THROAT PROBLEMS

Fact Sheet about Tonsillitis

What is tonsillitis? Tonsillitis refers to inflammation of the pharyngeal tonsils. The inflammation may involve other areas of the back of the throat including the adenoids and the lingual tonsils (areas of tonsil tissue at the back of the tongue). There are several variations of tonsillitis: acute, recurrent, and chronic tonsillitis and peritonsillar abscess.

Viral or bacterial infections and immunologic factors lead to tonsillitis and its complications. Nearly all children in the United States experience at least one episode of tonsillitis. Because of improvements in medical and surgical treatments, complications associated with tonsillitis, including mortality, are rare.

Who gets tonsillitis?

Tonsillitis most often occurs in children; however, the condition rarely occurs in children younger than two years. Tonsillitis caused by Streptococcus species typically occurs in children aged five to 15 years, while viral tonsillitis is more common in younger children. A peritonsillar abscess is usually found in young adults but can occur occasionally in children. The patient's history often helps identify the type of tonsillitis (i.e., acute, recurrent, chronic) that is present.

What causes tonsillitis?

The herpes simplex virus, Streptococcus pyogenes (GABHS) and Epstein-Barr virus (EBV), cytomegalovirus, adenovirus, and the measles virus cause most cases of acute pharyngitis and acute tonsillitis. Bacteria cause 15-30 percent of pharyngotonsillitis cases; GABHS is the cause for most bacterial tonsillitis.

What are the symptoms of tonsillitis?

The type of tonsillitis determines what symptoms will occur.

- Acute tonsillitis: Patients have a fever, sore throat, foul breath, dysphagia (difficulty swallowing), odynophagia (painful swallowing), and tender cervical lymph nodes. Airway obstruction due to swollen tonsils may cause mouth breathing, snoring, nocturnal breathing pauses, or sleep apnea. Lethargy and malaise are common. These symptoms usually resolve in three to four days but may last up to two weeks despite therapy.
- Recurrent tonsillitis: This diagnosis is made when an individual has multiple episodes of acute tonsillitis in a year.
- Chronic tonsillitis: Individuals often have chronic sore throat, halitosis, tonsillitis, and persistently tender cervical nodes.
- Peritonsillar abscess: Individuals often have severe throat pain, fever, drooling, foul breath, trismus (difficulty opening the mouth), and muffled voice quality, such as the hot potato voice (as if talking with a hot potato in his or her mouth).

What happens during the physician visit?

Your child will undergo a general ear, nose, and throat examination as well as a review of the patient's medical history. A physical examination of a young patient with tonsillitis may find:

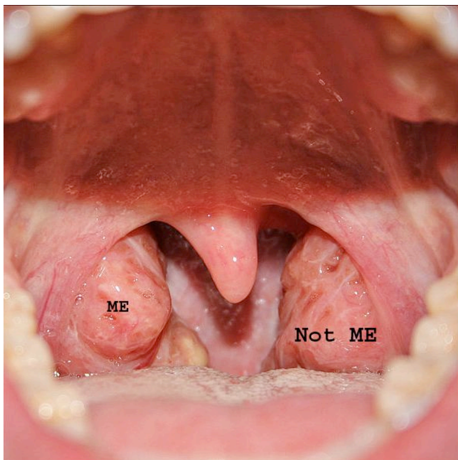
- Fever and enlarged inflamed tonsils covered by pus.
- Group A beta-hemolytic Streptococcus pyogenes (GABHS) can cause tonsillitis associated with the presence of palatal petechiae (minute hemorrhagic spots, of pinpoint to pinhead size, on the soft palate). Neck nodes may be enlarged. A fine red rash over the body suggests scarlet fever. GABHS pharyngitis usually occurs in children aged 5-15 years.
- Open-mouth breathing and muffled voice resulting from obstructive tonsillar enlargement. The voice change with acute tonsillitis usually is not as severe as that associated with peritonsillar abscess.
- Tender cervical lymph nodes and neck stiffness (often found in acute tonsillitis).
- Signs of dehydration (found by examination of skin and mucosa).
- The possibility of infectious mononucleosis due to EBV in an adolescent or younger child with acute tonsillitis, particularly when cervical, axillary, and/or

groin nodes are tender. Severe lethargy, malaise and low-grade fever accompany acute tonsillitis.

