

# LIGHTNING DATA CENTER MINUTES

May 12, 2023

ST. ANTHONY HOSPITAL, LAKEWOOD, COLORADO

Monthly Quote: “Word spread of de Leon’s “great harbor” that the Calusa called “Tampa”, believed to mean “sticks of fire” in reference to the area’s abundant lightning strikes.” from *The History of Native Americans in Tampa*, by Derek Herscovici.

Link: <https://tampamagazines.com/the-history-of-native-americans-in-tampa/>

Members present: Clark, Swanson, Yarnell, Crow, Terry, Brewer and Langford. Meeting began at 11:45 AM and ended at 1:05 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. Next month’s meeting is on Friday, June 9 and it will be devoted to honoring the passing of Dr. Michael Cherington. Prior to this month’s meeting, I extended an invitation to the Cherington family to attend. Dr. Cherington was fascinated by many aspects of lightning. In that vein, Dr. Phil Yarnell will present the medical case of the bicyclist that was struck in Vail, Colorado which led to the formation of the group. Steve Clark will provide a meteorological case of interest and Ken Langford will show some lightning photographs which fascinated Michael. I would like to have as many members as possible here in the Denver area physically attend the June meeting at the hospital, but there will be a Zoom component to the meeting. The meeting will be held in Conference Room F and/or G.
3. Back in December 2020, the LDC heard from Barb Brewer, the mother of Jacob Brewer who was hit lightning while the family was vacationing in Florida. The portion of the December 2020 minutes is attached below to refresh the memory of the reader.

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From the December 2020 minutes:

We met with Barbara Brewer\*, the mother of Jacob, a teenage boy that was struck by lightning while vacationing with his family of four at the Florida Keys. Clouds had started to build, so the family had started to pack and head to shelter, when Jacob was hit by lightning on July 16, 2020 at about 4:30 PM. It was not raining at the time. Barbara had seen lightning off the coast and heard thunder approximately 2 minutes before the strike. She was asked if anyone else appeared to be heading for shelter before the strike. She said her husband, Jeremiah, noted everyone else was out and did not appear to be heading for shelter. Jacob and Jeremiah had been in the water

shortly before and their bodies were still wet. Jacob was wearing a t-shirt and a pair of rubber-soled shoes. Jeremiah felt heat from the stroke. A daughter and Jeremiah were each about 10 feet away from Jacob when the lightning hit. Barbara was next to Jacob and both were knocked to the ground. She was dizzy and had ringing in the ears. Her family says she seems to be somewhat harder of hearing. She has not yet seen a doctor due to her extreme concern for her son. Ken Langford suggested she might have a ruptured eardrum.

Here follow my imperfect recollection of Jacob's medical issues in no particular order.

The lightning hit his chest and he went into immediate cardiac arrest. Men who were nearby started CPR immediately for 10 minutes. He was without a heartbeat for about 45 minutes, but he was resuscitated.

There were burns throughout his body. A photo showed a burn mark on his chest between the nipples that was approximately 6 inches in diameter. Another photo showed burns on the top and the side of his right foot. The burn mark on the side of the foot coincided with a hole in the side of a shoe above the rubber sole.

He had a stroke, which later was determined to be in the back part of his brain near the motor function and along the right side of his body. The doctors electrically shocked him.

Fluid built up around his heart and lungs. He was on a ventilator for 10 days. His heart rate was high for 2 months before it was stabilized. Lightning caused his blood vessels to constrict and they are working to get the vessels to a less-constricted state. A blood transfusion was done. His liver and kidneys were bad. Doctors think his body is still in "fight or flight" mode and they are trying to relax the body accordingly.

Blood flow to his feet is not where it should be. Jacob has peripheral nerve damage and is paralyzed from the waist down. At first, he could move his toes but is unable to move them now. He feels sensation on the bottom of his feet and some sensation (hot and cold) on his legs. His legs are floppy. There was no nerve conduction following nerve stimulation. Waiting for nerve regeneration. TMS did not get the legs to move. He can move his hip pretty good. He cannot feel vibration below his knees, but he does feel vibration in his knees. One arm is a little weaker than the other. He barely has any leg muscle. At the start of the vacation, he weighed 135 pounds and now he weighs about 108 pounds. Initially, he was not able to urinate or have a bowel movement, but now he is able to go the bathroom.

His cognition is good and his IQ is high. His attitude is good. He does not feel sorry for himself or let himself get depressed.

Various therapies are being pursued. He is on probiotics and vitamins. The family spent about 2.5 months in Chicago for spinal therapy, where he was stabilized. The family is purchasing a grounding mat to dissipate "the electric charge in the blood" per the advice of a doctor. Users of the device claim success. Therapy is done 5 times per week. TMS, brain remapping down to legs. Chiropractic. He is also doing physical therapy.

