

## Childhood obstructive sleep apnoea (OSA)

Obstructive sleep apnoea (OSA) is a medical condition in which children have breathing difficulties when they are asleep. When children (and adults) fall asleep their muscles relax. This can lead to a floppy upper airway which can become either partially or totally blocked by adenoids and tonsils when the child is asleep. The child's parent may notice snoring and pauses in breathing while the child is sleeping. Snoring in children is quite common - about 15 to 20 children in every 100. OSA is less common about 2-3 children in every 100.

OSA disrupts sleep. Children who have OSA may feel tired in the day, may have problems with learning, behavioural and/or medical problems.

### Signs and symptoms

- Usually, parents of children with obstructive sleep apnoea notice their children have loud snoring, pauses in breathing and difficulty breathing during sleep.
- Parents may also notice their child choking, gasping or snorting. Children's sleep may be restless and they may sweat while asleep.
- Some children will sleep in unusual positions, for example, propped up high on pillows.
- Children with OSA may breathe through their mouth instead of their nose at night.
- Children may have headaches in the morning, may be tired, have a blocked nose, poor appetite and problems with swallowing.
- Sometimes, the only problems a child may show are difficulties with paying attention, behavioural problems and learning difficulties.

### Causes of childhood OSA

- The most common cause of OSA in childhood is enlargement of the tonsils in the back of the throat and the adenoids in the back of the nose. Tonsils and adenoids grow most quickly when a child is 2-7 years old. Having the tonsils and adenoids taken out cures OSA in 80-90% of children. Sometimes, the adenoids grow back again. If the symptoms return, your child may need more surgery.
- Obesity is another cause of childhood OSA.
- Long-term allergy or hay fever may also cause OSA. This can usually be treated.
- Children with certain medical conditions associated with weak muscles or low muscle tone, such as Down syndrome, are more likely to have OSA.
- Sometimes children with very small jaws or flat faces may also be at risk.

## Tests and investigations for childhood OSA

Your child's doctor may suggest your child has a 'sleep study', called a '*polysomnography*'. This can confirm if they have OSA. There is no pain, and no needles are involved in a sleep study. Many wires are stuck to the surface of the skin to measure breathing, heart rate (pulse) oxygen levels as well as brain, eye and muscle activity. Children sleep overnight with a parent in the sleep unit while these measurements are made.

## Treatment for childhood OSA

Once the diagnosis has been made, treatment depends on what is causing the problem and how serious it is.

- Children who have enlarged adenoids and tonsils usually have surgery to take them out.
- Children who are very overweight (obese) need to start an exercise and weight management program.
- Children with long-term (chronic) nasal allergy may trial a mix of different medical treatments. Your sleep doctor will discuss these with you if necessary.
- Children with special conditions or severe sleep apnoea may need a machine to help them breathe at night. This is called 'CPAP' - Continuous Positive Airways Pressure.
- Finally, there are a few children who need more specialised surgical procedures.

## Follow-up

Children who have surgery to remove their tonsils and adenoids may need to come back to the sleep clinic after the surgery. For example, if their sleep study before the surgery showed severe OSA or their symptoms do not get better 6-8 weeks after the surgery.

Although most children will be cured by the surgery, a few may still snore or have difficulty breathing when they are asleep. Parents should tell their sleep physician (doctor) about these symptoms. The sleep physician may need to arrange some more tests or treatment.

## Key points to remember

- Loud snoring, pauses in breathing and difficulty breathing during sleep might suggest that children have obstructed sleep apnoea (OSA).
- Children with OSA may feel sleepy in the daytime, have learning difficulties, behaviour problems or medical problems.
- Children may need to have sleep studies (polysomnography). During sleep studies the child sleeps overnight in a sleep laboratory with a parent.
- Most children will be cured by removal of the tonsils and adenoids.

## For more information

- **The Melbourne Children's Sleep Unit** at the Royal Children's Hospital  
[www.rch.org.au/sleep](http://www.rch.org.au/sleep)
- **RCH Centre for Community Child Health**  
To book an out-patient appointment please call the Sleep Clinic  
T: (03) 9345 5466  
Please note, this is not an advice line.
- **RCH Respiratory Medicine**  
T: (03) 9345 6180 Outpatients Dept.  
T: (03) 9345 5818 Dept of Respiratory Medicine
- **Monash Medical Centre**  
T: (03) 9594 5656
- **Other fact sheets - see 'Sleep'** [www.rch.org.au/kidsinfo](http://www.rch.org.au/kidsinfo)

Produced in consultation with the [Melbourne Childrens Sleep Unit](#), Royal Children's Hospital (RCH). Many thanks to the parents who helped with this factsheet. First published 2005. Updated November 2010.



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More RCH Fact Sheets can be found at [www.rch.org.au/kidsinfo/](http://www.rch.org.au/kidsinfo/).

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