AMERICAN ACADEMY OF OTOLARYNGOLOGY–HEAD AND NECK SURGERY FOUNDATION

Otolaryngology–Head and Neck Surgery
2019, Vol. 160(2) 206–212

DOI: 10.1177/0194599818817758
http://otojournal.org
SAGE

Plain Language Summary for Patients: Tonsillectomy in Children

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Sponsorships or competing interests that may be relevant to content are disclosed at the end of this article.

Abstract

This plain language summary for patients serves as an overview explaining tonsillectomy in children and to help patients, caregivers, and clinicians in their discussions about the reasons that a tonsillectomy may be needed, management options, and care related to the procedure. This summary applies to patients ages 1 through 18 years and is based on the 2019 "Clinical Practice Guideline: Tonsillectomy in Children (Update)." This evidence-based guideline mainly addresses the need for tonsillectomy based on breathing problems that take place during sleep and repeated sore throats or "tonsillitis." The guideline was developed to identify quality improvement opportunities in managing children under consideration for tonsillectomy and to create clear recommendations for clinicians to use in medical practice.

Keywords

tonsillectomy, child, tonsillitis, sleep disordered breathing, polysomnography, plain language summary

Received October 3, 2018; revised November 6, 2018; accepted November 16, 2018.

Objective

This plain language summary is based on the American Academy of Otolaryngology–Head and Neck Surgery Foundation's (AAO-HNSF's) ''Clinical Practice Guideline: Tonsillectomy in Children (Update),'' which updates the 2011 guideline.[1] The purpose of the summary is to share key concepts and recommendations from the guideline in clear, understandable, patient-friendly language. It was developed by consumers, clinicians, and AAO-HNSF staff.

The tonsillectomy guideline was developed using the methods outlined in the AAO-HNSF ''Guideline Development Manual, Third Edition.''[2] A literature search from January 2017 through August 2017 was performed by a professional information specialist to identify research studies (systematic reviews, clinical practice guidelines, randomized controlled trials, and observational studies) published in 2010 or later. The guideline update was based on these newer studies as well as those used in the 2011 guideline.

The AAO-HNSF formed a guideline update group representing the fields of advanced practice nursing, anesthesiology, consumers, family medicine, otolaryngology–head and neck surgery, pediatrics, sleep medicine, and infectious diseases. The group also included a staff member from the AAO-HNSF. Prior to publication, the guideline underwent extensive peer review, including open public comment.

What Is a Tonsillectomy?

A tonsillectomy (tahn-suh-LEK-tuh-mee) is an operation done by an ear, nose, and throat (ENT) doctor to remove your tonsils. Sometimes your adenoids (add-eh-noids) will be removed at the same time. Tonsils are the 2 fleshy lumps on each side of the back of your throat. You can see them if you open your mouth wide. Adenoids are high in the throat behind your nose and roof of your mouth. You cannot see adenoids without special medical instruments.[3] Tonsils and adenoids are a part of the body's immune system. They help trap harmful bacteria and viruses that enter your body through your mouth or nose.

Tonsils and adenoids work to protect the body against germs. They can become infected and get sore. If your child gets sore throats a lot or their tonsils cause breathing problems during sleep, your clinician may suggest a tonsillectomy. (*Clinician* is a term that includes doctors, nurse practitioners, physician assistants, and other qualified health care professionals.) Breathing problems while sleeping is

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called obstructive sleep-disordered breathing or ''oSDB.'' Throat infections and oSDB are the 2 most common reasons for tonsillectomies. Removal of the tonsils and adenoids does not increase the risk of infection as other tissue around the throat take their place.[4]

What Is Obstructive Sleep-Disordered Breathing (oSDB)?

oSDB is a general term for breathing difficulties during sleep.[5] It is usually caused by large tonsils and adenoids. oSDB can be worse in children who are overweight, have muscle weakness, or have certain diseases that affect nerves. Children with oSDB may be sleepy during the day, act out, struggle in school, have nighttime bedwetting, and be small for their age. **Figure 1** includes patient information on oSDB.

When Should My Child See a Doctor?

You should take your child to a clinician when they have a sore throat and it is hard for your child to eat, drink, or swallow. The clinician will perform a physical examination and review the medical history. No medical action may be taken at this point because your child's sore throat may go away on its own.

A throat infection may include 1 or more of the following:

- Temperature of 101°F
- Tender or swollen bumps (lymph nodes) in the neck
- Large or swollen tonsils with bright white spots or patches
- A throat culture that shows strep

The throat culture should be performed in the clinic and confirmed by a clinician. Antibiotics may be prescribed for strep throat. A tonsillectomy may be recommended if your child has a lot of throat infections in a short time.

