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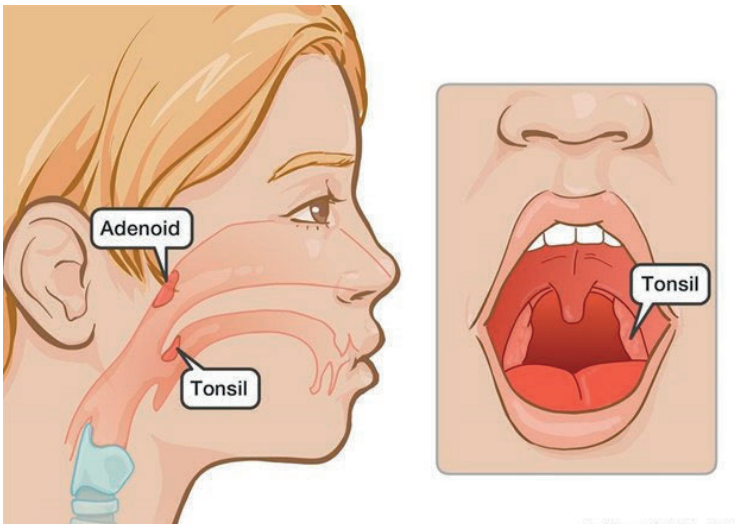
WHY ARE TONSILS AND ADENOIDS REMOVED?

The commonest reason for removal of tonsils and adenoids is snoring in children. Tonsils and adenoids "*out grow*" in the space at the back of the mouth and nose, resulting in blockage of breathing when asleep. Removing the tonsils and adenoids cures the patient of snoring and sleep disturbance in 90% of patients. Other reasons include recurrent tonsillitis, chronic nasal obstruction and nasal discharge (removal of adenoids), tonsil stones and quinsy (abscess adjacent to the tonsil).

WHAT ARE TONSILS AND ADENOIDS?



Tonsils and adenoids are lymphatic tissue. All lymphatic tissue in children enlarges as their immune system develops. This peaks around age 6 and reduces in size until approximately age 8. Tonsils and adenoids may enlarge with upper respiratory tract infections. Their size can fluctuate.

WHAT ARE THE LONG-TERM IMPLICATIONS OF REMOVING THE TONSILS AND ADENOIDS?

After removal of the tonsils and adenoids, there is no impact on the immune system. In the pharynx (throat), there is sufficient alternative lymphatic tissue to compensate for the loss of function of tonsils and adenoids. A lingual tonsil is present within the base of the tongue, as well as small deposits of lymphoid tissue throughout the lining of the pharynx (throat). There is a slight enlargement of these tissues to compensate for the loss of tonsils and adenoids.

WHAT IS INVOLVED IN REMOVING THE TONSILS AND ADENOIDS?

Removing the tonsils and adenoids is an operation requiring a general anaesthetic. The surgery is performed through the mouth and nose. There are no incisions (cuts) on the outside of the body.

Tonsils can be removed by several methods. Generally, they are removed by a cautery, specifically a coblation wand is used. This is a modern form of cautery or “burning them out”. It results in less heat being applied to the wound and therefore less post operative pain compared to standard cautery.

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There are 2 techniques for removing the tonsils

COMPLETE TONSILLECTOMY

Complete tonsillectomy removes the entire tonsil including the tonsil capsule.

Complete tonsillectomy has been the standard tonsillectomy technique in the past. Unless otherwise specified, it is assumed a tonsillectomy referres to complete tonsillectomy.

PARTIAL TONSILLECTOMY

Partial tonsillectomy removes 90% of the tonsil, leaving the tonsil capsule and a small amount of tonsil tissue

Partial tonsillectomy has reduced pain and re-bleeding rates compared to complete tonsillectomy. This results in a shorter time off school/childcare ie one week; and less need for strong pain relief such as oxycodone. However, there is a small number of patients that require further surgery to remove the residual tonsil in the future. The rate of reoperation varies dependent on age of the patient and indication for the initial surgery.

Adenoids are removed by a combination of curettage (scraping) or cautery (burning). The technique is tailored to the patient depending on what is most appropriate.

WHAT ARE THE RISKS OF SURGERY?

BLEEDING

Bleeding from the tonsils is the most concerning risk of the surgery. It is not normal. It presents as coughing, spitting or vomiting blood. This may occur up to 2 weeks after the surgery. It is referred to as a "secondary bleed" or a "post tonsillectomy bleed".

Secondary bleeding occurs in 5% in complete tonsillectomy and 0.5% in partial tonsillectomy.
Generally, the bleeding stops spontaneously. If the bleeding is greater than a tablespoon, it is recommended to present to an emergency department. All patients are admitted for observation for 24 hours as the bleeding can stop and start. If the bleeding doesn't stop, the patient is taken to the operating theatre for surgery to control the bleeding.

For a complete tonsillectomy, please stay within 40 mins of a hospital with an ENT service for the 2 week period after surgery. Please inform your doctor if there is family history of bleeding disorders.

