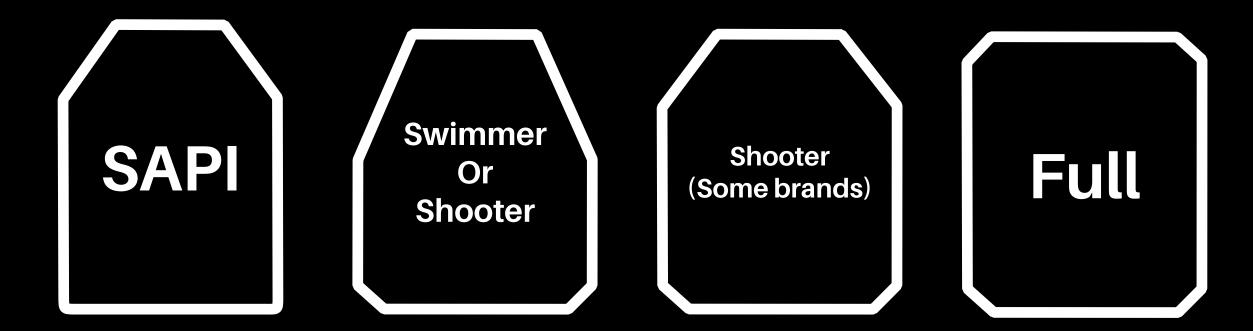
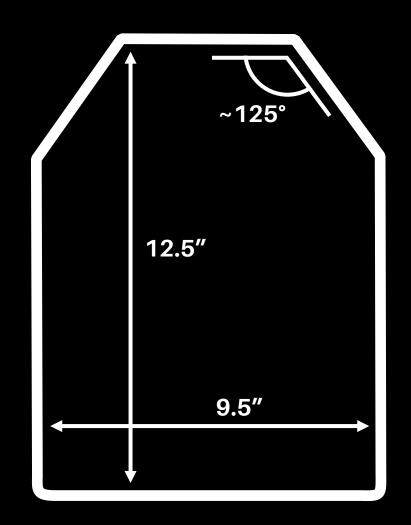
# Armor Coverage, Standards, and Types

### **Plate Cuts**

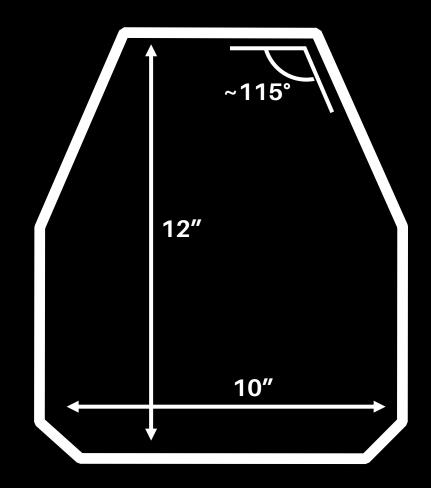


### SAPI



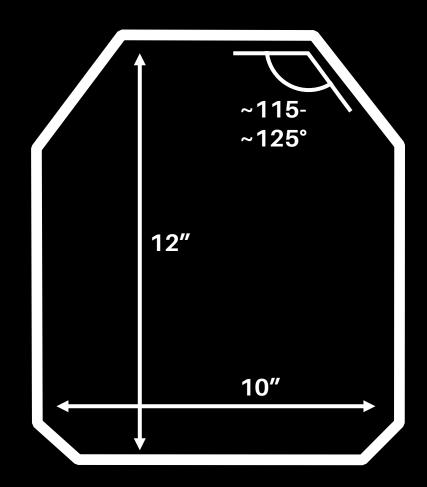
- Military standard
- Moderately cropped upper corners
- Rounded lower corners
- Sizing consistent
  between brands

### **Shooter & Swimmer**



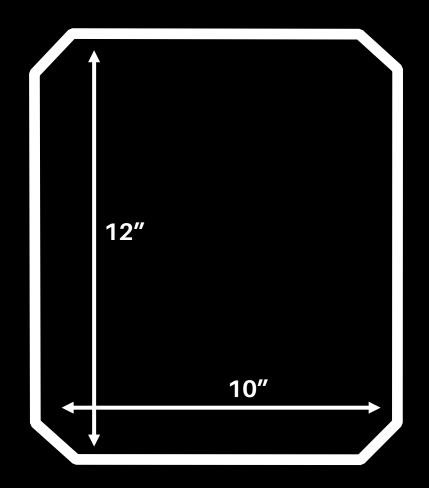
- Commercial sizing
- Steeply cropped upper corners
- Slightly cropped lower corners
- Sizing inconsistent between brands

