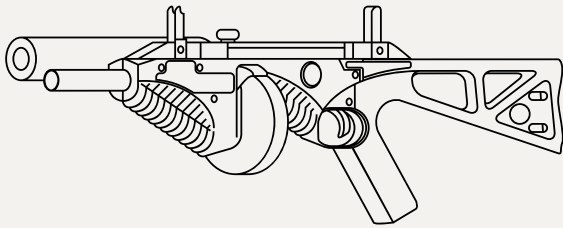


KINETIC IMPACT PROJECTILES

Kinetic impact projectiles (KIPs), commonly known as rubber or plastic bullets, have been found to cause serious injury, disability, and death when used by law enforcement for crowd control. KIPs are inherently inaccurate when fired from afar and therefore can cause unintended injuries to bystanders and strike vulnerable body parts; at close range, they can easily turn lethal.

How they work

KIPs are designed to inflict pain through the transfer of kinetic energy from a projectile to a person.



Deployment mechanism

KIPs are deployed from a wide range of launchers and firearms. Some utilize, or are additions to, traditional firearms used for live ammunition. Others are specially designed for use with less lethal munitions. Single or multiple projectiles, between 2 and dozens, may be fired at once.

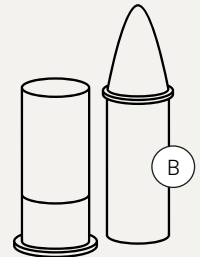
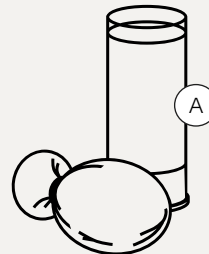


Common types of projectiles

RUBBER AND PLASTIC BULLETS

These are solid projectiles of variable size and shape fired as single shots or in groups of multiple projectiles. Pellets can be made of rubber, plastic, PVC, or a composite including metal.

A



BEAN BAG ROUNDS

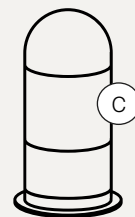
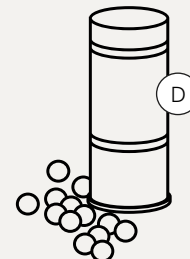
Also known as flexible baton rounds, bean bag rounds are synthetic cloth bags filled with small metal pellets that fit into a cartridge and expand as they travel to create a wide surface area impact.

B

SPONGE ROUNDS

This is a general term for projectiles that limit penetration of the projectile into the skin by having a tip or nose that is slightly softer. These include foam rounds with a hard foam nose or "attenuated energy projectiles" with a hollow nose.

C



PELLET ROUNDS

These are cartridges filled with small lead, steel, or composite pellets that spread out when fired. Metal shots such as buck and birdshots are considered crowd-control weapons by some countries but international standards prohibit them.

D



"PEPPER-BALL" ROUNDS

These hybrid projectiles contain chemical irritants fired from compressed air rifles.

E

KINETIC IMPACT PROJECTILES

Health Impacts

KIPs have resulted in significant morbidity and mortality in crowd settings. At close range, projectiles can penetrate tissue, compromise organs, sever arteries, or impact with enough force to fracture bones. Even at longer ranges, projectiles can carry enough energy to cause bruises, internal bleeding, and permanently damage delicate tissues such as the face, eyes and genitalia. Impacts to the head and neck are especially severe and carry the risk of blindness, traumatic brain injury, and death.



DAMAGE TO TISSUE



COMPROMISED ORGANS



TRAUMATIC BRAIN INJURY



BONE FRACTURES

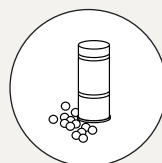


DEATH

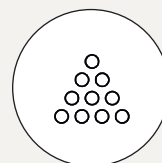
Variables that can exacerbate injuries

PROJECTILE TYPE

Metallic rounds are more dense and can cause more severe injuries. Embedded lead may cause long-term lead poisoning.



PROJECTILE TYPE



FIRING MULTIPLE PROJECTILES



FIRING DISTANCE

QUANTITY

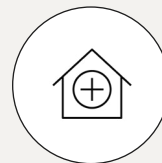
Firing multiple projectiles, including discs, balls, or bullets, at once can not be targeted and can injure bystanders or hit individuals in sensitive areas.

FIRING DISTANCE

Firing distance inversely correlates with severity of injuries.



SITE OF IMPACT



DELAYED MEDICAL CARE

SITE OF IMPACT

Impacts to the head, neck, face, and other vulnerable body parts are responsible for the majority of severe injuries. Manufacturer guidelines on where to target projectiles are inconsistent and hard to follow.

DELAYED ACCESS TO MEDICAL CARE

This includes overburdened medical facilities, checkpoints, delayed presentation because of fear of arrest or reprisal, or failure of medical personnel to recognize injury.

At close ranges, levels of lethality and patterns of injury of some KIPS become *similar to those of live ammunition.*

Policy recommendations

- » KIPs in general are not an appropriate weapon for crowd management and, specifically, for dispersal purposes, as most cannot be used effectively and safely against crowds. At close ranges, levels of lethality and patterns of injury of some KIPS become similar to those of live ammunition. At longer ranges, KIPs are inaccurate and indiscriminate.
- » Indiscriminate KIPs that fire multiple projectiles must be prohibited in the context of protest.
- » Metal shots, rubber-coated metal bullets, or any projectile with a metallic component are not safe and should be prohibited.
- » Some types of KIPs are able to provide a less lethal and accurate alternative. Deployment of those KIPs should be restricted to circumstances where a threat to life or a threat of serious injury exists, and where all other means to protect lives are inapplicable.