



**Michael S. Morse, Ph.D.**

**(619) 847-3336 Office**

**[DrMMorse@electricalinjury.com](mailto:DrMMorse@electricalinjury.com)**

**(Updated: September 2022)**

## **EXPERTISE**

- *Electrical Injury*
- *Electrical safety*
- *Effects of electricity on the human body*
- *Electrical accident reconstruction based on burn pattern*
- *Human factors as associated with human interaction with electrical systems*
- *Failure at the human/machine interface*
- *Design of Electrical Systems*
- *Designing for Electrical Safety (Design Triad)*
- *Biomedical device failure (electro-mechanical)*
- *Symptomatology of Disproportionate and Remote Response to Electric Shock (Diffuse Electrical Injury)*

## **EXPERIENCE**

- Consultation in **500+ electrical contact/injury, electric shock, electrocution, and electrical safety** cases.
- Consultation regarding design and manufacturing defects of electrical products.

## COURTROOM TESTIMONY

(See RULE 26 filing for specific details of each case in the last 4 years)

- **U.S. District Court (Mobile, AL):** Qualified as both a Biomedical and Electrical Engineering Expert. Permitted to testify as to the effects (physiology and pain) of electricity on the human body.(D)
- **U.S. District Court (Orlando, FL):** Qualified as a Biomedical Engineer and as an expert in "Electrical Technology." Permitted to testify to the effects of electricity on the human body.(D)
- **U.S. District Court (New Orleans, LA):** Qualified and permitted to testify to the effects of electricity on the human body. (D)
- **U.S. District Court (Portland, OR):** Testified regarding electrical product failure and resultant injury from an electrical connector. (P)
- **California Superior Court:** Testified regarding electrical injury incurred while installing traffic lights. (P)
- **U.S. District Court - (Los Angeles, CA):** Testified regarding injury from an electric arc. (D)
- **Florida State Court - (Jacksonville, Florida):** Testified to the effects of electricity on the human body with particular emphasis on pain and suffering. (4/97 and 7/97) (D)
- **California Superior Court - (Riverside CA)** Testified regarding failure of a "man-lift" with emphasis on design, human factors, and electrical circuitry. (6/97) (P)
- **California Superior Court (Alhambra, CA)** Testified regarding contact with a high voltage power line. (8/97) (P)
- **New Jersey State Court (New Brunswick, NJ):** Testified regarding diffuse injury distal to presumed current pathway resulting from a 110/220v contact. (7/99) (P)
- **California Superior Court (Stockton, CA):** Testified regarding an alleged electrical injury at a wall switch controlling a compressor in a dentist's office (12/99) (D)
- **California Superior Court (San Diego, CA):** Testified regarding design and accuracy of Red Light Camera System. Qualified as an expert in Electrical Engineering and computer design. (8/2000) (D)
- **Georgia State Court (Forsyth, GA):** Testified regarding effects of electricity on the human body with emphasis on pain and suffering. (3/01) D
- **Georgia State Court (Elbert, GA):** Testified regarding effects of electricity on the human body with emphasis on pain and suffering. (4/01) D
- **U.S. District Court – (Chicago, IL):** Testified regarding fibrillation death in swimming pool from electrical accident involving submersible sump pump. (1/02) P
- **Canadian Court, British Columbia:** Testified regarding 7200V power line contact during line clearing. (2/02) P.

