

ENT SURGICAL CONSULTANTS

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ADULT TONSILLECTOMY AND/OR SLEEP APNEA SURGERY (12/05)

The tonsils play an important role as a defense system against infections in the upper respiratory tract during childhood. The tonsils are lymphoid tissues located in the back and on each side of the throat. The adenoid tonsil is also made up of lymphoid tissue and is located in the upper back part of the throat behind the nose. They work together to “catch” and trap incoming infections. Unfortunately, the tonsil and adenoid may become the source of infection itself like a plugged filter or block the upper airway.

Tonsillectomy is recommended for adults with signs and symptoms of:

- Tonsil (and/or adenoid) enlargement or hypertrophy
- Upper airway obstruction (snoring, nasal congestion, chronic mouth breathing, restless sleeping, daytime tiredness or sleep apnea)
- Recurrent throat infections requiring antibiotics (not necessarily strep throat)
- Tonsillar stones (tonsilliths) causing bad breath, ear pain, foreign throat sensation, lymph node swelling, etc
- Dental abnormalities from chronic mouth breathing (crossbite, open bite, high arched palate, facial growth disturbances)
- Peritonsillar abscess
- Possible malignancy

Numerous medical studies have definitively proven that removal of the tonsils is helpful for the above problems without resulting in any long-term negative impact on the immune system. Fortunately, there is ample other lymphoid tissue still remaining in the throat to perform its immune function (i.e., lingual tonsils on the back of the tongue, accessory tonsils on the back wall of the throat, Gerlach tonsils near the Eustachian tube opening, etc).

Sleep apnea surgery may be performed simultaneously. Surgery most commonly involves shortening the soft palate and uvula at the same time as tonsillectomy. This procedure tightens the loose tissue in the throat to relieve the obstruction of the upper throat. This is called uvulopharyngopalatoplasty or more simply UPPP.

If your obstruction includes the lower throat, your doctor may also perform a procedure called geniohyoid advancement (GHA) with thyrohyopexy (THP). The purpose of this procedure is to pull the back of the tongue forward to increase the size of the lower throat. This procedure requires additional incisions on the inside of the mouth behind the lower lip and also in the front of the upper neck.

RISKS OF SURGERY

The throat heals so well after surgery because of its excellent blood supply. Unfortunately, this is the major reason that the most common major complication after tonsil and adenoid removal is hemorrhage, or excessive bleeding. This occurs in 4% of patients and most commonly occurs *six to twelve* days following surgery. It is extremely important to notify your doctor before surgery if you or anyone in your family has a tendency to bleed or hemophilia. This includes frequent nosebleeds, easy bruising, excessive bleeding with previous tonsil, dental or other surgery, abnormally heavy menstrual periods, prolonged bleeding after cuts or scrapes, and previous blood transfusions.

The following complications have been known to rarely occur:

- hemorrhage
- dehydration requiring hospitalization
- infection of the ear or throat

- lip or tooth injury
- anesthesia problems
- airway swelling
- excessive throat scarring
- permanent speech problems (nasal speech)
- death

PREOPERATIVE INFORMATION

The most common location to perform this procedure is in an ambulatory surgery center. Blood tests are not routinely performed prior to surgery. In special circumstances your doctor may order a blood test. Please notify your doctor if there is a family history of bleeding tendencies or if you tend to bruise easily. No appointment at the laboratory is necessary, as long as they have an order for the tests from our office. If you wish to have the preoperative lab tests done somewhere else, the results must be faxed to our office (815-725-1248) and the ambulatory surgery center or hospital. We also ask that you hand-carry a copy of the results with you and give them to the surgery center staff on the day of the procedure.

Please call our office if you develop a cold, flu, fever, or any contagious illnesses within 10 days of surgery. You must be in good health in order to have surgery. If for any reason the surgery is canceled, call our office to reschedule the surgery as soon as possible.

Because of the risks of bleeding after tonsil and adenoid surgery, it is imperative that you not take any anti-inflammatory medications (aspirin products (including Pepto-Bismol), ibuprofen, naproxen, *Motrin*, *Advil*, *Aleve*, *Lodine*, *Mobic*, etc.) for 2 week prior to, and three weeks after, the planned surgery. Please let your surgeon know if you have taken any of these or similar medications or products containing Ginko Biloba and/or St. John's Wort.

You will need to call the surgery center the day before surgery after 12:30 p.m. This center will give you the information you need: what time the surgery is approximately scheduled, what time you will need to arrive at the surgery center, and what time you must stop eating and drinking before surgery. It is very important that you follow these directions very carefully so that nothing will interfere with your surgery.

Information from the surgery center the day before surgery supersedes all previously given information, specifically in regard to the scheduled time of surgery. There are many factors beyond our control, which many result in a change in the originally scheduled surgery time (urgent procedures, surgical equipment, surgical nursing, and operating room availability, etc). Unfortunately, this is very common and should almost be expected.

