

LIGHTNING DATA CENTER MINUTES

July 14, 2023

ST. ANTHONY HOSPITAL, LAKEWOOD, COLORADO

Monthly Quote: “Condemnation without investigation is the height of ignorance. - Albert Einstein. Source: <https://www.azquotes.com/quotes/topics/investigation.html>

Members present: Clark, Swanson, Yarnell, Langford, Crow and Stemple. Meeting began at 11:55 AM and ended at 12:55 PM.

1. The LDC is accepting donations, either as cash or check. If you donate via check, please make your check payable to Steve Clark at 755 S. Clinton Street, #2A; Denver, CO 80247. He will cash the check and keep the cash holdings specifically for the LDC. When the LDC incurs expenses, Steve will pay for services rendered through his bank account using the cash from LDC’s cash holdings. A log will be maintained detailing the inflow and outflow of monies. LDC currently has \$742.00 in cash, due to a purchase of lightning data.
2. Several articles have come to our attention over the last two months.
3. LDC member Barbara Brewer brought to my attention a Dutch research paper. It proposes an evidence-based protocol for the treatment of lightning patients, based on a literature survey on the treatment of the lightning patient. The evidence found in the literature graded as low to moderate and the protocol should be used with caution. The authors conclude the protocol should help in the pre-hospital and in-hospital health care settings in the treatment of lightning patients. Hopefully, this would help reduce misdiagnosis.
4. Researchers have found the brain has a unique “signature” for chronic pain as opposed to acute pain. Four people with persistent neuropathic pain had electrodes implanted in the cortex. The participants reported pain metrics which were reported multiple times daily over many months. Signals from the orbitofrontal cortex were read and through the use of machine learning, they were able to predict chronic pain, based on the signals detected. The authors note this has potential diagnostic value and that it may help inform future drug and medical device development. There is also the potential for real-time therapy.
5. Survivors may be interested in an article written by Lizz Schumer that addresses invisible disabilities. The CDC estimates 26% of the US population has an invisible disability of some kind. The article references several sources of information that can be explored.
6. Dr. Phil Yarnell told us about a former patient of his who survived an airplane crash and was burned. The patient started talking to others who been burned and realized there were no discussion groups for burn survivors, so he formed the Phoenix Society, which came to be a national burn center. Phil also told us there is a camp in Oklahoma for burned children, which teaches them to adjust to their body image.

7. Phil Yarnell attended the Lightning & Electric Shock Survivors International meeting last weekend. He said Dr. Neil Pliskin, University of Illinois, discussed long-term disabilities of electric shock survivors. He said the main difficulties faced by those survivors are the speed of processing and concentration. Often these people need a whole treatment suite to help them. Dr. Pliskin noted only a small fraction of his patients had any preexisting psychological issues. A link to his presentation is in the Lightning Links section below. The link takes you to the LS&ESSI webpage where the video is located. The next conference is set for Thursday – Saturday, November 2-4, 2023 in Lynchburg, Virginia.
8. Ken Langford gave an excellent video dissection of lightning that had struck a tall building in China. A total of three strokes were captured – the initial flash followed by two return strokes. The video was of very good quality. You could almost see the very window that the lightning was touching.
9. This season, the Colorado Rockies played a game at Coors Field, even though lightning was seen and thunder was heard. Carl said Nissan Stadium in Nashville, Tennessee once had the radius to suspend activity due to lightning set at 10 miles, but now it has been cut back to 8 miles.
10. Carl reported two golfers were hit by lightning in Colorado Springs earlier this year. Both were hospitalized. One was reported to have been directly hit and the other was reported to have felt the effects of the strike and both were in fair condition. No additional information was available.
11. Carl received news of a lightning strike in Tennessee through his first responder project. A man was hit by lightning and seen by EMTs. His consciousness was lethargic. He was oriented to himself and his surroundings. He has no memory of the event and his feet had 2nd degree burns.
12. Carl reported the website “Struckbylightning.org” is back up and running.
13. Carl asked how he might present his data from his First Responder Project. The intent is to present it to first responders and hospital ER personnel. Dr. Yarnell suggested it may be best incorporated as part of their training. Barb suggested keeping things relatively simple and including jumps to more detailed info. Colleen suggested a checklist. Steve thought the article referenced earlier about patient care after a lightning strike might offer some good guidance. Copies of a representative portion of Carl’s spreadsheet were sent to Barb Stemple and Coleen Crow for their review. Steve Clark e-mailed the article to Barb, Coleen and Carl for their review. He matter will be discussed in the near future.
14. Finally, we received a link to a news article from the Australian Broadcasting Corporation which presents an in-depth story about a man who was struck by lightning 30 years ago in Sydney. The link is posted in the Lightning Links section below. The link takes the reader to an article that you scroll down to read like any other webpage, but with the following caveat: **FAIR WARNING – Some survivors may find two portions of the webpage disturbing. First, there is the scene of the flashing man at the very top of the webpage. Simply scroll down to get him out of view. Second, between one-third of the way down the webpage to just about halfway down the webpage, there is video of lightning flashing. Scroll down to where it says “A constellation of symptoms”, to move past the lightning video.**

