

***Where are tonsils and adenoids located?***

Tonsils are located in the back of the mouth on each side. Adenoids are in the back of the nose. Tonsils can be seen by looking in the mouth, but adenoids usually cannot be seen on routine exam. Evaluating the adenoids usually requires passing an endoscope through the nose, using a mirror in the back of the mouth, or obtaining an x-ray.

***What is the function of tonsils and adenoids?***

Tonsils and adenoids are lymphoid tissue and part of the immune system, but their role is limited. Removing tonsils and adenoids does not weaken the immune system. Instead, their removal may actually reduce the frequency of illnesses in some children.

***Why are tonsils and adenoids sometimes removed?***

Removal of tonsils and adenoids is considered when they are frequently infected or excessively enlarged. They do not have to be enlarged to have been infected. In fact, children often have excessive number of sore throats without having any obstructive symptoms.

***What is the difference between tonsillitis and strep throat?***

Tonsillitis refers to an infection of the tonsil but does not specify the cause of the infection. One type of bacteria that causes tonsillitis is called strep. As such, strep throat is just one type of tonsillitis.

***What are the symptoms of tonsillitis?***

Since the tonsils are located in the back of the mouth, the main symptom is sore throat. Sometimes the pain is severe enough that children will only eat food that is easy to swallow. Fever, headache, and stomach ache are additional symptoms that may be present. The tonsils tend to become swollen and inflamed while the lymph nodes in the neck become enlarged and tender. An important factor in diagnosing tonsillitis is that nasal drainage, cough, and hoarseness are not present. These symptoms are more consistent with a cold or upper respiratory infection, not tonsillitis.

***Is a throat swab confirming strep necessary to make a diagnosis of tonsillitis?***

Tonsillitis is diagnosed based on the child's symptoms and exam. The rapid strep test or strep culture may indicate that this bout of tonsillitis is being caused by the bacteria strep. Determining whether the tonsillitis is caused by strep is important in deciding whether your child needs a penicillin shot or other antibiotic. On the other hand, a specific diagnosis of strep tonsillitis (i.e. strep throat) is not necessary when determining the potential benefit of tonsil surgery. Instead, consideration for tonsillectomy is based on the frequency and severity of each tonsillitis episode, regardless the strep results.

***How many bouts of tonsillitis are required before tonsillectomy is warranted?***

An exact number cannot be specified as it must be determined on an individual basis. One study did show a benefit of tonsillectomy when children had had seven episodes of tonsillitis in one year, five episodes a year for two years, or three episodes a year for three years. In addition to the frequency of infections, the severity of symptoms with each episode should be considered. If a child is having moderate to severe symptoms that respond slowly to antibiotics and cause an excessive number of missed school days, then surgery may be offered with even fewer episodes than specified above.

***Is adenoidectomy done at the same time as tonsillectomy?***

The adenoids are similar to tonsils, just in a different location. They may become infected as frequently as the tonsils. As such, removal of the adenoids is sometimes performed at the same time as tonsillectomy.

***What is involved with removing tonsils and adenoids?***

Prior to surgery, there is no routine need for blood tests and no starting of IV's. The child is given a relaxing medication before going back to the operating room which minimizes separation anxiety from the parents. Once in the operating room, the child goes off to sleep by breathing an anesthetic gas and then the IV is inserted.

Both tonsils and adenoids are removed through the mouth without any external incisions. The instruments used to remove the tonsils and adenoids vary between surgeons because none has been proven to be consistently safer, less painful and more cost-effective than another. Bleeding is usually minimal and easily controlled with electrocautery, not sutures. The time in the operating room is typically less than one hour.

A parent is allowed to go back to the recovery room once the child is becoming more alert. The child is initially upset and disoriented but soon settles down. He/she remains at the surgical facility for at least a few hours after surgery to ensure that there are no problems with pain, nausea, bleeding or breathing. If a child is having any such difficulties, or if the child is under three years old, then he/she may be admitted to a hospital overnight for observation.

***What are the potential benefits of tonsillectomy and adenoidectomy?***

If the tonsils and adenoids are removed, they can no longer become infected. On the other hand, their removal does not mean that your child will no longer have sore throats. In fact, your child can even get a strep infection in the throat without the tonsils and adenoids present. Fortunately, the frequency and severity of the sore throats and strep infections should dramatically decrease.

***What are the risks of tonsillectomy and adenoidectomy?***

The main risk associated with tonsillectomy is bleeding. Scabs form where the tonsils are removed. These scabs fall off after approximately one week and can lead to bleeding. Stopping the bleeding may require going back to the operating room. Even in the cases of rebleeding, needing a transfusion or choking on the blood is extremely rare. Other uncommon risks of tonsillectomy include teeth injury, taste disturbance, and cautery burns.

The main risk associated with adenoidectomy is a change in voice quality. Adenoidectomy opens more space behind the nose which allows more air into the nose while talking, possibly resulting in a high-pitched, squeaky voice. While a temporary nasal voice is common, a permanent voice problem is rare. Another uncommon risk of adenoidectomy is troublesome scarring,

Dehydration can occur during recovery due to poor pain control. The duration and severity of pain varies among children. In general, the pain lasts approximately one week and can be controlled with medications. On rare occasions, the discomfort prevents adequate fluid intake, requiring a return to the hospital for intravenous (IV) fluids. Dehydration requiring intravenous fluids can also result from persisting nausea and/or vomiting.

The risks of general anesthesia are often parents' main concern. While life-threatening problems can occur, the chance is exceptionally low. In a healthy child, the risk involved with general anesthesia is equivalent to the risk associated with a long distance car trip.

***What are the costs associated with tonsillectomy and adenoidectomy?***

Since the surgery is performed in an operating room, costs include fees from the surgeon, anesthesiologist and surgical facility. Fortunately, these charges are usually covered by insurance. We will assist you in trying to obtain insurance approval. Even with insurance approval, you will be responsible for any deductibles, co-insurance, or co-payments.

***What are the alternatives to tonsillectomy and adenoidectomy?***

Some studies suggest that certain antibiotics, besides penicillin and amoxicillin, may be more beneficial at preventing recurrent tonsil infections. As such, a trial of Augmentin, clindamycin, or cephalosporin antibiotic may be appropriate. The benefit of culturing and treating other family members for strep has not yet been substantiated.

Time may be the best alternative in some cases. Studies demonstrate that 33% of children will not have recurrent tonsillitis the following year and 50% of children will not have recurrent tonsillitis two years later. In other words, children tend to outgrow this problem. Unfortunately, there is no way to predict if and when a child may outgrow the infections. As such, you need to decide if the recurrent infections are impacting your child's quality of life to a degree that tonsillectomy and adenoidectomy at this point is in your child's best interest.

***Should my child have tonsillectomy and adenoidectomy?***

The decision to proceed with surgery always involves weighing the potential benefits against the possible complications, postoperative recovery issues, and financial costs. We will only recommend tonsillectomy and adenoidectomy if we feel the potential advantages outweigh the disadvantages. Regardless, only you can determine if your child's infections are bothersome enough to warrant the risks, discomfort, and costs of surgery. Clinical studies do substantiate that the vast majority of parents are pleased with the results from their child's surgery and would do it again.

***We hope this handout has been helpful in allowing you to make an informed decision regarding tonsillectomy and adenoidectomy. We welcome any additional questions you may have.***

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