

PART C. SECTION 1983 LITIGATION

CHAPTER 3

Representing Clients Injured by TASER International Electrical Control Devices*

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Introduction

Electrical control devices (ECDs)¹ are handheld weapons that deliver brief bursts of rapidly pulsing electrical current. Used primarily by law enforcement and correctional officers (lower power consumer models are available) ECDs cause intense pain and incapacitating muscle contractions, either through two darts attached to wires or directly from contact with exposed electrodes.

Introduced in 1976, the original, relatively low-power ECDs were linked to abuses and in-custody deaths. Since TASER International, Inc., captured the ECD market following the release of its first high-power ECD, the Model M26, in November 1999, followed by its equally high-power, but more compact, Model X26 in 2003, there have been a growing number of reports that the devices have been abused, or caused catastrophic injuries and death. In the most comprehensive report to date, Amnesty International identified

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334 deaths associated with TASER International products in the United States from June 2001 through August 2008, almost all cardiac arrests.²

This article is written to assist plaintiffs' attorneys prosecuting civil claims for money damages against law enforcement agencies, correctional institutions and the manufacturer for ECD-related injuries. First, we summarize ECD history, technology and basic functions. Second, we address ECD research, warnings and training. Finally, we discuss the rapidly developing section 1983 excessive-force case law in the United States Circuit Courts of Appeals based on allegations of ECD abuse.

ECD safety has been at issue since the devices were first used. There are obvious risks of which the manufacturer has always warned: a dart in the eye, ignition of flammable substances (including pepper spray), fall-related trauma, and orthopaedic fracture or dislocation – each of which can result in a catastrophic injury or death.³ TASER International has, at least until quite recently, stridently defended the cardiac safety of its product, arguing in general that coronary deaths were due to drug overdoses, so-called “excited delirium” – a dubious diagnosis not generally accepted as a cause of death by the medical profession⁴ – or pre-existing heart abnormalities. There are scientific and medical studies which establish, however, that when shot directly into the chest the electrical current can cause lethal cardiac arrhythmias, and repeated shocks delivered anywhere on the body can alter blood chemistry sufficiently to induce cardiac arrest.

Plaintiffs lawyers should argue that due to these serious risks any law enforcement or correctional use of an ECD must be considered a high-level of force justifiable under *Graham v. Connor*⁵ for arrests or *Hudson v. McMillian*⁶ in jails or prisons.

Despite the fact this article may well be out of date by the time of publication, due to the rapidly evolving nature of this complex subject, we hope it will, nonetheless, help the plaintiffs' lawyer make informed decisions on which cases are worth pursuing and assist in the prosecution of those cases once filed.

The History of the TASER ECD

Lawyers representing clients claiming ECD-related injuries need to understand the product.

Jack Cover, an electrical engineer, developed ECDs in the early 1970s as a “less-lethal” force option for law enforcement, whimsically naming his invention after the 1911 novel *Tom Swift's Electric Rifle; or, Daring Adventures in Elephant Land*, one in a series of stories written for young males. Cover gratuitously inserted an “A” in TSER to make the acronym pronounceable.⁷ Cover's original ECD fired two darts attached to wires

which were propelled by gunpowder. When both darts hit their target the ECD discharged brief bursts of electricity – as short as 10 microseconds (ten millionths of a second) – pulsing at a rate of about 10 times a second – through the completed electrical circuit for five seconds.

Depending on the location of the darts, the current activates the body's motor nervous system, triggering severe contractions throughout the skeletal muscles. It also stimulates the sensory nervous system, causing intense pain. The intended effect of the ECD's is to lockup the muscle system, causing the person to fall, allowing officers to move in safely and handcuff without any further use of force.

Cover patented his invention in 1974, and the first sales occurred in 1976. The first generation ECDs used electrical output of approximately .4 joules per pulse – around seven watts per second. Despite the risks inherent in this new technology, there was no peer-reviewed scientific testing or medical evaluation performed before manufacturers began selling ECDs directly to law enforcement and correctional agencies for use on human beings.

ECD use did not immediately become widespread, in large part because officers found that a motivated person could fight through the effects of its relatively low power output.⁸ There were, however, reports of deaths associated with ECD use,⁹ and the world watched in horror as Los Angeles Police Sergeant Stacy Koon tortured Rodney King with a first-generation ECD on March 3, 1991 – prior to King being beaten with batons, kicked and hog-tied – when George Holliday's video was shown repeatedly on national and international newscasts.¹⁰

In 1993 Cover sold the "TASER" trademark, along with various licenses and patents, to brothers Patrick "Rick" and Thomas Smith, the founders of TASER International, Inc. They changed the propellant to nitrogen, thus removing the product from regulation by the Bureau of Alcohol, Tobacco and Firearms,¹¹ and then, to make the device more popular for law enforcement, increased its power four-fold, to 1.76 joules per pulse, 26 watts a second.¹²

TASER International introduced the ADVANCED TASER Model M26 late in 1999. Shaped like a pistol, it holds eight AA batteries and delivers, depending on the battery charge, between 15 to 20 pulses per second – each of 40 microsecond duration – at a peak current ranging from 15 to 17 amps.¹³ Although the Model M26 sold well, officers complained about its size, weight, and similarity to a firearm.¹⁴ In 2003, TASER International substantially re-engineered the electronics and released the more popular Model X26, smaller, sleeker and lighter because it is powered by only two AA batteries. To generate the same stopping power from a smaller energy source, the Model X26 has a longer (100 microsecond) although flatter

(peak three to five amps) waveform. The X26 regulates its pulse rate better, consistently delivering around 19 per second. The individual pulses delivered by each model contain roughly the same amount of electrical energy – 100 micro-coulombs.¹⁵ The Model X26 can be equipped with an optional video camera.¹⁶

TASER International had an initial public offering of stock in May 2001, trading on the NASDAQ under the symbol “TASR.” The stock skyrocketing before coming back to Earth in 2005 amid concerns about product safety.¹⁷

Product sales to corrections and law enforcement have been substantial, however. According to TASER International, by the beginning of 2009, at least 350,000 officers in over 12,750 agencies in 45 countries used its products, estimating approximately 680,000 human volunteer exposures – generally law enforcement and corrections officers during ECD training – and 547,000 field uses.¹⁸

The Operation and Effects of TASER ECDs

Both the Model M26 and Model X26 operate the same. A plastic cartridge clips onto the front of the “barrel.” Switching off the safety activates a laser sight, the dot of light representing the target for the top dart. Pulling the trigger fires two darts, each bearing a barbed point nine millimeters long, connected to wires ranging in length from 15 to 35 feet, with 21 feet being the most common. The top dart travels straight while the bottom dart angles downward so that the darts should spread one foot for each seven feet traveled. The wider the spread, the more effective the electrical discharge will be in causing muscle incapacitation. ECDs are more effective in the back than the chest due to the presence of more muscles and nerves.¹⁹

As the cartridge doors fly open, confetti-like “AFIDs” (anti-felon identification”) scatter, each bearing the serial number of the cartridge. (This feature was originally developed for the consumer model – hence the name.) AFIDs help place the location of an officer firing an ECD.

Although darts frequently penetrate the skin, the current arcs at 50,000 volts, allowing it to jump through thick clothing when necessary. Much has been made about the “50,000 volt” shocks in early TASER International promotional literature and the popular media, but in fact there is far less voltage when the current flows through human tissue – approximately 7,000 volts for the Model M26 and 1,300 for the Model X26. Regardless, voltage is not the relevant measure. Peak amperage, pulse duration, pulse rate and total charge per pulse are much more important for assessing physiological effects.²⁰

Both the Model M26 and the Model X26 are set to cycle automatically for five seconds, accompanied by the audible clicking of the electrical

pulses. The cycle can be ended sooner, however, by engaging the safety, or it can be prolonged by holding down the trigger longer than five seconds, continuing until the release of the trigger. Five-second cycles can be repeated with additional trigger pulls and prolonged cycles continued until the device overheats or the batteries wear out, a period of up to ten minutes depending on battery strength. The fired cartridge can be removed and replaced with a fresh one and the process repeated.