Jacob has received cards and letters from others who have been struck and also well-wishers. He has also corresponded with another teenager that was struck while playing soccer.

The family found a doctor in their home state of Texas that is familiar with lightning. They know about LSESSI. This encounter with lightning has been covered by news media. Three of the media stories are listed below in the Lightning Links section.

\* Permission was obtained from the family to use specific names, dates and locations.

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Here in May 2023, we received an update on Jacob's condition. Here are my incomplete notes.

Following the strike, he was told by some doctors to accept that he survived and that would be enough. The family reports Jacob is tenacious and that they were not willing to accept that.

After he was hit, Jacob had spots on his chest, the back of his head, and his spinal cord. Jacob is able to tell hot and cold. He was able to move his toes for a month after the strike, then lost that ability. He lost bowel and bladder control after the strike, but was able to regain control of both after much effort. Key to that success was a paper written back in the 1950s which discussed nerve regeneration with supplements. Jacob took turmeric supplements to help regain control.

He suffered from severe muscle wasting but now he has his gluts and quads back but is still unable to control his feet, ankles and toes. He cannot tense his butt to lift his legs. His spinal cord works but he still has pain in his toes and during an erection. Nerve tests show a signal is getting through his legs but the motor component is missing. He is trying to rebuild his nerves. More recently, he has been doing 100 sit and stands per day using the pull up bar by himself.

The family is seeing providers across the country and around the world, for example, Johns Hopkins University, Kentucky Spinal Cord and Brain Injury Research Center at the University of Kentucky, Brooks Rehabilitation Hospital at University Campus in Jacksonville, Florida, Shirley Ryan Abilitylab and a physician in Vienna, Austria.

The family has done hyperbaric treatments and TMS from the brain to the legs. MRI showed bone damage and spinal inflammation, with injury to the T9-T12. Jacob can sit up by himself and he can stand on his legs for a full minute without having to hold onto anything. He was done robotic-assisted walking with a Lokomat device. Phil said robotic-assisted walking devices send a signal to the leg which keeps muscles healthy and prevents atrophy. He tried using a functional electrical stimulation (FES) bicycle. Laser stimulation has been done to increase blood flow through the legs. A machine called The Rise from Austria has pairs of sponges that are attached to the body in different places for 10 minutes. The machine is set and it stimulates the muscles. This device has worked whereas other muscle stimulation devices made in the US have not. They had to fight with the FDA to gain approval to bring the device here to the US. Barb also mentioned NeuroCytonix, a company based in Mexico which offers treatment to redevelop protein in nerves. She also told us a doctor in Sweden has put together a protocol for lightning patients which is based on studies in Asia.

Ken Langford asked if they had tried blood flow restriction therapy, the premise being to choke the flow of blood to the affected muscle, then to release the choke hold which allows blood to rush in and stimulate muscle recovery. They are aware of it but have tried it yet.

Barb said she was grateful to have met the LDC and in particular, Dr. Phil Yarnell, who encouraged her to explore treatment options. She is in the process of starting “A Bolt of Hope”, a non-profit entity devoted to kids that have been hit by lightning. She is working on a website to share the story of Jacob and other kids struck by lightning. She has received a tremendous amount of feedback via mail, e-mail and Facebook.

Barb told us about Pocket Perry, which is part of a subscription service to track weather for outdoor events. It is a cellphone app that signals the occurrence of lightning. Barb was very upset about the Pocket Perry not detecting a flash that came from a parent storm 50 miles away while little league games were being played in her neighborhood, when two others apps showed lightning in the area. She ran out onto the playing field to warn people of the lightning threat. Later, she contacted the company and asked why the app was not showing lightning in the area when two other apps were. She was told it was due to operator error, which she does not accept.

4. Phil told us of a man who had been backpacking with friends on a cloudless day. A loud clap of thunder was heard and one of the dogs that was with the group ran off. Later, there was another loud clap of thunder from a strike he estimates was one-quarter mile away. He blacked out, then found himself sitting upright, seizing and convulsing. He could only describe it akin to rebooting the brain computer. Then there was screaming. His body was tight from the seizure and he was having difficulty breathing. He had a sensation where the bottom of his stomach fell out. He had an out of body experience. He was taken to a hospital for five days. Nowadays there are still problems, one of which is long term cognitive decline. He did not know where to turn for help until he reached out to Mary Ann Cooper who referred him to Phil.
5. LDC welcomes your questions. Please send them via e-mail to Steve Clark at [sclarktoto@gmail.com](mailto: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.
6. 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.
7. 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.

8. Next meeting: Friday, June 9, 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.**

RISE Stimulator by Austrian Doctor \$5,000

Link: <https://www.anatomicalconcepts.com/rise-stimulator-electrotherapy-device>

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LokoMat

Link: <https://www.hocoma.com/us/solutions/lokomat/>

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