- **California Superior Court (Los Angeles):** Reconstruction of high voltage power line contact by child climbing a tree based on burn pattern analysis. (4/02) P
- **California Superior Court (Santa Ana):** Diffuse injury from high voltage contact between jack hammer and submerged power line. (7/02) P
- **California Superior Court(Santa Ana):** Electrical Injury in bathroom following water leakage – Low voltage Diffuse Electrical Injury (10/03) P
- **Illinois State Court:** Death from contact between ladder and power line while preparing a building to be painted – Pain/suffering and human factors (01/04) P
- **California Superior Court (Vista):** Electrical Injury from contact with mis-wired electrical pedestal. (8/05) P
- **U.S. District Court (Los Angeles):** Testified regarding electrical effects and current distribution during E.C.T. (10/05) P
- **U.S. District Court (Los Angeles):** Stun Gun Case (11/2006) (p)
- **Florida State Court (Daytona):** Electric shock contact with power line via tree 11/2007 (p)
- **New York State Court (Brooklyn):** Power line contact in train substation 12/2007 (p)
- **California Superior Court (Vista):** Contact with Power Line while installing greenhouse roof (p) 03/2008
- **New York State Court (Brooklyn):** Power line contact in train substation 11/2008 (p)
- **Missouri State Court: (Independence):** Power line contact with roof of house 6/2010 (p)
- **California Superior Court (Lancaster):** Injury from novelty shock pen 10/2010(p)
- **New York State Court (Buffalo):** Injury from stray current 4/2012 (p)
- **California Superior Court (San Diego):** Window Washer contact with power line 05/2012(p)
- **New York State Court (Brooklyn):** Contact with 24-volt door circuit (05/2013) (d)
- **Maryland State Court (Baltimore):** Crane Power Line Contact pain and suffering and accident reconstruction (07/2013) (p)
- **California Superior Court (San Bernardino)** 74-volt DC contact in a locomotive (07/2014) (p)
- **U.S. District Court (Seattle):** Electric shock on a freighter (12/2014) (p)
- **California Superior Court (San Bernardino):** 74-volt DC contact in a locomotive (07/2014) (p)
- **US District Court – (Seattle)** Injury from miswired light on a vessel (12/2014) (p)
- **California Superior Court (San Bernardino)** Retrial in 74-volt DC contact in a locomotive (03/2015) (p)

- **Ohio Court (Meigs County)** Death from power line contact while installing gutters (08/2015) (p)
- **NY Supreme Court (Manhattan)** Shock claimed from standing on an extension cord (10/2017) (d)
- **Texas State Court (Dallas)** Testified regarding burn pattern from an electrical injury (06/2019) (p)
- **California Superior Court (Chatsworth)** Alleged electrical injury in swimming pool (02/2020) (d)
- **Indiana State Court (Marion, County)** Arc blast and electric shock while jackhammering concrete (10/2020) (p)
- **Colorado State Court (Denver)** Low voltage injury from mobile home pedestal. (10/2021) (p)
- **Arkansas State Court (Harrison)** Burn pattern reconstruction after power line contact (07/2022) (p)

**DEPOSITIONS (See RULE 26 filing for specific details of each case in the last 4 years)**

Medical Device Failure (electropapillotome) (p)  
 Electric Shock Injury from an improperly wired vacuum pump (p)  
 Accuracy of an IVAC infusion pump (p)  
 Operation and design of infant apnea monitors (p)  
 Failure of a Cincinatti Sub-Zero heating/cooling blanket. (p)  
 Failure of membrane switches on a Hill Rom hospital bed. (p)  
 Failure of an alarm on a respirator (d)  
 Electrocution on a scissor lift. (p)  
 Electric shock injury while using a household pump (p)  
 Electric shock injury in an industrial environment  
 Electric shock injury from an outlet near a swimming pool (p)  
 Electric shock injury -- mis-wired 220v outlet (p)  
 Electric shock injury -- industrial (construction site)  
 Electric shock injury -- static discharge from treadmill (p). (1996)  
 Electric shock injury -- contact with overhead power line (p) (1996 and 1997)  
 Failure of a man-lift hoist for the handicapped. (p) (1997)  
 Electric shock injury -- child contact with a transformer (p) (12/97)  
 Electric shock injury -- contact between a loader and a submerged power line (p) (7/98)  
 Electric shock injury -- sump pump (p) (6/99)  
 Electric shock injury -- carousel ride (p) (6/99)  
 Electric shock injury -- feed to a buffet table(d) (9/99)  
 Electric shock injury -- dental office compressor switch(d) (10/99)  
 Electric shock injury -- contact with downed power line (2/2000)  
 Electric shock injury -- 110V contact with frayed power cord in hotel (p) (3/2000)  
 Electric shock injury -- injury at power supply pedestal at a mobile home (p) (1/2001)  
 Electric shock injury -- 110V contact with frayed cord. For adm. Miss. Court (p)  
 (10/2001)