RECOVERY

Most adults undergoing tonsillectomy are discharged from the surgery center within hours after surgery. Occasionally, your physician will recognize a special circumstance that requires observation overnight in the hospital. This will be arranged in advance at the discretion of the surgeon and dependent on each patient's condition. All patients with documented sleep apnea are usually performed in a hospital setting and observed overnight. Patients that are undergoing an adenoidectomy alone are almost always discharged home on the day of surgery.

SURGERY

The night before surgery, you should eat a light dinner—no fried or greasy foods. You may have absolutely nothing to *eat* after midnight. Usually *clear liquids* are allowed up to four hours before surgery. The surgery center nurse will give specific instructions to you the day before surgery. Any variation from these recommendations may cause postponement or cancellation of the procedure. Please carefully follow these instructions as the safety of the anesthesia will depend on you having an empty stomach.

Surgery is done under general anesthesia. You will be completely asleep during the surgery. The anesthesiologists will discuss with you the way in which you will be put to sleep. After the operation, you will be taken to the recovery room where you will usually stay for 20-60 minutes before going back to the second stage recovery area.

POSTOPERATIVE CARE

Bleeding

Bleeding can initially happen in the first few hours after surgery. Slight bleeding is expected. A very small amount of bloodstained mucus in the mouth and throat is normal for the first couple days.

It is also common after surgery to vomit some blood/bloody mucus, which has been swallowed during and after surgery. Harsh coughing and clearing of the throat should be avoided. Bleeding may occur at any time within the first *three weeks* after surgery. This most common time for bleeding is *six to twelve* days after surgery when the scabs in the tonsil beds begin to slough off. *If any bleeding occurs, immediately gargle ice water to temporarily stop the bleeding.* The cold temperature promotes clotting and minimizes blood loss. *Always notify our office (815-725-1191) immediately for further instructions.* After hours a physician can always be reached through our answering service (815-929-2968). After discussing the situation with us, we may ask you to go to the emergency room, or we may ask that you meet us at our office.

Pain

The level of discomfort after surgery is reported as moderate to severe. The complaint of pain will be different in every patient. It is not uncommon for the *fifth or sixth day* after surgery to be the worst day for pain since the normal germs in the throat cause increasing irritation each day to the raw throat wound until it starts to heal.

Patients who have undergone tonsillectomy and adenoidectomy often complain of severe pain and difficulty swallowing. Commonly, you will also experience ear pain. This is usually “referred” pain from the throat and is not due to an ear infection. Sometimes, the tongue and throat may be sore from the tongue blade and the breathing tube used during the operation. The discomfort will usually disappear over a few days. In addition to the prescribed pain medication, an ice collar or cold compress to the neck the first few days is soothing. Thereafter, warm liquids are more soothing. Often, ear and throat pain in an adult will continue for 3 to 4 weeks until complete healing in the throat. This is normal and you should take the prescribed pain medication until this subsides.

Medication

Do not use medications which prolong bleeding, such as anti-inflammatory drugs (i.e., aspirin, ibuprofen, naproxen, *Motrin, Advil, Aleve, Lodine, Mobic*, etc) for two weeks *before* or three weeks *after* surgery. *Tylenol, Celebrex, Bextra*, and *Vioxx* do not cause bleeding and may be taken without problems.

After surgery your doctor usually prescribes acetaminophen (*Tylenol*) with codeine or hydrocodone . These narcotic pain medications may cause constipation or an upset stomach. For the first *few days* after surgery you should consider taking the prescribed pain medication at least every 4-6 hours unless you are drowsy. Do not to give plain acetaminophen (*Tylenol*) at the same time as the acetaminophen with codeine due to the risk of overdose. Alternatively, your doctor may prescribe a more potent narcotic liquid medication (*Roxicodone Oral Solution*). Acetaminophen (*Tylenol*) should be taken at the same time as *Roxicodone* since it does not contain acetaminophen (*Tylenol*). *Roxicodone* is sometimes difficult to obtain in some pharmacies. Since it is a tightly controlled substance, we are not allowed to prescribe refills or are we able to call the prescription into the pharmacy. Please give advance notice so we can leave a new prescription for *Roxicodone* at our reception desk is needed so you do not run out of pain medication on a weekend or evening.

The prescribed pain medication should also be taken one half hour before bedtime to help you have a more restful sleep. It is common for a sore throat to worsen by morning because of drying of the throat from mouth breathing during the night. It is also helpful to awaken during the night to drink fluids and, if necessary, take more pain medication. You should not work or drive while taking this pain medication.

Your doctor may also prescribe an antibiotic in order to decrease the amount of inflammation and pain after surgery. This should be taken as directed. If a rash or diarrhea develop, you should discontinue the antibiotic and notify your doctor. *Benadryl* will often help the rash. Occasionally, your doctor may prescribe *Carafate* mouthwash to gargle. This ulcer medication coats the throat wound in an attempt to decrease pain and inflammation. Throat lozenges may be helpful as well.