Alternatively, the officer can remove the cartridge altogether – exposing two electrodes – disengage the safety, pull the trigger, and shove the electrified tip of the weapon into a person’s body to cause excruciating pain, albeit without the spread between electrodes necessary for muscle disruption to take effect. TASER International euphemistically labels this barbaric tactic a “drive-stun,” and issues training materials encouraging officers to target the neck and groin, and to hold the device against human flesh for the full five-second duration of the cycle. Drive-stuns typically leave tell-tale pairs of burn marks, and sometimes permanent scars.

Finally, there is a hybrid tactic. After a cartridge is fired, but still attached to the ECD, the electrodes are exposed. A person can be drive-stunned with the expended cartridge still in place. If there is also a dart attached somewhere on the person’s body, then the drive-stun will complete the circuit, and the path of the current will have the necessary spread for muscle disruption to occur.

People who have experienced the effect of an ECD liken it to a debilitating, full-body seizure, complete with mental disorientation and loss of control over bodily functions. It is extremely painful. When effective, the electrical current causes the skeletal muscles to contract severely throughout the extremities, making the person stiffen and fall without means of self-protection. A person generally cannot comply with instructions while being shocked, and contractions in the arms may make it difficult for officers to move them into handcuffing position while the current is active, although TASER International trains this tactic, calling it “handcuffing under power.”

Tracking ECD Use through the TASER Dataport

Trigger pulls are recorded on a built-in computer chip TASER International calls the “dataport.” With a cable and software, the dates and times of each trigger pull can be downloaded and printed. The information on the dataport chip itself cannot be modified. The dataport is invaluable for tracking ECD use, and TASER International should be commended for including this accountability feature on its ECDs. In every case involving ECD use, the plaintiff’s lawyer must take steps to preserve and to obtain the

dataport information as soon as possible. If the defendant agency claims the data is unreadable, the device should be sent to TASER International, where technicians are frequently able to rescue “corrupted” data.

The internal clocks in the ECDs tend to drift, and therefore dataport times can be minutes, hours, or even days off from real time. ECDs should be test fired, downloaded and then checked against real time to reconcile discrepancies. Alternatively, the plaintiff’s lawyer can compare the dataport time to some documented event in real time, such as an officer’s radio broadcast, or a call history entry. Regardless of the internal clock’s accuracy, the dataport downloads show the relative timing and number of discharges.

The dataport printouts for the Model M26 and Model X26 have important differences. The Model M26 records *the time the trigger was pulled* and the discharge cycle started, but not the duration of the discharge cycle or the time it ended. There is no indication on the dataport download whether the officer shortened the cycle by engaging the safety before the automatic five-second shut-off. Prolonged cycles appear as successive trigger pulls exactly five seconds apart, but there is no way to tell whether the last entry in the series represents a full five seconds or a shorter duration, as after five seconds the device shuts off as soon as the trigger is released. The Model M26 records only 585 trigger pulls before the dataport begins to overwrite existing data.

The Model X26 dataport, on the other hand, records *the time the discharge ended*, rather than the time it began, as well as the duration of the discharge. Subtracting the latter from the former gives the time the trigger was pulled – subject of course to inaccuracies in the setting of the internal clock. The Model X26 records battery strength and temperature, variables which affect the ECD’s effectiveness, as well as both Greenwich Mean Time and local time. Records are not overwritten until after 1,500 discharges.

TASER Scientific and Medical Research, and Training

As mentioned above, there was no peer-reviewed scientific testing or medical research performed before Jack Cover’s original, low-power ECDs were first sold to police agencies in 1976. Similarly TASER International introduced both the Model M26 and the Model X26 without any peer-reviewed scientific testing or medical study.

TASER International’s initial Model M26 “Medical Safety Information” was based on testing performed by “medical adviser” Robert Stratbucker, M.D., who had conducted some private experiments with ECDs during the 1980s. He placed electrodes from a makeshift electrical device on the chest of a single anesthetized pig, increasing the power per pulse until they observed the desired amount of muscle contractions in its legs, thus estab-

lishing the amplitude of what became the Model M26 waveform. The test device did not emulate the final product, however, because it pulsed for only 13 microseconds and at a rate of only two to two-and-a-half times per second. Nevertheless, TASER International deemed the test a medical success because the single anesthetized pig tested did not experience cardiac arrest. No further medical or scientific testing was done before the ECD was used, primarily with brief shocks, on human volunteers – without any medical monitoring or evaluations.²¹ TASER International then began to sell the device.

The first published peer-reviewed medical research was funded by TASER International and directed by Dr. Stratbucker, appearing in January 2005 – after more than four years of TASER ECD use by law enforcement and over a hundred reported ECD-associated deaths in the United States and Canada.²² The researchers built a custom device which allowed them to increase the strength of the current. Electrodes were attached to the chests of anesthetized pigs and five-second cycles administered. Power was increased until the induction of ventricular fibrillation (VF), the deadly cardiac arrhythmia associated with exposure to an external electrical source. The researchers concluded that an ECD “discharge that could induce VF required 15-42 times the charge of the standard [ECD] discharge,” depending on dart placement and the weight of the test animal.²³ The researchers did not test multiple applications, repeated discharges or prolonged cycles.

The next year, the publication of additional peer-reviewed, TASER-funded research contradicted those findings. Different researchers – this time including board-certified cardiac electro-physiologists – attached darts from an adjustable experimental device to anesthetized pigs and determined that the standard X26 current, when it passed through the heart, can “capture” the cardiac rhythm, a precursor to VF and cardiac arrest. “Avoidance of” such positions “would greatly reduce any concern for induction of ventricular arrhythmias,” the study concluded.²⁴

At about the same time, an independent peer-reviewed study using off-the-shelf Model M26s and Model X26s determined that discharges delivered to the chest of test animals resulted in cardiac capture, particularly with the Model X26’s longer duration waveform. Significantly, when a test animal was given epinephrine (adrenaline) to simulate the agitated state of an individual being shocked during a confrontation with the police, a single ECD administration produced VF and cardiac arrest.²⁵

These studies put TASER International on notice that its products, when fired into the chest, can disrupt the body’s natural regulation of the heart rhythm, and even cause ventricular fibrillation, cardiac arrest and death. Yet TASER International continued to train users to target “center body mass”

and represented that its product was proven to be cardiac safe. Warnings about the cardiac risks of chest shots were not issued until September 2009.

Also, by 2005 the link of multiple, repeated or prolonged ECD applications to a separate and distinct mechanism for cardiac arrest became undeniable. Metabolic acidosis, the build-up of lactic acid (lactate) in the bloodstream from excessive muscle contractions, is a known cause of cardiac arrest.²⁶ The relationship between repeated ECD-induced muscle contractions and severe metabolic acidosis was documented in a study sponsored by the United States Air Force,²⁷ and in a series of experiments conducted by independent researchers in Chicago.²⁸

In the authors' review of ECD deaths, acidosis-related deaths more often arise in association with stimulant-induced agitated behavior or mental illness. Such deaths are generally accompanied by five or more ECD cycles and aggressive prone restraints which impair breathing, and therefore the person's ability to recuperate.