How Is oSDB Diagnosed?

The clinician will discuss your child's medical history with you and give them a physical exam. You may be asked about other conditions your child has. He or she may request tests or refer you to a sleep specialist. A sleep study or polysomnography (pol-ee-som-nog-ruh-fee) or ''PSG'' may be needed to see if your child has oSDB. The test is done in a sleep lab. A medical technician will put small discs or pads on your child's head and body. Your child's heart rate, body movements, oxygen levels, and breathing through the mouth and nose will be measured.

Will oSDB Go Away after Tonsillectomy?

Tonsillectomy helps almost all normal-weight children with oSDB, and it improves sleep in most children in this group. Tonsillectomy also helps overweight children with oSDB, but sleep is not always improved. Your child's oSDB may not go away or it may return even after tonsillectomy.

Are There Risks Related to Tonsillectomy?

Tonsillectomy is a surgical procedure that includes some risks. After surgery, your child may have:

- Throat pain that lasts up to 2 weeks
- Vomiting or feeling like they have to vomit
- Thirst or dryness, especially if they are vomiting (dehydration)
- Bleeding in their mouth (from the tonsils)
- Temperature greater than 101°F

The clinician will discuss these risks with you before the surgery. It is important that you contact your clinician if your child is having problems after surgery. Your child may need to go back to the hospital for further care if the clinician has concerns.

Will My Child Have Pain after the Surgery?

Pain lasts about 7 to 10 days and can last as long as 2 weeks. A clinician will talk to you about keeping an eye on your child's pain and discomfort after tonsillectomy. The clinician should have this talk with you before the surgery and again after surgery to remind you. Your child may complain of throat, ear, and neck pain. The pain may be worse in the morning, which is normal. Ask your child every 4 hours if they are having pain, because they may not tell you. It is important that you ask them.

The clinician will give you a medication plan to help you and your child get through the healing process. See **Figure 2** for more information on helping your child with pain after tonsillectomy.

Some medicines like antibiotics and codeine (koh-DEEN) or any medication containing codeine are not good for children younger than 12 years after tonsillectomy. There are better choices than codeine even for children 12 to 18 years old. Codeine can cause very slow breathing and, if too much is given, death. It can also be habit forming (addictive). Ask your clinician what options there are.

Do I Need to Limit My Child's Diet after Surgery?

Your child can eat as they normally would as long as it does not bother them. Make sure they drink plenty of fluids like water or juice. This will help them to avoid dehydration. Fluids can help with their pain too. Fruit snacks, popsicles, pudding, yogurt, or ice cream are good foods for your child to eat when recovering.

How Can I Make My Child More Comfortable after Surgery?

Follow the medication plan from the clinician. You can help take your child's mind off of their pain by playing with them and keeping them entertained. Applying a cold or hot pack to their neck or ears can also help.

CLINICAL PRACTICE GUIDELINES

PATIENT INFORMATION

TONSILLECTOMY AND AIRWAY OBSTRUCTION DURING SLEEP CAREGIVER COUNSELING

WHAT IS OBSTRUCTIVE SLEEP-DISORDERED BREATHING?	oSDB is when air is blocked during sleep. It can be caused by large tonsils and adenoids. Children that are overweight may also have oSDB. Children with oSDB may be sleepy during the day, act out, struggle in school, have nighttime bedwetting and be small for their age.
HOW IS OSDB DIAGNOSED?	A sleep study or polysomnography (pol-ee-som-nog-ruh-fee) or "PSG" may be needed to see if your child has oSDB. The test is done in a sleep lab. A medical technician will put small discs or pads on your child's head and body. Your child's heart rate, body movements, oxygen levels, and breathing through their mouth and nose will be measured.
WILL MY CHILD'S OSDB GO AWAY AFTER TONSILLECTOMY?	Tonsillectomy helps almost all normal-weight children with oSDB and it improves sleep in most children in this group. Tonsillectomy also helps overweight children with oSDB but sleep is not always improved. Your child's oSDB may not go away or it may return even after tonsillectomy.
WHAT IF I HAVE MORE QUESTIONS?	Contact your healthcare provider if you have any further questions.

SOURCE: Mitchell, RB, Archer, SA, Ishman, SL, et al. Clinical practice guideline: tonsillectomy in children (update). Otolaryngol Head Neck Surg. 2019;160 (Suppl 1):S1-S42.