Electric shock injury -- power line contact by child in tree(p) (1/2002)  
Electric shock injury -- burn and compressive wave injury from arc (p) (3/2002)  
Electric shock injury -- Diffuse injury following jack hammer - power line contact (p) (6/02).  
Electric shock injury -- Pain and suffering following v-fib after power line fell on a combine. (p) (8/02)  
Electric shock injury -- Symptomatology following 110-volt electrical injury in a bathroom. (p) (2/03)  
Electric shock injury -- Symptomatology following electrical injury caused by gas cooktop (p). (2/03) Electric shock injury – Electrical injury in mobile home park from underground wiring (p) (4/03)  
Electric shock injury -- Pain and suffering: v-fib from induced current in a 345KV transmission line (p)(8/03)  
Electric shock injury -- Contact with power line while picking avocados using an aluminum pole (p) (12/03)  
Electric shock injury -- Pain and suffering associated with induced current in a transmission line (p) (03/04)  
Electric shock injury -- Reconstruction of electrical accident involving lighting system/power line contact. (d) (4/04)  
Physiological effects of electricity on the human body (d) (4/04)  
Electric shock injury -- Power line/ladder contact – Pain, suffering and human factors (p) (7/04)  
Electric shock injury -- Power cord short to metal door (d) (9/04)  
Electric shock injury -- Electrical contact (worker's comp) (3/05)  
Electric shock injury -- Contact with mis-wired electrical pedestal (p) (4/05) Physiological Effects of electric current and current pathway during E.C.T. (p) (8/05) Electric shock injury -- Defective trouble/drop light (p) (1/06)  
Stun Gun Case -- (p) (3/06)  
Electric shock injury -- Power line contact by a cement pump (p) (3/06)  
Electric shock injury -- Oven (p) (4/06)  
Electric Shock Injury -- V-Fib 120 volts (p) (5/06)  
Electric Shock Injury -- Roofer contact with overhead power line (p) (6/06)  
Electric Shock Injury -- Power line contact while moving a building (p) (11/06) Electric Shock Injury -- Power line contact with trailer (p) (11/06)  
Electric Shock Injury -- 480 volt contact (p) (2/07)  
Electric Shock Injury -- Fatal contact with temporary power delivery system (p) (4/07)  
Electric Shock Injury -- Contact with downed power line (p) (7/07)  
Electric Shock Injury -- Injuries secondary to contact with fence energized by downed power line (p) (10/07)  
Electric Shock Injury -- Fatality following power line contact with truck on farm (p) (11/07)  
Electric Shock Injury -- Contact with power line while installing greenhouse roof (p) (11/07)  
Electric Shock Injury -- Injury in truck following downing of power line (p) (04/08)  
Electric Shock Injury -- Injury from power line contact on church roof (p) (4/08)  
Electric Shock Injury -- Injury from contact with energized plumbing (p) (5/08)

