

## Indications for Tonsillectomy

Recurrent tonsillitis  
Quinsy  
Obstructive Sleep Apnoea (OSA)  
Tonsillolith  
Malignancy

### Tonsillectomy

A conjoined committee of the Australian Paediatric Society and the Australian Society of Otolaryngology, Head and Neck Surgeons reviewed the indications for Tonsillectomy in 2007.<sup>1</sup>

### Recurrent tonsillitis

Recurrent tonsillitis is usually an indication for surgery when there are seven attacks within a year at initial onset, five attacks per year for two years in a row or three attacks per year for three years in a row. This is a general guide to indicate when Tonsillectomy will be required and is based on the work by Paradise<sup>2</sup>. However, clearly less frequent episodes of acute tonsillitis over a much longer period of time would be a reasonable indication for Tonsillectomy. The above frequency is a general guide and clearly more severe acute episodes warrant Tonsillectomy before an absolute number is reached.

### Quinsy

Some people suffer acute peritonsillar abscess or Quinsy, which is usually managed with acute drainage of pus. Previously one acute episode led to Tonsillectomy. However the current evidence is that 80% of people will have no further attacks of acute peritonsillar abscess hence it is generally now performed after the second episode has occurred leading to Tonsillectomy in only the 20% of people suffering a peritonsillar abscess.

### Obstructive Sleep Apnoea (OSA)

Obstructive sleep apnoea is an increasingly identified condition both in children and in adults. In children this is most commonly due to enlargement of the adenoids and tonsils and remove of these tissues almost always results in cure of the obstructive sleep apnoea. Snoring children fall into one of three groups. There can be pure snorers with no other secondary health problems, suffers of obstructive sleep apnoea where their breathing stops completely or a group in between where they snore and have shallow breathing or hypopnoea. These two subsequent groups have secondary health problems. The shallow breathing or cessation of breathing leads to elevation of carbon dioxide and a reduction in oxygen within the blood. This most commonly occurs when the brain is in the best part of sleep, called REM sleep, when the muscles are most relaxed and the brain is doing its most dreaming. In order to improve the oxygen level in the blood, the brain needs to pass into the earlier phases of sleep and contract the muscles often leading to a gasp for breath. The child is usually not completely awakened.

The physiological changes that occur with breath holding during sleep can lead to secondary longer-term health problems. In the short term the child does not have enough REM sleep, each night leading to tiredness first thing in the morning and later in the day, often associated with irritability, poor concentration and behaviour. Because they are so tired they commonly suffer from bed-wetting. More severe untreated cases can lead to failure to thrive or grow and even right heart failure.

While the diagnosis is reliably produced by a paediatric sleep study, in Brisbane these are only available at the Mater Hospital. In most cases the diagnosis is made clinically by observation from the child's parents. They are commonly seen to snore, snore, snore followed by sucking in of the soft tissues of the neck. They will then often gasp followed by further snoring. The children with pathological shallow breathing usually do not have the apnoeic episodes but have the same secondary tiredness during the day. If the diagnosis is correct and Adenotonsillectomy performed, almost all children breathe better on the first night and begin behaving better with a greater ability to learn.

## Tonsilloliths

Tonsilloliths or tonsillar stones are a less common cause for Tonsillectomy. The crypts within the tonsil fill with food particles and debris. This usually becomes contaminated with bacteria causing bad breath and bad smelling tonsillar discharge, which can be white or yellow concretions. If the tonsilloliths are the cause of bad breath the condition will be completely resolved following Tonsillectomy.

## Malignancy

Tonsils can be affected by squamous cell carcinoma or lymphoma. Tonsillectomy is frequently required to either treat these conditions or exclude the diagnosis. Hence, Tonsillectomy is occasionally indicated when one tonsil is larger than the other, when the tonsils are ulcerated or when there are suspicious lymph nodes in the neck.

## Reference:

1. Indications for Tonsillectomy and Adenotonsillectomy in Children – a joint Position paper of the Paediatrics & Child Health Division of The Royal Australasian College of Physicians and The Australian Society of Otolaryngology Head and Neck Surgery.  
<http://www.racp.edu.au/page/policy-and-advocacy/paediatrics-and-child-health>
2. Paradise JL, Bluestone CD, Bachman RZ, Colborn DK, Bernard BS, Taylor FH, Rogers KD, Schwarzbach RH, Stool SE, Friday GA, et al. Efficacy of tonsillectomy for recurrent throat infection in severely affected children. Results of parallel randomized and nonrandomized clinical trials. N Engl J Med. 1984; 310(11): 674-83