The risks posed by the introduction of ECDs were documented in the most thorough etymological study to date. Independent researchers from the University of California, San Francisco, School of Medicine determined that in-custody deaths increased six-fold during the year following the first deployments of TASER International products in the surveyed California law-enforcement agencies.²⁹

TASER International finally updated its training and warning materials in September 2009 to educate its users about the cardiac risks of its devices. These warnings, currently contained in TASER X26 Training Version 17, include the following:

- “The risk of an ECD causing cardiac arrest in humans from ventricular fibrillation is sufficiently remote that making accurate estimates is very difficult. Current estimates of the risk are on the order of 1 in 100,000 applications.”
- “Experts have identified heart to dart distance as being a key determining factor in whether an ECD can affect the heart.”
- “The further an ECD dart is away from the heart, the lower the risk of affecting the heart.”
- “When possible, avoiding chest shots with ECDs reduces the risk of affecting the heart.”
- “Reasonable effort should be made to minimize the number of ECD exposures and resulting physiologic and metabolic effects.”
- “Law enforcement personnel are called upon to deal with individuals in crises [who] are often physiologically or metabolically

compromised and may be susceptible to arrest-related death
Any physiologic or metabolic change may cause or contribute to
death or serious injury.”

“Better late than never,” as the saying goes. These warnings of lethal consequences, which perhaps would have saved hundreds of lives had they accompanied the initial sales of the Model M26 and Model X26, should be brought to the attention of judges and juries in all ECD-related actions.

Section 1983 Cases In the United States Court of Appeals Arising from Alleged Abuse of ECDs

A. ECD Use in the Correctional Setting.

Michenfelder v. Sumner,³⁰ decided in 1988, is the first federal Court of Appeals decision addressing the use of “taser guns” in the correctional setting. An inmate sought a declaratory judgment that the prison’s policy of allowing its guards to shock inmates with ECDs constituted cruel and unusual punishment. While acknowledging the Supreme Court’s ruling in *Hutto v. Finney*³¹ that the use of electric shocks to punish inmates for misconduct was indeed “unusual,”³² the Ninth Circuit allowed that “the legitimate penological purpose of strip searches – to discover hidden weapons and contraband – justifies using force necessary to induce compliance by difficult inmates.”³³

The court noted, however, that “the appropriateness of the use must be determined by the facts and circumstances of the case.”³⁴ ECDs cannot be used “for the sole purpose of punishment or the infliction of pain.”³⁵ The court recognized that “the record regarding the risk of tasers is sketchy at best” and the “long-term effects of tasers are currently unknown,” noting that the trial court relied on “the manufacturer’s literature regarding testing on animals.”³⁶

The Eighth Circuit addressed the issue twice, coming to different conclusions based on the facts of each case. In 1993’s *Jasper v. Thalacker*³⁷ an inmate lunged at a guard. Three guards held him while a fourth shocked him with an ECD. The court affirmed the district court’s grant of summary judgment, holding that the “infliction of pain in the course of a prison security measure . . . does not amount to cruel and unusual punishment simply because it may appear in retrospect that the degree of force authorized or applied for security purposes was unreasonable, and hence unnecessary in the strict sense.”³⁸

In *Hickey v. Reeder*,³⁹ decided only six months later, the Court reached the opposite conclusion. An inmate was shocked by an ECD for refusing to sweep his cell. The court reversed summary judgment, observing that “The

law does not authorize the day-to-day policing of prisons by stun gun.” The court held that the “relationship between the need for force (zero) and the force used (a painful and incapacitating shock) was excessive. And the pain inflicted was substantial.” *Hickey* called “the defendants’ attempt to minimize the pain of being shot with a stun gun by equating it with the pain of being shocked by static electricity” “completely baseless,” adding that the “defendants’ own testimony reveals that a stun gun inflicts a painful and frightening blow, which temporarily paralyzes the large muscles of the body, rendering the victim helpless. This is exactly the sort of torment without marks with which the Supreme Court was concerned in *McMillian*, and which, if inflicted without legitimate reason, supports the Eighth Amendment’s objective component.”⁴⁰ The court rejected qualified immunity, stating: “We have not found, and hope never to find, a case upholding the use of this type of force on a nonviolent inmate to enforce a housekeeping order.”⁴¹

More recently, in *Lewis v. Downey*⁴² the Seventh Circuit reversed summary judgment for prison guards who shocked an inmate with a high-power TASER International ECD. Eleven days into a hunger strike, after the guards denied the inmate’s request for medical assistance, he held a bottle of ibuprofen tablets and announced he would “take care of my pain myself.” The inmate threw the bottle to the floor, the pills scattering around his cell, and then laid down on his bunk. Several minutes later, three guards entered his cell and ordered him off the bed. One guard shocked him in the leg, causing him to slide to the floor.⁴³

Lewis rejected the district court’s conclusion that the ECD use was *de minimis* force. “[P]ain, not injury, is the barometer by which we measure claims of excessive force,” the court noted, and “one need not have personally endured a taser jolt to know the pain that must accompany it.” The court explained that “a stun gun inflicts a painful and frightening blow [that] temporarily paralyzes the large muscles of the body, rendering the victim helpless” and “sends an electric pulse through the body of the victim causing immobilization, disorientation, loss of balance, and weakness.”⁴⁴

Accordingly, the Seventh Circuit denied the guards qualified immunity. “We hold that a reasonable officer would understand that employing a taser gun under the version of the facts that [the inmate] has described would violate the prisoner’s constitutional rights. [The inmate] claims that he was prone on his bed, weakened, and docile. He asserts that he was told to rise one time and was not warned that a taser would be used against him if he failed to comply. He states that he was scarcely given enough time to turn his head and did not otherwise respond to [the guard’s] order. If these truly are the facts, no reasonable officer would think that he would be justified in shooting [the inmate] with a taser gun.”⁴⁵

The authors believe that ECD use in the correctional setting is often problematic, at best.⁴⁶ Generally, the guards have a variety of more effective and less dangerous tactics available for the control of inmates. The possibilities for abuse are extremely high. Accordingly, we encourage plaintiffs' lawyers to accept such cases when possible and litigate them fully.

B. ECD Use as Excessive Force Outside Corrections

As one might imagine, the majority of ECD uses occur outside the corrections environment. Ironically, courts sometimes seem more willing to hold ECD use on inmates actionable under the Eighth Amendment than when members of the public claim damages under the far more protective "objective reasonableness" standard for Fourth-Amendment claims. The cases which deny liability as a matter of law, in the authors' opinion, unreasonably minimize the medical risks and pain arising from ECD use. Plaintiffs' lawyers must make a good record in this regard.

The Supreme Court has yet to review an ECD excessive-force case.⁴⁷ The first federal Court of Appeals decision to address an alleged inappropriate use of the current generation of TASER International ECDs⁴⁸ is the Eleventh Circuit's unfortunate 2004 decision in *Draper v. Reynolds*.⁴⁹

The incident started with the defendant deputy pulling over plaintiff's truck because "its tag light was not appropriately illuminated under Georgia law." After the two men exchanged some words – the driver was clearly annoyed at being stopped – the deputy directed him to the rear of the truck, and a video camera mounted in the patrol car recorded the rest of the incident. The driver insisted that he had done nothing wrong, gestured animatedly, paced and spoke loudly, but was not violent. He refused to provide papers to the deputy, at one point stating, "How 'bout you just go ahead and take me to fucking jail, then, man, you know, because I'm not going to kiss your damn ass because you're a police officer." As a back-up deputy arrived, the first deputy shot his TASER Model M26 into the driver's chest, cycling it once, causing him to fall to the ground.⁵⁰

The court affirmed the district court's grant of the deputy's motion for summary judgment, holding that "[i]n the circumstances of this case, [the deputy's] use of the taser gun to effectuate the arrest . . . was reasonably proportionate to the difficult, tense and uncertain situation that [the deputy] faced in this traffic stop, and did not constitute excessive force." The court added: "Although being struck by a taser gun is an unpleasant experience, the amount of force [the deputy] used – a single use of the taser gun causing a one-time shocking – was reasonably proportionate to the need for force and did not inflict any serious injury."⁵¹

In the authors' opinion *Draper's* analysis is deeply flawed. The court sanctions ECD use on a vocal and indignant, but non-violent, person without addressing any of the significant medical risks, including a dart to the eye or groin, a fall related injury, or a cardiac event. Should not these risks of harm figure into the force calculus even if they did not occur?⁵² Should liability be different assuming the facts were the same, but the driver did suffer a serious injury? Moreover, there is no discussion of the horrible pain inflicted by ECDs, or of the many less intrusive alternatives available to the deputy,⁵³ especially once the back-up deputy arrived.⁵⁴

