FACTSHEET

Breath holding spells

What is a breath-holding spell?

Breath-holding spells (or attacks) are a common occurrence affecting approximately 5% of children aged between six months and six years.

The spell occurs after the child receives an unpleasant stimulus, such as a bump or fright, and becomes upset. The child opens their mouth as if to cry but nothing comes out. They can look deathly pale (pallid spell) or their lips may turn blue (cyanotic spell). Once this occurs, the child is often unresponsive and unable to stop the spell. The child may become limp and fall to the ground. Convulsive movements of their limbs may then occur. The child will recover quickly after a few seconds, unlike following a seizure, where recovery often takes several minutes.

Who gets breath-holding spells?

Boys and girls may experience breath-holding spells equally. Half of children with breath-holding spells will have more than one daily.

Breath-holding spells often occur as part of toddler tantrums. However, breath-holding spells are a reproducible reflexive reaction to an unpleasant stimulus, which the child can't prevent, and are not a deliberate behaviour on the child's part, unlike temper tantrums. Often parents who have witnessed breath-holding spells can predict when another is likely to happen. Parenting style does not appear to influence the development of breath-holding spells. One-third of children with breath-holding spells will have a family history of the condition.

Are there different types of breath-holding spells?

Two types of breath-holding spells have been described: blue (cyanotic) and pale (pallid) spells. Both may occur in the same child at different times in their lives. Blue spells tend to occur more commonly than pallid spells.

What causes breath-holding spells?

Breath-holding spells are caused either by 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.

Breath-holding spells only occur when the child is awake and usually standing, unlike apnoeas (breathing pauses), which occur during sleep and usually before six months of age. Apnoeas should always be investigated. Breath-holding spells occur more often when the child is overtired. They are also associated with low iron levels and iron-deficiency anaemia, which occurs when the body does not make enough red blood cells. It is not known why breath-holding spells occur in some children, and not others, or in response to different levels of irritation in the same child.

What is the outcome for breath-holding spells?

Breath-holding spells cause no short or long term serious consequences (unless the child hurts themself if they fall), but they are frightening to witness. From the age of 4 years most toddlers will have begun to outgrow their

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breath-holding spells, with a marked reduction in the frequency and severity, before they cease by age six. Treating iron deficiency anaemia often speeds up resolution. Children with breath-holding spells do not have epilepsy. 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 if the child is toilet-trained. There is no increased risk of children with breath-holding spells later developing a seizure disorder. Children with breath-holding spells are not at an increased risk of developing learning problems (if there is no co-existing iron-deficiency). Some children with breath-holding spells may be prone to fainting as teenagers and adults.

What to do during a spell?

Don't panic. Lay 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. Observation and protection from injury are generally all that is required during an episode. Anti-epileptic medication is not effective, nor 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).

Make sure your child gets plenty of rest. Help your child feel secure and try to 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, which may reinforce temper tantrums and poor behaviour occurring at the same age as breath-holding spells. 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.

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 heartbeat. Children with breath-holding spells are usually healthy.

What should concern my family doctor and me?

- Loss of consciousness and becoming very pale *without* any provoking factors
- Children with very frequent spells, any prolonged stiffening or shaking lasting a minute or more, slow recovery, persisting drowsiness or confusion or any associated rash or fever, requires further medical assessment.
- Children aged less than six months need to be investigated for other underlying causes of their symptoms, as breath-holding spells are less common in this age group

Remember:

- Children commonly hold their breath after a fright or after becoming upset.
- Children with breath-holding spells don't usually have a serious underlying illness.
- Children with breath-holding spells usually outgrow them by 4 years of age.
- Children with breath-holding spells should not be treated differently to other children.