15. LDC welcomes your questions. Please send them via e-mail to Steve Clark at sclarktoto@gmail.com. Your medical questions will be forwarded to Dr. Phil Yarnell for his review and will usually be taken up for discussion in the next month's meeting. Please be advised any questions posed are for the general consideration by the group and do not constitute a formal medical opinion. If a formal evaluation is requested, arrangements can be made directly with Dr. Yarnell. If you have a medical emergency, please call 911 or your local EMS.
16. Questions, comments, error notifications, and critiques of these minutes are welcome. Please send them to Steve Clark. Please keep the communications professional and respectful. They will be forwarded to the appropriate author(s) of the minutes and addressed accordingly.
17. LDC Disclaimer: These minutes do not represent official positions of the LDC or its members. They simply reflect the comments made at the meeting. Furthermore, the LDC does not implicitly or explicitly recommend or endorse any product or service. Any product or service presented in these minutes is done so for purposes of discussion and analysis. The merit (or lack thereof) is open for the consideration and review by the entire membership.
18. Next meeting: Friday, August 11, 2023, from 11:45 AM to 1:00 PM MDT.

Respectfully Submitted,
Steven E. Clark, Consulting Meteorologist

Lightning Links

This is a monthly listing of periodicals, websites, and videos about lightning and allied areas from a variety of sources. A headline or description is listed, followed by the link. Please note that some of the links are perishable, which means you'll need to go to the source for the information.

Ruler, R., T. Eikendal, F. Kooij and E. Tan, 2022: A Shocking Injury: A Clinical Review of Lightning Injuries Highlighting Pitfalls and A Treatment Protocol. *Injury* 53 (2022) 3070-3077. August 10, 2022. Link: <https://pubmed.ncbi.nlm.nih.gov/36038387/>

2012: *Electrical Safety in the Workplace*. Occupational Safety & Health Administration. Link: https://www.osha.gov/sites/default/files/2018-12/fy11_sh-22230-11_ElectricalSafetyManual.pdf

Shirvalker, P., J. Prosky, G. Chin, P. Ahmadipour, O. Sani, M. Desai, A. Schmitgen, H. Dawes, M. Shanechi, P. Starr and E. Chang, 2023: First In-Human Prediction of Chronic Pain State Using Intracranial Neural Biomarkers. *Nature Neuroscience*. April 18, 2023. Link: https://www.nature.com/articles/s41593-023-01338-z.epdf?sharing_token=peWQi-P-FLUZmrMi8j1Wh9RgN0jAjWel9jnR3ZoTv0MxdbojJ6tBM6fd9CbRkrdiN19XrIzF74NjC4H2JemxT0toS95cefADjFq0RAqdEKpREpcB1fWIBorRLuIcmXWK9FPjnyidvcXP1sjyFdYu8PqBSb-qriIm0oepCrVPvdEP8AJ54c99JpqZagN132QLgkWN6-HtKrwEemUVbFu8YKc72m07DuSDlcI99dQkyYQ%3D&tracking_referrer=www.usatoday.com

Schumer, L., 2023: What Invisible Disabilities Are – And Why They Matter. *Prevention.com via AOL News*. March 23, 2023. Link: <https://www.prevention.com/health/a41248327/what-is-an-invisible-disability/>

Bradley, B., C. Spinelli and A. Smith, 2023: Worker Dies While Setting Up Chicago NASCAR Race. *WGN-TV*. June 30 and July 1, 2023. Link: <https://wgntv.com/news/wgn-investigates/worker-dies-while-setting-up-chicago-nascar-race/>

Miller, V., 2023: Audio Specialists Was Electrocuted at Chicago NASCAR Course, Autopsy Finds; Family ‘Still Waiting for Answers’. *Chicago Sun Times*. July 1, 2023. Link: <https://chicago.suntimes.com/2023/7/1/23781211/worker-death-chicago-nascar-race-duane-tabinski>

Hooper, B., 2023: Nearby Lightning Leads Woman to \$50,000 Lottery Prize. *UPI.com* Link: https://www.upi.com/Odd_News/2023/07/14/lotto-Missouri-Lottery-Powerball-storm/6791689361183/

Hosier, P. and H. Tatham, 2023: After the Storm. *Australia Broadcasting Corporation*. July 5, 2023.
Link: <https://www.abc.net.au/news/2023-07-06/lightning-strike-survivors-storms-ptsd-cognitive-disability/102108182>

FAIR WARNING – Some survivors may find two portions of the webpage disturbing. First, there is the scene of the flashing man at the very top of the webpage. Simply scroll down to get him out of view. Second, between one-third of the way down the webpage to just about halfway down the webpage, there is video of lightning flashing. Scroll down to where it says “A constellation of symptoms”, to move past the lightning video.

Soukup, A., 2023: 2 Hurt In Lightning Strike at Colorado Springs Golf Course. *The Gazette*. May27, 2023, updated May 30, 2023. Link: https://gazette.com/news/local/2-hurt-in-lightning-strike-at-colorado-springs-golf-course/article_612637b0-fc81-11ed-b02b-2b3cd852f29b.html

Presentation: 2023 Keynote Speaker. Dr. Neil Pliskin, University of Illinois.
Link: <https://www.lightning-strike.org/general-4>
