

**LIGHTNING DATA CENTER
MINUTES
JULY 14, 2006
ST. ANTHONY HOSPITAL, DENVER, CO
www.stanthonyldc.org**

Quote of the Month:

“Time is our mortal enemy but it’s also the great healer.”

John Dunning, Sign of the Book 2005

1. Meeting began at 11:30 am and adjourned at 1:30 pm.
2. Members present: Cherington, Collier, Flanders, Foley, R Gift, Y Gift, Levy, McDonough, Mullan, Poulton, Olson, Paton, Stewart, Swicord, Wachtel, Wermuth.
3. I brought the following articles (abstracted in part here):
 - a. Wick R. et al. Fatal electrocution in adults – a 30-year study. Med Sci Law 2006;46:166-172.

“A retrospective study of all cases due to electrocution which were autopsied at Forensic Science SA, Adelaide, Australia, over a 30 year period. Deaths were due to accidents in 66 cases suicides in 28 cases homicide in two cases. Most deaths were due to low voltage circuits (<1000 volts), with deaths due to high voltages occurring in 15 cases (16%). One death was due to lightning.”
 - b. Sun GH et al. Bilateral perilymphatic fistulas from a lightning strike: a case report. Laryngo 2006;116:1039-1042.

“The most commonly reported lightning-induced injury of the ear is tympanic membrane perforation, which is often associated with conductive hearing loss. This case report (11 year old male) describes the second known patient to have acquired bilateral perilymphatic fistulas with mixed hearing loss after a lightning strike hearing improved after perilymphatic fistula repair.”
4. The speaker today was Stewart Levy, MD, neurosurgeon. His presentation was entitled: Traumatic Brain Injury (TBI) and Injury Prevention. Stewart’s presentation was outstanding. I cannot do it justice in these minutes. Here are annotations from my notepad.

2 million TBI each year in USA
 230,000 are hospitalized
 50,000 TBI deaths
 5.3 million TBI cases live with disability

Injury is the leading cause of death in teens. 50% from TBI

Etiology of TBI

- MVA
- Falls
- Sports & Recreation
- Assaults
- Bicycles
- Suicide

Fatal auto crashes. 25% of drivers had been drinking alcohol.

Peak age = 21 years

Seatbelts use (60%) prevent death from MVA

People ejected from MV are 4x more likely to die; 14x more likely to have C-spine injury

Motorcycle accidents 88% males, 75% ages 15 to 44

Helmets reduce risk of brain injury by 67%

Bicycle accidents 1.2 million seen by physician per year in USA

Helmets reduce risk of TBI by 88%

Skiing and Snowboarding 819 cases admitted to St. Anthony Central Hospital from 1998 to 2002. 33.8% had TBI

41% Snowboarders 56% Skiers 81% males 19% females

Helmet users Skiers 35% Snowboarders 50%

Helmets reduce risk of TBI by 75%

Helmets do NOT increase risk of cervical spine injuries.

Skiing and snowboarding are leading cause of recreational related fatalities in Colorado.

Helmets are most effective by impact mechanism as compared to deceleration injury mechanism (acceleration/deceleration related to velocity changes).

5. Greg Stewart had information about the lightning-related motorcycle accident that occurred earlier this month on route 36. Death was due to cardiac arrest. Lightning burns were present on neck, chin, and abdomen. The motorcycle was charred.

6. Mike Foley brought a paper from NOAA on the subject of cell phones and lightning. He said that lightning is not attracted to people using cell phones. They are at risk because of the circumstances of their location during a lightning storm.
7. Sheryl Olson reported a teenager that developed tracheitis following a lightning strike. He had 24 hours of coughing. He was better the following day. Robert Gift spoke about the possible ozone effects. Gil McDonough raised the question of Nitrates.
8. Bruce Paton brought photographs of mammatus clouds. He witnessed such clouds on a recent hike. Greg Stewart and Sheryl Olson stated that these clouds can be seen after a storm (Reference: Rich Keen's book Skywatch West).
9. These minutes do not represent official positions of LDC, they simply reflect comments made by members at the meeting.

Next meeting: August 11, 2006, Friday at 11:30 A.M. in the Main Auditorium of St. Anthony Central Hospital.

Respectfully submitted.

Michael Cherington, MD