

# FACTSHEET

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## Breath holding spells

### What is a breath-holding spell?

Breath-holding spells (or attacks) are not uncommon in toddlers and can sometimes occur in young babies. They occur in about one in twenty children. A breath-holding spell may happen after a child has an upset or sudden startle, such as a minor bump or a fright. The child opens their mouth as if to cry but nothing comes out. They then can look deathly pale or go blue around the lips. The child may become limp and fall to the ground. Convulsive movements of their limbs may then occur. The child may recover quickly or be unresponsive for a short period.

Breath-holding spells often occur as part of toddler tantrums. The spell is a reflex reaction to an unpleasant stimulus, which the child can't prevent. It is not a deliberate behaviour on the child's part.

### Are there different types of breath-holding spells?

Yes, there are two types of breath-holding spells: Blue (cyanotic) breath-holding spells and pale (pallid) spells. Blue spells refer to the child's lips and mouth turning a dusky blue colour during a spell and are more common than pale spells. Previously these two types of spells were thought to be distinct conditions but both may occur in the same child at different times in their lives.

Both types, do not have any serious consequences (unless the child hurts themselves if they fall), but they are frightening to witness.

### What causes breath-holding spells?

Breath-holding spells are caused by either a change in the usual breathing pattern, a slowing of the heart rate or a combination of the two. These reactions may be brought on by pain or by strong emotions, such as fear or frustration.

The underlying reason why breath-holding spells occur is not known. One-third of children with breath-holding spells will have a family history of similar episodes. In some children, breath-holding spells may be related to iron deficiency anaemia, a condition in which the body does not produce a normal number of red blood cells. Most children that go through a stage of breath-holding do not have a serious underlying problem.

Children with breath-holding spells do not have epilepsy. As breath-holding spells may resemble an epileptic seizure, the two are often confused. In epileptic seizures, the child may turn blue, but it will be during or after the seizure and not before. Wetting and soiling are common in epileptic seizures, though are rare with breath-holding spells. Breath-holding spells only occur when the child is awake and usually when the child is standing. Epileptic seizures may occur during wakefulness or sleep. Pauses in breathing (apnoeas) only occur during sleep and usually in infants aged less than six months.

There is no increased risk of children with breath-holding spells later developing a seizure disorder.

## When do they start and will they stop?

Breath-holding spells occur at similar rates in boys and girls. The spells usually start before 18 months of age and usually stop by six years. They rarely occur before six months of age. It is a condition that causes no short or long term consequences. Some children with pale spells may be prone to fainting as they grow into their adult years.

## How often do they occur?

Breath-holding spells vary in severity and frequency. They may happen fairly often, sometimes several times a day or once every few weeks. They usually occur more often when the child is overtired, upset and irritable (grizzly). Often parents who have witnessed breath-holding spells can predict when another is likely to happen.

## What to do during a spell?

Don't panic. Lie the child on their side and observe them. Don't shake the child, put anything into their mouth, or splash water onto them. Keep their head, arms and legs from hitting anything hard or sharp. Allow the episode to stop by itself. Treat the child normally after the event. Do not punish or reward the behaviour.

## What needs to be done for my child?

Discuss the problem with your family doctor. Your child will need a thorough examination to see that they do not have any other problems, such as an irregular heart beat. Breath-holders are usually healthy.

## What should concern my family doctor and me?

- Loss of consciousness and becoming very pale without any provoking factors.
- Very frequent spells such as several per a day should be assessed. This may be within the spectrum of what can happen during breath-holding spells but it should be further investigated.
- Children with breath-holding spells followed by prolonged stiffening or shaking which goes on more than a minute and is associated with slow recovery, needing several hours of sleep, or remaining confused for a long period of time need to be further assessed.
- Children less than six months of age need to be investigated for other underlying causes of their symptoms. Breath-holding spells may still occur in this age group, though this is less common.

## What can be done in the meantime?

No special treatment is required. Anti-epileptic treatment is not effective and is rarely recommended. Oral iron supplementation may have a role in reducing the frequency and severity of breath-holding spells, particularly if iron-deficiency anaemia is present (common in toddlers) but its widespread use is still being evaluated. Treating the anaemia, if present, will often decrease the frequency of spells which lead to passing out. Observation and protection from injury are generally all that is required during an episode.

The parents' most important job is to not reinforce the breath-holding behaviour. Make sure your child gets plenty of rest, help your child feel secure and help minimise and manage their frustration. It is important that your child is not treated in a special way or different from their siblings or other children. Behavioural problems can outlast the period of time that the spell can occur and become more of a burden to the family than the spells themselves. A behaviour modification program may help. Ask your doctor for help with this or contact your community health centre.

### Remember:

- Children commonly hold their breath after a fright or becoming upset.
- Children may appear drowsy and sleep for a while after a breath-holding spell.
- Children with breath holding don't usually have a serious underlying illness.
- Children should not be treated differently to other children after a breath-holding spell