### **Shooter (Some Brands)**



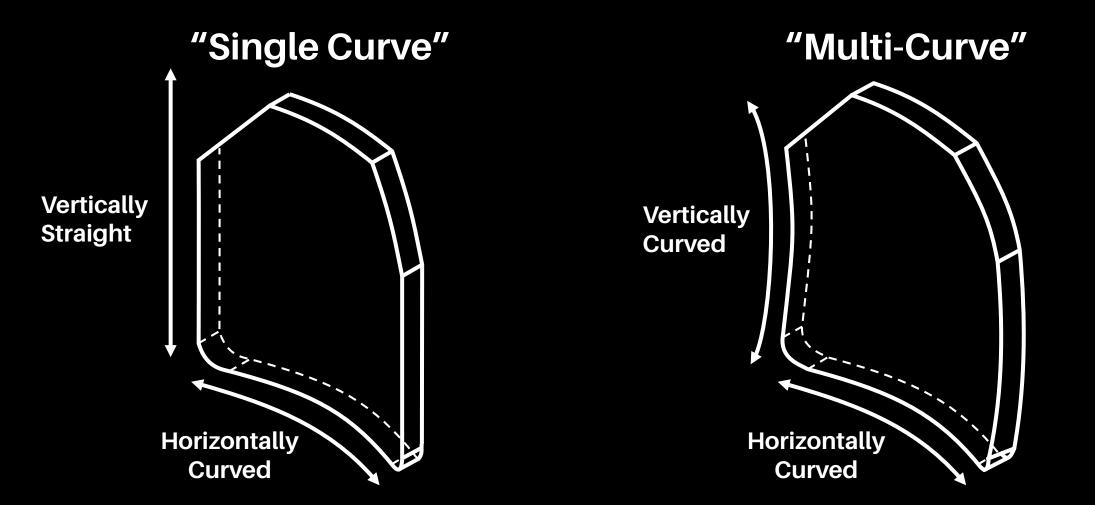
- Commercial sizing
- Moderately cropped upper corners
- Slightly cropped lower corners
- Sizing and cut inconsistent between brands

### Full



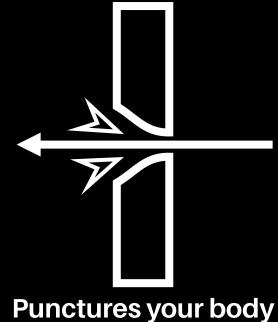
- Commercial sizing
- Slightly cropped corners
- Intended for rear plates and off-body bags
- Sizing inconsistent between brands
- Deeply uncomfortable

