Tasered youth fare as well as adults, new research says

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Adolescents who are tasered by law enforcement officers do not appear to be at higher risk for serious injury than adults, according to new a new study from Wake Forest Baptist Medical Center researchers.

This latest research from Wake Forest Baptist is the first to specifically investigate Taser use on adolescents. Lead author Alison R. Gardner, M.D., an assistant professor of emergency medicine at Wake Forest Baptist, found no major differences in the injury rates or types of injuries to youth when compared to adults.

"We were looking closely for increased risk of cardiac effects and bodily injuries because of the differing body size and build of adolescents, but there were no significant injuries reported for this age group," said Gardner. "There were 20 mild injuries recorded and the majority of these were expected superficial puncture wounds from the weapons' probes."

The research appears this month online ahead of print in Pediatric Emergency Care. This was a retrospective study of Taser use from law enforcement data collected by the largest, independent multicenter database established in 2005 with funding by the National Institute of Justice. Tasers, or conducted electrical weapons, are non-lethal defense weapons used by law enforcement personnel to shock a person with probes from a distance.

Gardner and colleagues reviewed 2,026 Taser uses and found that 100,

or 4.9 percent, were against adolescent suspects ranging in age from 13 to 17, with an average age of 16. Most of the youth were tasered by law enforcement officers during incidents involving civil disturbance, assault, robbery and burglary. Alcohol or other drug intoxication was known or suspected by police in 30 of the 100 cases, according to the study.

A limitation of the study is that the mean age (16), weight (168 pounds) and height (5 feet 8 inches tall) of the individuals reviewed indicates that this "population of minors mirrored the physiology of older adolescents and adults, more so than that of young or small children," Gardner said. "In real-life situations, Tasers were used in adolescents who were larger and older. This implies that law enforcement personnel are using Tasers as apprehension aids when physical apprehension is not easily accomplished, as would be the case in smaller and younger subjects."

This latest research builds on the work of its senior author William P. Bozeman, M.D., also of Wake Forest Baptist, who conducted the world's first large, independent study of injuries associated with Tasers to assess the overall risk and severity of injuries in real world conditions. Published in 2009, those results showed that the rate of significant injuries was low (less than 1 percent) and most injuries appeared to be minor.

Bozeman followed up with additional research in 2009 that evaluated the immediate cardiac and cardiovascular effects on a group of volunteer police officers, finding that CEW exposure overall was safe and well tolerated. His was only the second study to document the heart rhythm before, during and after a Taser application. In June he published a new study of real-life Taser uses by law enforcement agencies and found none in which the devices could be linked to cardiac complications, even when the probes landed on the upper chest area.

"Tasers have been proven to reduce the risk of injury in both suspects and officers and have prevented far more injuries and deaths than they have produced," said Bozeman. "While no tool is risk free, Tasers are clearly safer than alternate force options available to law enforcement officers such as batons, hand-to-hand combat and firearms, and the appropriate use of Tasers by police officers should be supported."

Provided by Wake Forest University Baptist Medical Center