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[NIJ Home](#) > [Topics](#) > [Technology and Tools](#) > [Less-Lethal Technologies](#)

Monitoring Police Use of Conducted Energy Devices

Law enforcement agencies are increasingly using Conducted Energy Devices (CEDs), such as the Taser. Police departments report that overall injury rates among suspects and officers decline when they start using CEDs, but significant controversy remains about their safety. CEDs can injure people, and numerous in-custody deaths have occurred after their use.

Studies in animals and healthy volunteers are important and useful, but they cannot substitute for field studies in the actual population at risk of CED exposure. In the first study of its kind, **researchers monitored CED use under real world conditions.**

In the study:

- Six police departments participated.
- Independent doctors worked with each participating law enforcement agency.
- The study lasted two years.
- Researchers evaluated a total of 962 CED uses.

Lessons Learned from Monitoring CED Use

CEDs are not risk-free. These devices can cause injuries. While most (99.7 percent) people who are exposed to CEDs suffer no injuries or mild injuries only, a small number do suffer significant and potentially lethal injuries. Police officers and agencies should be aware of these potential injuries and address them when they do occur.

This study could not mandate specific assessments or interventions. Therefore the reported incidence of mild injuries likely underestimates the true incidence of minor abrasions, bruises and cuts.

This study did not observe any deaths occurring immediately after CED use that might suggest that the CED directly affected a suspect's heart rhythm. This does not rule out the possibility of such an event but does inform us that the frequency of such an event is very low.

Detailed Findings from Review of 962 Cases

Demographics

- Some 94 percent of the subjects were male.
- The mean age was 32 (range 13-80 years).
- Mean height was 69 inches (range 54-80 inches).
- Mean weight was 184 pounds (range 90-390 pounds).

Taser Use

- In 96 percent of cases, **police officers used the Taser model X26**; 4 percent used the model M26.
- 66 percent of cases used probe mode; 26 percent used drive stun mode; eight percent used both.

- The **mean number of shocks delivered** was 1.6 in probe mode and 1.8 in drive stun mode.

Medical Screening and Injury Rates

All suspects underwent medical screening.

- 390 subjects (41 percent) were also evaluated by emergency medical personnel.
- 205 subjects (21 percent) were evaluated at a hospital.

After CED use, 99.7 percent of the 962 subjects had no injuries or mild injuries only. Skin punctures from CED probes were most common, accounting for 83 percent of the mild injuries. Skin punctures, bruises and cuts accounted for 98.5 percent of the mild injuries seen.

The significant (moderate or severe) injury rate was 0.3 percent. Three suspects were admitted to hospitals due to significant injuries:

- One patient had a cerebral contusion, a bruise of the brain tissue. (Moderate severity, indirectly related to CED use.)
- One patient had an epidural hematoma, a collection of blood between the skull and the brain. (Severe, indirectly related to CED use.)
- One patient developed rhabdomyolysis two days after CED use. This medical condition involves the destruction of skeletal muscle tissue, which can be caused by traumatic compression, excessive activity or exertion, thermal injury, or electrical injury. (Moderate severity, uncertain relationship to CED use.)

Two deaths occurred among suspects in police custody. Neither person died immediately after the CED use. After investigation and autopsy, both deaths were determined to be unrelated to CED use.

[See also interim findings from NIJ In-Custody Death Study: The Impact of Use of Conducted Energy Devices.](#)

[Back to Assessing the Safety of Conducted Energy Devices.](#)

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