

Clinical Practice Statement

What Evaluations Are Needed in the Emergency Department Patients after a TASER Device Activation? (Reviewed/Updated from 2010)

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Recommendations:

- 1) The routine performance of EKGs, prolonged ED observation or hospitalization for ongoing cardiac monitoring is not indicated after CEW exposure in an otherwise asymptomatic awake and alert patient with a short duration (< 15 second) of CEW exposure.
- 2) The routine performance of laboratory studies, prolonged ED observation or hospitalization for ongoing laboratory monitoring is not indicated after a short duration of CEW exposure (<15 seconds) in an otherwise asymptomatic awake and alert patient.
- 3) For patients who have undergone drive stun or touch stun CEW exposure, medical screening should focus on local skin effects at the exposure site, which may include local skin irritation or minor contact burns.
- 4) For patients who have undergone probe mode CEW exposure, medical screening should focus on probe penetration sites, potential injuries due to muscle contractions, and potential trauma due to falls.

Introduction:

Use of Conducted Energy Weapons (CEW) such as the TASER includes delivery of a series of brief electrical pulses, which result in painful muscular contractions. The pulses may be delivered via three possible mechanisms. The delivery may be via a pair of metal probes projected from the device, commonly referred to as “probe mode”; by direct contact with the front of the device, commonly referred to as “drive stun” or “touch stun” mode; or a combination in which a probe may be in place and the device is placed in contact with the individual increasing the spread of the current.

Executive Summary:

The current human literature has not found evidence of dangerous laboratory abnormalities, physiologic changes, or immediate or delayed cardiac ischemia or dysrhythmias after exposure to CEW electrical discharges of up to 15 seconds. Therefore, our recommendation does not support routine performance of laboratory studies, EKGs, prolonged Emergency Department (ED) observation periods, or hospitalization for ongoing cardiac monitoring after CEW exposure in an otherwise asymptomatic awake and alert patient. 236 articles were screened and reviewed.

Testing for cardiac injury, or other physiologic effects of CEWs may be appropriate in individual cases based on medical history. Patient history such as cardiac conditions or suspicious symptoms like chest discomfort, shortness of breath or palpitations suggestive of possible cardiac issues, pain suggesting muscle contraction injuries, or prolonged CEW exposure >15 seconds may warrant testing. Coexisting conditions like intoxication, prolonged struggling, altered mental status, or symptoms of excited delirium syndrome may also be present in patients exposed to CEW activations, although the CEW does not appear to be the precipitating factor. Presence of these findings should prompt additional evaluation or treatment per physician discretion.

For CEW activations in the probe mode, patients should be screened for injuries related to the dart penetration or local probe burns due to CEW use, as well as injuries associated with possible associated falls and muscle contractions. Among patients who had a CEW activation in drive stun or touch stun mode, evaluation should focus on skin manifestations, which are typically limited to surface burns, also called signature marks.

Conclusion:

Based on multiple studies, the current medical literature does not support routine performance of laboratory studies, EKGs, or prolonged Emergency Department (ED) observation or hospitalization for ongoing cardiac monitoring after CEW exposure in an otherwise asymptomatic awake and alert patient.