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ABOUT THE AAO-HNS/F

The American Academy of Otolaryngology–Head and Neck Surgery (AAO-HNS) represents approximately 12,000 specialists worldwide who treat the ear, nose, throat, and related structures of the head and neck. The AAO-HNS Foundation works to advance the art, science, and ethical practice of otolaryngology–head and neck surgery through education, research, and lifelong learning.

Figure 1. Tonsillectomy and obstructed sleep-disordered breathing (oSDB) for caregivers.

CLINICAL PRACTICE GUIDELINES

PATIENT INFORMATION

POST-TONSILLECTOMY PAIN MANAGEMENT FOR CHILDREN: EDUCATION FOR CAREGIVERS

HOW LONG IS THE RECOVERY AFTER SURGERY?	Pain lasts about 7-10 days and can last as long as two weeks. Your child may complain of throat pain, ear pain and neck pain. The pain may be worse in the morning; this is normal. You should ask your child if they are having any pain every four hours remembering that they may not say they are in pain.
WILL MY CHILD BE TAKING PAIN MEDICATION?	Yes, your child will be prescribed pain medications such as ibuprofen or acetaminophen. Ibuprofen can be used safely after surgery. Pain medication should be given on a regular schedule. You may be asked to give pain medication around the clock for the first few days after surgery, waking your child up when he or she is sleeping at night. Alternating medication such as ibuprofen and acetaminophen may be recommended. Rectal acetaminophen may be given if your child refuses to take pain medication by mouth. Ask your child if their pain has improved after giving pain medication.
DOES MY CHILD NEED TO RESTRICT THEIR DIET AFTER SURGERY?	No, your child can eat as they normally would as long as it does not bother them. Make sure your child drinks plenty of fluids like water or juice. Offer frequent small amounts of fluids by bottle, sippy cup or glass. Fluids can help with their pain. Encourage your child to chew and eat food including fruit snacks, popsicles, pudding, yogurt or ice cream.
WILL OTHER THINGS BESIDES PAIN MEDICATION HELP MY CHILD'S PAIN?	Yes, there are things other than medication that can also be utilized. You can distract your child by playing with them, having their favorite toys or video games available, applying a cold or hot pack to their neck and/or ears, blowing bubbles, doing an art project, coloring, watching television or reading a book.
WHAT SHOULD I DO IF I CANNOT MANAGE MY CHILD'S PAIN?	Call your healthcare provider.

SOURCE: Mitchell, RB, Archer, SA, Ishman, SL, et al. Clinical practice guideline: tonsillectomy in children (update). Otolaryngol Head Neck Surg. 2019;160 (Suppl 1):S1-S42.

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Figure 2. Posttonsillectomy pain management education for caregivers.

Table 1. Summary of Guideline Key Action Statements.

Statement	Action	Strength
1. Watchful waiting for recurrent throat infection	Clinicians should recommend watchful waiting for recurrent throat infection if there have been fewer than 7 episodes in the past year, or fewer than 5 episodes per year in the past 2 years, or fewer than 3 episodes per year in the past 3 years.	Strong recommendation
2. Recurrent throat infection with documentation	Clinicians may recommend tonsillectomy for recurrent throat infection with a frequency of at least 7 episodes in the past year, or at least 5 episodes per year for 2 years, or at least 3 episodes per year for 3 years with documentation in the medical record for each episode of sore throat and 1 or more of the following: temperature greater than 38.3°C (101°F), cervical adenopathy (swollen nodes in the neck), tonsillar exudate (white coating or pus on tonsils), or positive test for group A β-hemolytic streptococcus (strep throat).	Option
3. Tonsillectomy for recurrent infection with modifying factors	Clinicians should assess the child with recurrent throat infection who does not meet criteria in Key Action Statement 2 for modifying factors that may nonetheless favor tonsillectomy, which may include but are not limited to multiple antibiotic allergies/ intolerance, PFAPA (periodic fever, aphthous stomatitis [mouth sores], pharyngitis [sore throat], and adenitis [swollen nodes in neck]), or history of more than 1 peritonsillar abscess (infection with pus near tonsils).	Recommendation
4. Tonsillectomy for obstructive sleep-disordered breathing (oSDB)	Clinicians should ask caregivers of children with obstructive sleep-disordered breathing (oSDB) and tonsillar hypertrophy about comorbid conditions that may improve after tonsillectomy, including growth retardation, poor school performance, enuresis (bedwetting), asthma, and behavioral problems.	Recommendation
5. Indications for polysomnography (PSG)	Before performing tonsillectomy, the clinician should refer children with obstructive sleep-disordered breathing (oSDB) for polysomnography (PSG) if they are under 2 years of age or if they exhibit any of the following: obesity, Down syndrome, craniofacial abnormalities, neuromuscular disorders, sickle cell disease, or mucopolysaccharidoses.	Recommendation
6. Additional recommendations for PSG	The clinician should advocate for polysomnography (PSG) prior to tonsillectomy for obstructive sleep-disordered breathing (oSDB) in children *without* any of the comorbidities listed in Key Action Statement 5 for whom the need for tonsillectomy is uncertain or when there is discordance between the physical examination and the reported severity of oSDB.	Recommendation
7. Tonsillectomy for obstructive sleep apnea (OSA)	Clinicians should recommend tonsillectomy for children with obstructive sleep apnea (OSA) documented by overnight polysomnography.	Recommendation
8. Education regarding persistent or recurrent obstructive sleep-disordered breathing (oSDB)	Clinicians should counsel patients and caregivers and explain that obstructive sleep-disordered breathing (oSDB) may persist or recur after tonsillectomy and may require further management.	Recommendation

