

Carpe Diem – Seize the Day Blog

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This week will do a deep dive into the various phases of a seizure. Seizure phases include the aural stage, the ictal stage, and the postictal stage. A seizure is a brief episode involving changes in consciousness and/or involuntary (not on purpose) shaking or jerking of the body.

If your child has epilepsy, they may experience a seizure pattern that involves only the ictal phase or you may have a seizure pattern that includes other seizure phases as well. **It is important to learn how to recognize these phases so that you can avoid injuries or harmful effects of a seizure.**

Aural Phase

The first stage of a seizure, an aura, is also described as the pre-ictal phase. This stage occurs immediately before the ictal stage of a seizure, and it can last from a few seconds to an hour in duration. Most people are aware of their own symptoms during a seizure aura. You may or may not have an aura prior to your seizures. Most people who have a pre-seizure aura experience the same type of aura every time.

If your child typically has a seizure aura prior to their seizure, you may learn to recognize subtle signs of their aura, or you can ask your child if they notice a recurrent pattern of symptoms before they have an obvious seizure. An aura can involve symptoms such as fatigue, visual changes, a sense of detachment from reality, distorted taste, unusual sounds, involuntary movements, or altered perceptions, such as tingling sensations. An aura is caused by an alteration in brain activity that begins shortly before the most noticeable part of the seizure, which is the ictal stage.¹

What You Can Do

If you notice that you have an aural stage before your seizure, you can avoid any potentially dangerous activity, like climbing stairs or handling sharp objects. Your healthcare provider might instruct you to take anti-seizure medications during your aural stage, especially if your seizures are especially severe.

Ictal Phase

The most prominent and visibly apparent phase of a seizure is described as the ictal phase. During this phase, you may experience alterations in consciousness, involuntary movements—or both. A seizure can be described as a convulsive seizure (with shaking or jerking movements) or a non-convulsive seizure (without any unusual physical movements). Involuntary movements may involve your whole body, or one side of your face, arm, or leg. Typically, the muscle movements are rhythmic and repetitive. You may or may not be aware of your symptoms during the ictal phase of your seizures.

The ictal phase typically lasts between a few seconds to a few minutes. Usually, the ictal phase of a seizure resolves on its own. In rare instances, this phase may be prolonged and might not cease until you take rapid-acting anti-seizure medication—this type of continuous seizure is called status epilepticus.

The diagnosis of your seizure type and your treatment strategy is typically based on the features of your ictal phase.

Common seizure types include:

Absence seizures: More common in children than in adults, this seizure type is characterized by a brief alteration of consciousness without muscle movements or loss of muscle tone. A person may seem like they are not paying attention or daydreaming during an absence seizure.

- **Focal seizures:** A common seizure type that may result from a brain injury (such as head trauma or a stroke), focal seizures involve jerking of one part of the body, with or without impairment of consciousness. They are generally obvious to an observer, and you may or may not be aware of it yourself while you are having a focal seizure.
- **Partial seizures:** Seizures that involve some impairment of consciousness and may involve involuntary muscle movements are described as partial seizures. There can be an overlap between partial seizures and focal seizures.
- **Myoclonic seizures:** Sometimes these seizures occur in hereditary epilepsy, and they involve involuntary rhythmic jerking of one part of the body, typically with impairment of consciousness. Myoclonic epilepsy is a type of epilepsy with predominantly myoclonic seizures.
- **Generalized tonic clinic seizures:** This is the most noticeable type of seizure, with involuntary shaking and jerking of the whole body and impairment of consciousness.

You can experience more than one seizure type if you have epilepsy. Your ictal symptoms will likely correspond to the pattern seen on your electroencephalogram (EEG) during this phase. Your EEG is expected to show erratic electrical activity during the ictal phase of a seizure. These changes may correspond to one portion of the brain in partial seizures or may involve the whole brain in an absence seizure or a generalized tonic-clonic seizure.

What You Can Do

Be sure to describe this phase to your healthcare provider if you recall any of it. If a family member has witnessed your ictal phase, it is important to report the details to your medical team, as the events in this phase guide treatment.

Postictal Phase

The postictal stage occurs after the ictal phase of a seizure. You can have a variety of symptoms during the postictal stage of a seizure. You can be conscious or unconscious during this stage—and your level of consciousness during your postictal phase might or might not correlate to your level of consciousness during your ictal stage.

It is common to feel very tired after a seizure and you may need to sleep for several days before finally feeling rested. Sometimes you may be completely unarousable (unable to be woken up) after a seizure. It is also common to be confused (postictal confusion).

And some people experience partial paralysis (weakness) of an arm or leg during the postictal phase of a seizure. This paralysis, often described as Todd's paralysis, can last for several hours, and may even last for days. Todd's paralysis often corresponds to the area of the brain in which the seizure began, and it is sometimes considered a sign of focal seizures.

If you have EEG changes during the postictal phase of your seizures, these changes may correlate with the EEG changes seen during your ictal stage.² Often, the area of the brain that is affected by a seizure may produce slowed brain waves during the postictal phase.

What You Can Do

Be aware that you may get groggy as you are recovering from a seizure. Take it easy and get enough rest so that you can fully recover.

Your seizure stages can be worrisome for you, especially if you have not experienced them before. You should discuss all of your seizure symptoms with your healthcare provider. Over time, you may begin to recognize your seizure pattern—including all of the stages. Knowing the sequence of your seizure phases can help you manage your epilepsy and can help you assess how well your anti-epilepsy medication is working.

As always, consult your neurologist/epileptologist with any questions that you might have regarding the various phases of the seizures that your child may be or have been experiencing.

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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