

LIGHTNING DATA CENTER MINUTES

Denver, CO

February 13, 2026

Monthly Quote: “The forest exploded. A blade of lightning had cut the wilderness in half. Illuminated for an instant, the animals bolted in every direction.” - Nathan Walkowicz, THE GIANT Source: <https://www.goodreads.com/quotes/tag/lightning?page=3>

Members present: Clark, Yarnell, Gredig and Stemple. Meeting began at 11:45 AM and ended at 12:25 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 is maintained detailing the inflow and outflow of monies. The LDC currently has \$1047.00 in cash.
2. We had a discussion on some lightning medical articles that Dr. Phil Yarnell forwarded to me over the last month. The articles are listed and briefly discussed below. Citations are in the Lightning Links section.
3. *Cutaneous Manifestations of Lightning Injury: A Case Report* This is a case of a 22-year old woman who was struck by lightning while asleep in her house. She sought treatment from a traditional/spiritual healer because she thought evil forces were at work. Two months after the strike, she saw a physician and was unable to use both of her upper limbs. She was diagnosed with 18% lightning-induced burns with bilateral below-elbow gangrene and was given IV fluids, antibiotics and a tetanus shot. She refused amputation and left the hospital. The authors concluded early presentation and care would result in a better outcome.
4. *Lightning Injury to Eye: Brief Review of the Literature and Case Series* This article examined seven cases of lightning injury to the eye, which are listed by case number, mode of lightning injury, clinical finding, OCT findings, treatment and outcome. “OCT” is Ocular Coherence Tomography, which can detect eye diseases by measuring the thickness of retinal layers. Three of the patients had a full, uneventful recovery. Three of the patients had some degree of recovery with some residual effects and the seventh showed no improvement after treatment.
5. *Remarkable Rates of Lightning Strike Mortality in Malawi* This article provides estimates of lightning injuries and fatalities from “consequential lightning strikes” (CLS) in Nkhata Bay District in Malawi and compares those data to other developing countries. A CLS is a strike that causes physical injury, unconsciousness or death. Extensive interviews were conducted in the area. They show the injury rate was 419 cases/million per year which is greater than 6 times that in other developing countries, and the fatality rate was 84 cases/million per year which is 5.4 times that of the highest ever recorded.

6. *Lightning Injury in Indoor Setting – A Case Review* In Bangladesh, a woman was struck by lightning indoors while near a window. Lightning came through the window and struck her in the head and she fell down on her head. She lost consciousness for 2 hours, then regained consciousness. She had a headache, was vomiting and was weak in all four limbs. She was taken to the hospital and treated with saline, antibiotics and NSAIDS with Tetanus prophylaxis. Surgery was done to treat the burn and she regained full strength in all four limbs. She was discharged after one week.
7. *Skin Burn, Bilateral Iridocyclitis and Amnesia Following a Lightning Strike* A woman and her friends had taken a walk on an island. After she got home, she found her eyes were painfully irritated and watery and her facial skin was swollen and red. A week later, the woman sought treatment. She had reddening on her face that felt warm and was swollen. She had conjunctival and chemosis in both eyes with no mucopurulent discharge. Corneas were clear except for epithelial oedema. She was treated with tension-lowering drugs, corticosteroids and antihistamines. Fluorophotometry showed leakage of the anterior blood-aqueous barrier. She was asked several times about where she had walked because the appearance of her face suggested an allergic reaction. Eight days after the incident, patient recalled while walking, the weather changed quickly to rain and thunder. She felt a flick near her head and current flowing through her body. Her face felt warm and she remained standing and conscious. Her clothes were intact. She was wearing shorts and a raincoat with the hood over her head and drawn in. The authors conclude lightning hit the raincoat and flowed over the surface and then jumped the gap to the ground instead of going through her bare legs.
8. *Secondary Missile Injury From Lightning Strike* In Pretoria, South Africa, a woman, her son and her daughter were struck by lightning. The woman was killed and the kids were knocked down, but survived. The fatality was due to a direct strike. Examination of the body showed wounds from concrete shrapnel in the lower right-hand sides of her legs. They had been walking on a suburban neighborhood sidewalk beneath a tree when the lightning hit. A scene investigation found the lightning had hit the tree and then hit the people underneath the tree. There were two holes in the concrete near where the mother's body had been found. The authors conclude the lightning also hit the concrete and caused it to explode, sending shrapnel into her legs. The two kids did not have any shrapnel wounds because they were either far enough away or because their clothing protected them. The authors conclude this is the first case of missile injury by lightning documented in the literature.
9. 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 any answers given 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.

10. 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.
11. 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.
12. Next meeting: Friday, March 13, 2026, from 11:45 AM to TBA.

Respectfully Submitted,
Steven E. Clark
President, Lightning Data Center, Denver, CO

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.

Asuquo, M., I. Ikpeme and I. Abang, 2008: Cutaneous Manifestations of Lightning Injury: A Case Report. *Journal of Plastic Surgery*. September 16, 2008.

Link: <https://pmc.ncbi.nlm.nih.gov/articles/PMC2553245/>

Pradhan, E., A. Khatri, A. Ahmed, A. Lama, R. Khanal, L. Bajracharya and S. Adhikari, 2020: Lightning Injury to Eye: Brief Review of the Literature and Case Series. *Clinical Ophthalmology* 2020:14 597-607, February 28, 2020.

Link: <https://pubmed.ncbi.nlm.nih.gov/32184548/>

Mulder, M., L. Msalu, T. Caro and J. Salerno, 2012: Remarkable Rates of Lightning Strike Mortality in Malawi. *PLoS ONE*. January 2012, Volume 7, Issue 1, e29281.

Link: <https://pubmed.ncbi.nlm.nih.gov/22253708/>

Biswas, S. M., Karim, J. Chowdhury, P. Sarkar, M. Begum, M. Sarkar, S. Bardhan, U. Dey and C. Bala, 2015: Lightning Injury in Indoor Setting – A Case Review. *J. Dhaka Med. Coll.* 2015;24(1):79-81.

Link: <https://scispace.com/pdf/lightning-injury-in-indoor-setting-a-case-report-t49xk0hp6f.pdf>

Sommer, L. and H. Lund-Andersen, 2004: Skin Burn, Bilateral Iridocyclitis and Amnesia Following a Lightning Strike. *Acta Ophthalmol. Scand.* 2004; 82: 596-598. April 21, 2024.

Link: <https://pubmed.ncbi.nlm.nih.gov/15453860/>

Blumental, R., 2011: Secondary Missile Injury From Lightning Strike. *Am. J. Forensic Med. Pathol.*, Volume 00, Number 00, Month 2011. February 25, 2011.

Link: <https://pubmed.ncbi.nlm.nih.gov/22104330/>