

ARMOR :
GEAR,
SKILLS,
& COMRADES

First off, credit to others: a lot of info and some pics here are inspired by, paraphrased, or reprinted from two organizations' articles on body armor:

CrimeThinc & Indigenous Anarchist Federation

OK let's get into it:

Should you wear armor? There is no right answer. It's a tough question.

Armor reduces mobility to various degrees. Mobility can be a serious advantage. Armor can make us stand out, and can make us targets of police and chuds. If displayed openly, it can also intimidate fascists (and other bullies) who hate a fair fight. It can do all that and more simultaneously. Wearing armor carries the risk of legal penalties. Being the only person wearing armor is often a bad idea unless it can be concealed. Still, normalizing wearing armor can make it easier for others to do so; the more people do, the safer we all can be.

Which kind of armor is appropriate will vary from one situation to the next. In many situations (for example, when speed or optics is paramount) it may still be best not to wear armor.

Armor can easily give the wearer a false sense of security. Fascists can and do shoot us; and bullets can hit any place you aren't wearing armor.

No one is invincible, no matter what they wear.



Overt?

Covert?

No Armor?

No right answer without context.

No one is invincible.



Quotes from '[live like the world is dying](#)' blog post by Margaret Killjoy on gear:

“Of course, gear is only one side of the preparedness triangle (of gear, skills, and relationships), and personal gear for emergencies is only one side of the scale triangle within that (of emergency/personal, medium-term/community, and longterm/social). Never confuse “gear” with preparedness. It’s only the smallest facet of it.”

“Prepping, as we’ve seen it, is a rich person’s game. Or at least a middle class one. So many people I’ve talked to haven’t bothered with preparedness because it seems to be built on one thing: the acquisition and storage of things. Most ways that we acquire things in this world involve money, and most ways we store things involve access to space—which once again involves money.

It doesn’t need to be that way. Prepping is not an all-or-nothing thing. With gear, you can start small and expand as your storage and budget allows. Prepping in general, and gear in particular, has diminishing returns. The first \$100 you spend will probably get you the most for your money. The first knife or multitool, the first water storage jug, the first bucket of dried rice, the first garden bed, the first emergency radio, the first of anything you get is going to be a whole lot more likely to do anyone any good than the ones you get later.”



“Judging gear based on price is complicated, and I’ve learned two things about that the hard way. One: never trust rich people when they give you gear suggestions. They’ll always have very rational-seeming reasons why you need a \$200 knife or an \$80 belt. They’ll have reviews and data to back it up. They might even - in the abstract - be correct. But you don’t need a \$200 knife or an \$80 belt in order to have a functional knife and a functional belt. If I needed a \$200 knife, I probably wouldn’t own a knife. Two: conversely, sometimes you do actually get what you pay for. Certain things you can’t skip out on. It’s just really hard to tell what is what.”

TL;DR - what kind of armor should I get?

If you want to protect yourself primarily against batons and other riot / street brawl impact weapons: get a skateboard helmet, some hard-shelled knee pads, some children's shin guards to wear on your forearms, and possibly motocross chest armor or a plastic fencing breastplate. If you want to add more protection, consider a shield, full leg armor, and a HEMA gorget—plastic or padded neck armor for people who fight with swords for sport.

If you're trying to protect yourself from a handgun, get a wraparound IIIA vest, either from the leftist armorer [Red Star Defense](#) or from eBay. If you are buying from eBay, consider purchasing a surplus vest to save money. If you're worried about knives, pay a bit more for a vest with stab resistance.

If you want to protect yourself from rifle rounds, get a plate carrier and a pair of III+ ceramic plates from Red Star Defense or elsewhere. These are heavy and harder to conceal.

Only use ArmorBloc or other improvised armor if you can't get access to or afford other brand-name-quality options. A lot of tactical gear manufacturers are explicitly fascist or diet-fascist, and many donate money to police. There are no good choices under capitalism, and no judgement if you buy gear from a fasc-y company. Consider shipping your purchase to a post office box! No need to feed surveillance capitalism more than the minimum.

Legal Stuff

In Amerikkka, it is [federally prohibited](#) for violent felons to own or wear armor designed to protect against bullets (referred to herein as “body armor”), except by special dispensation from an employer. (In Oregon, this is a class C felony, see ORS 166.642)

In addition to the federal law, each US state has [its own laws](#) regulating armor. In most states, it is illegal to wear body armor while committing a crime; being caught doing so could occasion additional charges. In Kansas, wearing body armor is prohibited at demonstrations, too. In Connecticut, you cannot have it shipped to your home. We have yet to obtain a solid answer regarding whether minors can own or wear body armor.

Note: In Oregon, ORS 166.643 says you can't have body armor while doing “violence”: “(1) A person commits the crime of unlawful possession of body armor if the person, while committing or attempting to commit a felony or misdemeanor involving violence, knowingly: (a) Wears body armor; **and** (b) Possesses a deadly weapon. (2) Unlawful possession of body armor is a Class B felony.”



Hollywood gun myths

Anyone who can hit a 1-inch bullseye from 20 feet away could surely hit a person at the same distance, right? Nope. That only makes sense if you assume people act the same way regardless of the situation and emotions don't exist. In a study of [more than 200 violent encounters](#), no connection whatsoever has been found between accuracy on a gun range and effectiveness in combat. **None**. Hollywood taught you that their hero hitting the bull's-eye at the gun range is some kind of badass, but science and statistics say that's bullshit (and the military doesn't even recommend practicing long-range pistol shooting in its combat training manuals).

What skill *does* show that a hero is badass? According to the source linked above, and almost all gun trainers, "The element reported as the single most important factor in ... survival during an armed confrontation was cover." *Hiding*. Ok, not just hiding, but having the **proper training to recognize what exactly would provide the best form of cover**. If you're comparing two comrades with different skills at a gun range, the one who can recognize what to hide behind is going to be [almost 60 percent more](#) effective in an actual gunfight than the one who hits a bull's-eye a lot. Movies would have you believe being able to shoot a paper target from 50 yards away is very important, and taking cover is an afterthought at best.

It's like Hollywood is specifically training you to die in a gunfight.



Quit
your
job,
RoboCop.
ACAB

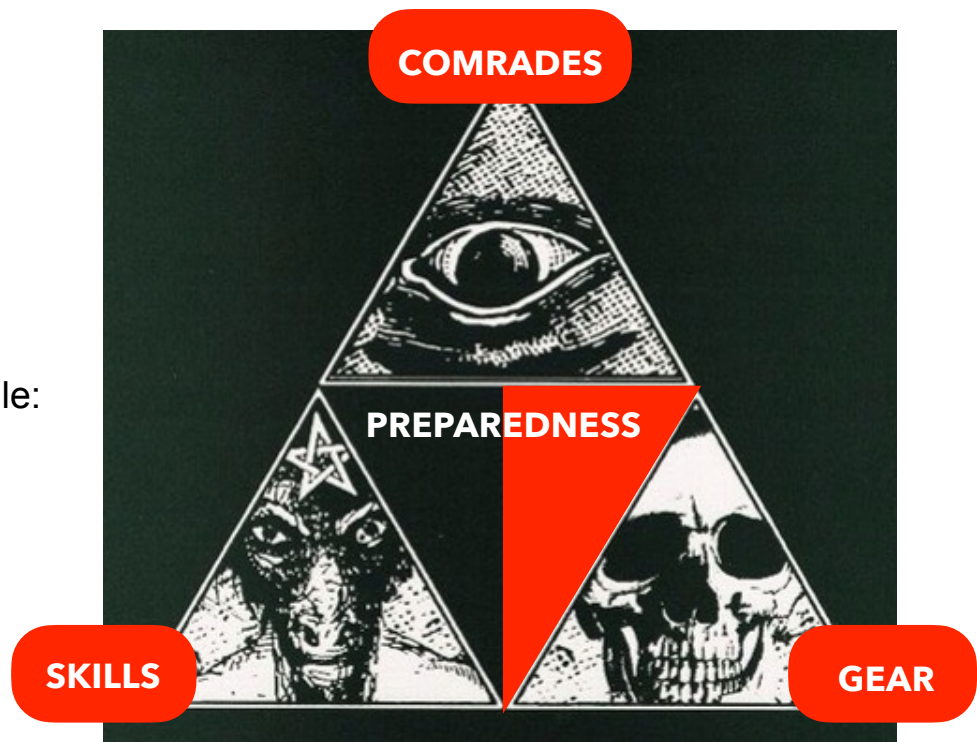
The need for movie directors to kill off a ton of extras very rapidly has given people the mistaken impression that any bullet is basically the equivalent of water in an old video game: If it touches you, even a little, you die. Dramatically. If the film's protagonist should manage to shrug off a couple of bullets without really slowing down? We just suspend our disbelief a little and take it as a mark of *how badass* that hero is. But in a real gunfight, *anyone* can be that hero. **Or the extra who dies immediately. It's kind of a crapshoot.** Despite what Hollywood shows you, gunshots are only fatal around [5 percent of the time](#). But you probably assumed the other 95 percent of gunshot victims were still out of the fight as soon as they felt an impact. That assumption isn't borne out in the facts of real gunfights, like [a shootout in Miami](#), where eight FBI agents emptied their side arms (and a shotgun) into a pair of unarmored bank robbers for *four minutes*.

