

## Cancer and Seizures

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Seizures are sudden, uncontrollable, electrical changes in the brain that can happen due to a tumor or cancer treatments. Seizures often cause a loss of awareness and uncontrolled body movement. There are many types of seizures, and signs may differ based on what part of the brain was affected. Most seizures last less than a few minutes.

### Causes of Seizures

It is not always known why seizures occur. Seizures are common in people who have epilepsy. Other causes of seizures in cancer patients who do not have epilepsy may include:

- Tumors in the brain
- High fevers
- Infection in the fluid around the brain
- Cancer treatment
- Head or brain injury

To decrease your risk of seizures, it can help to get plenty of rest and lower your stress level. Your doctor or nurse practitioner will order anti-seizure medicine to help control your seizures. It is important to take all medicines as ordered. Talk to a member of your health care team if the medicine causes side effects or if your seizures are not well controlled.

### Types of Seizures

There are 3 main types of seizures:

- Generalized onset seizures
- Focal onset seizures
- Unknown onset seizures

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**This handout is for informational purposes only. Talk with your doctor or health care team if you have any questions about your care.**

## Generalized Onset Seizures

Generalized onset seizures affect both sides of the brain. There are many types of generalized onset seizures. The most common types are absence and tonic-clonic seizures.

- **Absence seizures** (petit mal seizure) – can cause rapid blinking or a staring spell. The person may have no memory of this seizure.
- **Tonic-clonic seizures** (grand mal seizure) – involves the whole body and often starts with a cry before a person blacks out. Convulsions, tongue biting, frothy saliva around the mouth, bed-wetting and problems with breathing can happen. This is the most common type of generalized onset seizure.

## Focal Onset Seizures

Focal onset seizures, also called partial seizures, affect only one part of the brain. The main types of focal onset seizures are simple and complex focal seizures.

- **Simple focal seizure** – The person knows what is happening, but is unable to control it. This may cause changes in sensation or vision.
- **Complex focal seizure** – The person does not know what is happening and may look or act confused during and after the seizure.

A seizure may start in one part of the brain and then spread to another part of the brain. This is called a **secondary generalized seizure**.

## Unknown Onset Seizures

At times, the start of a seizure is unknown. This can happen if the person lives alone and there is no one else around when the seizure occurs or if the seizure happens during the time a person is asleep. This is called an **unknown onset seizure**.

## Signs of a Seizure

For some people a warning sign, called an **aura**, may happen. The aura may be a headache, changes in vision, hearing noises or smelling a scent, such as smoke.

- During the seizure, these signs may occur:
  - ▶ Staring spells
  - ▶ Facial twitching
  - ▶ Shaking of the body (often on side of the body that is opposite of the brain tumor)
  - ▶ Problems breathing
  - ▶ Black outs, loss of memory or confusion
  - ▶ Drooling
  - ▶ Problems with bladder or bowel control
  - ▶ Convulsions or uncontrollable body motions, such as chewing motions, body stiffening, jerking or lip smack
  - ▶ Changes in sensation or vision, which may include:
    - Seeing things that are not there
    - Smelling things that are not there
    - Tasting things that are not there
    - Hearing sounds that are not there, such as clicking, ringing or a person's voice
    - Numbness or a feeling of pins and needles
    - Feeling as if you are floating or spinning
- **After the seizure**, it is common to be very tired and confused. The time after a seizure, before the person wakes up is called the **postictal state**.

## How to Help Someone Having a Seizure

It is important to know what to do when someone is having a seizure.

### During the Seizure

- Keep calm and let the person know you are there to help.
- **Do not** hold the person down.
- **If the person has never had a seizure before, call 911 right away.** It is important that a person with epilepsy wears a medical alert necklace or bracelet.
- Time how long the seizure lasts. Seizures can last from seconds to several minutes. **If the seizure lasts longer than 5 minutes, call 911 right away.**
- Protect the person from injury by moving nearby objects.
- Loosen tight clothing, especially around the person's neck.
- Turn the person on his or her side.
- **Do not** put anything in the person's mouth.
- **Do not** start CPR. If the person does not start breathing after the seizure has stopped, call 911 and then start CPR.
- Stay with the person until breathing is normal and they are fully awake.

### After the Seizure

- Let the person lie quietly. It may take some time for the person to be fully alert after a seizure.
- When the person wakes up, call him or her by name.
- Speak calmly and tell the person what happened and where they are.
- If injured, call the doctor's office or go to an urgent care or emergency room.
- Write down what happened during the seizure as soon as possible. Share this list with the doctor or the health care team. Make sure to include,
  - ▶ Warning signs that happened before the seizure started
  - ▶ The parts of the body the seizure affected or that were injured
  - ▶ How long the seizure lasted
  - ▶ What the person was doing before and after the seizure

## Call 911

Call 911 right away, if:

- The person has not had a seizure before.
- The seizure happened in water.
- The person is pregnant, injured or has diabetes.
- The seizure lasts more than 5 minutes.
- A second seizure starts after the first one stopped.
- The person is not breathing or does not wake up after the seizure has stopped.
- The person's confusion does not go away well after the seizure has ended.
- The person's seizure is different or lasts longer than seizures they have had before.

## Living with Seizures

Seizures can affect daily living, self-esteem and freedom in daily activities. Your doctor will talk with you about treatment options to help manage your seizures. When seizures are well controlled, you will be able to live a normal life and continue the activities you enjoy. For your safety, **do not** drive for at least 6 months after your last seizure and you should not do activities where a seizure could cause serious injury (such as climbing, biking and swimming alone). It is important to learn what causes your seizures and what you can do to lower your risk.

The James Supportive Care Clinic can provide you with support during your cancer journey, including help related to cancer and seizures. Talk to a member of your health care team for a referral. For more information about the survivorship services available at The James Cancer Hospital, you may visit <http://cancer.osu.edu/patientsandvisitors/cancerinfo/survivorship/Pages/index.aspx>