

ADENOIDS and TONSILS

What are adenoids and tonsils? The adenoids are a single clump of tissue in the back of the nose (nasopharynx). They are located (in the adult) on the back wall of the throat (pharynx)...about one inch above the uvula (the little teardrop shaped piece of tissue that hangs down in the middle of the soft palate). The tonsils are two clumps of tissue, on either side of the throat, embedded in a pocket at the side of the palate (roof of the mouth). The lower edge of each tonsil is beside the tongue...way in the back of the throat.

What function do they serve? Aren't they important? The tonsils and the adenoids are mostly composed of lymphoid tissue, which is found though out the gastrointestinal tract and on the base of the tongue. Lymphoid tissue is composed of lymphocytes...which are mostly involved in antibody production. Since we generally consider antibody production to be a good thing, many studies have been performed to try to clarify the importance of the tonsils. To date, there seems to be no adverse effect on the immune status or health of patients who have had them removed. Any noticeable effect has generally been positive. It appears that the tonsils and adenoids were not "designed" to effectively handle the multitude of viral infections that occur in children in an urban population. Rather, the immune system, including the tonsils and adenoids, developed during a era where the child was rarely exposed to a large number of other people and the germs they carried. It may also be that these organs are relatively more important in dealing with certain types of infections, such as worms or other parasites, that are relatively uncommon in today's society. It is clear that in many cases, the tonsils and/or the adenoids become "dysfunctional" and are more of a liability than an asset.

Why are the adenoids removed? There are a number of well-established valid reasons for removal (called an adenoidectomy). Some patients will have more the one reason. The most common are listed below.

Blockage of the back of the nose...they are too big.

This is now one of the more common reasons for removal. The adenoids may be large enough to cause "mouth breathing", snoring, or even sleep apnea (blockage of breathing during sleep). This degree of enlargement may be associated with chronic fluid or infection in ears. Inability to breathe through the nose causes a reduction in smell (and therefore taste). This is most commonly seen in pre-school children but can exist as early as several months of age.

Chronic and recurrent

The adenoids may be enlarged or chronically infected to

fluid or infections of the ears.

the extent that they cause ear problems...either recurrent infections or chronic fluid. The infection or blockage may affect eustachian tube function. An adenoidectomy is often recommended for children who continue to have ear problems after the first set of tubes. We will occasionally recommend an adenoidectomy with the first set of tubes if some of the other problems exist.

Chronic or recurrent sinus infections...or "rhinosinusitis".

Similar to the problem with the middle ear, enlarged or infected adenoids may cause accumulation of nasal secretions or recurrent sinus infections. Many surgeons feel that an adenoidectomy is the most appropriate surgical procedure for young children with severe sinus problems.

Should the tonsils be removed also? In general, only if they are enlarged, or otherwise have been causing problems themselves. The tonsils rarely, if ever, are associated with ear disease. However, if we are removing adenoids because they are enlarged or obstructed, we tend to be relatively aggressive with borderline enlarged tonsils. Too often, several months later, when we left such tonsils, they became enough of a problem to warrant removal.

Will the child outgrow the problem? In general, yes...the adenoids usually shrink (regress) in the second decade of life. However, years of any of the problems above may be too high of a price to pay for waiting. In particular, blockage and sleep apnea may result in permanent adverse changes in facial or dental development...in addition to the adverse effects on growth and learning caused by chronic poor sleeping.

How are adenoids removed? General anesthesia is the norm. Most often, with the assistance of a small mirror, adenoid tissue is "shaved" or curretted from the back of the nose. Occasionally, some other devices or electrocautery is used. With the advent of special cautery devices, we almost always completely dry the surgical site before the patient wakes up, eliminating the low-grade bleeding that used to be associated with adenoidectomies. The procedure typically takes 5-15 minutes to complete.

What are the complications of adenoidectomy? Complications are rare, and usually minor. Anesthetic risk is usually related to the health of the patient...serious anesthetic complications can occur, but are very unusual. Bleeding is rare...we have had no serious bleeding in over 3000 patients, and only a few minor bleeding episodes. The adenoid "bed" usually becomes superficially infected, and can cause 7-10 days of bad breath, but serious infections are very rare. If adenoids are routinely removed in all children, without careful consideration and examination, a few children will have "velopharyngeal insufficiency"...meaning that sounds or liquids can escape up the back of the nose...affecting speech and/or swallowing. We have never encountered that

complication, but it has been reported by other surgeons. In other words, some children should not undergo adenoidectomy - because of their special anatomy.

What should we expect post-operatively? Adenoidectomy typically is much less painful than a tonsillectomy. Most children need no pain medications...a few benefit from acetaminophen (Tylenol). Bad breath is common...for 7-10 days. A few children will complain of a stiff or sore neck (from irritation of the neck muscles underneath the adenoid bed). We do not limit activity (playing or swimming)...although some surgeons do so. The patient may consume a normal diet. We usually see patients 2-4 weeks post-operatively - to ensure normal function and healing.