"Even in the end, it took multiple shots from a shotgun and six additional rounds from a handgun to end the fight ... some of the shotgun pellets hit the assailants in the head, but did not stop them immediately. The toxicology report showed no drugs or alcohol in either system. Handguns (and guns in general) are not the powerful one-shot stop instruments of immediate death portrayed by movies and the media." At least one bank robber had received upwards of 60 bullet wounds from authorities **and lived to tell about it**. In the real world, the power of adrenaline can match the power of a gunshot wound. It all depends on the luck of where and how someone gets hit.

*This article is exaggerating on purpose to challenge Hollywood myths. Any gun can kill you. Even in armor. **No armor makes you invincible.** Have you picked up on a theme yet?*

Skills

The preparedness triangle:



Having some form of body armor can save a life, but it's only one side of the "preparedness triangle." So let's talk about skills. First off, folks who have been out in the streets the past few years have likely gone through some traumatic training: frequent exposure to tear gas, riot munitions, and flash-bangs among plenty of other things designed specifically to provoke fear and chaos. Exposure to those noises changes how much they affect your fight-or-flight response, to the point that eventually you knew what to expect and they didn't shock or jar you nearly as much as they did the first few times you encountered them in a wild and chaotic situation. Not being particularly phased by those kinds of noises? That's a skill. Knowing what those noises are? That's a skill.

Being exposed to the actual sound of live gunfire is another skill. For some who may be familiar with The People's Armory, Socialist Rifle Association, John Brown Gun Club, Yellow Peril Tactical, or similar set of comrades may already have a way to get access to a gun range and not be surrounded by chuds. If you don't know folks who you feel safe going to a place with, it's worthwhile just to be near an outdoor range to hear what different types of gunfire sound like in real life - it's very different than the movies. Up close it's definitely much louder, which is why military helmets are designed so much to accommodate hearing protection more than any other so-called "tactical" accessory. In an actual gunfight, it can be so loud that yelling at comrades won't cut it. This is why so many armed groups practice hand signals. It's far less for 'stealth raids' like in a movie, it's far more to just be able to communicate at all when shit is going down and it's loud as fuck.

Just being exposed to the sounds of live fire is a skill. You can practice it for free, and don't need to buy any ammo or pay any range fees.

Possibly the more important skill to survive a situation where firearms are involved is being able to find cover. As mentioned elsewhere, statistics from various studies show people who can find cover are far more likely to survive and be effective in an actual gunfight. Just as with so many things, unlearning bullshit is essential - in this case Hollywood's depictions of what stops bullets.

COVER VS CONCEALMENT

Whenever you're out and about and bored; take in your surroundings and determine what is actual cover vs what is concealment. **Cover can stop a bullet, concealment can't.** Play the 'conceal or cover' game judging your surroundings, by yourself or with a comrade. If you practice the skill enough, you'll start to automatically size up an area and be able to find concealment and cover quickly when you need to. Finding cover fast is a good skill to have.

While concealment doesn't stop bullets, it does prevent someone shooting from being able to see you, vastly improving your odds of not getting hit. If you're concealed, you can use it to stay hidden, get to cover, or just get the hell out of the area. Use concealment to move to safer areas with more cover as soon as possible.

One final note for physics nerds: just because a bullet goes through something doesn't mean the trajectory is unaffected. This is yet another reason to get to good cover while using concealment. A bullet passing through a wood door or glass window might change direction unpredictably, so it's a good idea to get away from those things and find real cover if you can.

Cars: Most parts of a car don't stop bullets, including doors. In fact, the **only** part of a car that provides decent cover is the engine bloc. So if you are looking for quick cover on a street, get behind the engine of a car only. Hollywood shows us people hiding behind doors, ducking while driving like only the windows of a vehicle are vulnerable to bullets. That's bullshit theater. Note for "well actually" people: yes, older cars from the 70's and earlier had frames with more and thicker metal, but even then didn't stop much in the way of bullets. Modern vehicles aren't stopping bullets much at all except for the engine bloc.

Furniture: For the most part; a table, chair, or sofa is not going to protect shit. They can provide minimal concealment, but not cover. Sofas are notoriously terrible: they are mostly foam padding and air and won't stop much of anything. Now that you've read this, you'll never see an indoor Hollywood gun battle the same — 98% of the time they get the physics amazingly wrong.

Books: A bookcase full of books (or vinyl records), on the other hand, will stop most bullets. The shields of Commanche warriors were sometimes stuffed with paper to stop US Cavalry bullets. Good cover.

File cabinets: If they are full of paper, good cover. If they are empty, they are not much cover at all. Since you won't have time to figure it out, assume they are empty and use for concealment only.

Water: The physical properties of water are amazing. Unlike in the movies, most any kind of bullet can't make it through much more than 8 inches of water. So while a drug store shelf is not cover ... a shelf full of water bottles is decent cover. Being behind many rows of shelves of water or other liquids is good cover. Bags of ice are ok, but chances are you won't find them in the wild when you need them.

Layers of clothes: A lot of layers of cloth is decent protection. Zulu, Samurai, Aztec, and European armor all featured it to stop projectiles. Chances are you won't find 20-thick layers of clothes lying around but it does mean ducking into a clothing store and putting a bunch of racks of clothes between you and a bullet is mediocre cover.

Bricks & Concrete: Good cover, the thicker the better. One brick or one cinderblock might not fully stop a rifle round, but a few layers will stop basically any civilian bullet.

Wood: Not good in most cases. A thick tree trunk or thick piece of oak will stop bullets, but chances are some random wood you encounter on any given street (the kind used to make an outdoor seating area or a post for a sign, etc) is not likely to be useful cover. Unless it's a thick tree trunk or telephone pole, use wood structures as concealment only.

ATM Machine: Good cover; thick metal and layered cloth/paper and heavy duty machinery designed to take a beating.



If a vehicle is on fire, it may not be suitable cover. The more you know!

Dumpster: Decent cover, though it won't stop rifle rounds unless the dumpster is full of layers of stuff like paper, cardboard, clothes, etc.

Plastic Trash cans: Not good, but better than nothing. Thick HDPE plastic, like most city-issued trash cans are, will slow bullets but won't stop them unless the can is packed full of layers of paper or cardboard.

Fridge, washer, dryer, other major appliance: Not good, but better than nothing. Unlikely to stop anything but the smallest bullet. You may get lucky if the fridge is full of stuff (hopefully water bottles), but don't count on these being cover.

Doors: Unless it's a metal fire door, nope. Most bullets will go right through a basic wood door, which is mostly hollow.

Rocks / earth / sand: The best cover if thick enough. There's a reason people dig trenches and use sandbags to defend a position.

Also that wood bar is not even cover

**DON'T
PUT YOUR
BACK
TO COVER**

Hollywood, as usual,
is giving you
terrible advice



Movies and TV have taught people that when they find cover, they should put their back to it. If they have a gun, now is the time to hold their gun up as if they were praying. Looks cinematic, but a bad idea in real life. Spreading out like El Mariachi here (that's the actual character name) is also an incredibly unhelpful thing Hollywood heroes do all the time.

Get behind cover and then orient yourself to your threat. **Be looking in the direction of your threat** as you assume cover or concealment, and once you're behind it.

