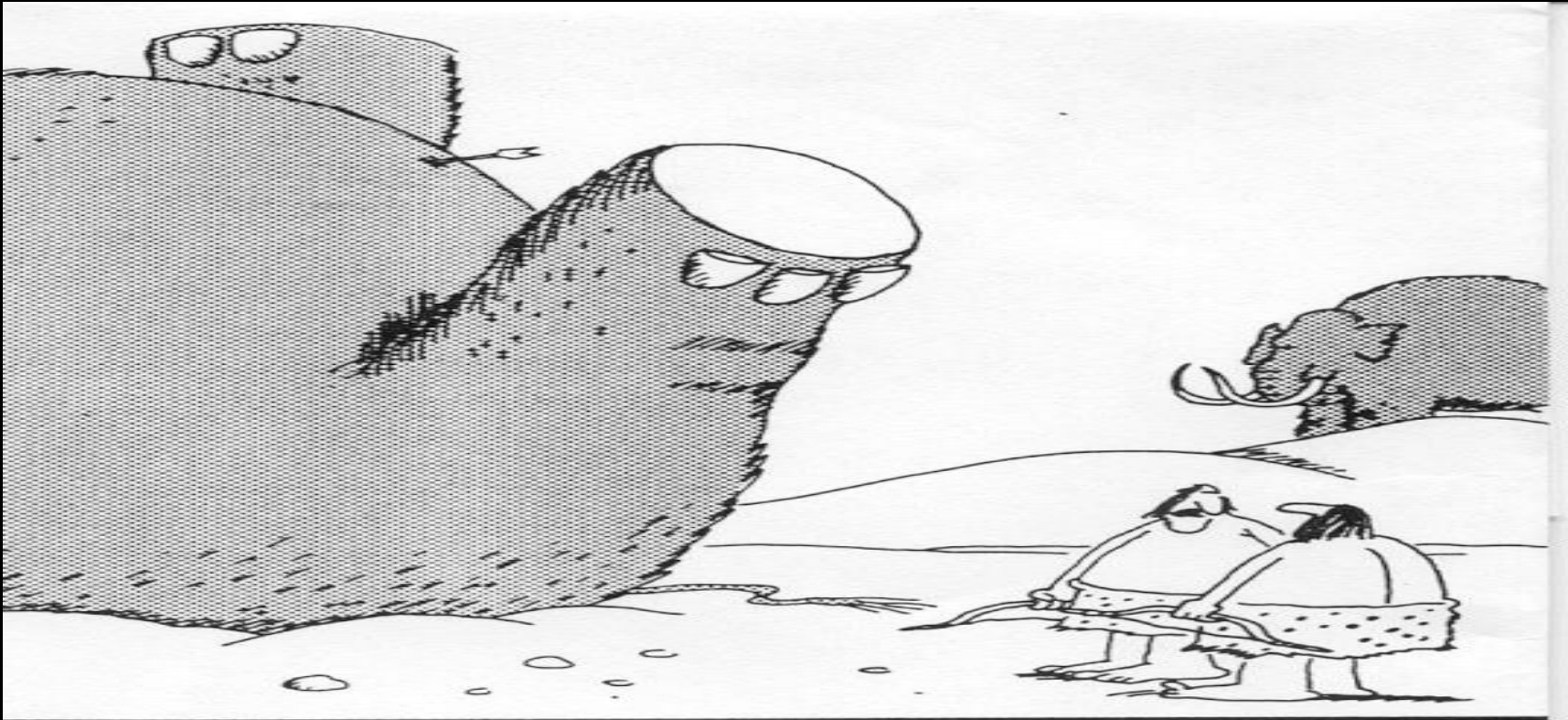
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- This zone carries the greatest potential for serious or fatal injury and should be avoided when possible. It should only be considered when maximum effectiveness is desired to meet a level of threat escalating to deadly force.
  - Chest (center mass)
  - Spine
  - Head and Neck





# Shot Placement



**"Maybe we should write that spot down."**

# Team Use and Arrest

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- Less Lethal Operator
- Supervisor
- Cover Officer (Lethal Force)
- Arrest Team
- Distraction Officer
- Negotiator (CIT)
- Other Options (OC, Taser, K9, Perimeter)

# Field Deployment

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- Notify communications when deploying a LLIM gun.
- Verbally announce warning to cover officers prior to shooting to avoid sympathetic fire.

# Effective Use

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# Policy

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## L 2629 USE OF PROJECTILE IMPACT WEAPONS:

- Only officers who have completed an approved training course taught by a qualified Department member or a representative of the manufacturer supplying the ammunition are authorized to use this type of equipment. Because projectile impact weapons have the potential to cause serious injury or death, this type of weapon will only be used in the following circumstances:
  - To be used as a defensive weapon to incapacitate suspects armed with a weapon likely to cause severe injury or death until the suspect can be controlled and safely taken into custody.
  - To be used as a defensive weapon in situations where its use is likely to prevent any person from being seriously injured.
- **The intentional discharge of a Projectile Impact Weapon at a suspect shall be documented as a use of force.** When an intentional discharge of a Projectile Impact Weapon is used for the purpose of breaking glass, and the discharge does not result in any person being

# Policy

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## **L 2630 PROHIBITED USES OF PROJECTILE IMPACT WEAPONS:**

- Projectile impact weapons will not be used in the following circumstances:
  - On restrained, unconscious or otherwise incapacitated persons
  - Except in emergency situations, projectile impact weapons will not be used until a sufficient number of officers are present to immediately take control and custody of the suspect

# Policy

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## **L 2631 PROVIDING FIRST AID AFTER USE OF PROJECTILE IMPACT WEAPONS:**

- **Officers will obtain a medical clearance from Valley Medical Center (VMC) for an arrestee who has been immobilized by use of a projectile impact weapon. Another hospital emergency room may be used if, based on the available information, it appears to be necessary to provide immediate emergency medical treatment for the arrestee or if VMC is closed for admissions.**
- **In cases where another hospital emergency room is used or if the suspect is already at another hospital facility with an emergency room, the officer will obtain the necessary medical clearance paperwork for booking from that hospital. There is no need to transport the suspect to VMC in this case. The prisoner will only be transferred to VMC upon approval of medical personnel at both facilities.**
- **Jail personnel will be advised that the arrestee was immobilized by the use of a projectile impact weapon.**

# Documentation

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- Document on G.O. and Use of Force Report form
- All factors leading up to use
- Deployment of munitions
- Compliance with department policy
- First Aid given
- Injuries sustained
- Evidence collected - photos
- Notifications – Sgt. and/or Lt.



# Medical Treatment

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- Always seek medical attention after deployment
- Document the treatment given
- Notify correctional staff of use

# Questions

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- Be safe out there
- Always err on the side of caution
- Do not hesitate
- Always win

