



## The Truth About TASERs

### Don't believe everything you read

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I never cease to be amazed at the capacity of the media to oversimplify, then exaggerate, information. The truth is that, for all of our reported skepticism, many people still believe most of what they read, or see on television "news" programs. Couple this with our primal fear of the unknown, our tendency to fear what we don't understand, our never-ending search for someone -- anyone but ourselves -- to blame when things go wrong, and our penchant for assuming the worst, and it's no surprise that the TASER™ takes the heat that it does.

Depending on who you listen to, there have either been over a hundred "TASER-related" deaths, or none at all. Who to believe? Before TASERs, the culprit was pepper spray, and before that it was neck restraints. There's always "something" that we use that kills people!

Citizens and the media have long been quick to draw a cause and effect connection between arrest procedures and deaths in custody; if you arrested someone, and he died while you were transporting him, you **MUST** have done something to cause it. People don't just die, do they?

Yes, they do. In-custody death is not a new phenomenon. In fact, although it's only been well documented in this country during the last 150 years or so, people have always died in custody. It must be so, since people are people, and suffer from the human condition. People get sick, have undiscovered physical problems, and are prone to accidents.

Listen -- logic tells us that for anything that happens frequently, there will be a certain number of catastrophic outcomes. If there are enough thunderstorms, there will eventually be a tornado. If enough miles are driven, a certain number of accidents can be expected to occur. This illustrates the concept of probability, what risk managers refer to as the relationship between frequency and severity. Simply put, some things happen all the time -- every once in a while, one of those things will have a serious outcome.

So, if you make enough arrests, eventually someone will resist. If enough people resist, eventually one will really fight. If enough of them fight, eventually a fight will result in injuries, and if enough fight related injuries occur, eventually someone will die.

You can do things to manage the probability of the occasional catastrophic outcome, but you can never eliminate it totally.

So we deal with resistant people all the time. When one wants to fight, we have to decide on the safest way to control them. We have many tools for control, but until recently they were all based on pain compliance. We're taking it on faith that, if you hurt someone enough, they'll comply. You learned this as a small child, wrestling on the playground. It was called, "...making someone cry Uncle!"

But some people don't respond to pain, and in the past that often led to use of force that resulted in death. A commanding officer said it best, with extreme irony, after a particular battle during the Viet Nam war, "We had to destroy the village in order to save it."

The TASER provides an option for control that doesn't rely upon pain compliance. However, remembering that probability thing, some people have died during the time after they were "tased." Opponents of the TASER frequently refer to these as "TASER-related deaths," but the relationship between the tasing and the death is only temporal, the correlation remote. Why then the rush to blame the TASER?

Since you were little, you've been taught to fear that which you don't understand. You've also been taught to fear electricity. "Stay off the phone during a thunderstorm," and "Don't take a bath during a storm" are two rules I remember from growing up. Never approach live wires or downed wires, avoid frayed electrical cords, and don't have appliances, like radios or fans near the bathtub. On and on. These are all good rules, but they have nothing to do with TASERs.

In the interest of furthering our understanding of a few simple truths about TASERs, here are a couple of things that are frequently misunderstood.

#### **50,000 Volts!!**

Yes, it's true that TASERs have "50,000 volts," but media statements that TASERs shoot that voltage into your body are just not true. Voltage is just the force that moves the electrons along the TASER wires. When you shoot someone with your TASER, the wires reach out and the probes hit the target. Electricity flows down the wires and into the body. But, often there is no actual contact between the probes and the skin; maybe clothing got in the way, or maybe the suspect is wearing a heavy coat. The electrons have to "jump" that gap, and the higher the voltage, the farther they can jump. 50,000 volts gets you about two inches. If the probe is four inches away, the electrons won't make the leap.

A good analogy is a common garden hose. Turn on the faucet, and water flows out the end of the hose. Stretch a piece of plastic wrap over the end of the hose, and the water builds up pressure, and when the pressure gets high enough, the water bursts through, and the pressure inside the hose immediately drops.

Fire your TASER, and the energy flows. When it reaches the ends of the probes, it stops. Pressure builds behind it, until the voltage reaches 50,000 volts. The electrons then make the two inch leap, and the voltage (pressure) drops. Here's something you probably didn't know: When that voltage hits your body, it's dropped to about 5,000 volts (for the M26 TASER), or 1,200 volts (for the X26). Then as the energy enters your body, it drops even lower, to an almost negligible level. In fact 50,000 volts means nothing in respect to the incapacitating power of the TASER.

**"It's not the voltage that gets you, it's the amps!"**

One more quick one. The above statement is true, but actually illustrates the safety of the TASER technology. The amperage delivered in a hit from an X26 TASER is about 2.1 milliamps. That's 0.0021 amps. A bulb on a string of Christmas tree lights uses about 1 amp.

We could go on, but we're out of space and time. The fact is that nothing in life is risk free, including TASERS. Everything in life is a balancing act, a cost-benefit analysis.

The data, from many sources, clearly shows that, while not risk free, the TASER is one of the safest (for both the officer and the suspect), most reliable, and cost effective options when it's time to forcibly control someone. Do your research, rely on legitimate sources of information, and make up your own mind

In the meantime be careful out there, and wear your vest!