Next, **get as small as humanly possible** behind your concealment or cover. Don't spread out as soon as you're behind something, unlike what Hollywood shows people doing. Stay small for the simple fact that the cover or concealment you found may not be quite as good as you think, and either won't fully stop a bullet or you're still a bit visible. Getting small and compact to reduce the likelihood of getting hit once you're behind cover or concealment is almost always the right call.

Of course cover is better than concealment. However, concealment can allow someone to gain an advantage over an attacker if you choose to fight. Surprise is one hell of an advantage.

Both armed resistance trainers and Jurassic Park survivors agree:

- "Remain motionless while taking cover or being concealed. Anything in motion attracts the eye."
- "Use all available concealment."
- "Remain in the shade: moving shadows attract attention."
- "When observing, look around an object's side. Looking or firing over an object can make you an easily visible target."

Communicating threats to others

Armor is great. Cover is great. Being aware of threats and letting others know, without spreading panic, is another super-valuable skill to gain and work on, and helps protect and inform the larger community instead of just one person. This is explained well by a flyer from comrades in ATL about the acronym S.A.L.U.T.E.:

Sometimes information about militia and fascist activity can be incomplete and confusing, and therefore unhelpful and hard to verify. The SALUTE report is an easy format to help distribute high quality information. Here's what the letters stand for:



SIZE

ACTIVITY

LOCATION

UNIT/UNIFORM

TIME

EQUIPMENT

HOW MANY PEOPLE?

WHAT ARE THEY DOING?

WHERE ARE THEY AND ARE THEY MOVING?

ARE THEY PART OF A UNIT? HOW ARE THEY DISTINGUISHED?

WHAT IS THE DATE AND TIME THEY WERE SPOTTED?

WEAPONS, GEAR, VEHICLES (PLATE NUMBERS?)

HYPOTHETICAL EXAMPLE: "Three people stationed at the intersection of Euclid and Moreland at 2:15pm 11/3, III% patches and Thin Blue Line flags, open carrying long guns and filming or livestreaming passers by."

COMRADES

Gear is good. Skills are good. Having comrades makes everything **infinitely** better.

Comrades can help with gear:

- securing or raising funds
- going into a store where they can pass enough to not draw unwanted attention
- using a PO Box or large office to accept a delivery
- helping put armor on
- stitching something fun on it
 - (gear-heads call velcro patches meant to go on plate carriers “**morale patches**”)
- spray-painting it, making a cute flag made out of electrical or duct tape colors
- running around testing how armor fits and performs
- sharing their experience and lessons learned getting / using armor



examples of morale patches

Comrades help make building skills more fun. Learning together is usually easier and often not only more fun but more memorable:

- going near or to a range to gain experience with noises (or firearms)
- playing the ‘conceal or cover’ game and arguing what counts
- getting comfortable with the sights and sounds of radical action
- trading techniques to easily / quickly put on and take off armor, gas masks, etc.
- joining an affinity group or mutual aid group to get to know people better and, importantly, who has what skills and experience you may decide to trust when shit is going down and you’re not sure what to do or who to roll with.

If you want to know more about how comrades make everything better:

read about mutual aid. It’s radical.

It's hard to imagine, if you're reading this zine, that you need an intro to mutual aid, but due to the number of pages needed to make this fold up and print decently, we might as well.

If you're not familiar with it, it's recommended to see mutual aid in action for yourself. Many communities have **food not bombs** and **really really free market** events. Some areas, like Portland or Eugene in Oregon or larger cities in general, have more examples such as:

- Anyone handing out water or food or narcans or masks or coats or blankets directly to people in a crisis or just on the street. It could be a free fridge program, where people keep a fridge and pantry facing a public sidewalk stocked with food (which is re-supplied by members of the community) for anyone who needs it.
- Jail support: giving comrades some basic help and transportation when released.
- Trans community help: free transportation, free binders, fundraising for health care, etc.
- Responding to wildfires / hurricanes / any natural disaster: providing gas masks, water, food, shelter, clothes, and anything else needed to people displaced from areas that were destroyed.
- Folks finding ways to build heaters out of cheap materials that are tip-over-safe and good to heat a tent or small room for someone who needs that, and then giving them for free to whoever wants one and freely sharing plans on how to build more.
- A network of people who know how to sew and mend offering their services to repair clothes, sleeping bags, tents, and other things, and teaching people to mend things themselves.
- People with optometry skills giving eye exams and glasses for free to anyone. Radical accountants helping others for free to navigate the tax or grant system. Groups like this meeting folks in public parks and spaces where they are and not demanding ID, insurance, or money.
- People with varying degrees of first responder training learning together and training others on how to safely and effectively deploy IFAK kits to stop bleeding and stabilize people when protesters are inevitably shot by chud militias and cops alike at protests.

The common theme is **helping: outside of capitalist or any hierarchical or legal structures**. Not turning people over to cops or ICE. Not being a tax write-off for a billionaire. Not holding aid hostage as a way to push religious dogma. It's building a flexible network of helping hands that provides all kinds of back-end support to keep revolutionary actions possible and ongoing.

SOLIDARITY – NOT CHARITY

Some people recommend the 1902 book "*Mutual Aid: A Factor In Evolution*" by **Peter Kropotkin**. PM press makes a cool version illustrated by NoBonzo. Without illustrations, it's free to read online all over the place. This book is dense theory, designed specifically to refute Darwin's ideas being applied to human society in really shitty proto-eugenic bootstrap-worshipping individualistic ways and Kropotkin, rightly, was like "nope. Bullshit," and wrote this. It doesn't have much of anything to say about mutual aid as we know it today.

Dean Spade wrote a book in 2020 simply called "*Mutual Aid*" you can read for free from the Anarchist Library (anarchistfederation.net) that's got some more modern info, and dives deep into the problems the left encounters in mutual aid by inadvertently supporting existing power structures if there's not some key revolutionary idea-spreading going on in addition to just helping people in crisis every time the status quo puts people in crisis. Both this and Kropotkin's book are also free as audiobooks on YouTube and other places online.

What to wear under armor (and costume changes)

First off, wear whatever you want. Do a few test runs around the block to see how the clothes you wear under armor and clothes you may wear over your armor perform.

There are times when folks, for various reasons, may want to remove armor and quickly stow it in a backpack or car and otherwise change their appearance. One way to help facilitate this is to be wearing a layer underneath your armor that is colorful and noticeable in a way that encourages onlookers to think you are a different person from whoever you were wearing armor and a different colored hoodie 1 minute ago.

A good way to accomplish this cheaply is to get a **moisture-wicking athletic shirt** from a thrift or secondhand store. Most stores like that have a decent selection, as those kind of athletic shirts are common; and often available in brighter colors in contrast to what you were previously wearing over it. Plus, that kind of shirt really does help you stay drier and more comfortable under armor, particularly in hotter months and climates.

If you are planning on changing or decreasing your visibility with a quick costume change, being familiar with your armor and clothes and how to quickly change out of them is yet another good skill to have. Practice!

Ballistic Shields

Consider a lightweight shield for engaging with cops and chuds in the streets, being used against batons, riot munitions, etc. Yes, that has a use, and most importantly, can be made cheaply enough to be ditched when needed. Ballistic shields? Nope.



The worst kind of LARPers

Ballistic shields do exist and can be purchased by civilians. They're generally only useful in extremely specific situations: mostly forcibly entering a room or building. Thus, they are mainly used by police. The only shields that stop rifle rounds are very heavy, provide limited protection, and are almost impossible to move quickly with. They're also expensive for providing such limited protection. Not recommended.

Just look at these shit-heads! A defender in this situation, at close quarters like this, could very easily shoot towards the floor and hit their "camouflage" exposed boo-boo legs.

*** It's also a skill (sort of) to know that a lot of "tactical" gear that's armor or armor-related is of such limited application it's not worth having.

Sourcing Armor

Depending on political climates and supply chain clusterfucks, ballistic armor can be hard to come by. Some retailers of both soft armor and hard armor are reporting delays on orders of at least two months. This makes it difficult to recommend specific products or retailers. We suggest learning about what you need and keeping an eye out for deals—or even just for notifications that an item is in stock.

We know of one left-wing armorer, [Red Star Defense](#). They manufacture their own [ceramic III+ plates](#) for a good price—currently \$300 a pair—and retail IIIA soft vests for a very good price (\$240), as well as selling plate carriers and tactical gloves cheaper than you can find elsewhere. As of writing this, they currently have a waiting list on plate armor orders. We recommend Red Star Defense because their goal is not profit but to protect the bodies of working-class revolutionaries.