Diet

For the first 24 hours after surgery, clear liquids (water, ice chips, non-citrus juices, Kool-Aid, Gatorade, Popsicle, and freezer pops) are recommended. Cold liquids seem more soothing than warm liquids the first few days. As the sore throat worsens thereafter, you may find warm fluids (hot chocolate, soups, broth, hot tea, etc) more soothing to the throat. It is important that you drink plenty of liquids to keep from getting dehydrated. At home, if you urinate less than usual, then increase the amount of fluids. You *must* continue to drink fluids. Please call our office nurse if you are not drinking enough or if there are signs of dehydration (dark urine, urination less than 2-3 times per day, crying without tears, nausea long after recovery from anesthesia).

After the initial 24 hours following the procedure, nausea from anesthesia usually subsides. At this point the diet may be gradually advanced to soft foods as tolerated, i.e., mashed potatoes, soft cereals (oatmeal, cream of wheat, Farina), soft-boiled/scrambled eggs, yogurt, pudding, custard, baby food, apple sauce, Jell-O, ice cream, soups, and pasta. Avoid hard and crunchy foods (i.e., cookies, crisp bacon, toast, crackers, pizza, popcorn, nuts, corn chips, potato chips, pretzels, etc.) to minimize painful tongue and throat movements from chewing until better tolerated.

Please realize that the above dietary suggestions are just guidelines that have been helpful to most of our patients. In general, there are no food restrictions after surgery. The soft diet just tends to be more comfortable until regular food is tolerated. Once again, fluid intake is more important than food. You do not need to push solid foods as long as you are drinking. It is common to temporarily lose some weight after surgery, which is usually gained back when a normal diet is resumed. If an adenoidectomy was performed without a tonsillectomy, a regular diet can be started when tolerated.

Fever

It is normal to run at least 1-2° F above your normal temperature after surgery. A high or prolonged fever may indicate infection, but is most commonly one of the first signs of dehydration, or lack of fluid intake. It is very important to make sure that you are drinking enough fluids despite the sore throat and discomfort with swallowing. Persistent fevers over 102° F when drinking well should be reported to your doctor.

Nausea

It is not uncommon to vomit 2-3 times after the anesthesia. This is not unusual and may last up to 24-36 hours after surgery. If it becomes severe or persistent, your doctor may order a prescription suppository to suppress this nausea. If it seems to occur only after administering the pain medication, then notify our office so we can consider an alternative. If nausea starts to become a problem several days after surgery, this may be a sign of dehydration that requires attention.

Healing and Bad Breath

After throat surgery a white or yellow coating forms in the back of the throat as healing occurs. This is normal and does not indicate infection. This scab forms on the raw surface and usually has a very bad odor. This odor will resolve once the scabs fall off. You may gently brush your teeth after surgery. The absorbable stitches used in the palatal operation will dissolve on their own, yet may become noticeable for up to 6 weeks after the procedure.

Humidifier

The use of a humidifier in the postoperative period is advised.

Speech and Swallowing

It is common for your voice to sound a little hoarse and/or nasal after the surgery. This may last for a few days up to few weeks before your speech returns to normal. The combination of pain, swelling, and lots of new space for breathing result in the voice change. With the palatal operation, some “regurgitation” (especially when swallowing quickly) of liquids into the nose can occur in the first weeks after surgery. This usually resolves as the throat retrains itself to swallow after the tissues have been surgically altered.

Activity and Work

You should allow adequate opportunity to rest for the next several days to weeks after surgery. Bed rest is not required. Strenuous activity and exercise are not allowed for *three weeks* after surgery due to the risk of bleeding. You may return to work (possibly light duty initially) at your discretion once pain medication is no longer required and you feel capable of performing your usual duties. Do not operate machinery or a car while on pain medication. Common sense should dictate your activity.

Work Excuses

If you require a doctor's note to return to work, please notify our office the day you return to work. Please be prepared with the fax number of your employer and the dates for which the excuse is needed. We will directly fax the note to your employer indicating the excused days from work.

Follow-up

You will receive a postoperative phone call by our nursing staff approximately *three weeks* after surgery to check on your progress. You will be instructed on the day of surgery if your doctor recommends a postoperative office appointment. If there are problems or questions during the recovery, please call our office nurse (815-725-1191) between 9:00 a.m. and 4:30 p.m. Monday through Friday. We will try to assist by making appropriate suggestions over the telephone or advise that you be evaluated in the office.

Questions

Please confine any questions that do not deal with bleeding or difficulty breathing to regular office hours. We are always available for emergency problems, but non-emergency calls during nights and weekends can be exhausting and keep us from being at our best during regular working hours. Thank you for your understanding.