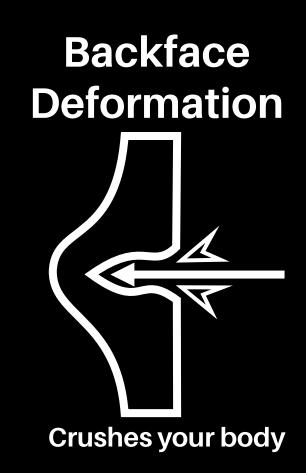
### Curvature



## **NIJ Testing**

# Penetration



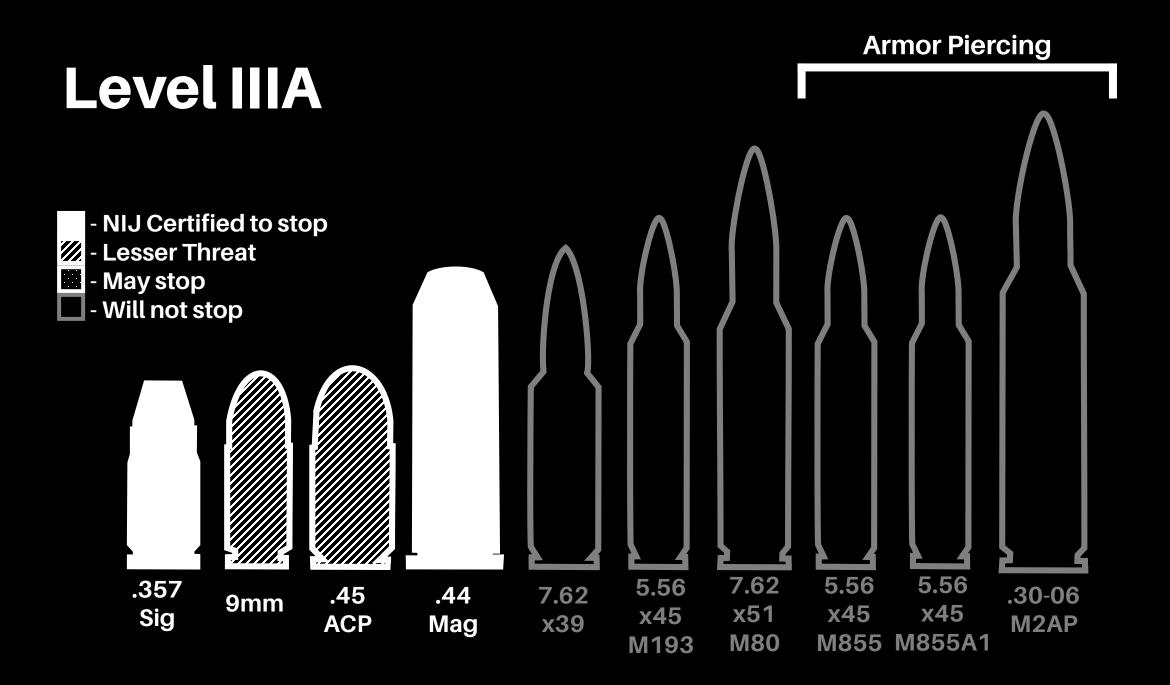


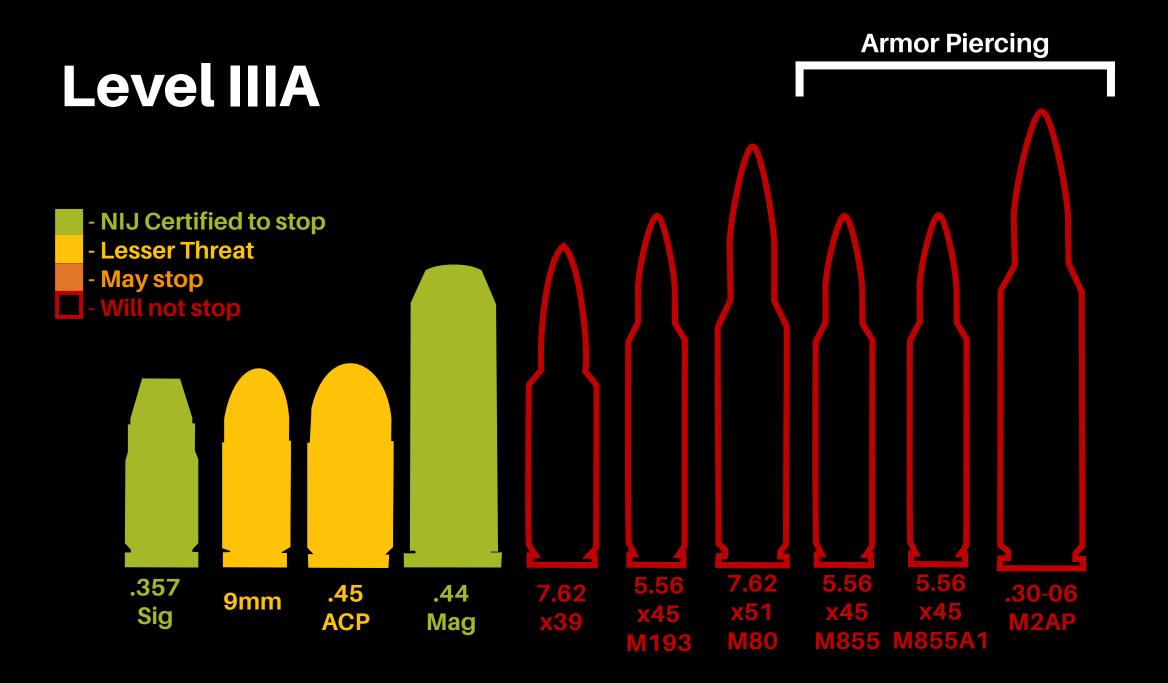
### NIJ Standards (0101.06)