NIJ Armor Rating Standards

The NIJ (National Institute of (in)Justice) standards as of October 2022:

Level IIa: This protects against **some** handguns, including some 9mm, .40, and .45 rounds.

Level II: This protects against more handgun rounds, including more 9mm as well as some .357 rounds.

Level IIIa: This protects against **nearly all handguns**, including more .357 rounds and .44 magnum rounds as well.

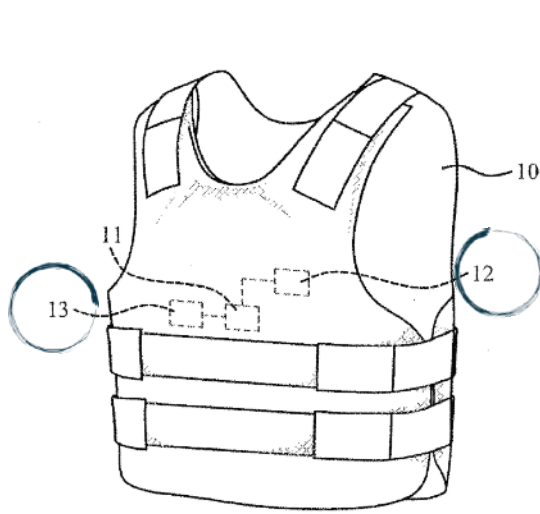
Level III: This level is rated to stop most 7.62x51mm NATO rounds, a common military round (like from an AK-47). It is **not** rated against all AR-15 ammo, but will stop some AR-15 rounds (5.56 or .223, which are very similar despite the names / numbers).

Level III+ is not an official rating, and ideally fills the gap between III and IV, to stop more AR-15 rounds such as “green tip” M855 rounds. Be skeptical of a company rating their armor III+ without independent research/testing.

Level IV: This level is rated to stop .30-06 (“thirty-aught-six”) armor-piercing rounds—the rounds fired by WWII-era battle rifles, which remain common for hunting.

The Coming Standards

The new NIJ 0101.07 standards will [likely be released at some point soon](#). This revision will address the major holes in the current system, such as the gap filled by III+. It will replace the numeral system with two separate categories: HG (handgun) and RF (rifle). HG will have two levels: HG1, which will map to the existing level II, and HG2, which will map to the existing IIIA. RF will have three levels: RF1 which will map to the existing level III, RF2 which will fill the hole currently met by III+, and RF3 which will map to the existing level IV.



Soft Armor Vests

Soft armor vests are lightweight, concealable, effective against handgun rounds, and variably effective against knives. Ideally, you want a vest rated IIIA, although level II vests are often more available in surplus and are better than nothing. Level II protects against the average 9mm round—the most common handgun round in the US—but not necessarily against the “self-defense” 9mm rounds that gun enthusiasts often use. Vests are very expensive (some can be \$250 or so, but most are \$400+). Used or surplus vests (which are still usually \$200+) might offer less protection than new ones, although this is both debatable and difficult to test with any given vest. Soft armor probably offers the best balance of protection, weight, and concealability for most comrades who are concerned about handgun fire.

Soft armor is made up of many layers of strong plastic fabric. Each layer absorbs more and more of the ballistic energy of the bullet until eventually it gets caught in the fabric itself. (Just in case you’re wondering, no, leather armor doesn’t stop bullets. No matter how you boil or tan or treat it.)

Most soft vests use Kevlar or Teijin (brand names for aramid fibers, a type of plastic fiber), but Dyneema and Spectra (brand names for UHMWPE, another type of plastic fiber) are a newer and stronger material that is becoming more common in various types of armor, including helmets.

This principle has been used in armor for millennia. The Aztec tlahuiztli and the European medieval gambeson both featured a quilted fabric made of many layers of cloth. In medieval Europe, those who could afford to wore it under other armor, while some combatants—such as peasants in revolt—wore it alone. It was particularly effective against arrows, as layered fabric is specifically good at stopping projectiles.

For soft vests, you must choose between a “wraparound” vest, which has large protective inserts that protect your sides as well as your front and back, and a vest that only protects you from the front or back—functioning almost identically to a plate carrier, except with soft fabric armor in place of the plates. Wraparound vests are preferable in almost every way except price: most of the cheapest IIIA armor only protects your front and back.

Both soft vests and hard plate carriers have either “covert” or “overt” styles. Since one of the primary advantages soft vests have over plate carriers is that they are more easily concealed, go covert style if getting a soft vest.

Soft vests come in two different types of plastic fibers: aramid and UHMWPE (Ultra-High Molecular Weight PolyEthelene). Both are effective. Aramid fibers (like Kevlar) are a slightly older technology; they are heavier for the same level of protection. UHMWPE fibers (like Dyneema) are fancier, newer, lighter, more UV resistant, and less resistant to temperature changes—this means they are less capable of stopping a “contact” shot, when a gun is held directly against the vest, as the fibers can melt. There is some debate about whether this is a significant problem.

Aramid fibers break down from UV exposure. The outer shell of a bulletproof vest generally protects them from this.

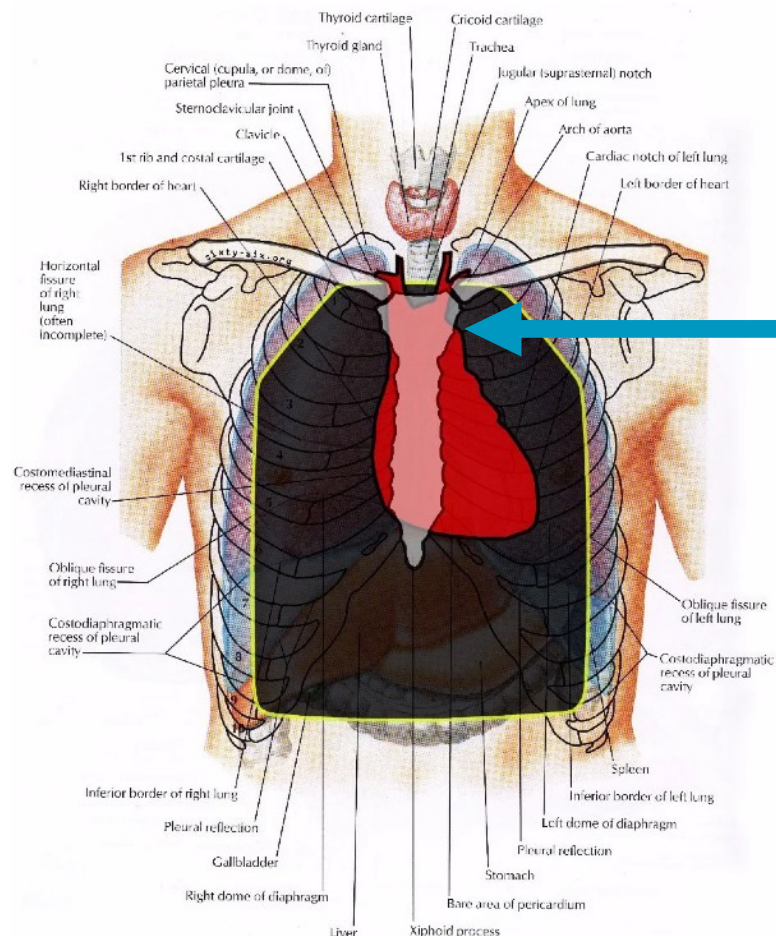
UHMWPE is reported to resist UV degradation better, but has a lower melting point than Aramid fibers. In any case, it is generally not advised to leave any soft vest containing UHMWPE in any environment that might exceed 180 degrees Fahrenheit, and they are still considered more vulnerable to contact shots than aramid fiber vests. **Don't keep a vest in the back of a hot car** all the time and expect it to be fine when you need it.

Plates and Plate Carriers

Plate carriers are basically the only option if you're looking to protect yourself from rifles. For a plate carrier, you need two things: the carrier—a fabric vest with sleeves to hold hard plates—and the plates. Generally, you want plates rated III+, ideally ceramic or a combination of ceramic and PE (polyethylene, usually the UHMWPE mentioned above). Side plates are likely overkill and needless weight and expense, as are level IV plates, the most protective armor. Hard plates are ostensibly more knife-proof than other forms of armor, but an overt plate carrier is so obvious that a determined attacker would simply aim where you aren't protected.

