

LIGHTNING DATA CENTER MINUTES
October 12, 2012
ST. ANTHONY HOSPITAL WEST, LAKEWOOD, CO
On the Web at: www.stanthonyhosp.org/ldc

Monthly Quote: “Our goal should be to live life in radical amazement . . . (to) get up in the morning and look at the world in a way that takes nothing for granted. Everything is phenomenal; everything is incredible; never treat life casually. To be spiritual is to be amazed”. — *Abraham Joshua Heschel* From “Hit By Lightning” in [Intermountain Jewish News](#), Thursday, October 4, 2012.

1. The meeting began at 11:55 AM and adjourned at 1:05 PM. Members present: Clark, Wells, Elder, Claus, Yarnell, Cherington, Wachtel and Langford. Clark moderated the meeting.
2. The e-zine 5280e, will be writing an article about the LDC most likely in the January 2013 edition. Keep an eye open for it.
3. Steve Clark gave a brief presentation about the LDC (past, present and future) before the St. Anthony Hospital’s Medical Executive Committee on Wednesday, October 3. The talk appeared to be well received. During the talk, one of the members asked about the Pocono Raceway incident and why people weren’t ordered to safety when it was obvious a storm was bearing down on the area. Clark mentioned one of the functions of the LDC is to heighten peoples’ awareness of those potential situations and to plan ahead accordingly.
4. The website continues to undergo modifications and improvements. Karen Wells requested the minutes be put into subfolders to avoid the long list. Phil Yarnell said some people were not able to find the website via search engines. Two examples of search terms used were “lightning injuries” and ‘lightning safety”. Clark will work with our webmaster on these issues.
5. Good news for the LDC! All of the work on the Lightning Safety Poster has paid off. While the poster itself is not being posted at the National Parks, the poster has been officially incorporated into the National Park Service’s “Hazard Library” and some of the language from the poster was been incorporated into the safety tips for some National Park websites. For example, check out the wording of the poster, attached to these minutes, to the wording on the website for Grand Teton National Park: Striking, isn’t it?
6. As noted last month, Karen Wells found an article on Pubmed titled: “Wilderness Medical Society Practice Guidelines for the Prevention and Treatment of Lightning Injuries”, published in the Wilderness Medical Society’s journal: [Wilderness & Environmental Medicine](#) (Vol. 23, 260-269, 2012). Three of the authors are from Colorado: Chris Davis, Tracy Cushing, and Anna Engeln. Dr. Davis will be our featured speaker next month. See the announcement below.

Hopefully, Tracy and Anna will be able to attend also. The other authors are from Washington, California, Montana, Idaho, Utah, Nevada, Arizona, New Mexico, Texas, and New York. The link to the article is in the “Lightning Links” section below.

7. Phil gave an account of a lightning strike to a female driver of a car on an interstate highway, which occurred approximately four years ago. That car was traveling between 65 and 75 mph when lightning struck a nearby cell tower and the passenger door of the car. The driver reported it sounded like a bomb had gone off. The seat belt cover was blown off. Patient had holes in the lower left neck that were bleeding and was wearing a necklace. Patient has both short-term and long-term memory loss, panic attacks, and feels she has aged at least 8 years. Three years after the strike, she reported AFIB, but it is unknown if the AFIB is related to the lightning strike or was due to other causes. Patient reports her body vibrates during rapid changes of pressure. Ken Langford wondered if the sensations occurred when the pressure was rising or when the pressure was falling, thinking this might be an interesting data point. Ken also wondered if she experiences these vibrations while flying. Clark reminded us the barometric pressure is the weight of the air upon us. During periods of rapid increase, the air upon us is getting heavier and the converse is true during periods of rapid decrease. It is unknown if any of the vehicle’s windows were open at the time of the strike. Ron Holle examined 212 lightning strike events associated with vehicles, of which 76 involved people inside a fully-enclosed metal vehicle. Of those 76, there were 40 events where no injuries or fatalities were reported. Furthermore, most of the injuries reported were relatively minor, which suggests seeking shelter in a fully-enclosed metal vehicle is still a viable safety option.
8. Phil also brought in an article from the July/August 2012 edition of *Practical Neurology*, which reported a patient that suffered spinal injury after an electrocautery procedure. The patient was undergoing a gynecologic procedure when the shock occurred. Analysis suggested the patient was not properly grounded prior to the start of the procedure.
9. Howard Wachtel brought in an article from the [Intermountain Jewish News \(IJN\)](#) describing a lightning strike to a man as he was getting into his car. His wife was loading their daughter into the passenger side when the lightning hit. He was knocked unconscious and was lying on the ground. Someone called 911 and his wife began CPR. The man was reported to have burns over 15% of his body. Mainstream media covered this incident also. See the links, including the IJN link, in the “Lightning Links” section below. While not in the article, comments were made about the lightning storm being extremely unusual. A 9News broadcast meteorologist noted the storm was at about the same intensity earlier during daylight hours as it was in darkness. Therefore, it is more likely the lightning *appeared* to be more unusual, simply because lightning is more readily seen in darkness. During daylight hours, lightning flashes tend to be diluted by ambient lighting and more easily shielded by rain and clouds.

