

fact sheet

Emergency Department

Febrile convulsions

What are febrile convulsions?

A febrile convulsion is a seizure or fit that occurs with fever, usually in children under five years of age. Approximately one in 25 children (four per cent) will experience a febrile convulsion at some time.

Febrile convulsions often occur during the early stages of an illness when there is a rapid rise in body temperature. This means your child may have a febrile convulsion before you even realise they are unwell.

It is a very scary experience for most parents but does not harm the child.

What causes febrile convulsions?

The exact reasons behind febrile convulsions is unknown. We do know that children in general have a lower seizure threshold than adults so they are more prone to seizures.

Seizures are caused by a spike or rapid firing of the neurons (nerves) within the brain. In febrile convulsions this occurs when there is a rapid change in the body temperature of the child.

The fever itself may be caused by any infection including viral upper respiratory infections (cold or flu), ear infections, pneumonia, bacterial diarrhoea and, more rarely, infection in the blood stream (sepsis) or infection around the brain (meningitis).

A child who has a febrile convulsion has no more chance of having a serious infection than any other child with a fever.

Signs and symptoms

- Parents usually observe in the child:
 - » body stiffening
 - » sharp jerking movements of their arms and legs
 - » head arched back
 - » eyes rolled back
- The child is unresponsive during the convulsion
- Typically convulsions last for less than 15 minutes (on average around 90 seconds). The child is usually drowsy afterwards

When should you see someone?

All children should be seen by a doctor after a febrile convulsion. The doctor will ensure that the convulsion was due to a fever and will also look for the cause of the fever. This will involve an examination of your child and possibly some tests.

Care after a febrile convulsion

- Sometimes children who have febrile convulsions, particularly prolonged ones, will need to be observed in hospital for a period of time.
- When your child is discharged from hospital, resume your usual routines.
- Your child may be 'out of sorts' for a day or so but this will pass.
- No medications are required except paracetamol or ibuprofen as you would usually use them. Regular paracetamol or ibuprofen does not prevent further febrile convulsions.

Follow up

- Usually no further investigations or follow up is required after a first febrile convulsion.
- Febrile convulsions do not cause brain damage and will not affect your child's development.

Things you can do at home

If you witness your child having a seizure, you should apply basic principles of first aid.

- First ensure that your child is safe (e.g. away from the edge of a bed and away from sharp or dangerous objects that could injure them)
- Roll your child onto their side when the seizure is over
- Call for an ambulance (000) if the seizure lasts more than 5 minutes
- If your child is not breathing, give mouth-to-mouth resuscitation
- consider doing a first aid course

Will your child have another convulsion?

Studies have shown:

- Around 1 in 3 children (33 per cent) who have a febrile convulsion will go on to have a second one. This is most likely to occur between the age of 12 and 24 months.
- Around 1 in 15 children (7 per cent) who have a febrile convulsion will have three or more febrile convulsions.
- Most children will outgrow the tendency to have febrile convulsions by the age of 4 years.
- Febrile convulsions do not mean your child will go on to have epilepsy (recurrent seizures in the absence of fever).

Preventing febrile convulsions

It is not always possible to take steps to prevent febrile convulsions as often they are the first sign of illness.

Some tips to manage a fever:

- Children's paracetamol (Panadol) or ibuprofen (Nurofen) may help reduce temperature and make them feel a little better (this has not been shown to prevent febrile seizures)
- Avoid overdressing your child
- Avoid cold baths that may cool your child too rapidly

In most cases antiseizure medications are not recommended as they have significant side-effects and offer little reduction in the rate of febrile seizure recurrence. Your doctor will be able to advise you about this.

Important facts about febrile convulsions

- 1 in 25 children (4 per cent) will experience a febrile convulsion at some time, usually before 5 years of age
- 1 in 3 children who have a febrile convulsion will have a second one
- Febrile convulsions are caused by a rapid change in body temperature associated with infection
- Febrile convulsions do not cause any damage to children's brains or affect their development
- If you witness a febrile convulsion, you should ensure the child's safety and call an ambulance (000)
- A child who has a febrile convulsion has no more chance of having a serious infection than any other child with a fever

Contact us

Lady Cilento Children's Hospital

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t 07 3068 1111 (hospital switchboard)

In an emergency, always contact 000 for immediate assistance.

FS012 developed by the Emergency Department, Lady Cilento Children's Hospital.
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All information contained in this sheet has been supplied by qualified professionals as a guideline for care only. Seek medical advice, as appropriate, for concerns regarding your child's health.