Plate carriers are only designed to protect the most vital areas of your chest, an area sometimes referred to as the “kill box.” Most shooters are trained to aim for “center body mass” because it presents the largest target and offers the most vulnerabilities. With the exception of head wounds, wounds elsewhere on the body are less likely to kill you, so most armor does not prioritize preventing them.

Until you're used to it, armor should sit higher on your chest than you expect, **fully covering your sternum.**



sternum,
which
partially
covers
the heart
(it's the
bone at
the
center of
your
ribcage)

Plate carriers come in “covert” and “overt” styles just as soft vests do, with covert ones designed to be worn beneath clothing and overt ones designed to be worn over it.

It's generally advised to pick your plates first and then match your carrier to them, though you can do it in the opposite order as well.

There are several things to consider regarding plates, including **material**, **size**, **cut**, and **curves**:

Plate Material

Soft plates are made of layers of the ballistic fabric discussed above in the section on bulletproof vests. Light and flexible, but less protection.

Steel plates are somewhat common, but are going out of style. Often the cheapest options on eBay. Steel plates are slabs of steel, about .25” thick. The most common alloy of steel is AR500, a particularly hard steel. It's used primarily for armor, plow blades, construction and mining gear. Steel plates are easily 8 or 9 pounds apiece. (There is also an armor manufacturer called AR500; they make armor of all types, which is confusing.)

When struck, steel plates can cause bullets to ricochet, and they're capable of causing “spalling,” in which tiny shreds of steel fly off upon a bullet impact. Vertical spalling is the main concern, as that can fly up toward your face and neck.

If buying a steel plate, be SURE it has “spall coating.” Spall coating is usually NOT the same stuff that truck bed liners are made of despite what online chuds claim. Some manufacturers may use fiberglass sleeves instead for the same anti-spalling effect. Some manufacturers provide options regarding how thick you want your spall coating to be. A thick (“build up”) coating is more important for the front plate than the back plate. Spall coatings will usually protect the wearer from 1-3 hits before there is more vertical spalling.

The main advantage of steel plates is that they are thinner than ceramic ones and more capable of handling more rounds at the same point of impact.

Ceramic plates are sometimes called composite plates, because they are not usually made entirely of ceramic. They work by breaking down upon impact, absorbing most of the force of the bullet, which is then stopped by a second layer, usually polyethylene. Ceramic plates are generally between five and six pounds and .75” to 1” thick; the cheaper plates tend to be thicker and heavier.

In order of increasing cost and efficacy, the three most common types of ceramic are Alumina, Silicon Carbide, and Boron Carbide. Alumina has to be thicker and heavier to offer the same amount of protection as Boron Carbide, but is substantially cheaper. It might be better to buy multiple sets of Alumina plates to distribute to comrades than a single fancy lightweight set of plates that only you can wear, although thinner plates are more concealable.



*‘covert’
style plate
carrier
designed to
be worn
under a
layer of
clothing*

One danger with ceramic plates is that to save cost and weight, most manufacturers use foam rather than ceramic along the edge of the plate. This is usually mentioned in the item description. One plate we handled had a full inch of foam around the edge—reducing an ostensibly 10×12” plate to dimensions of 8×10” in full effectiveness—although the PE runs edge to edge beneath the ceramic and it’s generally considered to be IIIA rated (enough to stop handgun rounds) on its own. Red Star Defense advertises “edge to edge” ballistic ceramic.

We recommend ceramic plates because they are substantially lighter and don’t have issues with spalling. However, they will not survive as many shots as steel armor, and because they are less rigid, they are more prone to backface deformation (denting), which transfers more of the force of impact to the wearer. You can mitigate this danger by using trauma pads, which are essentially just extra padding.

A ceramic plate after multiple impacts:



PE (polyethylene) plates are plates usually made entirely of UHMWPE. As with soft armor, it relies on multiple thin layers. Unlike soft armor, the layers are heat-laminated together. When a bullet strikes the plate, it breaks apart each layer one at a time, and this delamination absorbs force each time. Because this process can cause a fair amount of back deformation, most PE plates are backed by a layer of foam.

PE plates are substantially lighter than other hard plates—often less than three pounds. They’re also buoyant in water. But they are much thicker (1-1.25”) and therefore less concealable. Most importantly, we have not been able to source any PE plate rated higher than level III—it seems that armor-penetrating rounds cut right through the plastic layers. Because the AR-15 is the most common rifle threat in the United States and some available AR-15 ammunition options can penetrate level III plates, we cannot recommend them for rifle protection, and thus would say soft armor or other plates are better options.

Any hard armor containing PE, such as ceramic or standalone PE, should not be exposed to temperatures above 180 degrees Fahrenheit.

Size

Roughly speaking, a plate should protect you from your collarbone down to a few inches above your navel and from nipple to nipple.

Making things annoying, there are two different sizing standards in use in the USA, often called civilian and SAPI.

Civilian plates, which are what we are most likely to encounter, are available in 8×10", 10×12", and 11×14" dimensions. The 10×12" size is the most common.

SAPI (Small Arms Protective Insert) is the military acronym for protective plates. SAPI plates come in a very specific cut (the SAPI cut), but in five different sizes: extra-small (7.25×11.5"), small (8.75×11.75"), medium (9.5×12"), large (10.25×13.25"), and extra-large (11×14").

Cut

Plates come in different shapes: **full cut**, **SAPI**, **shooter's**, and **swimmer's**. The differences between these are minor, and each cut (besides SAPI, a military standard) differs from manufacturer to manufacturer. While most plates are sold in pairs, people can mix and match, with a regular SAPI cut back plate and a deeper shooter's or swimmer's cut front plate.



Full cut plates are essentially rectangles with the corners rounded off. Not common, but can be used for back plates. They may not fit in many carriers.

SAPI plates are the standard military hard plates. They have a nearly-45 degree angle cut from each part of the top. SAPI plates work well and offer a good deal of coverage. Actual military SAPI plates are not sold directly to the public, but manufacturers sell plates in "SAPI cut."

Shooter's cut plates are similar to SAPI plates but have slightly more of a cut away at the corners. Some manufacturers sell right-handed or left-handed plates and further accentuate the cut on the dominant arm for better mobility.

Swimmer's cut plates have much deeper cuts away from the top corners and deeper cuts on the bottom corners, forming a vaguely teardrop shape. This sacrifices protection for mobility. Some people with breasts or other curves find a swimmer's cut most comfortable.

Curves

Plates have three different curve styles: **flat**, **single curve**, and **multi-curve**. Once again, each brand has its own interpretation of each of these.

Flat plates are just that—flat. Most people don't like flat plates, though some people wear them, especially on the back. Sometimes flat plates are cheaper.

Single curve plates are the most common. These are curved on the vertical axis to better wrap around your torso.

Multi-curve plates

curve in multiple ways to better fit what the manufacturer believes to be their average customer's body.

These are generally preferable, especially for people with breasts or other curves. So of course they are more expensive ... because capitalism. Not all manufacturers even offer this option at all.



Stand-Alone vs In-Conjunction-With

Most plates we've discussed are **Stand Alone** (SA or STA) plates. These plates are designed to perform at their rated level by themselves.

It's also possible to get **In Conjunction With** (ICW) plates. These are generally thinner and lighter but only perform at their rated level when worn in conjunction with a IIIA soft vest.

The modularity of the ICW system is very nice, but you will have to source a bulletproof soft vest with plate inserts (which are often more expensive) or else wear a plate carrier over your vest. ICW plates are harder to come across. The whole system is likely to be more expensive.

This style used to be the more popular military style, as it offers more protection, but current trends favor mobility over protection, and military forces seem to be shifting towards standalone plates.

Trauma Pads

When sourcing armor, you might see things called “trauma pads.” The term has an older and newer meaning. The older definition is specific to **In-Conjunction-With** plates, referring to the plates inserted into sleeves on soft armor vests to increase their ballistic rating. Nowadays, however, “trauma pads” are usually non-ballistic foam inserts you put behind your hard plates in order to soften the blunt force trauma of an impact. It also makes wearing plates more comfortable.

The value of trauma pads is hotly debated. Some say they’re more important for ceramic plates than steel plates. It’s also popular for people to make DIY trauma pads out of yoga mat foam. It might be worth getting or making trauma pads, especially if you have ceramic plates. The main issue is concealment: trauma pads make the armor more comfortable, but they add thickness.

