

# The dos and don'ts during thunderstorms

**KUALA LUMPUR:** The rainy season is upon us and with that comes thunderstorms and the risk posed by lightning strikes.

Speaking of lightning, did you know it is more dangerous to talk on a corded landline phone than a cellular phone during a thunderstorm?

Landlines are more dangerous simply because the cable connection to the phone conducts electricity, which increases the possibility of the user being struck by lightning, said Malaysian Meteorological Department director-general Jailan Simon.

"However, mobile phones are also vulnerable to lightning strikes if a person uses it while the phone is plugged into a charger during a thunderstorm," he told Bernama in an interview recently.

About 16 million thunderstorms occur yearly worldwide, said Jailan.

In Malaysia, 132 deaths due to lightning strikes were recorded from 2008 up to August 2019.

The west coast of Peninsular Malaysia recorded the highest number of deaths at 89 during that period, followed by the east coast (22) and Sabah and Sarawak (21).

Lightning is a natural phenomenon and mostly occurs over land in the tropics. In Malaysia, it occurs more frequently during the transition phase of the monsoon in April-May and October-November, said Jailan.

Lightning is generated when electrostatic discharge occurs in the atmosphere.

At this point, a tremendous amount of energy is released and the temperature can soar up to 30,000°C, which is hot enough to melt silica sand, a mineral.

"Lightning can cause the air around it to heat up and the temperature can reach about 10,000°C, which is almost twice the temperature of the sun's surface. The heat will create a shock wave that produces a sound, also known as thunder," he said.

Jailan also said that when lightning strikes a

person, it can cause severe injuries and third-degree burns that affect deep layers of the skin, including the fat, muscles, bones and nerves, as well as kill.

"A bolt of lightning that strikes a person can carry a tremendous amount of voltage of up to 120,000 volts, which is more than what is needed to cause a cardiac arrest," he said.

In view of the danger posed by lightning strikes, Jailan advised the public to check the weather report before carrying out outdoor activities, especially during the monsoon transitional phase when thunderstorms are expected in the afternoon and late evening.

Prof Dr Mohd Zainal Abidin Ab Kadir, a lecturer at Universiti Putra Malaysia's Centre for Electromagnetic and Lightning Protection Research, said during thunderstorms, one should stay away from telephone wires, computers, gadgets and objects such as copper or iron pipes that can conduct electricity.

"If a person is in the open, he/she should get into a building or car as soon as possible. Avoid seeking shelter under a tree.

"If there is no building nearby, then to reduce the risk of being struck by lightning, squat on the ground with your hands placed on your knees and your head between the knees," he said, adding that the squatting position helps one to make his/her body as small as possible, thus minimising contact with the ground.

He also said that it is safe for passers-by to go to the aid of a lightning strike victim because the latter's body does not retain electrical charge.

"Call for emergency help immediately as it is usual for the victim's heart to stop suddenly. CPR should be performed, while the burned skin should be covered with a piece of clean cloth," he said.

Mohd Zainal Abidin said if the victim is conscious but has symptoms of shock, he should be placed in a lying position with his head lower than the body and legs. — Bernama