10. Michael Cherington called our attention to a youth football player struck by lightning while taking the field. He was placed on life support in the hospital and was taken off life support four days later at the request of his parents. A hand-held lightning detector was being used at time, but was proven to be useless, since the strike, which hit the boy was one of the first strikes from the storm. Parents, teams and schools in Florida are now petitioning to have early lightning detection equipment mandatory at all schools and playing fields. As of the date of the article, over 3600 people had signed the petition.

11. Next meeting: Friday, November 9, 2012 at 11:45 AM at St. Anthony Hospital West. Conference Room TBA. Dr. Chris Davis, with the University of Colorado School of Medicine's Department of Emergency Medicine. Hopefully, he will be joined by Dr. Anna Engeln and Dr. Tracy Cushing. Both are with Denver Health. They will be giving a presentation on the paper referenced above in Paragraph 6. A link to the article is in the "Lightning Links" section below.

Respectfully Submitted,

Steven E. Clark, Consulting Meteorologist

In Case You Missed It...Lightning Links

This is a monthly listing of news, articles, websites, and videos about lightning and allied areas as reported in the media. 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. Enjoy!

Man Hit by Lightning in Denver During Intense Thunderstorm, Resuscitated by His Wife

http://www.thedenverchannel.com/news/local-news/man-hit-by-lightning-in-denver-during-intense-thunderstorm?hpt=us_bn10

Lightning Strike Victim Still Hospitalized With Severe Burns

<http://denver.cbslocal.com/2012/10/03/lightning-strike-victim-still-hospitalized-with-severe-burns/>

Hit By Lightning...After Yom Kippur

<http://www.ijn.com/ijn-news/local/3460-hit-by-lightningafter-yom-kippur>

“Wilderness Medical Society Practice Guidelines for the Prevention and Treatment of Lightning Injuries”. Link to article:

<http://download.journals.elsevierhealth.com/pdfs/journals/1080-6032/PIIS1080603212001809.pdf>

“Lightning-Caused Deaths and Injuries in the Vicinity of Vehicles” Ron Holle

http://www.lightningsafety.com/nlsi_pls/lightning-caused-deaths-around-vehicles.pdf

“Fort Myers Lightning Death Spurs Safety Effort” Fort Myers News-Press, Oct. 17, 2012. NOTE: This page has links to other lightning articles.

<http://www.news-press.com/apps/pbcs.dll/article?AID=2012310180025>

“Expert Opinion: Spinal Injury from Electrocautery Shock” Practical Neurology, August 2012.

<http://bmctoday.net/practicalneurology/2012/08/article.asp?f=expert-opinion>

Links to Grand Teton National Park and Rocky Mountain National Park lightning safety:

<http://www.nps.gov/grte/planyourvisit/yoursafety.htm>

<http://www.nps.gov/romo/planyourvisit/hazards.htm>

Compare the wording in these links to the text from the poster, below.

Text from the Lightning Safety Poster:

Warning: Lightning Kills!

Head for safety and live to hike another day.

Stay aware of the weather while hiking

Afternoon storms are common: plan to finish hiking early

Act immediately if you see lightning or hear thunder:

Head back to the safety of your enclosed metal vehicle

As you hike out, avoid locations above treeline,

Open meadows and isolated trees.

Space hikers at least 10 steps apart

All outdoor locations and many wilderness structures

are a high lightning risk

Any actions you take to reduce lightning risk do not

eliminate the risk of injury or death

Wait at least 30 minutes after the last lightning

and thunder before resuming outdoor activity

Remember: lightning can travel well over 20 miles

from its source

If lightning strikes, perform CPR and call 911

Finally, it is your responsibility to get to safety when lightning is present or eminent. This information is meant to alert you to the possibility of lightning danger, and to encourage you to act responsibly.

Lightning Data Center

St. Anthony Hospital

Lakewood, Colorado

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