

Focal Onset Impaired Awareness Seizures (complex partial seizures)

CONTENT HIGHLIGHTS

- A seizure that starts in one area or side of the brain and the person is not aware of their surroundings during it is called focal (onset) impaired awareness seizure.
- This term replaces complex partial seizures. The word "onset" is optional.
- Focal impaired awareness seizures typically last 1 to 2 minutes.
- These seizures may have an aura (or warning, which technically is itself a focal aware seizure).
- These seizures include automatisms (such as lip smacking, picking at clothes, fumbling), becoming unaware of surroundings, and wandering.
- Many treatment options are available, including medications, diet, surgery, and devices.

WHAT IT LOOKS LIKE...

“Harold's spells begin with a warning. He tells me he's going to have a seizure and usually sits down. If I ask him how he feels, he just says, ‘I feel it.’ Then he makes a funny face, a mixture of surprise and distress. During the seizure he may look at me when I call his name, but he never answers. He just stares and makes odd mouth movements, as if he's tasting something. Sometimes he'll grab the arm of the chair and squeeze it. He may also pull at his shirt as though he's picking lint off of it. After a few minutes, when he's coming out of it, he asks a lot of questions. He never remembers his ‘warning’ or these questions. The seizures make him tired. If he has two in the same day, he often goes to sleep after the second one.”

FIRST AID for Focal Onset Impaired Awareness Seizures

- Do not restrain the person.
- Remove dangerous objects from the person's path.
- Calmly direct the person to sit down and guide him or her from dangerous situations. Use force only in an emergency to protect the person from immediate harm, such as walking in front of an oncoming car.
- Observe, but do not approach, a person who appears angry or combative.
- Remain with the person until he or she is fully alert.

Partial seizures, simple or complex, are controlled by the function of the brain area in which they occur.

What is a focal onset impaired awareness seizure?

A focal onset seizure begins in one side of the brain. We used to call these partial seizures. Focal onset seizures are the most common type of seizures in adults with epilepsy.

When the seizure begins in one side of the brain and the person has a change in their level of awareness during some or all of it, it is called a focal onset impaired awareness seizure. The word "onset" is optional.

- This type of seizure was previously called a complex partial seizure.
- Some people may also call them temporal lobe seizures if they start in the temporal lobes of the brain. An even older term is "psychomotor seizure."

Where do focal impaired awareness seizures (complex partial seizures) usually start?

- These seizures usually start in one area or group of brain cells, most often in the temporal lobe or frontal lobe of the brain. They can also start in other areas too.
- The seizures starting in the frontal lobe tend to be shorter than the ones from the temporal lobe.
- Focal seizures can include involuntary movements called automatisms (aw-TOM-ah-TIZ-ums) like rubbing of the hands, lip-smacking, chewing movements. When they involve the frontal lobes, you may see bicycling movements of the legs or pelvic thrusting or other complex movements.
- Some focal onset impaired awareness seizures (usually ones beginning in the temporal lobe) start with a focal aware seizure (previously call simple partial seizure), which is commonly called an aura.
- In this case, the focal aware seizure quickly involves other areas of the brain that affect alertness and awareness.
- The person loses awareness and stares blankly. So even though their eyes are open and they may make movements that seem to have a purpose, in reality "nobody's home."
- If the symptoms are subtle, other people may think the person is just daydreaming.
- Awareness may be only partially impaired, rather than absent. Any decrease in awareness of the self or environment at any time during a seizure makes it a focal impaired awareness seizure.
- A person's ability to respond may be impaired. Some seizures make the person unable to move yet still aware of what is happening around them.
- Impairment of awareness is similar to the concept of impairment of consciousness.

- Some focal impaired awareness (complex partial) seizures can spread to both sides of the brain. Previously called secondarily generalized seizures, the new name for this is focal to bilateral tonic-clonic seizures.
- They usually last between 30 seconds and 3 minutes.
- Afterward, the person may be tired or confused for about 15 minutes and may not be return to normal function for hours.

What does a typical focal impaired awareness seizure look like?

Here's a typical story of someone having a focal onset impaired awareness (complex partial) seizure:

"Susan's seizures usually occur while she's asleep. She makes a grunting sound, as if she's clearing her throat. Then she'll sit up in bed, open her eyes, and stare. She may clasp her hands together. If I ask her what she's doing, she doesn't answer. After a minute or so, she lies down and goes back to sleep."

- Some people can have seizures of this kind without realizing anything has happened.
- The seizure can wipe out memories of events just before or after it.
- Most people move their mouth, pick at the air or their clothing, or perform other involuntary purposeless actions (automatisms). Occasionally, people just freeze up, which is called a focal impaired awareness behavior arrest seizure.
- Less often, people may repeat words or phrases, laugh, scream, or cry.
- Some people do things during these seizures that can be dangerous or embarrassing, such as walking into traffic or taking their clothes off. These people need to plan ahead and take safety precautions.

Who is at risk for focal impaired awareness seizures (complex partial seizures)?

Anybody can get them. They may be more likely in people who have had a head injury, brain infection, stroke, or brain tumor. Often though, the cause is unknown.

How can I tell if someone is having a focal onset impaired awareness seizure? How often will they happen?

Focal impaired awareness (complex partial) seizures sometimes resemble either daydreaming or generalized non motor (absence) seizures.

What happens after a focal impaired awareness seizure?

- When a focal impaired awareness seizure ends, the person may be tired or confused for a while. It could be just 5 to 15 minutes or take longer for a person to feel back to their normal state.

- First aid should focus on keeping a person safe and comfortable. If a person has a rescue therapy to use, it may help prevent more seizures or help a person recover after it.

How are they diagnosed?

- Careful observation is critical. What happens before, during, and after an event helps the health care team know if it could be a seizure.
- An electroencephalogram (EEG) is a test that can also help to make the diagnosis. Sometimes a routine EEG is normal and more detailed testing that records a person during a seizure is needed. A normal EEG between seizures does not rule out a diagnosis of epilepsy and the presence of seizures at other times.
- CT (computed tomography) and MRI (magnetic resonance imaging) scans are done to help look for possible causes of the seizures. If they are abnormal, they will be abnormal even between seizures.

How are they treated?

- There are several medications that can help prevent focal impaired awareness seizures.
- Other treatment options include:
 - a. Surgery
 - b. Vagus nerve stimulation
 - c. Responsive neurostimulation
 - d. Dietary therapy

What should I do if I think my loved one or myself may have focal impaired awareness seizures?

If you think your loved one or yourself may be having focal impaired awareness seizures, let your doctor know your concerns right away. Untreated seizures can lead to injury, significant memory impairment, and in rare cases physical injury or death.

- Find an epilepsy specialist.
- Learn about seizure first aid and staying safe.

What is the outlook for people with focal impaired awareness seizures (complex partial seizures)?

- As for many other kinds of seizures, the outlook depends on the cause if known, where the seizures start, and what kind of treatment may be best.
- They may be outgrown or controlled with medication.
- If medications don't control these seizures, surgery may be possible for some people. Surgery offers the chance to completely control seizures in some people.

- Dietary therapies also can offer very good seizure control in some people.
- Devices are options if surgery is not possible. These rarely control seizures completely but can help lower the number and intensity of seizures in many who try these.

If seizures are not controlled, consider seeking a consultation from a neurologist that specializes in epilepsy (called an epileptologist). An evaluation at a comprehensive epilepsy center can help evaluate all treatment options.