- A grey membrane covering tonsils that are inflamed from an EBV infection. (This membrane can be removed without bleeding.) Palatal petechiae (pinpoint spots on the soft palate) may also be seen with an EBV infection.
- Red swollen tonsils that may have small ulcers on their surfaces in individuals with herpes simplex virus (HSV) tonsillitis.
- Unilateral bulging above and to the side of one of the tonsils when peritonsillar abscess exists. A stiff jaw may be present in varying severity.

Treatment

Tonsillitis is usually treated with a regimen of antibiotics. Fluid replacement and pain control are important. Hospitalization may be required in severe cases, particularly when there is airway obstruction. When the condition is chronic or recurrent, a surgical procedure to remove the tonsils is often recommended.



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Tonsils & Adenoids

Insight into Tonsillectomy and Adenoidectomy

Tonsils and adenoids are masses of tissue that are similar to the lymph nodes or glands found in the neck, groin, and armpits. Tonsils are the two masses on the back of the throat. Adenoids are high in the throat behind the nose and the roof of the mouth (soft palate) and are not visible through the mouth without special instruments.

Tonsils and adenoids are near the entrance to the breathing passages where they can catch incoming germs, which cause infections. They sample bacteria and viruses and can become infected themselves. Scientists believe they work as part of the body's immune system by filtering germs that attempt to invade the body, and that they help to develop antibodies to germs.

This happens primarily during the first few years of life, becoming less important as we get older. Children who must have their tonsils and adenoids removed suffer no loss in their resistance.

What Affects Tonsils and Adenoids?

The most common problems affecting the tonsils and adenoids are recurrent infections (throat or ear) and significant enlargement or obstruction that causes breathing and swallowing problems.

Abscesses around the tonsils, chronic tonsillitis, and infections of small pockets within the tonsils that produce foul-smelling, cheese-like formations can also affect the tonsils and adenoids, making them sore and swollen. Tumors are rare, but can grow on the tonsils.

When Should I See My Doctor?

You should see your doctor when you or your child suffers the common symptoms of infected or enlarged tonsils or adenoids.

The Exam

The primary methods used to check tonsils and adenoids are:

- Medical history
- Physical examination
- Throat cultures/Strep tests
- X-rays
- Blood tests

What Should I Expect At the Exam?

Your physician will ask about problems of the ear, nose, and throat and examine the head and neck. He or she will use a small mirror or a flexible lighted instrument to see these areas.

Cultures/strep tests are important in diagnosing certain infections in the throat, especially strep throat.

X-rays are sometimes helpful in determining the size and shape of the adenoids. Blood tests can determine problems such as mononucleosis.

How Are Tonsil And Adenoid Diseases Treated?

Bacterial infections of the tonsils, especially those caused by streptococcus, are first treated with antibiotics. Sometimes, removal of the tonsils and/or adenoids may be recommended. The two primary reasons for tonsil and/or adenoid removal are (1) recurrent infection despite antibiotic therapy and (2) difficulty breathing due to enlarged tonsils and/or adenoids.

Such obstruction to breathing causes snoring and disturbed sleep that leads to daytime sleepiness in adults and behavioral problems in children. Some orthodontists believe

chronic mouth breathing from large tonsils and adenoids causes malformations of the face and improper alignment of the teeth.

Chronic infection can affect other areas such as the Eustachian tube - the passage between the back of the nose and the inside of the ear. This can lead to frequent ear infections and potential hearing loss.

Recent studies indicate adenoidectomy may be a beneficial treatment for some children with chronic earaches accompanied by fluid in the middle ear (otitis media with effusion).

In adults, the possibility of cancer or a tumor may be another reason for removing the tonsils and adenoids.

In some patients, especially those with infectious mononucleosis, severe enlargement may obstruct the airway. For those patients, treatment with steroids (e.g., cortisone) is sometimes helpful.

Tonsillitis And Its Symptoms

Tonsillitis is an infection in one or both tonsils. One sign is swelling of the tonsils. Other signs or symptoms are:

- Redder than normal tonsils
- A white or yellow coating on the tonsils
- A slight voice change due to swelling
- Sore throat
- Uncomfortable or painful swallowing
- Swollen lymph nodes (glands) in the neck
- Fever
- Bad breath

Enlarged Adenoids and Their Symptoms

If you or your child's adenoids are enlarged, it may be hard to breathe through the nose.