Electric Shock Injury -- Fatality on manlift (p) 6/08)  
Electric Shock Injury -- Electrical injury in office environment (p) (10/08)  
Electric Shock Injury -- Power line contact with house/effects of electrical contact (p) (11/08)  
Electric Shock Injury -- Power line contact while removing debris from roof (p) (4/2009)  
Electric Shock Injury -- Head contact with bus in 480V switch gear (p) (08/2009)  
Electric Shock Injury -- Damaged power line leading to injury in a shower (p) (09/2009)  
Electric Shock Injury -- Stun Gun Case -- (p) 11/2009  
Electric Shock Injury -- Death resultant from power line contact by person in manlift (p) (02/2010)  
Electric Shock Injury -- Novelty Shock Pen (p) (07/2010)  
Electric Shock Injury-- Stun Gun Case (p) (09/2010)  
Electric Shock Injury -- (p) (10/2010)  
Electric Shock Injury -- Power line contact by worker carrying a ladder in an orange grove (p) (10/2010)  
Electric Shock Injury -- Death resultant from contact between power line and construction equipment (p) (10/2010)  
Electric Shock Injury -- Cement pump contact with power line (p) (12/2010)  
Electric Shock Injury -- Contact with downed power line (p) (01/2011)  
Electric Shock Injury -- 277 volt contact by construction worker (p) (04/2011)  
Electrocution - Power line contact with climbing wall (p) (09/2011)  
Electric Shock Injury -- Mule tape contact with 60KV line (p) 11/2011  
Electric Shock Injury -- 480 volt (p) 11/2011  
Electric Shock Injury -- Window washer contact with power line (p) 2/2012  
Electric Shock Injury -- Plumber contact with 277 volts (d) 2/2012  
Electrocution -- Homeowner ladder contact with power line (p) 7/2012  
Electric Shock Injury -- Engineer on Locomotive - 74 Volts DC (p) 10/2012  
Electric Shock Injury – Electrical burn injury (p) (2/2012)  
Electrocution – Crane Power Line Contact (p) (06/2013)  
Electrocution – Step voltage death accident reconstruction (p) (03/2014)  
Electric Shock Injury – Electric shock on freighter (p) (04/2014)  
Electric Shock Injury – Electric shock injury in a locomotive (p) (6/2014)  
Electric Shock Injury – Burn injury following power line crane contact human factors while changing out a conveyor motor (p) (08/2014)  
Electrocution/Electric Shock – Roofer contact with power line – human factors and reconstruction (p) (09/2014)  
Electric Shock Injury – Issue of internal injury even with lack of burns. (p) (01/2015)  
Electric Shock Injury – Accident Reconstruction (d) (02/2015)  
Electric Shock Injury – Accident reconstruction shock alleged from energized canopy at gas station (d) (04/2015)  
Electric Shock Injury – (p) (08/2015)  
Electric Shock Injury – Contact with energized service drop (p) (08/2015)  
Electric Shock Injury – Arc blast following electric meter explosion (d) (01/2016)  
Electric Shock Death – Contact with mis-wired dryer blower (p) (02/2016)  
Electric Shock Injury – Arc blast in switch gear at a refinery (p) (03/2016)  
Electric Shock Death – Person electrocuted in energized shower (p) (04/2016)

Electric Shock Death – Child electrocuted by exposed wiring on air conditioning unit (p) (10/2016)

Electric Shock Injury – Shock injury in train restroom (p) (01/2017)

Electric Shock Injury – Accident reconstruction based on burn pattern (d) (2/2017)

Electric Shock Injury – Contact with electric rat trap ((p) (4/2017)

Electric Shock Injury -- Low voltage (120 v) contact with exposed wire (p) (5/2017)

Electric Shock Injury – Death from contact with pump (p) (5/2017)

Electric Shock Injury – Burn Pattern reconstruction following power line contact (p) (10/2017)

Electric Shock Injury – Contact with submerged wire while installing a fence (p) (2/2018)

Electric Shock Injury – Contact with aircraft by mechanic (d) (2/2108)

Electric Shock Injury – Contact with electric fence at a stable (d) (3/2018)

Electric Shock Injury – Reconstruction/symptomatology worker using cement cutter severs HV line. (p) (7/2018)

Electric Shock Injury – Worker contacts power line while on top of truck (p) (10/2018)

Electric Shock Injury – 277 volt contact via exposed wires (p) (10/2018)

Electric Shock Injury – Welder on Ship (p) (2/2019)

Electric Shock Injury – Contact with energized guy wire (p) (2/2019)

Electric Shock Injury – Shock claimed in swimming pool (d) 4/2019

Electric Shock Injury – Power line contact (death) Burn pattern reconstruction (p)(5/2019)

Electric Shock Injury – Shock while contacting mobile restroom trailer (d) (5/2019)

Electric Shock Injury – Shock from light switch (p) 6/2019)

Electric Shock Injury – Burn pattern reconstruction following power line contact (p) (7/2019)

Electric Shock Injury – Low voltage electrical injury (p)(07/2019)

Electric Shock Injury – Low voltage electrical injury (p) (08/2019)

Electric Shock Death – Burn pattern reconstruction – power line contact (p)(02/2020)

Electric Shock Injury – Burn pattern reconstruction – power line contact (p)(03/2020)

Electric Shock Death – Burn pattern reconstruction – lift/power line contact (p) (07/2020)

