

Carpe Diem – Seize the Day Blog

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Do alarm signals go off in your brain with the heat wave we are currently experiencing? What are the risks for people with epilepsy when we experience hot temperatures and high humidity? What precautions do we need to take during the summer months? These are questions we need to begin to ponder ASAP. Paraphrasing Phyllis Feiner Johnson, heat is not the friend of those with epilepsy. High heat and high humidity can trigger some awful consequences if you have epilepsy. If you are not careful, the high heat and high humidity could have you feeling like you are as dizzy as if you were riding on a roller coaster. An epileptologist explained that heat can trigger a seizure for some people because it is firing up the neurons in the brain which can cause a seizure.

Hot Weather and Epilepsy

Phyllis Feiner Johnson posits that there is no scientific evidence that heat itself causes seizures to occur in people suffering from epilepsy. Becoming severely overheated can cause seizures, but an average hot day is not in itself the culprit. The changes in weather could trigger epileptic seizures.

Dehydration and Epilepsy

It is especially important to ensure that you have plenty of fluids in your system if you have epilepsy. Too much perspiration and not enough fluid intake can cause a drop in sodium and sugar levels (hypoglycemia), both of which have been known to cause seizures. Also, sweating or urinating too much may cause too much of your seizure medication to be expelled from your body, lowering both your therapeutic medication levels and your threshold for seizures.

Anti-Seizure Medication Side-Effects

According to Johnson, certain anti-epileptic drugs, such as the drug Topamax, may cause side-effects that require more fluid intake. For example, Topamax may cause decreased sweating and higher body temperature, which can prevent your body from cooling itself adequately. If your child takes an AED such as Topamax, be sure to consult with your neurologist or epileptologist to see what additional precautions you need to be taking during the high heat and high humidity.

Johnson points out that the process of sweating and evaporation of sweat facilitates body cooling. In extreme temperatures more than 90° F (32.2° C), the amount of heat produced, exceeds the cooling effect of sweat evaporation. If the humidity reaches 100%, evaporation of sweat is no longer possible, and your body loses its ability to dissipate heat. Eventually, your body's temperature rises, leading to severe dehydration, swelling of brain tissue, low blood pressure, organ damage, and possibly death.

What Does the “Heat Index” Mean?

The heat index tells you how hot it feels outside in the shade. It is different from the outside temperature. The heat index is a measurement of how hot it feels when relative humidity is combined with the effects of the air temperature. When you are standing in full sunshine, the heat index value is even higher. A heat index of 90°F or higher is dangerous.

How Can I Prevent Heat Illness?

When the heat index is high, stay indoors in air-conditioned areas when possible. If you must go outside, take the following precautions:

- Wear lightweight, light-colored, loose-fitting clothing.
- Protect yourself from the sun by wearing a hat or using an umbrella.
- Use sunscreen with a sun protection factor (SPF) of 15 or more.
- Schedule vigorous outdoor activities for cooler times of the day — before 10:00 a.m. and after 6:00 p.m.
- During an outdoor activity, take frequent breaks.
- Drink water or other fluids every 15 to 20 minutes, even if you do not feel thirsty.

If your child has clear, pale urine, you are probably drinking enough fluids. However, dark-colored urine is an indication that you are dehydrated. Having heat exhaustion or heat stroke makes you more sensitive to hot conditions for about a week afterwards. Your doctor can tell you when it is safe to return to your normal activities.

Heat exhaustion is the body’s response to loss of water and salt from heavy sweating. Signs include headache, nausea, dizziness, weakness, irritability, thirst, and heavy sweating. Heat cramps are caused by the loss of body salts and fluid during sweating. Low salt levels in muscles cause painful cramps.

Tired muscles — those used for sport and outside work — are usually the ones most affected by cramps.

Heat rash, also known as prickly heat, is skin irritation caused by sweat that does not evaporate from the skin. Bottom line: Try to stay out of the heat. Or if you must, take the proper precautions.

Be proactive and preventative and discuss the impact of hot temperatures and high humidity on your child and their epilepsy. Remember the words of Phyllis Feiner Johnson. Heat is not the friend of those with epilepsy. High heat and high humidity can trigger some awful consequences if you have epilepsy. Stay safe and be prepared during the summer months.

Editor’s Note: The Carpe Diem – Seize the Day Blog will be distributed and posted weekly. Always remember – CARPE DIEM – SEIZE THE DAY!

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