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Tuesday, 05 February 2013 12:55

According to a new study conducted by Reuters Health, there are links that suggest lightning may trigger the onset of migraine headaches.

Researchers looked at weather logs from Ohio and Missouri and found individuals were 31 percent more likely to have some form of a headache, and 28 percent were more likely to have a severe migraine headache, on days lightning struck within 25 miles of their home.

“Migraine headaches are usually throbbing-type headaches, often associated with nausea and sometimes neurological symptoms such as visual disturbances, numbness or weakness,” Jean Swearingen, medical director at Student Health Services, said.

“Migraine characteristics vary between people, but they are often severe enough to disrupt daily life,” Swearingen added.

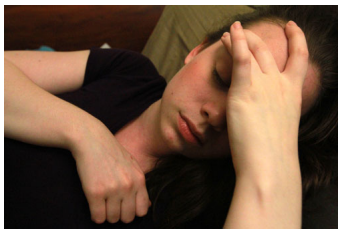
This study is unique from others that looked at correlations between weather and migraine headaches. Information from three lightning tracking sensors was used, whereas most studies rely solely on individual observations.

This study also used personal headache diaries from two previous studies to examine participants headache records.

Swearingen added that many different things are speculated to trigger migraine headaches.

Some common inducers include lack of sleep or irregular sleep patterns, missing meals, stress, hormonal factors, caffeine, flashing or bright lights and weather changes.

“Some research suggests that lightning may trigger migraine headaches, but it’s probably a bit premature to argue lightning is a definitive trigger,” Henry Zintambila, assistant professor of geography, said.



“When lightning hits the ground, it creates low frequency electromagnetic waves that induce a magnetic field. This could change electrical signals in the brain and cause a headache,” Zintambila said.

“However, no one knows exactly what causes migraine headaches, so it is difficult to make a definitive argument,” Zintambila added.

Zintambila explained another theory that deals with the air around a lightning stroke. When the air changes, it could conceivably trigger electrical changes in the sensitive brain of a migraine sufferer, which would cause a headache.

He also said that this study's findings could be due to the type of weather conditions associated with lightning.

"Storms often change barometric pressures, temperatures and humidity levels and those aspects could be what are triggering the headaches rather than the lightning itself," Zintambila said.

There is a lot of research on this topic but none of it can give a real answer as to what exactly causes migraines, he added.

"A major tip on avoiding migraines is to stay away from your personal known triggers whenever possible," Swearingen said.

"Also treat the headache sooner rather than later because once it becomes a full-blown migraine it can be challenging to manage," she added.

If migraines are frequent or severe, seek medical care to discuss treatment and prevention options, Swearingen said.