BMJ Best Practice

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Febrile seizures

Febrile seizures are common in children under 5 years old. Usually they are over quickly, they don't happen again, and they have no lasting effects (the word febrile just means feverish).

Seeing your child have a seizure can be frightening. But if it is brief and happens at the same time as a fever there's usually nothing to worry about.

You can use our information to talk to your doctor and decide which treatments are best for your child.

What happens?

Febrile seizures are fairly common in babies and young children. They affect up to 5 in 100 young children and are slightly more common in boys than in girls. They are brief seizures, or fits, which can happen when your child has a fever (a high temperature).

Many illnesses can cause a fever. The fevers that most commonly happen alongside a febrile seizure come from ear infections and from tonsillitis.

Children can get febrile seizures from when they are a few months old. There are different types of seizures. This information is about **simple febrile seizures**.

What are the symptoms?

The symptoms can be alarming. Your child:

- might twitch or shake
- will lose consciousness (black out)
- won't look at you or react to your voice
- might foam at the mouth, vomit, or wet or soil themselves.

Most children who have a simple febrile seizure twitch or shake evenly on both sides of their body. But some children go rigid, holding their arms and legs stiffly.

Either way, the seizure lasts only a couple of minutes. Children often go into a very deep sleep after a seizure.

Febrile seizures

Some children have what are called **complex febrile seizures**. These are more serious than simple febrile seizures. The symptoms of complex febrile seizures incllude:

- severe twitching
- a seizure that lasts more than 15 minutes, and
- having more than one seizure in 24 hours.

If your child gets these symptoms, seek immediate medical help. Take the child to hospital or call for an ambulance.

What to do

If your child has a seizure:

- check the time. It's useful if you can tell your doctor how long a seizure has lasted. If it goes on for more than five minutes you should get medical help
- for babies, cradle them in your arms, on their side, with their feet slightly higher than their head
- clear away any vomit from your child's mouth to prevent choking. But don't put anything in your child's mouth
- if there is twitching, check whether one or both sides of your child's body twitches. If one side jerks more, tell the doctor. Try to remember which side.

If it's the first time your child has had a seizure, take them to the doctor or to hospital, or call for an ambulance.

If your child has had a febrile seizure before, he or she may not need to see a doctor. But always get medical help if you're worried.

If your child has already had one febrile seizure in the last 24 hours, or if they have more than one seizure in the space of 24 hours, get medical help.

What treatments work?

Most febrile seizures are over quickly and don't need any treatment.

Most infections that cause the fevers linked to febrile seizures are caused by viruses. Antibiotics only work on infections caused by bacteria. So antibiotics are probably not useful.

Medicines are sometimes used to prevent febrile seizures in children who get a lot of them. But these medicines can cause side effects, such as hyperactivity (being overactive), tiredness, irritability, and problems with speech, movement, and sleep.

Febrile seizures are related to a fever. If your child has a fever, paracetamol and ibuprofen can reduce the fever and make him or her feel more comfortable. But they don't prevent further seizures.

You can buy these drugs as syrups from a chemist. Paracetamol can be used for children 3 months and older and ibuprofen for children 6 months and older. Check the packaging to see what age group they are suitable for.

Ibuprofen can sometimes cause an upset stomach. Paracetamol is less likely to cause side effects, but it can cause severe liver damage if your child takes too much. This can be fatal. Never give your child more than the recommended dose.

Prevention

Making sure children's vaccinations are up to date can help prevent illnesses that cause a fever. This is important whether they have had a febrile seizure or not.

But if your doctor thinks that your child is at risk of having a febrile seizure, he or she will want to make especially sure that your child has had the right vaccinations for his or her age. These might include vaccinations for flu, and for MMR-varicella.

Some people still think that the MMR vaccine can cause autism. This is not true. Not vaccinating your children is dangerous for them and for other children they come into contact with.

What will happen?

Your doctor will try to find what caused the infection that caused the seizure. This might mean taking a urine sample or doing a blood test.

The doctor might want your child to stay in hospital for a short while, just to keep an eye on him or her. This is more likely if your child is very young.

Your child will also need to go to hospital if the doctor thinks he or she might have meningitis. Meningitis can sometimes cause a seizure. It's a serious illness but it's fairly rare in children with febrile seizures.

Children recover completely from a simple febrile seizure. But if your child has had one seizure there is about a 1 in 3 chance of a second seizure if they have a fever in future.

Febrile seizures don't cause any problems with children's learning or development. And most children grow out of them by 5 or 6 years of age.

If a child has a febrile seizure they have a slightly increased chance of getting epilepsy in later life. Epilepsy is a serious condition where people get repeated seizures. But it's rare for healthy children who have had a febrile seizure to go on to have epilepsy. It happens to less than 1 in 100 children.

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