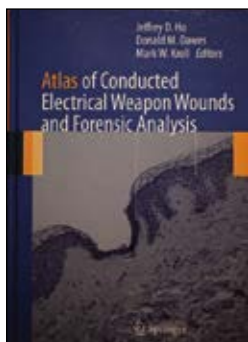


Atlas of Conducted Electrical Weapon Wounds and Forensic Analysis

Jeffrey D. Ho, MD; Donald M. Dawes, MD; Mark W. Kroll, PhD
Springer, 2012, 204 pages.
Review by Glenn A. Bollard, MD, FACEP



The medical personnel who support Operators within the military Special Operations Forces (SOF) and domestic law enforcement (LE) communities have needed a reference text on the topic of conducted electrical weapon wounds and forensic analysis for some time. Clinical research has shown that appropriate use of conducted electrical weapons (CEWs) within the civilian environment resulted in an overall decrease in the incidence of injuries and deaths among both suspects and LE officers. Despite this safety profile, some critics within the U.S. court system and the media continue to equate CEW deployment with “police brutality.” The liability risks associated with CEW use within the SOF community might not occur as regularly as they do in the civilian sector, but the potential repercussions from alleged misconduct during certain peacekeeping or nation-building operations could be catastrophic. The sole goal of this textbook is to make the forensic investigation of alleged CEW wounds and injuries more scientific and accurate. The authors have definitely reached their mark.

In some ways, this text is a companion volume to the book *TASER® Conducted Electrical Weapons: Physiology, Pathology, and Law*, which was written by Mark W. Kroll and Jeffrey D. Ho (Springer, 2009). The earlier text focused primarily on three subject areas: the history and development of CEW technology, the theoretical basis for their use, and the benefits, risks, and myths associated with their deployment. This earlier book included an exhaustive review of the scientific literature (basic research and clinical) and presented the findings of more than 50 subject matter experts from around the world. It remains the most exhaustive and well-written reference text about that subject currently available.

The current textbook focuses more specifically on the medical and legal aspects of actual CEW use. It also presents updated information on several non-TASER® CEWs and TASER® products like the eXtended Range Electronic Projectile (XREP™) that were released since the first book was published. Three editors organized contributions from 13 primary authors. Subject matter reviewed within the 10 chapters include an historical

overview of CEW technology, the physics of electrical injury, deployed CEW probe wounds, CEW drive-stun wounds, the histopathology of cutaneous CEW injuries, extended range CEW wounds, factitious CEW wounds, the legal aspects of CEW injuries, wounds and effects, the potential forensic information contained within CEW digital memories, and postevent CEW wire and probe analysis. Despite the complexity of some of the subject matter, the text is very readable and easy to follow. Chapter contents are organized in a manner particularly amenable to clinical problem solving. A large number of high-quality black and white and color tables, graphs, diagrams, illustrations, and macro- and microphotographs (e.g., histology slides, direct stereomicroscopy, and scanning electron microscopy) are included and used very effectively.

Despite the book’s relatively narrow academic focus, the potential target audience is quite broad: military and civilian medical examiners, pathologists, emergency medical services physicians and personnel, primary physicians, physician extenders, nurses, public defenders, defense attorneys, and LE personnel. Because many of the authors presently have or previously had ties to the CEW industry, some might assume that their material is inherently biased. I respectfully disagree and believe that just the opposite conclusion is warranted. Only a group of scientists and writers with these particular backgrounds and with access to CEW industry archives could have amassed the quality and quantity of research and case studies they present. Still, the issue of author bias is a valid area of concern. In response to this concern, each author declares any potential conflict of interest and they provide detailed work histories within their biographies.

This textbook makes a historic contribution to the field of forensic medicine. Students can study its pages and acquire the necessary scientific skills to properly assess CEW wounds. They will subsequently be able to differentiate between bona fide CEW wounds (known side effects associated with proper use) and factitious wounds created out of avarice and malice. The military, LE administrators, and civil rights advocates all want the innocent to go free and those who *do* improperly or inappropriately use CEWs on others to be identified. This resource will help both sides of the CEW discussion to more effectively reach their goals.