Draper's impact has been somewhat watered down by the more recent Eleventh Circuit decision affirming the denial of qualified immunity in *Oliver v. Fiorino*,⁵⁵ where the person died as a result of ECD discharges. The court distinguished *Draper* on the basis that the decedent was shocked repeatedly. In the middle of a hot Florida afternoon, an officer observed the decedent flagging her down. He claimed "they're shooting at me" several times, and pointed across the street. A second officer arrived. The two discussed whether the man was mentally unstable and subject to involuntary commitment. After the man provided his identification, the situation deteriorated. There was a brief tussle, and without warning, an officer shocked the decedent with her ECD.⁵⁶

The man fell on scorching hot asphalt, screaming in pain that it was "too hot." He attempted to get up, but never threatened or assaulted an officer. A witness observed that after the decedent fell down, he could not roll over. When he tried to sit up, he flopped around like a "wet cloth" because he had no control over his body. After three or four discharges, the officer loaded a second cartridge into her ECD and shot again, leaving the decedent immobilized, clenched up and lying on his back. He subsequently died, according to plaintiffs' medical expert, as a result of "ventricular dysrhythmia" from "being struck by a Taser."⁵⁷

The Court held: "Quite simply, though the initial use of force (a single Taser shock) may have been justified, the repeated tasing of [the decedent] into and beyond his complete physical capitulation was grossly disproportionate to any threat posed and unreasonable under the circumstances."⁵⁸

Although "neither the United States Supreme Court nor the Florida Supreme Court has even addressed the use of Tasers in an excessive force inquiry, and this Court has only squarely done so in one published decision," the denial of qualified immunity was affirmed. "Tasing the plaintiff at least eight and as many as eleven or twelve times over a two-minute span without attempting to arrest or otherwise subdue the plaintiff – including tasing [him] while he was writhing in pain on the hot pavement and after he had gone limp and immobilized – was so plainly unnecessary and dispro-

portionate that no reasonable officer could have thought that this amount of force was legal under the circumstances.”⁵⁹

The Eleventh Circuit in *Mann v. Taser International, Inc.*,⁶⁰ however, found that the use of a TASER, apparently in drive-stun mode, for three cycles on a violent and agitated woman under the influence of methamphetamine did not violate her Fourth-Amendment right to be secure from excessive force.⁶¹ The court seemed influenced by the facts that the woman was later examined by medical personnel and did not appear to be injured, but became unresponsive about 25 minutes later. While in the emergency room 45 minutes after that – with her body temperature in excess of 107 degrees – the woman went into cardiac arrest and never recovered.⁶²

Results in other circuits have been similarly mixed. In *Cook v. City of Bella Villa*,⁶³ a panel of the Eighth Circuit, over a vigorous dissent, upheld summary judgment against a motorist shocked during a contentious traffic stop, noting that he “sustained only minor scrapes and two taser puncture marks which did not require medical treatment,”⁶⁴ distinguishing *Hickey v. Reeder*⁶⁵ on the basis that the officer “was not in a secure prison facility, but was alone, on a state highway, at midnight.”⁶⁶ The majority seems to have been influenced by the district court’s noting “the lack of any significant injury . . . and no permanent physical injury,” in light of there being “an open question in this circuit whether an excessive force claim requires some minimum level of injury.”⁶⁷

On the other hand, in *Brown v. City of Golden Valley*⁶⁸ the Eighth Circuit ruled that the use of an ECD on a non-violent individual can amount to excessive force. The plaintiff’s husband was, she believed, being roughed up during a late-night traffic stop. She called 911 for help. She refused the officer’s orders to terminate the call, so he drive-stunned her upper right arm while grabbing her phone.⁶⁹ Denying qualified immunity, the court ruled that “the law was sufficiently clear to inform a reasonable officer that it was unlawful to Taser a nonviolent, suspected misdemeanor who was not fleeing or resisting arrest, who posed little to no threat to anyone’s safety, and whose only noncompliance with the officer’s commands was to disobey two orders to end her phone call to a 911 operator.” *Id.* at 499.

Similarly, in *Parker v. Gerrish*⁷⁰ the First Circuit upheld a verdict for excessive force for \$111,000 based on an improper use of an ECD during a drunk driving arrest. The court applied the familiar *Graham v. Connor* factors, that although “driving while intoxicated is a serious offense, . . . since [plaintiff] complied with [the officer’s] requests and exited the vehicle voluntarily, he no longer posed a threat of driving while intoxicated.” The plaintiff was neither resisting arrest nor attempting to flee, and did not pose an immediate threat to the officer’s safety. Although the plaintiff was per-

haps obnoxious, “a reasonable officer would not discharge his Taser simply because of insolence.”⁷¹

Parker took into account the potential risks posed by ECDs. “When considering whether it was reasonable for [the officer] to fire his Taser in light of these facts, the jury could turn to testimony about the strong incapacitating effect of the Taser and the fact that the [police department] considered the Taser just below deadly force in its ‘continuum’ of force.”⁷²

The Fourth Circuit upheld a denial of qualified immunity in *Orem v. Rephann*.⁷³ The plaintiff had been arrested for assaulting a deputy after being served with a restraining order. She was cuffed, hobbled, and put in a police car, with the hobble cord secured to the door. On the way to jail, she loosened the hobble. While the hobble was being re-secured, a deputy drive-stunned her twice, once underneath her breast and once on her inner thigh, the latter leaving a scar.⁷⁴

The court analyzed the claim of plaintiff – a pre-trial detainee – under the Fourteenth, rather than the Fourth, Amendment,⁷⁵ requiring her to “show that [the deputy] ‘inflicted unnecessary and wanton pain and suffering.’”⁷⁶ Holding that plaintiff met her burden, the court noted that the deputy did not follow his department’s policy, which requires use of open hand measures before application of an ECD. The court emphasized that the locations of the drive-stuns would support an inference that the “application of force in these areas was done for the very purpose of harming and embarrassing [plaintiff] – motives that are relevant factors . . . to determining whether the use of force was excessive under the Fourteenth Amendment.” *Id.* at 447. Finally, the court rejected the claim that the injury was *de minimus*. “A stun gun inflicts a painful and frightening blow, which temporarily paralyzes the large muscles of the body, rendering the victim helpless. This is exactly the sort of torment without marks . . . which, if inflicted without legitimate reason, supports the Eighth Amendment’s objective component.”⁷⁷

The day before this article was finalized for publication, the Seventh Circuit decided a wrongful death case, *Cyrus v. Town of Mukwonago*,⁷⁸ reversing summary judgment in favor of an officer who repeatedly shocked a mentally ill man with a Model X26. The parents of the 29-year-old decedent reported him missing. The defendant officer found him wandering about in his bathrobe. He knew the decedent was “that crazy boy” who had been reported missing – and the officer had previous experiences dealing with the decedent during his psychotic episodes.

The officer fired darts into the decedent’s back, causing him to fall to the ground. The officer admitted cycling the device a second time, and then drive stunning the decedent four times during the handcuffing process. The dataport recorded 12 trigger pulls, however. The decedent stopped breath-

ing and was pronounced dead at the hospital. The medical examiner attributed his death to exertion, panic, the prone position, pressure to the back and neck during handcuffing, mental illness, “the pain and panic caused by the Taser” and “the electrical shock from the Taser.” She testified that “while she believed all eight factors contributed to [the] death, she could not determine whether any one factor was more significant than the others.”

