

# Cardiovascular complications after lightning strike injury

**Table S1:** Odds of becoming a lightning victim (based on averages for 2009-2018) [6].

Odds of Becoming a Lightning Victim (based on averages for 2009-2018)			
Estimated U.S. population as of 2019			330,000,000
Average Number of Deaths Reported	27	Estimated number of Injuries	243
Odds of being struck in a given year (estimated total deaths+estimated injuries)			1/1,222,000
Odds of being struck in your lifetime (Est. 80 years)			1/15,300
Odds you will be affected by someone struck (10 people for every 1 struck)			1/1,530

Indiresha Iyer<sup>1\*</sup>, Abiodun Idowu<sup>2</sup>

<sup>1</sup>Department of Cardiovascular Medicine, Heart and Vascular Institute, Cleveland Clinic Akron General, Akron, Ohio, United States;

<sup>2</sup>Department of Medicine, Einstein Medical Center, Philadelphia, Pennsylvania, United States of America

\*Author for correspondence:

Indiresha Iyer, Department of Cardiovascular Medicine, Heart and Vascular Institute, Cleveland Clinic Akron General, Akron, Ohio, United States, E-mail: IYERI@ccf.org

Received date: 08-Nov-2023, Manuscript No. FMIC-23-119672;  
Editor assigned: 10-Nov-2023, PreQC No. FMIC-23-119672 (PQ);  
Reviewed date: 27-Nov-2023, QC No. FMIC-23-119672;  
Revised date: 04-Dec-2023, Manuscript No. FMIC-23-119672 (R);  
Published date: 14-Dec-2023, DOI: 10.37532/1755-5310.2023.15(5).766

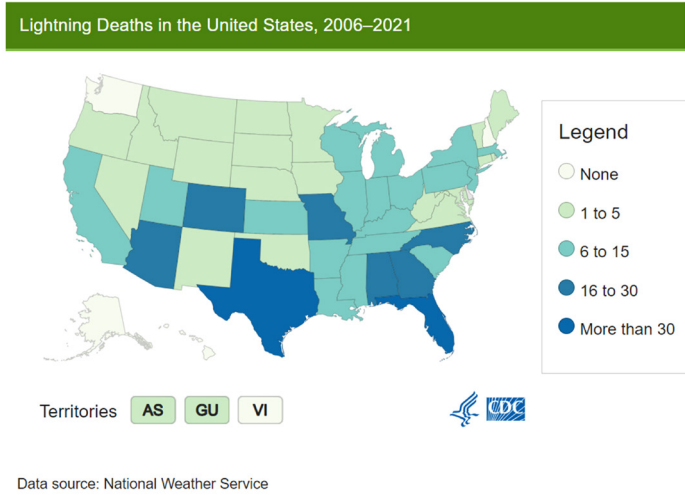
**Table S2:** Lightning deaths in the United States 2006-2023 September [3].

Years	Female	Male	Total
2006	10	39	49
2007	5	42	47
2008	6	23	29
2009	6	29	35
2010	7	22	29
2011	7	19	26
2012	3	26	29
2013	6	17	23
2014	5	21	26
2015	11	17	28
2016	9	31	40
2017	1	15	16
2018	4	17	21
2019	5	16	21
2020	4	13	17
2021	10	1	11
2022	4	15	19
2023	3	10	13

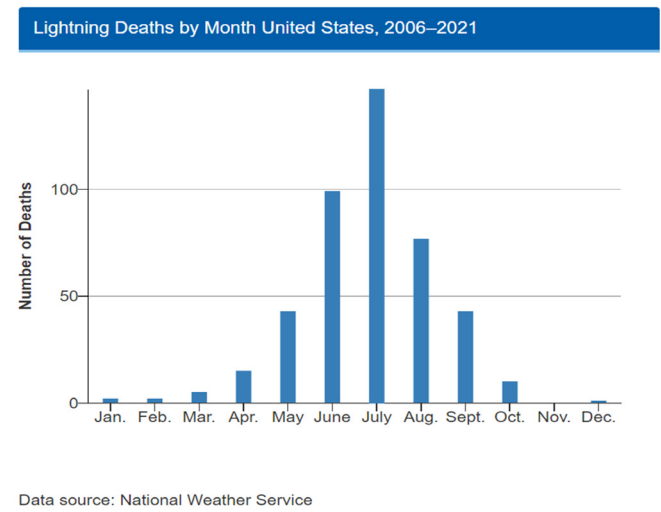
**Table S3:** Cardiac effects due to various types of lightning strike [18].

Direct strike: Passage of current directly through person between head or upper body and feet	Side flash: Most frequent mechanism and occurs when person close to (but not in contact) an object through which the direct current discharges.	Ground strike or step voltage: Lightning hits the ground, discharges at the point of contact, and dissipates irregularly
Immediate cardiac arrest due to asystole and death or hypoxia-induced ventricular fibrillation [7]	Sinus tachycardia, ventricular fibrillation	Cardiac arrhythmias like sinus tachycardia, ventricular fibrillation
Severe biventricular failure or pericardial effusions	Myocardial injury 66% [8]	Myocardial injury 12% [8]
Myocardial injury reported in 75% of victims [8]	ECG: Nonspecific ST-T wave changes like ST segment depression and T wave inversion [8]	ECG: Nonspecific ST-T wave changes [8]

**Note:** ECG changes include QTc prolongation and ST elevation reported [8]



**Figure S1:** Lightning deaths in the United States, 2006-2021.



**Figure S2:** Lightning deaths by month United States 2006-2021.