

Carpe Diem – Seize the Day Blog

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Has your child experienced an aura? What was it like? This week's Carpe Diem-Seize the Day Blog examines the phenomenon called an **aura**. For some types of seizures, there can be a warning. A seizure aura is a phenomenon where your brain signals the approach of an oncoming seizure. Keep reading to learn more about seizure auras, what they are, and what they mean.

What is a seizure aura?

An aura is the feeling you may have before the onset of a seizure. Typically, these occur before a focal seizure. However, research suggests that nearly 65 percent of people with generalized epilepsy may experience auras as well.

Auras are a type of seizure called focal aware seizures (FAS). When a FAS happens before another, more severe type of focal seizure, it is considered an aura.

Auras can include many sensations, from sights, sounds, or smells to pain, numbness, or headaches.

What are the symptoms of a seizure aura?

While people who have had seizure auras sometimes find them hard to describe, what an individual feels during an aura varies depending on where the focal aware seizure occurs in their brain.

Frontal lobe seizure auras

The frontal lobe of the brain is located in your forehead area. It controls things like emotional expression, your memories, language, judgment, problem-solving skills, and sexual behavior. Your frontal lobe is also responsible for much of your personality — it makes you who you are. While auras, or focal seizures, in this area may be mild, there are also more severe seizures and seizure disorders that affect the frontal lobe, causing more significant symptoms.

Auras that start in the frontal lobe may include symptoms like:

- feeling a wave or ripple that travels through your head.
- twitching or stiffening in your arm, hand, or other part of your body
- headache or pain

Temporal lobe seizure auras

The temporal lobe of the brain is located behind your ears, and it controls auditory processing and making the sounds of spoken language meaningful.

Auras that start in the temporal lobe may include symptoms like:

- a sensation in your stomach like you are falling or riding a rollercoaster.
- feelings of déjà vu
- an odd or unusual taste or smell

- hearing unexplained music or a song
- a sudden intense emotion like fear, happiness, or anxiety

Parietal lobe seizure auras

The parietal lobe is located near the center of the brain behind the frontal lobe. It contains the primary sensory area in which sensations in the skin like warmth, cold, and touch are processed. The parietal lobe is also responsible for helping you understand written language and mathematics and judge spatial things like size, distance, and shapes.

Auras that start in the parietal lobe may include symptoms like:

- tingling or numbness
- feeling of something crawling on your skin
- feeling as if one arm or leg is bigger or smaller than the other.
- feeling out of your body

Occipital lobe seizure auras

The occipital lobe of the brain is located at the back and base of the skull. It contains your primary visual cortex and receives direct input from your retina.

Your occipital lobe is responsible for your ability to see, read and understand written language, and process all types of visual information, like colors and shapes.

Auras that start in the occipital lobe may include symptoms like:

- seeing things that are not there, hallucinations.
- seeing flashing or colored spots or lights

Why do people get seizure auras?

Some believe auras are simply a warning sign of a coming seizure, but many consider them small seizures. They can be detected during an electroencephalogram (EEG), a test that measures electrical signals in the brain.

Seizures and auras are both the result of a disruption in electrical signals in the brain.

Some experts believe that auras are caused when a seizure creates a new pathway in the brain that crosses an existing neural pathway for a feeling, sensation, smell, sight, or sound — and forms a permanent connection.

Once created, that neural connection acts as a precursor or warning for any seizure that occurs on that specific pathway. For some people, auras can be unusual things like a song, a color, or even a specific memory.

To understand why seizure auras happen, you also need to understand what causes seizures.

There are several causes for seizures, including:

- neurological conditions or infections
- epilepsy
- fever
- imbalances with electrolytes
- head injuries
- abnormal blood sugar levels
- alcohol withdrawal

- drug use
- drug withdrawal

What is a seizure?

Seizures are the body's response to a change in the brain's electrical system. Sometimes, this response is barely noticeable, and a person may appear to stare out into space. In other cases, the response is more severe, with violent jerking and shaking or a loss of consciousness.

Seizures are classified into types:

Focal onset seizures

Focal onset seizures, also called partial onset seizures, occur in one specific area of the brain.

Focal seizures may be broken down to three main types:

- **Simple focal seizures.** These seizures occur in a small area of the brain and last a short period of time, 1 to 2 minutes. Individuals with simple focal seizures generally remain conscious and aware. They may experience twitching in a specific area of the body, experience a strange taste or smell, or feel frozen. Auras may be a type of simple focal seizure.
- **Complex focal seizures.** This type of seizure is the most common type to follow an aura. Individuals having a complex focal seizure may be unresponsive, staring into space. They may also have involuntary actions, called automatisms, like lip smacking, rapid blinking, gulping, or vocalizations like grunting or shouting.
- **Secondary generalized seizures.** These seizures start in one area of the brain but spread to both sides. Individuals having a secondary generalized seizure will have a focal seizure followed immediately by a generalized seizure. The initial seizure may be considered an aura.

Generalized onset seizures

Generalized onset seizures affect multiple areas of the brain at the same time.

This type of seizure has subtypes including:

- tonic-clonic or grand mal seizures
- absence or petit-mal seizures
- atonic seizures

Unknown onset seizures

These seizures occur suddenly and for no known reason.

Can you prevent seizure auras?

Since auras are a precursor to another seizure, the strategies to prevent auras are similar to those preventing seizure. There is no way to stop an aura from happening, but many people can identify triggers to seizure activity, like:

- stress
- sleep deprivation
- depression
- anxiety

Prodrome vs. aura

Prodromes are an early sign or warning of impending symptoms of an illness or condition. While auras usually occur too close to an impending seizure to stop it, prodromes offer more time to enact preventive strategies.

Prodromes are similar to auras but have symptoms or feelings that occur hours or days before a seizure. With prodromes, or in some cases where auras and seizures are spaced far enough apart, some people can head off seizures with a number of strategies, like:

- relaxation
- sleep
- medications
- avoiding alcohol or other triggers
- positive thinking
- deep breathing

What to do if you have a seizure aura

While an aura can be scary, triggering anxiety about an upcoming seizure, it can also be extremely useful in keeping you safe. Often with seizures, you may fall, lose balance, or become unconscious. Sometimes, this happens suddenly and in places where you may not be able to get help immediately.

Aura and prodromes give you time to sit down, find a safe location, or get help. Typically, people who have auras begin to notice a regular pattern of symptoms and patterns that can help them ensure their safety during a seizure.

Can you stop having seizure auras?

If you get auras as part of your seizure disorder or epilepsy, there is not much data to suggest they can be stopped. You can try to prevent seizure activity in general by avoiding triggers or taking regular medications.

However, auras perform a vital role for people with seizures, as they can help them prepare for the seizure.

People who are diagnosed with epilepsy before age 12 generally have a better prognosis and may even grow out of the condition in adulthood. Increased age and concurrent health conditions can make a prognosis worse.

Seizures are a serious neurological condition caused by an interruption in electrical signals in the brain. This condition can cause you to fall, trip, or lose consciousness when they occur.

Auras are a type of seizure and sometimes your brain's way to prepare or warn you of another, perhaps more severe seizure. People who experience auras can use the signal to find a safe location, take medication, or get help. Auras cannot be stopped, but epilepsy and seizure disorders can be managed in many cases with medication or surgery.

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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