Other signs of constant enlargement are:

- Breathing through the mouth instead of the nose most of the time

- Nose sounds blocked when the person speaks
- Noisy breathing during the day
- Recurrent ear infections
- Snoring at night
- Breathing stops for a few seconds at night during snoring or loud breathing (sleep apnea)

Surgery for Tonsils and Adenoids

Your child:

Talk to your child about his/her feelings and provide strong reassurance and support throughout the process. Encourage the idea that the procedure will make him/her healthier. Be with your child as much as possible before and after the surgery. Tell him/her to expect a sore throat after surgery. Reassure your child that the operation does not remove any important parts of the body, and that he/she will not look any different afterward. If your child has a friend who has had this surgery, it may be helpful to talk about it with that friend.

Adults and children: For at least two weeks before any surgery, the patient should refrain from taking aspirin or other medications containing aspirin. (WARNING: Children should never be given aspirin because of the risk of developing Reye's syndrome).

- If the patient or patient's family has had any problems with anesthesia, the surgeon should be informed. If the patient is taking any other medications, has sickle cell anemia, has a bleeding disorder, is pregnant, has concerns about the transfusion of blood, or has used steroids in the past year, the surgeon should be informed.
- A blood test and possibly a urine test may be required prior to surgery.
- Generally, after midnight prior to the operation, nothing (chewing gum, mouthwashes, throat lozenges, toothpaste, and water) may be taken by mouth. Anything in the stomach may be vomited when anesthesia is induced, and this is dangerous.

When the patient arrives at the hospital or surgery center, the anesthesiologist or nursing staff may meet with the patient and family to review the patient's history. The patient will then be taken to the operating room and given an anesthetic. Intravenous fluids are usually given during and after surgery.

After the operation, the patient will be taken to the recovery area. Recovery room staff will observe the patient until discharged. Every patient is special, and recovery times vary for each individual. Many patients are released after 2-10 hours. Others are kept overnight. Intensive care may be needed for select cases.

Your ENT specialist will provide you with the details of pre-operative and postoperative care and answer any questions you may have.

After Surgery

There are several postoperative symptoms that may arise. These include (but are not limited to) swallowing problems, vomiting, fever, throat pain, and ear pain. Occasionally, bleeding may occur after surgery. If the patient has any bleeding, your surgeon should be notified immediately.

Any questions or concerns you have should be discussed openly with your surgeon, who is there to assist you.

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There is an excellent video about tonsillectomy and adenoidectomy on the web site of the American Academy of Otolaryngology. The site also discusses and has a demonstration of Coblation tonsillectomy.

http://www.entnet.org/kidsent/movies.cfm

Tonsil Stones

Some people are plagued with whitish, foul smelling material that is frequently coughed up from the throat. These little (and sometimes larger) smelly balls, correctly called tonsilloliths (tonsils stones) originate in the folds and crevices of the tonsils. They can be formed by food particles, sloughing of oral tissues, saliva, mucous or a combination of these. This material contains the same anaerobic bacteria (bacteria that grow in the absence of oxygen) that cause bad breath.

Tonsilliths can be cleaned manually from the tonsils, but this must be done carefully so that the tonsil surface is not injured. An irrigator can be used to clean the tonsil surface. The Hydropulse irrigator has a tonsil irrigating attachment that should be used with low water pressure. The Water Pik can also be used at low pressure with an attachment that has a fine stream of water; however, the water pressure is more than the Hydropulse and may be more likely to traumatize the surface of the tonsils.

Tonsillectomy will remove the source of tonsillith formation and is an option if other methods fail.

Esophageal Reflux and Laryngopharyngeal Reflux

What is Laryngopharyngeal Reflux Disease (LPRD)?

When we eat something, the food reaches the stomach by traveling down a muscular tube called the esophagus. Once food reaches the stomach, the stomach adds acid and pepsin (a digestive enzyme) so that the food can be digested. The esophagus has two sphincters (bands of muscle fibers that close off the tube) that help keep the contents of the stomach where they belong. One sphincter is at the top of the esophagus (at the junction with the upper throat) and one is at the bottom of the esophagus (at the junction with the stomach). The term REFLUX means “a backward or return flow,” and it usually refers to the backward flow of the stomach contents up through the sphincters and into the esophagus or throat.

What is the difference between GERD and LPRD?

