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SEIZURES: PARTIAL

Seizures occur when nerve cells in the brain send out sudden, excess, uncontrolled electrical signals. Partial seizures occur when nerve cells in a **part** of the brain do this. The way the child acts during a partial seizure depends on the area of the brain that is affected (See page 2). There are three types of partial seizures: *simple*, *complex*, and *partial seizures* that become *generalized*.

NOTE TO HEALTH PROFESSIONAL

Please also give the Helping Hand: Seizure Care, HH-I-61, when using this Helping Hand.

SIMPLE PARTIAL SEIZURE

A simple partial seizure may also be called a *focal* seizure. In the simple partial seizure, only part of the brain is involved. Only one side of the body shows the activity of the seizure. If nerve cells in the right side of the brain have extra discharges, the left side of the body shows the result of the seizure. Some things that may happen with this type of seizure are:

- Jerking of the arms or legs
- "Tingling" feeling on one side of the body
- Turning of the head or eyes to one side
- A fearful or "pained" look on the child's face

The child knows what is happening during this type of seizure. He may not understand and may be afraid.

COMPLEX PARTIAL SEIZURE

The complex partial seizure may also be called a *psychomotor* or *temporal lobe* seizure. During a complex partial seizure, the child is not aware of what is happening. When it is over, he *usually doesn't know that anything unusual has happened*. Some things you may see with this type of seizure are:

- Staring into space
- Chewing motions
- Wandering around the room without any purpose
- Picking at his clothing
- Trying to grab for objects out of the air
- Saying words that don't make sense
- Being unable to respond to you

Before this type of seizure, the child may sense that a seizure is about to happen. This "sense" or feeling is called an "aura." The aura may be a particular smell and unpleasant taste, seeing flashing lights, a racing heart beat, feeling "funny," stomach discomfort, headache, or dizziness.

PARTIAL SEIZURE THAT BECOMES GENERALIZED

A partial seizure that becomes generalized begins with one part of the body and then spreads to the entire body. Unless you watch closely, it may look like the child has had a generalized (whole body) seizure because the partial seizure may be so short that it is missed.

This type of seizure begins with nerve cells having extra discharges in one part of the brain. This then spreads and affects the whole brain. For a more detailed description of the various types of generalized seizures, refer to the Helping Hand: *Seizures: Generalized*, HH-I-182.

WHEN TO GET EMERGENCY HELP

It is important to remember that seizures usually **do not** cause brain damage. However, you should call for emergency help if any of the following occurs:

- If the child has trouble breathing during the seizure and the child's color changes.
- If the seizure lasts more than 5 minutes, or if a cluster of seizures lasts more than 5 minutes.
- If the child chokes on secretions (blood, vomit, etc).
- If the child is injured during a fall or during the seizure and requires first aid (a bad cut, broken bone, etc.).
- Check on your child every 5 minutes. If he can't be awakened 30 minutes after the seizure, get emergency help.

For more information on how to care for your child during a seizure, refer to the Helping Hand: *Seizure Care*, HH-I-61.

PARTS OF THE BRAIN AND THEIR FUNCTIONS

The brain is divided into two halves called the right and left cerebral hemispheres:

- The **left** side of the brain controls the **right** side of the body.
- The **right** side of the brain controls the **left** side of the body.

Each part of the brain controls a different activity.

Frontal (FRON-tal) lobe - Controls muscle movements, thinking, and judgment.

Parietal (pah-RIE-eh-tal) lobe - Controls sense of touch, response to pain and temperature, and understanding of language.

Occipital (ok-SIP-eh-tal) lobe - Controls vision.

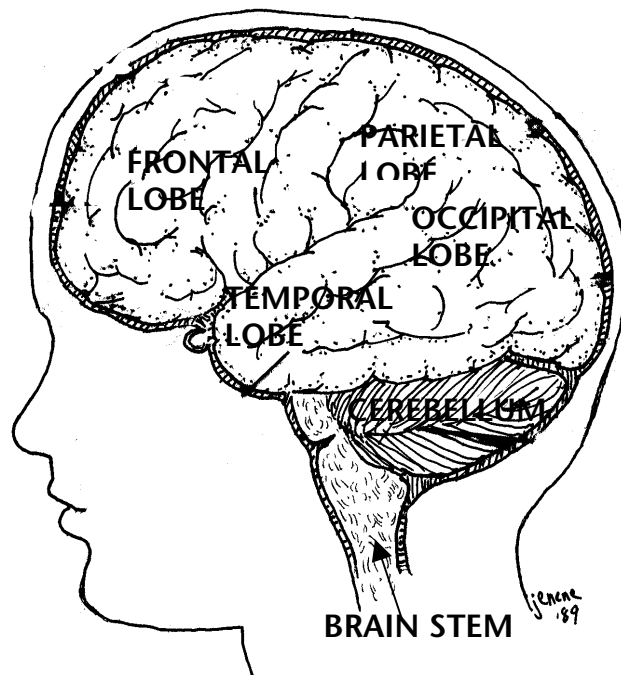
Temporal (TEM-por-al) lobe - Controls hearing and memory.

Cerebellum (ser-eh-BELL-um) - Controls balance.

Brain stem - Controls breathing and

regulates heart beat. If you have any questions, please ask your doctor or nurse or call

_____. If you need to speak with someone after regular office hours, call the hospital operator at (614) 722-2000 and ask to speak with the neurology physician on call.



Picture 1 Side view of the brain showing its various parts. What you see during a partial seizure depends on the part of the brain involved.