**Less Protection** 

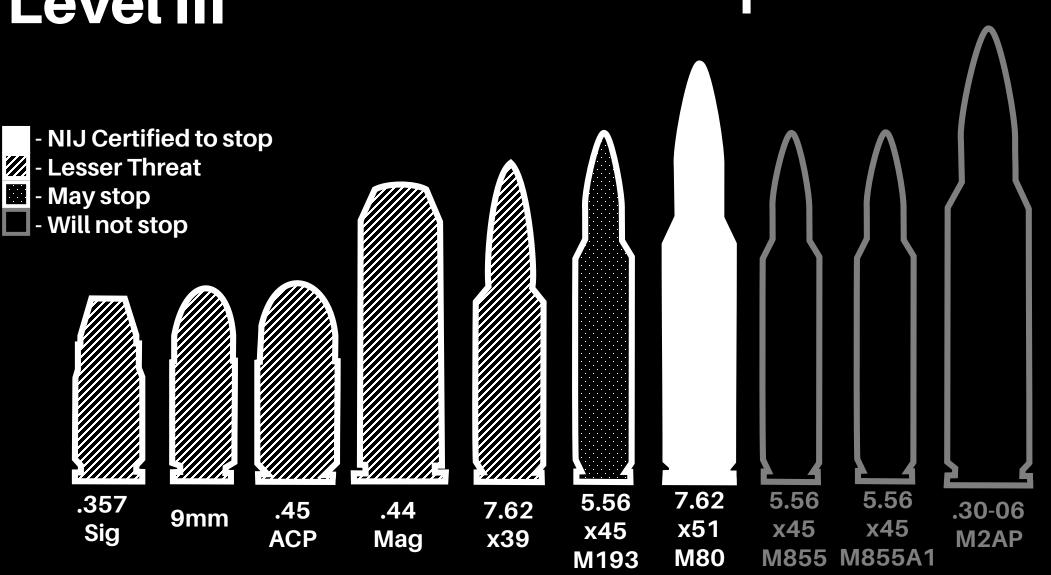
**More Protection** 





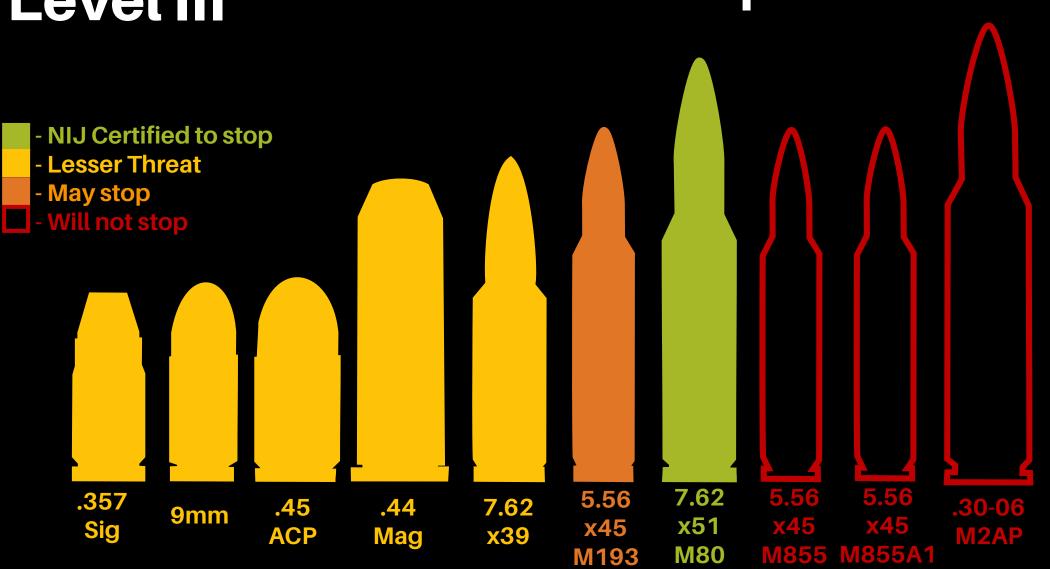
### LevelIII

#### **Armor Piercing**



### Level III

#### **Armor Piercing**

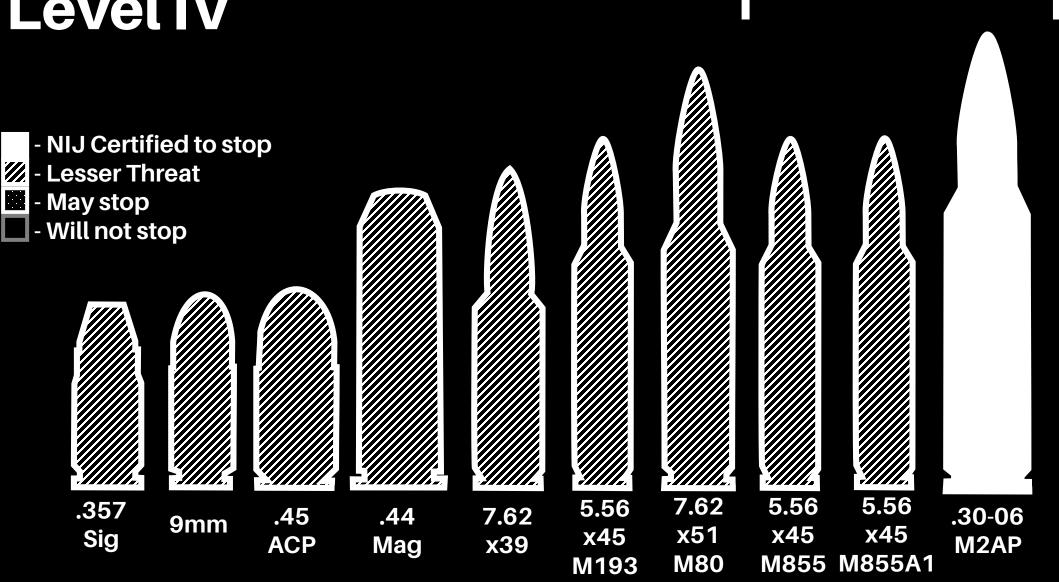


#### **Armor Piercing** Level III+ / Special Threat - NIJ Certified to stop - Lesser Threat - May stop - Will not stop 7.62 5.56 5.56 5.56 .357 .45 7.62 .30-06 .44 9mm x51 x45 x45 Sig x45 ACP x39 M2AP Mag M855 M855A1 M80 M193

#### **Armor Piercing** Level III+ / Special Threat - NIJ Certified to stop **Lesser Threat** May stop - Will not stop 7.62 5.56 5.56 **5.56** .357 .30-06 .44 .45 7.62 9mm x51 x45 x45 Sig **x45 x39** ACP Mag **M2AP** M855 M855A1 **M80** M193

