



FACT SHEET

CHILDREN WITH SEIZURES

Pennsylvania Chapter

What is a seizure?

Brain cells communicate by using electricity. There are many different kinds of seizures (also called convulsions or fits), but they all have one thing in common: they all happen when too much electricity flows, that is, too many brain cells are talking at once. Brain cells talk to one another all the time, which is how the brain sees, hears, feels, and makes the body move. But when too many brain cells talk at the same time, it interrupts the normal brain activity, and the result is a seizure. This overactivity exhausts the brain cells, and so children are often very sleepy and confused after a seizure.

What causes some children to have a seizure?

- fever
- infection of brain tissue
- injury of brain tissue
- abnormal brain development

What will a child do during a seizure?

What happens to a child during a seizure depends on what part of the brain is involved. When the whole brain is involved, the seizure is called “generalized”; when only one part of the brain is involved, the seizure is called “partial”. The most common generalized seizures are either **grand mal** or **petit mal**.

In a **grand mal** seizure, a child will go stiff all over, or shake all over. Usually people go stiff first, then start to shake. Often, they will fall to the ground, and may hurt themselves. The stiffness and shaking may stop the patient from breathing while they are going on. Usually, the whole seizure lasts no more than 3 or 4 minutes. During the seizure, children are unable to think clearly. After this type of seizure, children are often confused and sleepy.

In **petit mal** seizures, children may stop and stare for a few seconds in the middle of whatever they are doing, and afterwards they will continue what they were doing without knowing that they had a seizure. However, not all children who are staring are having a seizure. The child who is having a seizure will not be able to respond to you while it is happening. They will also have no memory of anything that happened while they were having the seizure. Children do not fall down during a petit mal seizure. These are also called “absence” seizures.

Partial seizures are either **complex** or **simple**. Partial seizures that make it impossible to think clearly are called **complex partial seizures**. If a child is able to think clearly during a seizure, it is a **simple partial seizure**.

In a **simple partial seizure**, a child may do any number of things, such as start to shake one part of their body, like an arm. The child may experience things which are not really happening, such as hearing sounds or smelling things, or seeing things. But the important thing about these seizures is that the child is not confused, although they may be frightened.

In a **complex partial seizure**, a child will be confused. When this happens, children may sit still and may not answer when you speak to them. You may wonder if the child is having a petit mal seizure, but these seizures are usually longer than petit mal seizures. In a complex partial seizure, a child may behave in a very strange way. People may think that the child is “crazy.” After the seizure is over, children may be confused or sleepy for a time. When they have rested, they are able to think clearly again.

A seizure may start in one part of the brain, and spread to other parts. When this happens, a child may become confused. If the seizure spreads to the whole brain, the child may have a grand mal seizure.

What should caregivers do for a child who has seizures?

We try to prevent seizures, or “fits”, by giving children medicine. However, when a seizure happens, it helps to know what to do. Caregivers should receive instructions about the individual child’s type of seizure and what to do from the child’s health care provider.

Seizures often scare people who do not know about them, but usually they will not harm the child who has one. A child may be harmed during a seizure if the child falls, or has a seizure that lasts a long time. When a child is injured by a seizure, or if the seizure has lasted longer than 15 minutes, or this is his first seizure, the child should be rushed to the hospital, usually in an ambulance.

For most seizures, though, all that needs to be done is to be sure that the child doesn’t hurt him or herself.

How to Keep a Child Safe During a Seizure.

If a child is having a partial seizure, be very kind and gentle. You may have to stop the child from doing things which are dangerous. Watch out for a grand mal seizure, if the seizures spread.

- If a child is about to have a grand mal seizure, try to stop the child from falling. Lay him on his side, in a place where the shaking will not cause him to hurt himself. Do not try to stop the shaking, and do not try to stop him from biting his tongue. If he stops breathing, it is not because he has swallowed his tongue. You should not put anything in his mouth once the seizure has started. If oxygen is available, you should give it to the child to breathe after the seizure is over, or in between seizures.
- If a child has never had a seizure before or if a generalized seizure lasts longer than 15 minutes (not counting the confusion after the seizure is over), call EMS. If there is more than one short seizure in a child known to have seizures, and the child does not return to clear thinking in between, activate emergency evaluation procedure for that child.
- After a grand mal seizure, children may be confused. They may hurt themselves because they do something strange. Treat them gently, and protect them until their usual behavior returns.

When should medicines be used to stop seizures?

When a seizure will not stop on its own, a medicine can be given into the blood which will make it stop. That is why a child with a very long seizure should be taken to a hospital emergency room.

The best way to stop seizures is to prevent them. That is why some children are given medicine for their seizures. Almost always, the medicine is given several times a day, every day. For the medicine to work, the child must have enough medicine in his or her blood stream at all times, throughout the day.

Seizure medicines can occasionally cause side effects. If a child gets a rash, or bruises too early, or gets too many nosebleeds, or has stomach pain, or cannot walk straight, or is too sleepy, the dose or type of medicine may need to be changed. People who care for children with seizures need to be on the lookout for these kinds of side effects.

Seizure medicines can affect attention, behavior and learning. You may notice the changes when medications are added, increased, changed or stopped. Information on these changes can be useful to parents and physicians. Share your observations with parents.

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