For a partial tonsillectomy, the bleeding risk is substantially reduced and the need to stay near an ENT service is not as strict ie stay within a few hours of an ENT service.

Bleeding from the adenoids does occur. It presents as bleeding from the nostril or blood clots out of the nose. This is not as serious as bleeding from the tonsils (mouth).

IMMEDIATE POST OPERATIVE BREATHING ISSUES

In the immediate post operative period, patients with severe obstructive sleep apnea may continue to have significant breathing issues. This can involve continued airway obstruction (snoring), as well as sensitivity to opiate analgesia (morphine). Consequently, patients are monitored closely with continuous monitoring of oxygen levels. Opiate doses are adjusted to lower doses to compensate for the reduced sensitivity. High risk patients should be operated on in an appropriate hospital that can care for paediatrics.

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WHAT IS THE NORMAL RECOVERY FROM SURGERY?

Pain and suffering vary significantly between children. It is normal to have a sore throat, offensive breath, nasal discharge, and referred pain to the ears. Often the ear pain is the most bothersome symptom.

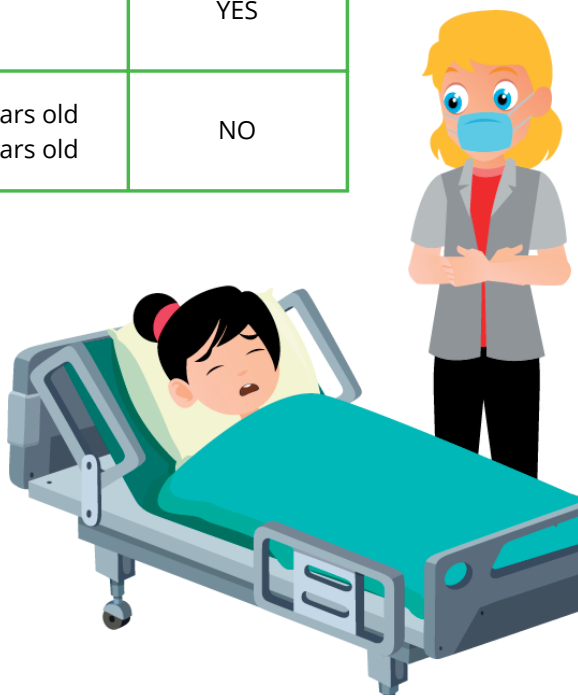
Regular pain relief is required.

Alternate panadol and nurofen to ensure at least one of the medications is working at all times. In addition to panadol and nurofen, opiate pain relief can be administered at the same time if needed.

	Partial Tonsillectomy	Complete Tonsillectomy
Time off school	1 week	2 weeks
Need for regular pain medications	4 – 7 days	7-14 days
Throat Pain	✗✗	✗✗✗✗
Ear Pain	✗	✗✗✗✗
Bad Breath	✗✗✗✗	✗✗✗✗
Secondary Bleeding Rate	0.5%	2-5%
Readmission to hospital rate	0.5%	2-6% (higher if <2years old)
Need to stay within 45 mins of an ENT hospital for 2 weeks post surgery	NO	YES
Need for completion tonsillectomy	5% if < 2years old 2% if > 2years old	NO

For complete tonsillectomy, generally the pain peaks at day 5-8 and may continue for 10-14 days. The child requires 2 weeks off school or daycare.

For partial tonsillectomy, the pain lasts between 4-7 days. The child requires 1 week off school or daycare.



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DIET

Your child can eat whatever they wish to eat. Their pain will dictate what they will and won't tolerate. It is recommended to avoid acidic (tomatoes, orange juice, pineapples) or spicey food, as this can be painful. Generally children will eat "spoon" food, such as pasta, rice, soft fruits, or mince meat.

ACTIVITY

Your child should avoid strenuous exercise or activity for at least 1-2 weeks post operatively. They can still participate in general activities, visits to the shops, or play dates with friends.

WHAT TECHNIQUE OF TONSILLECTOMY IS BEST FOR MY CHILD?

Partial tonsillectomy is the preferred technique for children with large tonsils who suffer from Obstructive Sleep Apnea (snoring). Partial tonsillectomy has less severe pain, shorter recovery time, quicker return to school, and a significantly reduced secondary bleed rate. The risk associated with partial tonsillectomy is the future risk of tonsillitis in the residual tonsil, and regrowth of the residual tonsils causing snoring. This is more likely in very young patients ie less than 2 years old.

If the child has recurrent tonsillitis or tonsil stones, a complete tonsillectomy is recommended.

WHEN TO SEEK MEDICAL ATTENTION AFTER SURGERY?

If your child is not able to drink water, urine is dark and pain is severe, call your surgeon or present to the emergency department.

Your child should not be febrile (temperature over 38 degrees), flat and lethargic. Call your surgeon or see your local doctor.

If your child starts spitting, coughing or vomiting blood, this is an emergency. Call an ambulance. Even if the bleeding stops, your child needs to be admitted for observation to ensure adequate management of the bleeding starts again.