Some people have an abnormal amount of reflux of stomach acid up through the lower sphincters and into the esophagus. This is referred to as GERD, or Gastroesophageal Reflux Disease. If the reflux makes it all the way up through the upper sphincter and into the back of the throat, it is called LPRD, or Laryngopharyngeal Reflux Disease. The structures in the throat (pharynx, larynx and lungs) are much more sensitive to stomach acid and digestive enzymes, so smaller amounts of the reflux into this area can result in more damage.

Why don’t I have heartburn or stomach problems?

This question is often asked by patients with LPRD. The fact is that
very few patients with LPRD experience significant heartburn.
Heartburn occurs when the tissue in the esophagus becomes irritated.
Most of the reflux events that can damage the throat happen without the patient ever knowing that they are occurring.

Common Symptoms of LPRD:

- Hoarseness
- Chronic (ongoing) cough
- Frequent throat clearing
- Pain or sensation in throat
- Feeling of lump in throat
- Problems while swallowing
- Bad/bitter taste in mouth (especially in morning)
- Asthma-like symptoms
- Referred ear pain
- Post-nasal drip
- Singing: Difficulty with high notes

Diagnosis of LPRD:

The following signs seen by the physician are strong indicators of LPRD:

1. Red, irritated arytenoids (structures at the back of the vocal folds)
2. Red, irritated larynx
3. Small laryngeal ulcers
4. Swelling of the vocal folds
5. Granulomas in the larynx
6. Evidence of hiatal hernia (May or may not be associated with reflux)
7. Significant laryngeal pathology of any type

Treatment for LPRD:

1. Stress: Take significant steps to reduce stress. Make time in your schedule to do activities that lower your stress level. Even moderate stress can dramatically increase the amount of reflux.

2. Foods: You should pay close attention to how your system reacts to various foods. Each person will discover which foods cause an increase in reflux. The following foods have been shown to cause reflux in many people. It may be necessary to avoid or minimize some of the following foods:

- Spicy, acidic and tomato-based foods like Mexican or Italian food.
- Acidic fruit juices such as orange juice, grapefruit juice, cranberry juice, etc.
- Fast foods and other fatty foods.
- Caffeinated beverages (coffee, tea, soft drinks) and chocolate.

3. Mealtime:
- Do not gorge yourself at mealtime
- Eat sensibly (moderate amount of food)
- Eat meals several hours before bedtime
- Avoid bedtime snacks
- Do not exercise immediately after eating

4. Body Weight: Try to maintain a healthy body weight.
Being overweight can dramatically increase reflux.

5. Nighttime Reflux: If the 24-hour pH monitoring demonstrates nocturnal reflux, elevate the head of your bed 4-6 inches with books, bricks or a block of wood to achieve a 10 degree slant.

Do not prop the body up with extra pillows. This may increase reflux by kinking the stomach. Recent studies have shown that reflux occurs much more often during the day when upright. Therefore, this suggestion may be much less important than once believed.

6. Tight Clothing: Avoid tight belts and other restrictive clothing.

7. Smoking: IF YOU SMOKE, STOP!! This dramatically causes reflux and many other evils to your body.

Medications for LPRD:

Non-prescription antacids:

Maalox, Gelusil, Gaviscon, Mylants, and Tums.

These should be taken four times a day, one tablespoon or 2 tablets, one hour after each meal and before bedtime.

Non-prescription H2 blockers:

Zantac75, PepcidAC, Axid AR, and Tagamet HB.

These medications should be taken twice a day and/or when you have symptoms

Prescription H2 blockers:

Zantac (ranitidine), and Tagamet (cimetidine).

These medications should be taken on and empty stomach. They should be taken 30 - 45 minutes before meals, or 3 hours after meals.

Prescription proton pump inhibitors:

Prilosec (omeprazole). These medications are the strongest available for reducing acid. It is important that they be taken regularly. They should be taken every day _ hour to 45 minutes before your morning meal and/or evening meal.

Length of Treatment:

Patients with Silent Reflux Disease require some form of treatment most of the time. Others patients need treatment all the time. Some people recover completely for months or years, and then may have a relapse.

Without treatment LPR can be serious. It can cause problems such as noisy breathing and choking episodes. It may exacerbate or cause asthma, bronchitis, or narrowing of the windpipe.