Fitting Armor

If your plate carrier is well-fitted, the armor should sit at your clavicle. You want all of your sternum behind armor. With your armor on, lift your arms and twist around to make sure the carrier moves with your body. Breathe in deep to make sure it’s not too tight; at the most, it should feel snug when your lungs are fully expanded. Then test the fit by doing some athletic activity to make sure that nothing on the carrier moves around or falls out.

Most armor is designed to fit able-bodied, athletic cis men. The further from that category you are, the more trouble you may have fitting body armor. It can be particularly challenging to obtain armor in smaller sizes and armor for people with breasts.

Soft body armor vests are much easier to get a comfortable fit than plate carriers, but can still be less comfortable for those with more curves. Some armor manufacturers design soft armor vests specifically to fit curvier bodies. These are even less likely to be found at lower price points. Have we mentioned lately fuck the white supremacist capitalist patriarchy?

Seriously, fuck all that.

Plate carriers offer even fewer options for people with breasts. The best option we’ve been able to find is to get a multi-curve swimmer’s cut front plate and wear either a tight-fitting sports bra or a chest binder.

Likewise, plates simply aren’t made in sizes large enough for all people.

The largest plates are usually 11x14”.



Being Hit While Wearing Armor

There is a lot of contradictory information available about what happens to the human body when shot while wearing body armor.

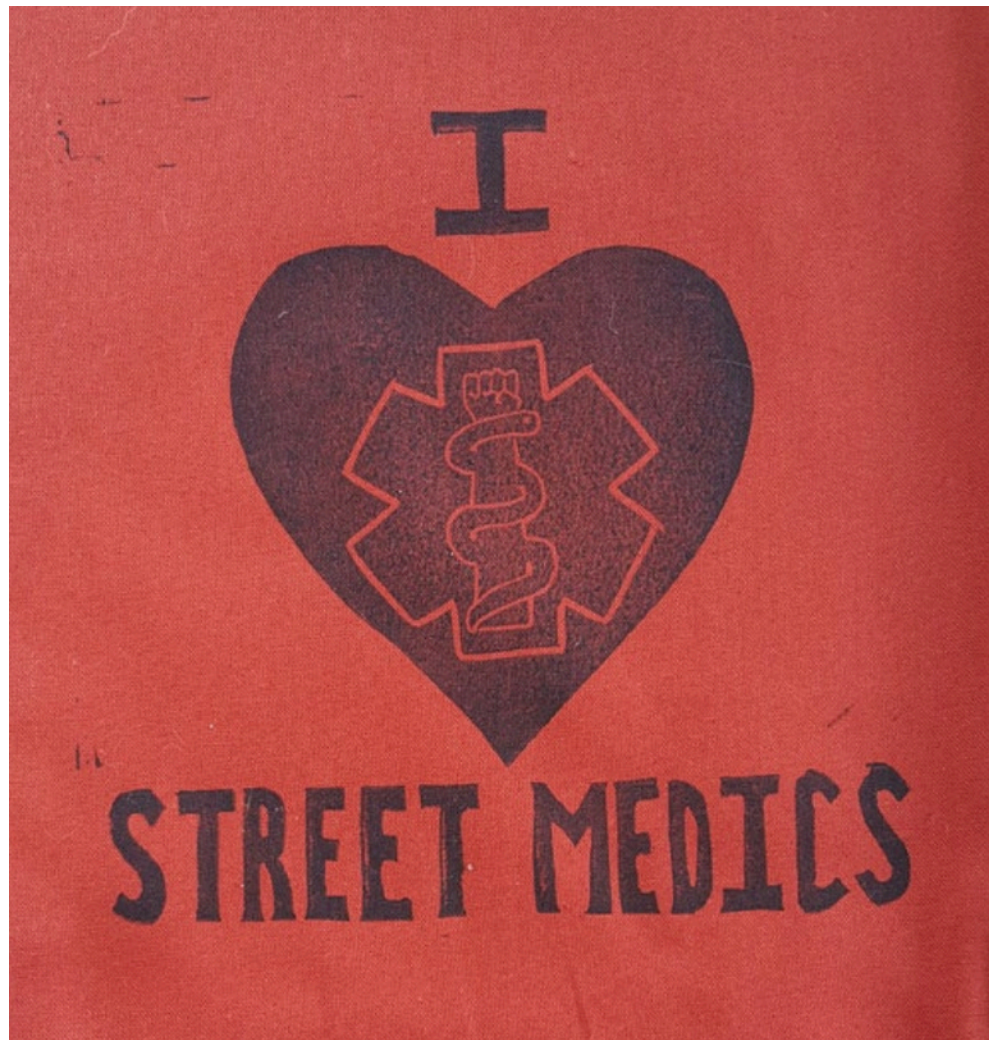
If you're shot while wearing soft armor, the impact of the blow still hits you and can damage you, although the injuries are generally minor as the impact is spread out over a somewhat larger area. According to some studies, 85% of those who are shot while wearing a vest rated for the right kind of impact suffer no injuries or minor injuries such as slight bruising. Yet EMT's have reported that the cops they have treated who have survived shots to their vests describe it as being hit with a baseball bat full force.

Plate armor theoretically spreads impact force out more than soft armor, and if worn correctly, should have a similar or better outcome than soft armor. However, this is very much up for debate.

In general, if you are wearing armor that is rated for the impact you experience, you are unlikely to suffer a major injury. Unless you're caught off balance, you're unlikely to be knocked back or over. This is not universally the case, however. People do suffer cracked ribs and other blunt force injuries when bullets strike them while they are wearing armor.

As with any armor, nothing provides perfect protection: some parts of your body will be completely exposed. **No one is invincible, no matter what they wear.**

Photo / patch credit:
'WildcraftPrintShop' on etsy

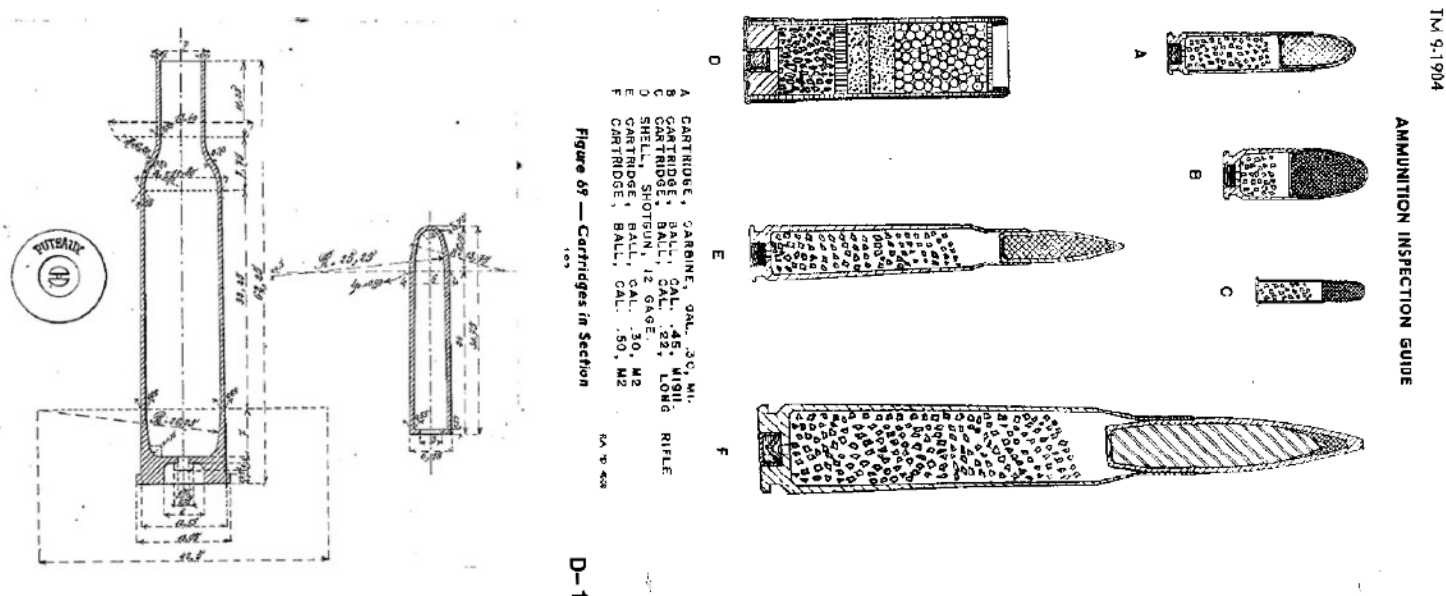


Ballistics and Armor Piercing

Ballistics are complex. Talk to a physicist about fluid dynamics sometime — it's that level of complex. We've spoken to a number of engineers and tactical enthusiasts about how to understand ballistic threats.

