Loss Control Insights

How Wearing Body Armor Saves Lives

Protective body armor became a law enforcement staple in the 1960s. Since then, it's estimated that more than 3,000 officers' lives have been saved by wearing body armor.

Firearms are among the most dangerous threats faced by law enforcement. Most peace officer deaths involve being assaulted by perpetrators armed with handguns or rifles. A study by the FBI's Law Enforcement Officers Killed and Assaulted (LEOKA) program revealed that between 1987 and 2015, there were more than 70,000 incidents involving officers being attacked with firearms. Of these incidents, 1,708 officers were killed in the line of duty over three decades. Ninety-two percent, or 1,574 of the deaths, resulted from gunshot wounds.

Body Armor Types and the Levels of Protection They Provide

According to another FBI study, 137 peace officers were killed by gunfire between 2007 and 2016 while wearing soft body armor, which is made from synthetic high tensile-strength polyethylene (HTSP) fabrics. Excluding those officers who received fatal shots to the exposed head, neck or legs, 63 officers, or 46%, were killed by shots to the torso, which is the area body armor is intended to protect.

In 24 of the fatal shootings, the wearers' soft body armor was penetrated by rounds from rifles that exceeded the armor's National Institute of Justice (NIJ) bullet protection ratings. The remaining deaths were attributed to what some manufacturers refer to as body armor's "Achilles heel," when a bullet misses the protective material and strikes the body, often through the armpit, which is vulnerable when an officer's arms are raised to point a service weapon at the shooter. Incoming rounds can also enter through small gaps between improperly abutted side panels.

Fatalities can also result from wearing body armor that doesn't fit properly or whose bullet-stopping properties have deteriorated over time. Vests worn daily will lose their ability to stop bullets much more quickly than vests stored on shelves or in closets.

Personal protection worn while on duty is typically soft body armor that can stop bullets from most handguns, but is easily penetrated by high-velocity rifle rounds. For decades, most assaults on peace officers were committed by perpetrators armed with handguns, although during recent years there has been a significant increase in rifle-related incidents. Today's ballistic vests are lighter and stronger than earlier versions, but from a realistic standpoint, officers should wear carriers with Level III or Level IV hard ceramic or steel core plates. If there's a threat of rifle fire. Due to the higher cost, added weight and lessened maneuverability associated with hard body armor, however, law enforcement agencies and individual officers are often reluctant to make the change.

Although there's no such thing as body armor that's truly bulletproof, bullet resistant protection is a critical piece of law enforcement protective equipment. Since its founding in 1987, the International Association of Chiefs of Police/DuPont Kevlar Survivors' Club has recognized over 3,100 officers who have avoided death or serious injury by wearing body armor while on duty.

The National Opinion Research Center, which is funded by NIJ, analyzed FBI data on approximately 1,800 officers who were killed or severely injured by gunfire or sharp instruments. The study found that of the 637 officers shot in the torso, those wearing body armor were 76% less likely to be killed than those not wearing protective vests, which points out the importance of wearing body armor at all times. Sadly, there have been numerous cases where officers killed in the line of duty weren't wearing their protective vests, which had been left in their lockers or cruiser trunks. Body armor can only save lives when it's worn.

Why Some Law Enforcement Officers Don't Wear Body Armor

Body armor more than triples an officer's odds of surviving a shooting to the torso. According to the Police Executive Research Forum, officers who don't regularly wear body armor while on duty are 14 times more likely to sustain a deadly injury than those who do wear them. Surprisingly, although the number of officers who wear body armor has increased in recent years, one-third still don't use it while on duty. The most common reasons given are that the protective equipment is hot, heavy, uncomfortable and cumbersome.

The body armor wear rate, however, seems to be increasing as a result of both officer education and technological advancements. Although only 60% of law enforcement agencies now require their street officers to wear protective equipment, more departments are beginning to make it mandatory. Younger officers understand the importance of wearing life-saving protective equipment, and are more likely to wear it on the job than their veteran officer counterparts.

Manufacturers are making significant advances in developing stronger and lighter fabrics, which allows them to make thinner, more flexible and more comfortable ballistic panels that still pass NIJ protection level testing. Kevlar vests with "cool pads" that use tiny fans to circulate cooling moisture through the vest are now being tested. These, along with other yet-to-be discovered improvements in armor weight, flexibility and comfort will cause the body armor wear rate to continue to increase, as will the number of officers whose lives are saved.