Applying the *Graham* excessive-force analysis, the court held there were triable issues because the crime at issue was, at most, a misdemeanor, and the decedent “was not exhibiting violent behavior.” The court rejected the officer’s contention that if his “first use of the Taser was reasonable, all other uses were necessarily appropriate,” citing *Oliver v. Fiorino* for the proposition that “the repeated tasing . . . was grossly disproportionate to any threat posed.” Most interesting, however, is the court’s discussion of causation, which it held can be proved without expert testimony “if all the primary facts can be accurately and intelligibly described to the jury, and if they, as men of common understanding, are as capable of comprehending the primary facts and of drawing correct conclusions from them as are witnesses possessed of special or peculiar training, experience or observation.”⁷⁹

The “primary facts” here include the close temporal proximity between the allegedly excessive force and [the] death: [the decedent] stopped breathing just a minute or two after being repeatedly shocked with the Taser, and this tight chronology bears on causation. Other evidence suggests that potential alternative causes of death may be ruled out.

Finally, the recent development of ECD law in the Ninth Circuit has been peculiar, to say the least. On December 28, 2009, a panel comprised of three judges widely regarded as among the court’s most liberal issued an excellent opinion – now withdrawn and replaced – in *Bryan v. McPherson*.⁸⁰ The officer shot a motorist who was “agitated, yelling gibberish and hitting his thighs, clad only in his boxer shorts and tennis shoes” with probes, “causing him to fall face first, fracturing four teeth and suffering facial contusions.”

Before addressing the *Graham v. Connor* factors, *Bryan* reviewed the “quantum of force” involved.⁸¹

The X26 uses compressed nitrogen to propel a pair of “probes” – aluminum darts tipped with stainless steel barbs connected to the X26 by insulated wires – toward the target at a rate of over 160 feet per second. Upon striking a person the X26 delivers a 1200 volt, low ampere [*sic*] electrical charge through the wires and probes and into his muscles. The impact is as powerful as it is swift. The electrical impulse instantly overrides the victim’s central nervous system, paralyzing the muscles throughout the body, rendering the target limp

[sic] and helpless. The tasered person also experiences an excruciating pain that radiates throughout the body.⁸²

Bryan also took into consideration the impact of the ECD on the plaintiff, as well as the injury caused.

[The plaintiff] vividly testified to experiencing both paralysis and intense pain throughout his body when he was tasered. . . . As a result of the taser, [the plaintiff] lost muscular control and fell, uncontrolled, face first into the pavement. This fall shattered four of his front teeth and caused facial abrasions and swelling. Additionally, a barbed probe lodged in his flesh, requiring hospitalization so that a doctor could remove the probe with a scalpel. A reasonable police officer with . . . training on the X26 would have foreseen these physical injuries when confronting a shirtless individual standing on asphalt.

. . . .

. . . . We similarly reject any contention that, because the taser results only in the “temporary” infliction of pain, it constitutes a non-intrusive level of force. The pain is intense, is felt throughout the body, and is administered by effectively commandeering the victim’s muscles and nerves. Beyond the experience of pain, tasers result in “immobilization, disorientation, loss of balance, and weakness,” even after the electrical current has ended. Moreover, tasering a person may result in serious injuries when intense pain and loss of muscle control cause a sudden and uncontrolled fall.⁸³

Because the Model X26 “intrudes upon the victim’s physiological functions and physical integrity in a way that other non-lethal uses of force do not,” the court held that “the X26 and similar devices constitute an intermediate, significant level of force that must be justified by ‘a strong government interest [that] *compels* the employment of such force.’”⁸⁴

The court then proceeded through the various *Graham v. Connor* factors, resolving them against the officer’s decision to use his ECD, and held that no “reasonable officer confronting a situation where the need for force is at its lowest – where the target is a nonviolent, stationary misdemeanor twenty feet away – would have concluded that deploying intermediate force without warning was justified.” The court therefore denied qualified immunity.⁸⁵

Two weeks after the *Bryan* opinion was filed, however, a Ninth Circuit panel representative of the more conservative judges issued a contrary decision – now withdrawn and pending en banc review – in *Mattos v. Agarano*.⁸⁶ One of the officers responding to a domestic disturbance call shocked the

wife with an ECD – one five-second cycle. The court did not say whether with probes or drive stun. The wife’s testimony that she “felt a pinch on the back of her right hand and then felt an incredible burning and painful feeling locking all of [her] joints,” causing her to scream and fall to the floor, sounds like a probe shot.⁸⁷ Yet the court refers to the defendant’s expert opining about the effects of “a Taser in the drive stun mode.”⁸⁸ Holding that no constitutional violation occurred, the court of appeals reversed the district court’s denial of qualified immunity, distinguishing the Eleventh Circuit’s opinion in *Oliver* as well as the Ninth Circuit’s in *Bryan* with the conclusion that “this is simply not a case in which the officers’ conduct was so ‘patently violative’ of . . . constitutional rights ‘that reasonable officials would know without guidance from the courts that the action was unconstitutional.’ The officers used the Taser only once in a domestic violence situation that could have quickly become much more dangerous to everyone involved.”⁸⁹

The *Mattos* panel, by its own admission, lacked a full factual record about ECDs, stating “The problem here is that, even with the benefit of some briefing and argument on the subject, it is difficult for us to opine with confidence regarding either the quantum of force involved in a deployment of a Taser gun or the type of force inflicted.”⁹⁰ *Mattos* underscores the need for plaintiffs’ lawyers to establish through expert testimony and scientific studies the dangers posed by ECDs.

Mattos was followed in March 2010 by an even more disturbing Ninth Circuit decision, *Brooks v. City of Seattle*, an opinion also withdrawn and pending en banc review.⁹¹ The defendant officer stopped the plaintiff for allegedly speeding in a school zone, and she refused to sign the citation. After a second officer and supervisor arrived, they told the plaintiff she was under arrest. She refused to leave her car, remaining in it with the ignition running and her door shut. An officer displayed his ECD, advising that it would hurt “extremely bad” if applied. When she stayed in the car, another officer opened the door, turned off the ignition and dropped the keys on the floorboard.⁹² While he held her arm, the first officer drive-stunned plaintiff’s thigh, causing “tremendous pain.” She was then shocked two more times – on her shoulder and neck.⁹³

The two-judge panel majority emphasized that the officer used his ECD in “touch” or “drive-stun” mode which his department deemed a “Level 1” tactic, akin to “pain compliance applied through the use of distraction, counter-joint holds, hair control holds,” and pepper spray for overcoming passive as well as active resistance. By contrast, the court observed, using an ECD in “probe” or “dart mode” can cause neuro-muscular incapacitation which the department considered a “Level 2” tactic to be used

only against aggressive resistance. Calling an “overestimation” the district court’s assessment that the pain inflicted by a drive stun was “severe,” the court noted that the district court – like the *Mattos* panel – failed to differentiate between the modes of ECD use.⁹⁴

The force at issue here is markedly different than the force in *Bryan*, and, unlike in *Mattos*, we have the benefit of a fully-developed record on the use of a Taser in drive-stun mode. The use of the Taser in drive-stun mode is painful, certainly, but also temporary and localized, without incapacitating muscle contractions or significant lasting injury. Brooks said she sustained burn marks and now has scars on her upper arm and thigh, which is certainly not insignificant, but these injuries are far less serious than those inflicted on Bryan by the X26 Taser-excruciating pain throughout his entire body, temporary paralysis, facial abrasions, shattered teeth, and a sharp barb lodged into his flesh. Thus, the use of the Taser in drive-stun mode – as opposed to dart mode – seems unlike the force used in *Bryan* or uses of force which this court has previously considered severe.⁹⁵

In a sharp dissent, Judge Martha Berzon wrote:

I fail utterly to comprehend how my colleagues are able to conclude that it was objectively reasonable to use *any* force against [plaintiff], let alone three activations of a Taser, in response to such a trivial offense. . . . As “the situation here was far from that of a lone police officer suddenly confronted by a dangerous armed felon threatening immediate violence,” we should be holding the force used constitutionally excessive. But the majority does the opposite: it sanctions the use of painful force causing permanent scars against a citizen who threatened no harm.⁹⁶

Finding support in *Brown v. City of Golden Valley* that a reasonable jury could determine that a single application of an ECD in drive-stun mode to the arm of an individual suspected of committing a “minor, non-violent crime[]” and who posed no “realistic threat to [the officer’s] safety” constituted excessive force,⁹⁷ the dissent concluded that “there is no question whatever that a reasonable jury could find that the repeated use of a Taser on a woman driving her son to school whose only crime was refusing to sign a notice of infraction was objectively unreasonable.”