Broadly speaking, rifle rounds penetrate substantially more than handguns or shotguns. Hollywood perpetuates a weird myth that shotguns are super-powerful, which is simply not true. Rifles are substantially more deadly. The only consistent exception to this generalization are .22 caliber rifles, which are common for small-game hunting and for beginning shooters. Those are closer to handguns in terms of their damage potential.

Armor penetration is very different from overall power (the kinetic force transferred to the target by the bullet), which is different from "stopping power" (a non-science term for the ability of the bullet to neutralize a threat). Penetration is greater for faster bullets with a greater "sectional density"— that is, bullets that are heavier in relationship to their width. Thinner bullets are sharper and penetrate more effectively than larger bullets of the same mass. Armor penetration and stopping power actually work against each other: bullets that mushroom or fragment upon impact (hollow-point ammo) cause far more severe wounds but are less likely to punch through armor, whereas bullets that maintain their shape more effectively are more capable of penetrating armor.



Most armor-piercing ammunition works by using a steel or other hardened core that survives impact more effectively than lead. This ammunition is not generally available to civilians in the United States, although it is available to the military and police. This makes it less likely that militia groups and other non-state actors will be using it against demonstrators. It is not in common use by the police for a number of reasons: first, it involves greater risk of going all the way through the target and hitting someone else unintentionally, in what is called over-penetration; second, hollow-point bullets (which mushroom upon impact) are more effective at killing unarmored targets, like the people that the police are usually trying to murder. The most common exception is 7.62x54r steel core surplus ammo, which has significant armor piercing capability, and anything in the 50 caliber range, which we are unlikely to see in domestic civilian conflict.

There are two types of bullets worth knowing about that are available to civilians and are likely to be carried by non-state actors (chuds) who seek to kill demonstrators:

steel-tipped bullets (not steel-cored), generally referred to as “**green tip**” bullets such as the M855. These were designed for the military to offer greater accuracy and penetration at long distance, but they are in common civilian use, especially in AR-15’s.

+P style bullets, generally 9mm—the most common handgun round—though not all 9mm are +P. These are not designed for armor penetration, but pack more gunpowder that provides greater power and therefore more effective penetration.

Both of these threats can be stopped by appropriate and available body armor, such as what we recommend in various parts of this zine. It’s worth being aware of these threats in order to understand why you might need an appropriate level of armor. Older and cheaper soft vests (level II) might stop most 9mm rounds, but not the +P rounds that are commonly carried by chuds and gun enthusiasts.

Do-It-Yourself Ballistic Plates

It is possible to make DIY armor plates. It’s probably only worth doing as a last resort. YouTube is absolutely full of people testing various DIY forms of body armor. Some are easy to make; others are labor intensive. Some are affordable; others are expensive. There are situations in which armor is needed and not commercially available.

There is no consensus, but there are two somewhat common methods. The first involves laminating lots and lots of layers of Kevlar (better) or fiberglass (cheaper) with resin. This is labor intensive and not necessarily cheap, but it makes it possible to form the plates into various shapes. There are arguments about what kinds of resin work best; some people argue convincingly that using less resin enables the layers to delaminate upon impact and absorb more force.

The second method, which is substantially simpler and often cheaper, involves layering ceramic floor tiles—using the hardest ones available—with various thicknesses of steel and rubber. This method seems to make stronger armor that is less subject to back deformation. Some people argue that ceramic mosaic tiles offer better multi-hit capability, while others say that single larger tiles absorb impact better. It’s possible that aluminum oxide ceramic panels can be sourced from commercial manufacturers, possibly from China.

Recycled HDPE plastic from milk jugs can be a ballistic material, but generally needs to be combined with other materials.

The cheapest and strangest DIY plate we’ve seen is a \$15 plate [made from items from a dollar store](#): baking pans full of rocks and glue with a hardcover book as a backing layer. This stopped some rifle rounds but not many.

One person we spoke to has had some success cutting steel plates from suitably strong and thick steel found in scrapyards. Steel that is too hard will shatter upon impact; steel that is too soft will allow penetration—and if bullets do pass through, they might leave additional jagged bits of metal. If you're going to take this approach, it is absolutely crucial to get enough extra material to test these plates. You can cut the plates to the desired shape with an angle grinder. DIY steel plates should absolutely be backed with trauma pads.



If you possibly can, you should get well-engineered, properly tested gear. Failing that, you had better carry out your own thorough tests on the gear you make yourself. One person who does so described the process as follows:

- 1) Extensively research core concepts involved in the project, to understand considerations, potential points of failure, and potential reasons for failure.
- 2) Develop a minimal viable product standard that you hope to accomplish.
- 3) Determine the most basic test conditions possible, with as many variables eliminated as possible.
- 4) Develop initial prototype.
- 5) Test initial prototype.
- 6) Disassemble prototype to determine what worked and what failed, and to determine cause of failure.
- 7) Build next prototype with knowledge gained from testing.
- 8) Repeat.
- 9) Once you achieve a minimal viable product standard, start testing under increasingly harsh conditions—different temperatures, using different rounds, and so on—to determine resiliency and point of failure.

For a project like this, make sure you have access to a workshop and someone who knows how to use the necessary tools safely and effectively. The proper tools will make production and testing faster; they can also help ensure standardized outcomes.

Tactical helmets

Tactical helmets are designed for combat. That's why cops use them: police constitute an occupying military force. Tactical helmets are intended to protect soldiers and other professional fighters from the hazards of their job, such as bullets and shrapnel. Most are also designed to stick gadgets onto. Gadgets can be useful: in particular, activists might be interested in being able to mount ear protection or visors. Journalists might be interested in the ability to attach cameras, though we cannot in good conscience recommend that anyone film protests in such a way as might incriminate fellow protestors.

Tactical helmets can be distinguished by their ballistic rating, their style, and whether or not they are designed to carry gear. They are available in a wide range of prices and combinations of features. For that reason, we'll discuss the different categories of features that can be mixed and matched, rather than mutually exclusive types of tactical helmets.

Helmet Ballistics

There are four ratings of tactical helmets available. At the lowest end are 'airsoft' helmets, which are often less than \$50. These are generally not certified at all; functionally, they are just plastic replicas of higher-quality helmets. The next step up is bump helmets (which are distinct from bump caps). Bump helmets are tactical helmets that are not rated to protect against gunfire, but decent at protecting against a baton or riot munition. They are half the weight of ballistic helmets and substantially cheaper. First responder helmets are often bump helmets in bright colors.

Then there are ballistic helmets. Nearly all military ballistic helmets are rated to NIJ IIIA—which is to say, they are rated to protect against handguns but not rifles. Finally, there are some helmets that claim to protect from rifle rounds. Most of these helmets only protect from certain rifle rounds at long distance. Others, however, can use a special insert to increase the level of protection they offer against rifles. This also increases a helmet's weight. Ballistic helmets are generally made of aramid fibers like Kevlar. The cheapest ones start new at \$200, and most well-reviewed models are \$500 or more.



Helmet Styles

We will focus on US models of ballistic helmet, because these are what are most readily available here and most manufacturers copy them. There are numerous styles for numerous purposes, but the most common include:

PAGST helmets are a style of ballistic helmet that has been largely phased out since 2001. It would absolutely be worth wearing a PAGST helmet if you find one cheap, but if you're shelling out real money to buy a ballistic helmet, don't settle for a PAGST helmet.

MICH/ACH helmets replaced the PAGST model. The ACH is a more modern version of the MICH, but the helmets are very similar. Compared with the PAGST, it has a better chinstrap and relies on padding rather than suspension. It's considered to offer superior protection against blunt impact. Now **ECH** helmets are replacing the ACH; they have a very similar design, but they are made of a lighter-weight material that some people consider slightly weaker, ballistically. This style of helmet has "ear bumps" that permit the user to wear headphones inside it, although the fit is not always perfect.