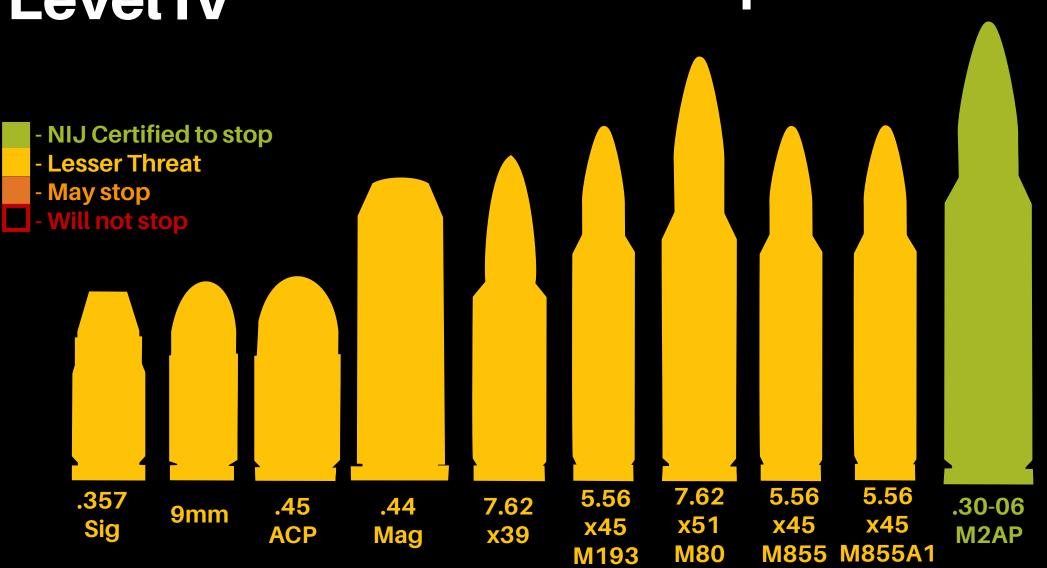
## LevelIV

#### **Armor Piercing**

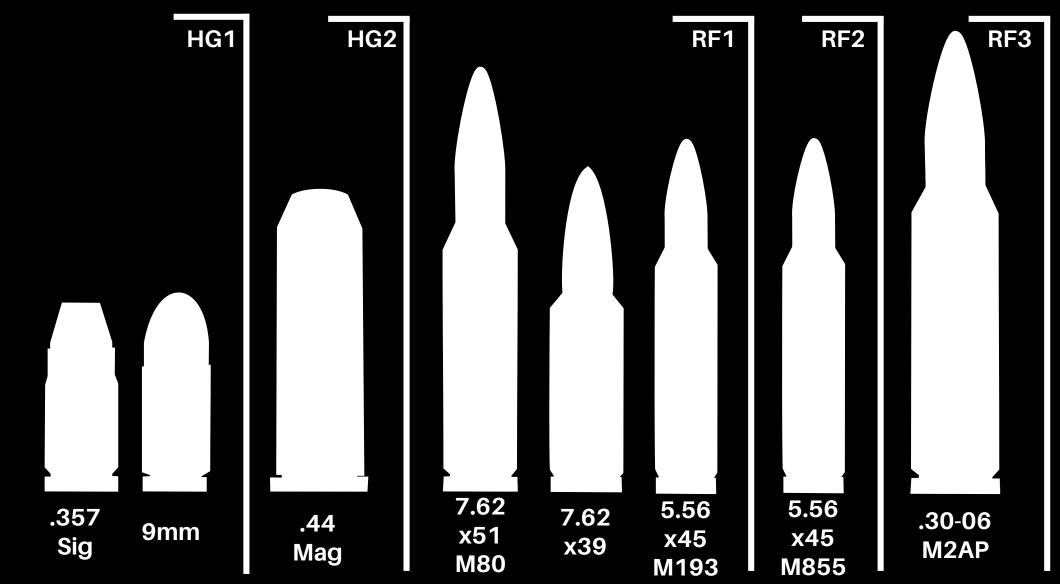


### LevelIV

#### **Armor Piercing**



### NIJ Standard 0101.07



### **Armor Materials**



**Hard Armor** 

## **Soft Armor**

- Made from woven fibers
- Light and flexible
- Up to Level IIIA protection
- Highly concealable

### Aramid (Kevlar)

#### Most susceptible to UV degradation

- Some heat degradation (140° C)
- Water/humidity degradation
- Cheaper than dyneema

### Dyneema

- No UV degradation
- Most susceptible to heat degradation (60° C)
- Water/humidity degradation
- Lighter than aramid

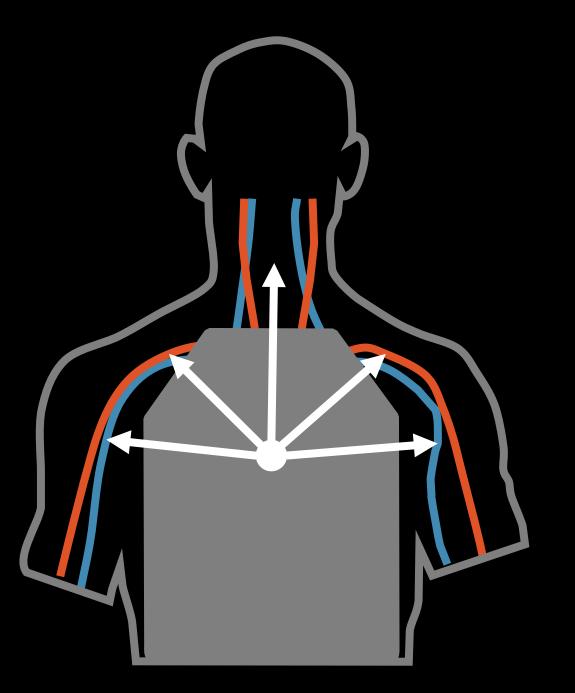
### Hard Armor

- Heavy and inflexible
- Hard to Conceal
- Up to Level IV Protection
- May be combined In Conjunction With (ICW) soft armor for increased protection
- May be multiple materials adhered together in layers

### Steel, UHMWPE, and Ceramic

### **Steel Armor**

- Excessively heavy
- Does not "catch" bullets, it "sprays" them if they do not penetrate
- "Anti-Spall" coating is ineffective
- Poses a risk to yourself and others
- Do not purchase



### **UHMWPE Armor**

- Thicker than steel and ceramic for the same level of protection
- Lighter than steel and ceramic
- Vulnerable to excessive heat and sunlight over time
- Unaffected by water and humidity
- Can be neutrally buoyant
- Must have an additional ceramic layer to resist AP
  Ammunition

### **Ceramic Armor**

- Can throw nonlethal low-velocity ceramic shards
- Unaffected by water, UV, and humidity
- Vulnerable to excessive heat over time
- Lighter than steel, heavier than UHMWPE
- Thinner than UHMWPE and Steel
- Must be adhered to an additional layer to be multi-hit capable