Electric Shock Injury – Accident reconstruction (p) (07/2020)

Electric Shock Injury – Reconstruction – Power line contact trimming trees (p) (08/2020)

Electric Shock Injury – Arc Blast and Electric Shock while using jackhammer (p)(10/2020)

Electric Shock Injury – Low voltage contact with downed service drop (p)(10/2020)

Electric Shock Injury – Mis-wired welder on a vessel (p)(12/2020)

Electric Shock Death – Burn pattern reconstruction – power line contact (p) (02/2021)

Electric Shock Injury – Burn pattern reconstruction – power line contact in a tree (p)(4/2021)

Electric Shock Injury – Burn pattern reconstruction low voltage contact with wiring from a lift (d) (05/2021)

Electric Shock Injury and Death – Burn Pattern Reconstruction Power line contact from hunting blind (d) (08/2021)

Electric Shock Injury – Low voltage contact with mobile home pedestal (p) (08/2021)

Electric Shock Death – Pain/suffering from contact with broken lightbulb (p) (09/2021)

Electric Shock Injury – Contact with defective stove (p) (09/2021)  
Electric Shock Injury – Low voltage contact with mobile home pedestal (p) (10/2021)  
Electric Shock Injury – Contractor injured by wire (p) (10/2021)  
Electric Shock Death – Injury from fall after contact with power line (p) (01/2022)  
Electric Shock Injury – Burn Pattern reconstruction Power line contact while picking oranges (d) (01/2022)

## INTERNATIONAL CONSULTATION

Power line contact (England, 2015)  
Electrical injury from overhead power line while line clearing (Canada, 2002)  
Electrical injury from static discharge (Dublin, Ireland, 1999.)  
Multiple electrical contact cases (Australia)

## POSITIONS

***Professor of Electrical Engineering, University of San Diego***, (September 1990 - Present) Tenure granted: 5/93, Associate (1996), Full (2004)

- Research into symptomatology and nature of electrical injury, current pathway during electrical contact, Diffuse Electrical Injury (DEI), and electric shock drowning. (ESD)
- Relevant courses subjects include: Forensic Engineering, Engineering and the Law, Product Design and Safety, Engineering Design Process

***Assistant Professor, Electrical Engineering, Auburn University, Auburn, AL***, (September 1987 - September 1990).

- NSF and IEEE initiation grant
- Conducted Speech and Electrical Stimulation research.

***Senior Engineer, General Dynamics, Electronics Division, San Diego***, (October 1985 - June 1987)

***Lecturer, Electrical Engineering, San Diego State University***, (January - May 1987)

## EDUCATION

***J.D.: University of San Diego, San Diego, CA, 1999 (Admitted to CA Bar: 12/99)***

***Ph.D. in Engineering, Clemson University, Clemson, SC, 1985.***

***M.S. in Biomedical Engineering, Tulane University, New Orleans, LA, 1982.***

***B.S. in Biomedical Engineering, Tulane University, New Orleans, LA 1981.***



## HONORS

Tenure Awarded , 1993.  
H.K.N. -- Electrical Engineering Honor Society, 1990.  
Sigma Xi -- Research Honor Society, 1986.  
Tau Beta Pi -- Engineering Honor Society 1981.  
Edwards Fellowship - Clemson University, 1983.

## MEMBERSHIPS

IEEE Member  
(Past and/or present: Engineering in Medicine and Biology Society, Product Safety Group)  
Sigma Xi (not current)

## PATENTS

Multichannel Stimulator for Tuned Stimulation (No. 5041974 - August 1991).