(continued)

Table 1. (continued)

Statement	Action	Strength
9. Perioperative pain counseling	Clinicians should counsel patients and caregivers regarding the importance of managing posttonsillectomy pain as part of the perioperative education process and should reinforce this counseling at the time of surgery with reminders about the need to anticipate, reassess, and adequately treat pain after surgery.	Recommendation
10. Perioperative antibiotics	Clinicians should *not* administer or prescribe perioperative antibiotics to children undergoing tonsillectomy.	Strong Recommendation Against
11. Intraoperative steroids	Clinicians should administer a single, intraoperative dose of intravenous dexamethasone to children undergoing tonsillectomy.	Strong Recommendation
12. Inpatient monitoring for children after tonsillectomy	Clinicians should arrange for overnight, inpatient monitoring of children after tonsillectomy if they are under age 3 years or have severe OSA (apnea-hypopnea index of 10 or more obstructive events/hour, oxygen saturation nadir less than 80%, or both).	Recommendation
13. Postoperative ibuprofen and acetaminophen	Clinicians should recommend ibuprofen, acetaminophen, or both for pain control after tonsillectomy.	Strong Recommendation
14. Postoperative codeine	Clinicians must *not* administer or prescribe codeine, or any medication containing codeine, after tonsillectomy in children younger than 12 years.	Strong Recommendation Against
15a. Outcome assessment for bleeding	Clinicians should follow up with patients and/or caregivers after tonsillectomy and document in the medical record the presence or absence of bleeding within 24 hours of surgery (primary bleeding) and bleeding occurring later than 24 hours after surgery (secondary bleeding).	Recommendation
15b. Posttonsillectomy bleeding rate	Clinicians should determine their rate of primary and secondary posttonsillectomy bleeding (PTB) at least annually.	Recommendation

When Should I Call the Doctor's Office?

Call the doctor's office or seek medical attention right away if your child has any of the following:

- Bright red bleeding from the mouth
- Temperature greater than 101°F
- Uncontrolled pain
- Signs of dehydration (urination less than 2-3 times a day or crying without tears)[6]

Where Can I Get More Information?

The updated Clinical Practice Guideline on Tonsillectomy in Children offers recommendations, also called *key action statements*, to support clinicians in improving the care of children undergoing tonsillectomies. See **Table 1** for a summary of these key action statements. Your clinician will provide care that is tailored to your child, but you can still use the guideline recommendations as a source for discussion and shared decision making.

You and your child's clinician should talk through all treatment options and find the best approach for your child. There are printable patient handouts and clinician resources that can help with decisions about care and surgical options. For more information on tonsillectomy in children, please visit https://www.entnet.org/tonsillectomyCPG.

Author Contributions

Sandra A. Finestone, writer; **Terri Giordano**, writer; **Ron B. Mitchell**, writer, chair; **Sandra A. Walsh**, writer; **Sarah S. O'Connor**, writer; **Lisa M. Satterfield**, review and edit.

Disclosures

Competing interests: Sarah S. O'Connor, salaried employee of the AAO-HNSF; Lisa M. Satterfield, salaried employee of the AAO-HNSF.

Sponsorships: American Academy of Otolaryngology–Head and Neck Surgery Foundation.

Funding source: American Academy of Otolaryngology–Head and Neck Surgery Foundation.

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