

## Tonsils and Adenoids

Dr David Wabnitz MBBS, MS, FRACS

## What they are and What they do

The tonsils are lumps of tissue found on the side walls of the throat, at the level of the back of the tongue. They are sometimes called the "palatine tonsils".

The Adenoids are a pad of tissue located right at the back of the nose, up behind the roof of the mouth. They cannot usually be seen by looking in the mouth. They can also be called the "pharyngeal tonsils".

Tonsils and Adenoids are made up of condensations of lymphoid tissue. These are essentially "processing centres" for the immune system and foreign material (such as bacteria or viruses) that enter the body through the nose and mouth can be processed here. The surfaces of tonsils and adenoids have grooves or crypts which increase their surface area, which increases the chance of foreign material being captured for processing. The immune system can then decide whether this foreign material is something that needs to be eliminated, for instance through the formation of antibodies or through the mobilisation of the body's defence cells.

The adenoids tend to get smaller with age, to the extent that they may even disappear somewhere between the ages of 8 to 13 years. Any problems that the adenoids may cause may therefore settle.

However there are conditions where it is better to remove the tonsils and/or adenoids, and when this is done there are no adverse effects on the body's ability to fight off infection. There are lots of other areas where foreign material can be processed by the immune system – including multiple smaller condensations of lymphoid tissue scattered around the throat area.

Problems that may need surgical treatment include repeated infections that cause the tonsils and adenoids to swell leading to blockage of the back of the nose and/or throat. On the other hand, repeated infections can cause the tonsils and adenoids to scar and become less effective in their ability to fight off infection. Finally if the tonsils and adenoids become a reservoir for bacteria and the body is continuously fighting off chronic infection that persists within them, then their removal can help the overall functioning of the immune system.