## PUBLICATIONS

- M. Morse, J. Kotsch, B. Prussak and J. G. Kohl, "Examining the Risk of Electric Shock Drowning (ESD) As a Function of Water Conductivity," in *IEEE Transactions on Industry Applications*, vol. 56, no. 4, pp. 4324-4328, July-Aug. 2020, doi: 10.1109/TIA.2020.2982854
- The Case of the Telecom Technician Electrocutation, ECM Magazine, M.S. Morse, May 2019
- Examining the Risk of Electric Shock Drowning (ESD) as a Function of Water Conductivity, IEEE ESW Conference, Jacksonville, April 2019.
- The Science Behind Electric Shock Drowning, ECM Magazine, M.S. Morse, November, 2018
- The Case of the Mysterious Construction Site Electrocutation, ECM Magazine, M.S. Morse, April 2017
- [The Case of the Electrified Railing](#), ECM, M.S. Morse, May 2015
- [A Report on the Current State and Understanding of Human Response to Electrical Contacts](#),  
M.S. Morse, Presented at the IEEE Electrical Safety Workshop (ESW), Dallas, TX, March, 2013

- [The Case of the Fish-tape Fiasco](#), M.S. Morse, EC&M, April 2012
- [The Case of the Ladder and Line Collision](#), M.S. Morse, EC&M (The Magazine of Electrical Design Construction and Maintenance), September, 2011.
- [Designing for Optimal Electrical Safety](#), M.S. Morse, EC&M (The Magazine of Electrical Design Construction and Maintenance), July, 2010.
- [The Case of the Engine Room Electrocutation](#), M.S. Morse, EC&M, (The Magazine of Electrical Design Construction and Maintenance), July, 2010.
- **Improving Electrical Safety Through Forensic Analysis of Failure**, MS Morse, IEEE Electrical Safety Workshop (ESW), Memphis, TN, Feb. 2010.
- **A Study of Long-Term Symptomatology Reported in Non-Head-Involved Low Voltage Electrical Contacts**, MS Morse, IEEE EMBC, Minneapolis, MN, Sept. 2009.
- [The Case of the Imperfect Bird on the Wire](#) -ECM, M.S. Morse, April 2009.
- **Designing for Electrical Safety that can withstand Legal Scrutiny**, Michael S. Morse, IEEE Electrical Safety Workshop, St. Louis, MO, Feb. 2009.
- **Risks and Injuries Associated with Low Voltage Electrical Contacts - Traditional Theory, Modern Theory, and Pervasive Myths**, (Invited Paper), M.S. Morse, International Electrical Safety Congress, Bogota, Columbia, November, 2008.
- **How Much Damage Can A Low Voltage Shock Do? -- Traditional Theory, Modern Theory, and Pervasive Myths**, (Invited/Keynote Speaker), Michael S. Morse, IEEE, Electrical Safety Workshop, Dallas, March, 2008.
- **Novelty Shock Pens – Harmless Toy or Injurious Weapon? Only a Proper Design Analysis Can Tell**, MS Morse, G Tolchinsky, IEEE PSEN Newsletter, , Vol 4, No 1, March 2008, pp 20-30.
- **The Undetected Trauma -- Low Voltage Electrical Injuries** (Poster Only) -- Chris Gilyard, MS Morse, W Mohr, D Ahrenholtz, American Burn Association Meeting, Chicago, April, 2008.
- **The Undetected Trauma -- Low Voltage Electrical Injury** (Presentation Only) -- Chris Gilyard and Michael Morse, Midwestern Regional Burn Conference, Minneapolis, September, 2007
- **The Case of the 120 Volt Electrocutation Mystery**, M.S. Morse, EC&M (The Magazine of Electrical Design Construction and Maintenance), October, 2007.