In June 2010, the *Bryan* panel withdrew its original opinion and filed a new one.⁹⁸ The body of the opinion reads the same, except that the officer was granted qualified immunity, the Court asserting that as of the date of the incident,

July 24, 2005, there was no Supreme Court decision or decision of our court addressing whether the use of a taser, such as the Taser X26, in dart mode constituted an intermediate level of force. Indeed, before that date, the only statement we had made regarding tasers in a published opinion was that they were among the “variety of non-lethal ‘pain compliance’ weapons used by police forces.” And, as the Eighth Circuit has noted, “[t]he Taser is a relatively new implement of force, and case law related to the Taser is developing.” Two other panels have recently, in cases involving different circumstances, concluded that the law regarding tasers is not sufficiently clearly established to warrant denying officers qualified immunity. Based on these recent statements regarding the use of tasers, and the dearth of prior authority, we must conclude that a reasonable officer in [the officer’s] position could have made a reasonable mistake of law regarding the constitutionality of the taser use in the circumstances [the officer] confronted in July 2005.⁹⁹

As of the date of this writing en banc hearings are pending in *Mattos* and *Brooks*, and an en banc petition is pending in *Bryan*. Hopefully, we will get some positive rulings soon.

Conclusion

It seems that not a week goes by without a major ECD related incident appearing in the news. Videos of a speaker challenging a politician, a student studying in a university library and even a 64-year-old man sitting on his sofa, suffering the effects of ECD shocks have, in the current vernacular, “gone viral.”

The authors urge plaintiffs’ lawyers to accept meritorious ECD-related cases and prosecute them vigorously. Only by forcing ECD manufacturers and users to accept responsibility for their wrongful conduct can these abuses be curtailed.

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1. An ECD is frequently referred to as a “taser,” but that terminology should be avoided as “TASER” is a registered trademark owned by TASER International. “Stun gun” is an unfortunate expression because it fails to describe accurately the effect of an ECD. The authors use ECD, but the literature contains many other expressions and acronyms, including conducted electrical device (CED), conducted electrical weapon (CEW), electrical control weapon (ECW) and neuro-muscular incapacitator (NMI).
 2. “Less than Lethal”? The Use of Stun Weapons in US Law Enforcement, Amnesty International (2008).
 3. See, e.g., Brooklyn Man Dies After Police Use a Taser Gun, *The New York Times*, Sept. 24, 2008 (fall from building); C.M. Sloane, T.C. Chan, G.M. Vilke,

- Thoracic Spine Compression Fracture after TASER Activation*, J Emerg Med. 2008;34(3):283-5 (orthopaedic injury).
4. Neither the American Medical Association nor the American Psychological Association recognizes excited delirium as a medical or mental-health condition. No such diagnosis is listed in *The Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) published by the American Psychiatric Association.
 5. 490 U.S. 386 (1989).
 6. 503 U.S. 1 (1002).
 7. Contrary to TASER's claim, see "Company Trivia," located at <http://www.taser.com/company/Pages/trivia.aspx>, TASER is *not* an acronym for "Thomas A. Swift's Electric Rifle," as the character had no middle initial.
 8. *Russo v. City of Cincinnati*, 953 F.2d 1036 (6th Cir.1992), provides a particularly tragic example of the original ECD's lack of stopping power, leading to the shooting of an agitated and suicidal individual holding a knife in each hand.
 9. Kornblum, Ronald N., M.D., and Reddy, Sara K., M.D., *Effects of Taser in Fatalities Involving Police Confrontation*, Journal of Forensic Sciences, Vol. 36, No. 2, pp. 434-48 (March 1991) (reporting sixteen cases). In *McCranie v. State*, 172 Ga. App. 188, 322 S.E.2d 360, 361 n. 1 (1984), after noting that a prison inmate was subjected to a single ECD discharge, the court explained: "Apparently, at the time of the incident at issue, taser guns were not considered by prison officials to constitute deadly force. They have, however, since been classified as such at the [Georgia State] prison." A few years later in *People v. Sullivan*, 116 A.D.2d 101, 500 N.Y.S.2d 644, 647 (1986), *order rev'd on other grounds*, 68 N.Y.2d 495, 510 N.Y.S.2d 518, 503 N.E.2d 74 (1986), the court, discussing ECDs as among the alternatives for controlling irrational persons, noted that "although the device was introduced in 1971 [*sic*], there has been great concern about the impact on people with heart problems and its use has been outlawed in this State."
 10. See *Koon v. United States*, 518 U.S. 81 (1996) (affirming in part and reversing in part criminal sentence for civil rights violation).
 11. Presently, TASER International's ECDs are within the jurisdiction of the Consumer Product Safety Commission. To the authors' knowledge, the CPSC has conducted no testing of the products, nor offered opinions regarding their safety.
 12. ADVANCED TASER M26: Less-Lethal EMD Weapon Medical Safety Information, TASER International (2000).
 13. Braidwood Commission on Conducted Energy Weapon Use, *Restoring Public Confidence: Restricting the Use of Conducted Energy Weapons in British Columbia*, at 54-56 (June 2009). The testimony and reports of the Braidwood Commission, established to investigate the role of ECDs in the October 2007 death of Robert Dziekanski in the Vancouver International Airport, caught on video, are an invaluable resource for ECD technical issues. They can be accessed at <http://www.braidwoodinquiry.ca>.
 14. There have been at least six officers in the United States and Canada who claimed they shot someone accidentally after confusing their firearm with an ECD, most famously Bay Area Rapid Transit (BART) officer Johannes Mehserle, caught on video shooting and killing Oscar Grant, III, in Oakland, California on January 1, 2009. Although Mehserle used a Model X26, most cases involved the Model M26, the shape and weight of which much more closely resembles those of a pistol. *Mehserle justified in using Taser; expert says*, San Francisco Chronicle,