FAST/ATE/High Cut helmets are built similarly to MICH/ACH helmets but are cut above the ear (ATE) instead of having ear bumps. These weigh less, protect less, and allow the user to wear rail-mounted ear protection. Older models of this style of helmet, such as you might find on the surplus market, are sometimes called CVC helmets.



PAGST / MICH
style



FAST / High Cut style

Helmet Side Rails and Shroud

Some ballistic helmets (sometimes described as "shell only") are plain helmets without mounting systems, but most tactical helmets are distinguished by the various mounting options built into them—usually, side rails and a shroud. Surplus helmets, particularly older helmets, are much cheaper when they don't come with rails and a shroud. These can be attached aftermarket, but it's a bit of an undertaking.

The “shroud” is a rectangle on the forehead of the helmet that is designed to mount night vision goggles. In the civilian market, most people use this spot to mount GoPro cameras. The shroud is a fairly universal mounting system, although some cheaper helmets are poorly made and may not lock as tightly with accessories. The side rails usually run above and sometimes behind the ear and are used to mount other devices. They can hold visors, ear protection/comms devices, flashlights, cameras, etc. Just as with the rails on rifles, not all helmets use the same standards for the side rails; there’s an entire industry of people selling adaptors to translate between all the different rail standards. If you go for rails, make sure your accessories fit your rails.

The primary reason for side rails is to mount noise-gated headphones. These headphones muffle loud sounds (i.e. gunshots, flash-bangs, DJ LRAD, fireworks, etc) but amplify quiet sounds.

Still, most helmets (not just ATE helmets) are designed to accommodate earmuffs like those underneath the helmet—which is less comfortable, but can be substantially cheaper.

If you wear anything heavy on the front of a tactical helmet, such as night vision goggles, you might need to wear something as a counterweight on the back. People sometimes store extra batteries there for this purpose.

Helmet Padding

The strongest shell on Earth won’t protect your head from blunt impact without good padding. Many helmets, including some military-issue helmets, come with inadequate padding. Padding serves two purposes: impact resistance and establishing a tight yet comfortable fit. Both are important. To our knowledge, there is no single foam that provides both. Good pads are multilayered.

Pads are generally foam encased in fabric. Sometimes there is plastic between the fabric and the foam to keep sweat from soaking the pads—this is likely an important feature for chemical weapon exposure as well. Some pads incorporate both types of foam (impact and comfort) in multiple layers within a single pad, while other padding systems use separate pads, which makes the helmet more customizable but also demands more work. In a multiple-layer pad system, it’s important to use both layers everywhere there is foam.

Pads are largely interchangeable between all types of tactical helmets, as almost all use hook-and-loop (velcro) attachments and are designed to be customized by the wearer to fit their unique head shape.

Good pads can be found for reasonable prices (approximately \$40).

Any reputable manufacturer should be proud to announce their impact resistance certifications.



Helmet Surplus

You can purchase surplus helmets on ebay or via a variety of surplus sites. A used helmet is better than no helmet, but the ballistic fibers of helmets break down from wear and tear as well as exposure to sunlight, and you have no way to ascertain where the helmet has been. Still, surplus helmets are substantially cheaper.

Chinese Import Helmets

Forums discussing ballistic helmets tend to be full of chuds and gear snobs, which makes it hard to identify honest reviews of cheap equipment, especially foreign-made options. The cheapest source for new, ballistic-rated helmets is China. Many manufacturers claim that they offer quality at budget prices, and some “cheap” Chinese “knockoffs” perform similarly to American models. The problem is like all online shopping: super-cheap stuff is a gamble.

It’s likely that helmets that are ballistically rated will stop handgun rounds, as they claim. The primary argument we’ve seen online is about whether the shell will deform upon impact enough to injure or kill the person wearing the helmet. In any case, helmets are less protective than body armor, as a general rule of thumb. Even if a helmet stops the bullet and the shell doesn’t deform, the blunt force alone can be enough to injure or kill.

At least one prominent well-regarded ballistic helmet manufacturer, Hard-Headed Veterans, has their helmets manufactured in China.

Photo credit:
@ArmorBlocSEA
on Twitter



Helmet Quotes from CrimethInc

“My friend lost an eye when he was in high school. A cop shot him with a rubber bullet. A couple years later, we were participating in a new round of protests against police violence, and people were getting seriously injured at every demonstration. We discussed it and concluded that, sure, maybe the police would target us more if we protected ourselves as individuals, but if we all protect ourselves, we would all be better off. My friend brought a shopping cart full of helmets to the next demonstration and made a speech about how important it was for everyone to wear one.”

“Since then, every couple demonstrations, someone brings a bunch of helmets to give out—all different sizes, to provide for everyone, since, for instance, I have to wear a child’s helmet for it to fit right. That helped to normalize wearing them.”

Goggles and face shields

Ballistic goggles or even face shields are indeed a thing you can get. Ballistic goggles are not rated to provide the same level of protection as a soft armor vest or hard armor plate. Not even close.



They aren't rated by the NIJ that way in any case we could find, and mostly are designed to protect against fragmentation and shrapnel. This means they are good protection against "less than lethal" rounds fired at people by police. There are many anecdotal reports of them stopping a 9mm bullet or shotgun buckshot, but there is no manufacturer willing to certify or back those claims up with anything resembling certification.

For those who wear glasses: many ballistic goggles are available in an "OTG" version meaning they are meant to wear Over The Glasses.

There are two levels of ballistic goggle certification: ANSI (workplace/civilian) and MIL (military). Within these two types, there are different certification numbers, but importantly, none are rated to reliably stop any bullet directly. They might, but don't count on it at all. Chances are decent they won't.



For actual face armor, there are face shields of thick clear poly plastic material that are designed to attach to the rail systems of helmets, which are rated usually IIIA and will stop many types of bullets (not all). They are very expensive, about the cost of the helmet itself.

While this is good protection, even one bullet's impact has a good chance of cracking the material, making visibility extremely difficult.



Ballistic masks ... exist. Bad visibility, bad breathability, can't interact with a gas mask, impractical fit, horribly uncomfortable, terrible optics, etc. Yikes.

*visibility level:
difficult*



Misc armor afterthoughts:

Remove the plates, then wash your carrier

Rich people online will tell you that you should have two carriers for your plates. That allows you to wash one and wear the other. Instead of doing that, it's really just a good reminder that yes, indeed, you can and should wash your carrier from time to time. Almost all plate carriers are made of materials designed to be washed and dried normally in machines (remove the plates first). No need to be delicate.

Not only does a clean and dry carrier help your plates last as long as possible, it helps the whole armor outfit not smell gross.

Soft and hard armor itself can be cleaned

Some soft vests have a layer you can remove and wash like a carrier. For the part you can't remove and wash, the best way to clean your soft vest or hard armor plates is with a damp sponge and some gentle soap. Or just spray some febreze on them. But DO NOT throw soft armor vests in the washing machine, or put them in the dryer. The heat and spinning actions of a washer and drier both can degrade the effectiveness of the material at stopping bullets.

Hang Up Your Vest

As discussed elsewhere, soft armor vests are made of many layers of bullet resistant fibers. If they get bent out of shape, they can't be ironed or straightened out. If you smoosh a sweaty vest into a backpack or trunk of a car, it will dry in that configuration. Sometimes you may have to ... but as soon as you can, get the vest laid out or hung up. Drying in weird shapes and then forcing it back to a vest shape again puts more wear and tear on your vest's fibers.



**Cold Hand
Wash Only**



No Bleach



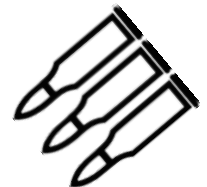
Hand Dry



No Iron



**Helpful in
Accidents**



**Bullet
Resistant**

Wearing armor while in a vehicle

Body armor and helmets are designed to slow and distribute forces from impacts. Beyond bullets, they work to provide protection from things like batons and riot munitions. But also, they help protect against impacts from a car accident. Armor only helps if it's worn, so it's a good idea if possible to suit up before driving to a location, and/or to leave it on while driving back. For those who are working as corksers or protest security or similar duties, this is yet another good reason to wear armor!

No-one is invincible, no matter what they wear.



This zine is brought to you by Armor Bloc

instagram: armorblocpdx

twitter: @armorblocpdx

161-1312 is not a phone number, but it is
a fun set of numbers