- **The Case of the Misguided Move**, M.S. Morse, EC&M (The Magazine of Electrical Design Construction and Maintenance), May, 2007
- **Defining and Designing for the Reasonable Person**, M.S. Morse, G. Tolchinsky, IEEE PSEN Newsletter, Vol 3, No 1, March 2007.
- **Product Design and the Reasonable Person – Nature versus Nurture**, M.S. Morse, R. Raney Presented at the *IEEE Product Safety Engineering Conference* in Irvine, CA, October 23-24, 2006.
- **Use of the Finite Element Method to Assess Impact of Current on Wrist and Forearm During an Electrical Accident**, M.S. Morse, J.S. Morse, Presented at the 26<sup>th</sup> *IEEE Engineering in Medicine and Biology Conference*, New York, September, 2006.
- **Don't Discount the Danger of 120 Volts**, Michael S. Morse, *EC&M* (The Magazine of Electrical Design Construction and Maintenance), May 2006.
- **The case of the Shocking Scaffolding Mystery**, Michael S. Morse, *EC&M* (The Magazine of Electrical Design Construction and Maintenance), June 2006.
- **ELECTRIC SHOCK**, Michael S Morse and Jennifer S. Morse, *Chapter in Wiley Encyclopedia of Biomedical Engineering*, April, 2006.
- **Diffuse electrical injury: Comparison of physical and neuropsychological symptom presentation in males and females**, Jennifer and Michael Morse, *Journal of Psychosomatic Research*, Vol 58/1 pp 51-54 (2005).
- **Diffuse Electrical Injury, Study of Sequelae as a function of Gender**, Jennifer Morse, Michael Morse, Presented at the 26<sup>th</sup> *IEEE Engineering in Medicine and Biology Conference*, San Francisco, September, 2004.
- **Diffuse Electrical Injury, A Study of 89 Subjects Reporting Long Term Symptomatology that is Remote to the Theoretical Current Pathway**, Michael S. Morse, Jennifer S. Berg, Rachel Tenwolde, *IEEE Transactions on Biomedical Engineering*, August, 2004, Vol 51, No. 8, pp 1449 – 1459.
- **A Shocking Neurological Rarity**, Jennifer S. Berg and Michael S. Morse, *Practical Neurology*, August, 2004, Vol 4, No 4, pp. 222-227.
- **The Risk From Above**, Michael S. Morse, *EC&M Magazine*, February, 2004.
- **Analysis of Current Density in the Carpal Tunnel Region During an Electrical Accident by way of the Finite Element Method** M.S. Morse, J.S. Berg, R.L.TenWolde (Presented at: The 25th IEEE Engineering in Medicine and Biology Conference, Cancun, September, 2003.)

- [Diffuse Electrical Injury – A Study of 136 Subjects](#) M.S. Morse, J.S. Berg, R.L.TenWolde (Presented at: The 25th IEEE Engineering in Medicine and Biology Conference, Cancun, September, 2003.)
- **Diffuse Electrical Injury Presenting as Chronic Pain: Systemic and Neuropsychological Symptomatology, Berg JS, Morse MS, J. of Psychosomatic Research, vol 55 No 2, August 2003, pg 151. (Presented at the 17th World Congress on Psychosomatic Medicine, Waikolao, HI, August 2003.)**
- [A Study of Carpal Tunnel Injury Following Electrical Trauma](#), M. S. Morse (Presented at IEEE EMBS Chicago, July 2000)
- [An Evaluation Protocol For Electric Shock Injury Supported By Minimal Diagnostic Evidence](#)  
M.S. Morse, D. Weiss, University of San Diego, Alcalá Park, San Diego, CA 92110 (Presented at IEEE EMBS San Diego, 1993)

## **OTHER**

**Contributor to electrical safety video – Iowa One Call 2015 Electrical Safety –Call before you dig.**

**Webinar: Designing for Electrical Safety the can Withstand Legal Scrutiny, Eaton Corporation, June 3, 2009**

**Invited participant and presenter at “Stun Devices: Uncertainties & Gaps In Knowledge Conference”, Potomac Institute for Policy Studies, Arlington, VA, February 23<sup>rd</sup> and 24<sup>th</sup>.**

**Contributing source to an article on diffuse electrical injury entitled “What Happens When Electricity Doesn’t Play by the Rules?” by Matt Halverson, EC&M (The Magazine of Electrical Design Construction and Maintenance), June 2004.**

**Contributing source to an article on electrical injury entitled “A Little Time and a Lot of Pressure” by Matt Halverson, EC&M (The Magazine of Electrical Design Construction and Maintenance), June 2003.**

**Contributing source to Maxim Magazine (October 2003, page 48) Provided an answer to that age-old question of what happens when you stick a fork in an electrical outlet.**

## **MEDIA**

**BBC (Gladiators 2015)**

**Discovery Channel: Machines of Malice (Appearance and technical consultation)**

**2009 NCIS -- (Technical Consultation) Episode Airdate: 4/28/2009**

**Bones -- (Fox Network) -- (Technical Consultation)**