- A-1, June 29, 2010; *see also* *Toreres v. City of Madera*, 524 F.3d 1053, 1055 (9th Cir. 2008) (Model M26); *Henry v. Purnell*, 501 F.3d 374 (2007) (model not identified). Consideration should be given in such cases to the possibility that the firearm was drawn deliberately, and the ECD story subsequently fabricated.
15. Braidwood, *supra*, note 13.
 16. TASER International recently introduced the Model X3, which can fire three cartridges rather than just one. The company also sells the XREP, an ECD built into a shotgun round, and various other products. Cases since 2000, however, involve either the Model M26 or Model X26.
 17. See, e.g., Taser Shares Fall Sharply Despite Gain In Earnings, *New York Times*, February 9, 2005.
 18. Braidwood, *supra*, note 13, at 50.
 19. There are several examples of individuals being shot by darts in the chest and not collapsing because of the lack of muscles and nerves. Perhaps the most graphic is found in *Davenport v. Causey*, 521 F.3d 544, 547-50 (6th Cir. 2008), where the person not only remain standing, but also was able to punch the officer before he was shot with a firearm by another officer.
 20. TASER International lists the amperage of its ECDs as being the range of two to three milliamps, using an average current per second – over 99.8 percent of which consists of dead time between pulses – rather than the relevant measure of peak amperage per pulse. Braidwood, *supra*, note 13.
 21. Simultaneous with the Model M26's release, Dr. Stratbucker tested them on anesthetized dogs. Although the "Medical Safety Information" states that the experiments proved the product to be safe, the study was not peer-reviewed and the underlying data never published. Dr. Stratbucker testified at deposition that although the dogs generally tolerated the Model M26 shocks to their chest, when electrodes were inserted directly into the heart they induced cardiac arrest, a finding TASER International never reported.
 22. Amnesty report slams Taser, cites 103 related deaths, Associated Press, April 1, 2005.
 23. W.C. McDaniel, R.A. Stratbucker, M. Nerheim and J.E. Brewer, *Cardiac Safety of Neuromuscular Incapacitating Defensive Devices*, Pacing and Clinical Electrophysiology, Vol. 28 pages S284-S287(January 2005).
 24. D. Lakkireddy, D. Wallick, K. Ryschon, M.K. Chung, J. Butany, D. Martin, W. Saliba, W. Kowalewski, A. Natale, P.J. Tchou, *Effects of Cocaine Intoxication on the Threshold for Stun Gun Induction of Ventricular Fibrillation*, J Am Coll Cardiol, 2006; 48:805-811.
 25. Kumaraswamy Nanthakumar, MD, Ian M. Billingsley, MD, Stephane Masse, MASC, Paul Dorian, MD, Douglas Cameron, MD, Vijay S. Chauhan, MD, Eugene Downar, MD, Elias Sevapsidis, DEC, *Cardiac Electrophysiological Consequences of Neuromuscular Incapacitating Device Discharges*, J Am Coll Cardiol, 2006; 48:798-804.
 26. Paul H. Gerst, William H. Fleming and James R. Malm, *Increased Susceptibility of the Heart to Ventricular Fibrillation During Metabolic Acidosis*, Circ. Res. 1966;19:63-70; John L. Hick, M.D., Stephen W. Smith, M.D., Michael T. Lynch, M.D., *Metabolic Acidosis in Restraint-Associated Cardiac Arrest: A Case Series*, Acad Emerg Med. 1999 Mar;6(3):239-43 (linking metabolic acidosis to cardiac arrests suffered by agitated people during police restraint procedures).

27. Jauchem JR, Sherry CJ, Fines DA, Cook MC, Acidosis, lactate, electrolytes, muscle enzymes, and other factors in the blood of *Sus scrofa* following repeated TASER exposures, *Forensic Sci Int.* 161:20-30 (2006).
28. Andrew J. Dennis, DO, Daniel J. Valentino, MD, Robert J. Walter, PhD, Kimberly K. Nagy, MD, Jerry Winners, BS, Faran Bokhari, MD, Dorion E. Wiley, MD, Kimberly T. Joseph, MD, and Roxanne R. Roberts, MD, *Acute Effects of TASER X26 Discharges in a Swine Model*, *Jour. Trauma*, Vol. 63, No. 3 page 581 (2007); Robert J. Walter, PhD, Andrew J. Dennis, DO, Daniel J. Valentino, MD, Bosko Margeta, MD, Kimberly K. Nagy, MD, Faran Bokhari, MD, Dorion E. Wiley, MD, Kimberly T. Joseph, MD, Roxanne R. Roberts, MD, *TASER X26 Discharges in Swine Produce Potentially Fatal Ventricular Arrhythmias*, *Acad. Emer. Med.* Vol. 15, No. 1 (2008); Daniel J. Valentino, MD, Robert J. Walter, PhD, Andrew J. Dennis, DO, Bosko Margeta, MD, Frederic Starr, MD, Kimberly K. Nagy, MD, Faran Bokhari, MD, Dorion E. Wiley, MD, Kimberly T. Joseph, MD, and Roxanne R. Roberts, MD, *Taser X26 Discharges in Swine: Ventricular Rhythm Capture is Dependent on Discharge Vector*, *Jour. Trauma*, 2008 Dec;65(6):1478-85.
29. Byron K. Lee, MD, Eric Vittinghoff, PhD, Dean Whiteman, BS, Minna Park, Linda L. Lau, BS, and Zian H. Tseng, MD, *Relation of Taser (Electrical Stun Gun) Deployment to Increase in In-Custody Sudden Deaths*, *Am J. Cardiol.* Volume 103, Issue 6, Pages 877-880, 15 March 2009.
30. 860 F.2d 328, 335-36 (9th Cir. 1988)
31. 437 U.S. 678, 682 (1978)
32. In *Hutto*, guards in an Arkansas prison used the “Tucker telephone,” a hand-cranked device, to administer electrical shocks to various sensitive parts of an inmate’s body.
33. 860 F.2d at 336.
34. *Id.* (citing *Soto v. Dickey*, 744 F.2d 1260, 1270 (7th Cir. 1984)).
35. *Id.* (citing *Spain v. Procunier*; 600 F.2d 189, 195 (9th Cir. 1979)).
36. *Id.*; accord *Caldwell v. Moore*, 968 F.2d 595 (6th Cir. 1992).
37. 999 F.2d 353 (8th Cir. 1993).
38. *Id.* at 354 (citing *Whitley*, 475 U.S. at 319 (1986)).
39. 12 F.3d 754 (8th Cir. 1993).
40. *Id.* at 757-59 (citing *Hudson v. McMillian*, 503 U.S. 1 (1002)).
41. *Id.* at 759
42. 581 F.3d 467 (7th Cir. 2009), *cert. denied*, 130 S. Ct. 1936, 176 L. Ed. 2d 366 (2010).
43. *Id.* at 470-71.
44. *Id.* (citing *Hudson v. McMillian*, 503 U.S. at 9 (1992), *Hickey v. Reeder*; 12 F.3d at 757 (8th Cir. 1993), and *Matta-Ballesteros v. Henman*, 896 F.2d 255, 256 n. 2 (7th Cir. 1990)).
45. *Id.* at 479.
46. *Hawkins v. Comparet-Cassani*, 251 F.3d 1230 (9th Cir. 2001), involved a different electrical control device, a “Remote Electronically Activated Control Technology” (REACT) belt designed to be worn by potentially disruptive prisoners during court appearances. “When activated, the belt delivers a 50,000-volt, three

to four milliamperes shock lasting eight seconds. Once the belt is activated, the electro-shock cannot be shortened. It causes incapacitation in the first few seconds and severe pain during the entire period. Activation may lead to involuntary defecation and urination; immobilization may cause the victim to fall to the ground. Other courts have found the shock can ‘cause muscular weakness for approximately 30-45 minutes,’ *see, e. g., People v. Melanson*, 937 P.2d 826, 835 (Colo. 1996), and it is suspected of having triggered a fatal cardiac arrhythmia. See Shelley Dahlberg, Comment, *The React Security Belt: Stunning Prisoners and Human Rights Groups into Questioning Whether Its Use Is Permissible Under the U.S. and Texas Constitutions*, 30 St. Mary’s L.J. 239, 251-52 (1998). The ‘belt’s metal prongs may leave welts on the victim’s skins’ that take months to heal. *Id.* at 249.” 251 F.3d at 1234.

The judge ordered the bailiff to shock the pro-se plaintiff because he would not stop argument during his sentencing. The Ninth Circuit upheld an injunction under the Sixth Amendment against using the REACT belt in courtrooms other than to prevent violence or escape. *Id.* at 1242.