A link with more information, photos, and illustrations:

http://www.aafp.org/afp/990901ap/873.html

There is excellent information about laryngopharyngeal reflux and children on the web site of the American Academy of Otolaryngology.

http://www.entnet.org/KidsENT/

Technique to relief frequent throat clearing:

- When you feel like clearing your throat, take a sip of water and swallow hard.
- Repeat 3 times
- Alternatively, force air through the vocal cords if swallowing water does not provide relief.
- Drink 8 glasses of water each day.

Silent Reflux or Laryngopharyngeal Reflux (LPR)

(including throat clearing, lump in the throat, and hoarseness)

PART 1

Silent Reflux is one of the most common throat problems seen by ENT doctors.

Common symptoms

- Hoarseness
- Chronic cough
- Throat clearing
- Lump in throat
- Nose and throat drainage
- Food sticking
- Choking episodes

Reflux refers to the backflow of stomach contents (food and acid). Gastroesophageal Reflux Disease (GERD) occurs when the backed-up stomach contents stay within the food tube (esophagus). Laryngopharyngeal Reflux (LPR) refers to the backflow of food or stomach acid all the way back up into the voice box or the throat. This can occur day or night, even if a person hasn't eaten or is upright or lying down.

Not all people with LPR have heartburn or indigestion. This is why we call it Silent Reflux Disease. About 60% of people with LPR never have heartburn.

Even small amounts of backed-up material entering the throat can cause injury and irritation. The throat and voice box are very sensitive to stomach acid. Chronic hoarseness, throat clearing, cough, a feeling of a lump in the throat, or difficulty swallowing may result.

Hoarseness may come and go, or may become worse during the day. Some patients have a problem with too much nose and throat drainage or too much mucous or phlegm. A feeling of sudden inability to breathe or awakening with gasping at night can also be signs of LPR.

Treatment

Most people with Silent Reflux need to change how and when they eat. Sometimes they have to take medication. Medications can include:

Non-prescription antacids:

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PART 2

GERD (GastroEsophageal Reflux Disease) &
Reflux Laryngitis

What is GERD?

Gastroesophageal reflux disease (GERD) is inflammation of the esophagus (swallowing tube) and often the larynx (voice box) caused by acid refluxing or backing up from the stomach into the esophagus. In many people this refluxing acid reaches all the way up to the voice box and higher-- sometimes even into the back of the mouth and nose.

This acid causes irritation of the delicate tissues that cover the inside of the esophagus, larynx, and back of the throat. This results in various symptoms including:

- A painful or burning sensation in the chest (heartburn)
- Difficult or painful swallowing
- Hoarseness
- Increased mucus in the throat (phlegm)
- A feeling that something is stuck in the throat (foreign body sensation or globus).

What is the treatment?

The goal of treatment is to keep stomach acid and other irritating substances out of the esophagus and throat. Treatment allows healing of the damaged esophagus and voice box as well as prevents further damage.

Treatments include lifestyle changes and often medications that help decrease the production of stomach acid.

It is important to remember that it may take some time after beginning treatment for many of these symptoms to improve and eventually go away.

Lifestyle changes to decrease GERD

- 〈 Bed blocks

Elevate the head of your bed 2-6 inches with wood blocks or bricks. Using extra pillows is NOT a good substitute. Use of a foam wedge beneath the upper half of the body is an alternative.

- 〈 Limit coffee

Limit coffee to 2-3 cups per day. Limiting consumption of other caffeine containing beverages (tea, soft drinks) may also be helpful.

Avoid foods that cause your symptoms:

Foods to avoid are: spicy and fatty foods, tomato and citrus juices (such as grapefruit and orange juices), chocolate, mints, coffee, tea, colas, and alcoholic beverages.

- 〈 Avoid tight clothing

Tight belts, tight pants, or girdles can increase the pressure on the abdomen and stomach.

- 〈 Do not lie down for 2 hours after eating

Allow gravity to work. Also, avoid bending over at the waist to pick up things. Bend at the knees instead.

Antacids

Antacids can be taken at bedtime and 30-60 minutes after each meal or as directed by your physician.

- 〈 Stop smoking

If you cannot stop, decreasing the number of cigarettes you smoke may help.

Eat smaller meals

Don't overfill your stomach.

- 〈 Maintain your ideal weight

Excess weight increases the amount of pressure constantly placed on your stomach. Even small amounts of weight loss may help.

A link with more information, illustrations, and photos:

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