47. The only mention of an ECD by the Supreme Court is in *Koon v. United States*, 518 U.S. 81, 86 (1996), affirming in part and reversing in part the criminal sentence of the Los Angeles Police Department sergeant who supervised the infamous Rodney King beating.
48. There appear to be only a few appellate decisions involving first-generation ECDs. In one, *Hinton v. City of Elwood*, 997 F.2d 774 (10th Cir. 1993), the Tenth Circuit upheld summary judgment in favor of officers who, among other uses of force, shocked a man repeatedly with a “stun gun,” holding the force was “clearly commensurate with the level of resistance offered.” *Id.* at 781. Apparently, the court was influenced by the testimony of *plaintiff’s* expert “that wrestling a defendant [*sic*] to the ground and using a stun gun are not inappropriate police practices when a suspect is resisting arrest,” and “that use of a stun gun is one of the least serious methods of accomplishing” an arrest. *Id.* Plaintiffs’ lawyers should select experts with a better understanding of constitutional police practices and ECD effects.
49. 369 F.3d 1270 (11th Cir. 2004), *cert. denied*, 543 U.S. 988 (2004).
50. *Id.* at 1272-74.
51. *Id.* at 1278.
52. *See, e.g., Deorle v. Rutherford*, 272 F.3d 1272, 1279-80 (9th Cir. 2001), *cert. denied*, 536 U.S. 958 (2002) (evaluating potential medical risks of non-penetrating “beanbag” shotgun round).
53. *See, e.g., Smith v. City of Hemet*, 394 F.3d 689, 701 (9th Cir.), *cert. denied* 545 U.S. 1128 (2005) (en banc) (availability of alternatives to siccing dog to arrest agitated man a factor to consider in excessive force action).
54. In a similarly unfortunate decision, the Eleventh Circuit followed *Draper in Zivoinovich v. Barner*, 525 F.3d 1059 (11th Cir. 2008). Deputies were called to a disturbance, and broke the nose of a young man while subduing him. As he was being led to the police car in handcuffs, they shocked him with two ECDs, claiming that he was deliberately trying to spray them with blood. The court wrote: “We have previously held that in a ‘difficult, tense and uncertain situation’ the use of a taser gun to subdue a suspect who has repeatedly ignored police instruc-

tions and continues to act belligerently toward police is not excessive force. This was such a situation, and we conclude that [the deputy's] use of his taser gun was reasonably proportionate to the need for force." *Id.* at 1073 (quoting *Draper*, 369 F.3d at 1073).

55. 586 F.3d 898 (11th Cir. 2009)
56. *Id.* at 902.
57. *Id.* at 902-03.
58. *Id.* at 907.
59. 586 F. 3d at 908.
60. 588 F.3d 1291 (11th Cir. 2009).
61. *Id.* at 1306.
62. *Id.* at 1300-01. Summary judgment was affirmed on the products liability claim against TASER International because the plaintiffs failed to establish a causal link between the ECD use and the cardiac arrest in the emergency room more than an hour-and-half later. *Id.* at 1304 ("Plaintiffs' own medical expert testified that while it would be naive of him to say that use of the Taser, 'didn't contribute in some degree' to [the] death, he could not, to a reasonable degree of medical certainty, declare that [the decedent] would have survived that day but for use of the Taser.")
63. 582 F.3d 840 (8th Cir. 2009).
64. *Id.* at 850.
65. *Supra*, note 39.
66. *Id.*
67. *Id.* (quoting *Hunter v. Namanny*, 219 F.3d 825, 831 (8th Cir. 2000). The Eighth Circuit had before it in *Lash v. Hollis*, 525 F.3d 636 (8th Cir.), *cert. denied*, 129 S. Ct. 511, 172 L. Ed. 2d 375 (2008), a jury verdict against an officer who drive-stunned a man six times in the back while pinned to the floor. The issues raised, however, related only to the extent of damages and attorneys' fees.
68. 574 F.3d 491 (8th Cir. 2009)
69. *Id.* at 494.
70. 547 F.3d 1 (1st Cir. 2008), *abrogated on other grounds by Maldonado v. Fontanes*, 568 F.3d 263 (1st Cir. 2009).
71. *Id.* at 9.
72. *Id.* at 10.
73. 523 F.3d 442 (4th Cir. 2008).
74. *Id.* at 444-45.
75. *Id.* at 446 (citing *Young v. Prince George's County, Maryland*, 355 F.3d 751, 758 (4th Cir. 2004)). Other circuits would have applied a Fourth-Amendment standard. *See, e.g., Pierce v. Multnomah County*, 76 F.3d 1032, 1042-43 (9th Cir.), *cert. denied* 519 U.S. 1006 (1996).
76. *Id.* (quoting *Taylor v. McDuffie*, 155 F.3d 479, 483 (4th Cir. 1998), *abrogated on other grounds by Wilkins v. Gaddy*, 130 S. Ct. 1175 (2010)).
77. *Id.* at 448 (citing *Hickey v. Reeder*, *supra* note 39, 12 F.3d at 757 (8th Cir. 1993).
78. 7th Cir. Case No. 09-2331 (Nov. 10, 2010).
79. Quoting *Salem v. U.S. Lines Co.*, 370 U.S. 31, 35 (1962) (internal quotation marks omitted).

80. 590 F.3d 767 (9th Cir. 2009) (affirming denial of qualified immunity), opinion withdrawn and replaced by *Bryan v. McPherson*, 608 F.3d 614 (9th Cir. 2010) (reversing denial of qualified immunity).
81. *Id.* at 772 (citing *Deorle v. Rutherford*, 272 F.3d 1272, 1279 (9th Cir. 2001), and *Chew v. Gates*, 27 F.3d 1432, 1440 (9th Cir.1994)).
82. *Id.* at 772-73 (footnotes omitted) (citing *Lewis v. Downey*, *supra*, 581 F.3d at 475 (“[O]ne need not have personally endured a taser jolt to know the pain that must accompany it.”). As explained above, the peak amperage is by no means “low,” and the usual effect of the muscle contractions is to make the body stiffen, not go “limp.”
83. *Id.* at 773-74 (quoting *Matta-Ballesteros v. Henman*, 896 F.2d 255, 256 n.2 (7th Cir. 1990) and citing *Beaver v. City of Federal Way*, 507 F. Supp. 2d 1137, 1144 (W.D. Wash. 2007) (“[A]fter being tased, a suspect may be dazed, disoriented, and experience vertigo.”)).
84. *Id.* at 774-75 (quoting *Drummond ex rel. Drummond v. City of Anaheim*, 343 F.3d 1052, 1057 (9th Cir. 2003)) (emphasis in original).
85. 590 F. 3d at 781-782.
86. The case is reported at 590 F.3d 1082 (9th Cir. 2010). On October 4, 2010, however, en banc review was granted and the decision may not be cited.
87. *Id.* at 1085.
88. *Id.* at 1087. The authors are informed that the plaintiff was shocked through probes.
89. *Id.* at 1090 (quoting *Mendoza v. Block*, 27 F.3d 1357, 1361 (9th Cir.1994)).
90. *Id.* at 1087. According to *Mattos*, “The defendants paint a benign portrait of the Taser, offering evidence that it has been used on over one million human subjects and has proven extremely safe, as well as evidence that the actual voltage applied to a subject’s body uses less electricity than a single bulb on a string of Christmas tree lights.” *Id.* Many of the “over one million human subjects” are volunteers shocked for minimal periods of time in controlled settings, and the degree of safety is disputed. The reference to “voltage” is all wrong. The measure is amperage. Both the Model M26 and Model X26 have peak amperage many times greater than the one amp needed to power a Christmas tree light.
91. The case is reported at 599 F.3d 1018 (9th Cir. 2010). On September 30, 2010, however, en banc review was granted and the decision may not be cited.
92. *Id.* at 1021.
93. *Id.* Fortunately, two months after the incident the plaintiff delivered a healthy baby. *Id.*
94. *Id.* at 1026.
95. *Id.* at 1027.
96. *Id.* at 1031 (quoting *Deorle*, *supra*, 272 F.3d at 1283).
97. *Brown*, *supra*, 574 F.3d at 498.
98. *Bryan v. McPherson*, 608 F.3d 614 (9th Cir. 2010). As of this writing a petition for rehearing and rehearing en banc is pending.
99. 608 F. 3d at 629 (quoting *San Jose Charter of Hells Angels Motorcycle Club*, 402 F.3d at 969 n.8, and *Brown v. City of Golden Valley*, 574 F.3d 491, 498 n. 5 (8th Cir.2009), and citing *Mattos*, *supra*, 590 F.3d at 1089-90; *Brooks*, *supra*, 599 F.3d at 1031 n. 18).

