

Coblation® Tonsillectomy **Frequently Asked Questions**

What are the tonsils?

Tonsils are ball-like areas of soft tissue on both sides of the throat. They help the body fight infection by filtering out germs that enter the body through the mouth and nose. There are other tissues like the tonsils that help filter out germs too. They are called the adenoids.

What are the adenoids?

The adenoids also help the body fight off infection. The adenoids are the areas of soft tissue right behind the nose.

What types of problems can someone have with their tonsils and adenoids?

Sometimes the tonsils and/or the adenoids are so enlarged that they block the throat and breathing airway. This can cause difficulty breathing and other serious health problems. A child's doctor may call this condition tonsillar hypertrophy or obstruction.

While helping the body fight off germs, the tonsils and adenoids may also get infected. If the infection is great enough to cause inflammation, this condition is called tonsillitis.

What is tonsillectomy?

Tonsillectomy is a surgery in which the tonsils are removed from the throat. An "adenoidectomy" is a similar surgery that removes the adenoids.

What are the most common reasons for tonsillectomy?

The tonsils may be removed for two main reasons:

- **Obstruction:** The most common reason tonsils are removed is because they are so large that they block or obstruct the throat. This may cause difficulty in breathing or even more serious health problems.
- **Chronic infection:** Chronic or recurring infections in the tonsils can lead to chronic tonsillitis. Removing the tonsils can help reduce the number of throat infections.

What is obstruction?

If a child has enlarged or swollen tonsils, a physician may call this obstruction. Obstruction means the tonsils are so large that they are blocking part of the breathing airway and/or the throat. Today 75 percent of all tonsillectomies are performed for this reason. Symptoms of obstruction may include:

- Snoring
- Loud and/or labored breathing
- Severe difficulty swallowing
- Mouth breathing
- Frequent and disruptive gasping or snorting noises

The problems caused by obstruction vary from child to child. Some children may have difficulty breathing, while others may have more serious problems, like sleep-disordered breathing or even heart problems.

What is sleep-disordered breathing?

Sleep-disordered breathing is a condition in which people do not breathe properly while sleeping. Obstructive sleep apnea (OSA) is a sleep disorder that causes a blockage in the

airway during sleep, so that breathing stops. OSA is usually chronic, causing breathing to stop several times during the night.

Symptoms of sleep-disordered breathing may include:

- In children younger than five,
 - Gaspings for air while sleeping
 - Breathing stops while sleeping
 - Breathing through the mouth while sleeping
 - Regularly waking up in the middle of the night
 - Daily irritability
 - Restlessness
 - Snoring every night
- In addition to these, in children older than five,
 - Bed wetting at night
 - Behavior problems
 - Shortened attention span
 - Abnormally low weight, weight gain, and appetite for their age

What problems can sleep-disordered breathing lead to?

If left untreated, sleep-disordered breathing problems, such as pediatric OSA, could lead to much more serious health issues such as:

- **Poor growth:** During sleep, the body usually releases a hormone that helps it grow. If a child is constantly waking up during the night, his or her body may not be releasing a regular amount of this growth hormone resulting in slowed growth.
- **Bedwetting at night:** Waking up in the middle of the night could increase the amount of urine that the body makes, leading to bedwetting.
- **Sleep deprivation:** If a child wakes up constantly at night, he or she may not be getting enough sleep. This could lead to mood swings, a decrease in their energy and happiness, and even obesity.
- **Psychological, behavioral, or emotional problems:** Interrupted sleep caused by sleep disordered breathing can lead to problems such as depression, attention deficit hyperactivity disorder (ADHD) and obesity.

There is good news though. Studies have shown that after undergoing tonsillectomy and/or adenoidectomy for obstructive symptoms, many of these problems could be resolved.

What is tonsillitis?

Tonsillitis refers to the inflammation of the tonsils caused by an infection. Recurring infections in the tonsils could lead to chronic tonsillitis and other chronic infections. Tonsillitis is usually contagious and is spread just like a cold; that is, through coughing, sneezing, etc.

What causes tonsillitis?

Viruses and bacteria can cause tonsillitis. A weak immune system may also lead to tonsil infection. Almost all children get at least one tonsil infection in their lifetime.

What are the symptoms of tonsillitis?

The symptoms of tonsillitis include:

- Fever
- Persistent sore throat
- Redness of the tonsil area

- Yellow discharge on the tonsils
- Tender lymph nodes on both sides of the neck

What are chronic infections and why are they treated with tonsillectomy?

Infections in the tonsils and adenoids that keep coming back are called chronic infections. If these infections are not stopped, they could cause more serious health problems.

A child's doctor may first prescribe antibiotics to fight infections. If antibiotics do not work, the doctor may recommend tonsillectomy and/or adenoidectomy. Removing the tonsils and/or adenoids helps to prevent infections from coming back.

Doctors typically recommend removing the tonsils for chronic tonsillitis based on the following guidelines:

- Three to four episodes of infectious tonsillitis per year for three years in a row
- Five episodes of infectious tonsillitis in one year
- Seven episodes of infectious tonsillitis in two years

What is Coblation® Tonsillectomy?

Coblation Tonsillectomy and Adenoidectomy is a gentler way to remove both the tonsils and adenoids. This innovative surgery results in very little pain and fast recovery for patients.

Derived from the term "controlled ablation," Coblation removes or ablates tonsil tissue with little harm to surrounding healthy tissue.

Coblation is not a heat-driven process, therefore it does not char or burn healthy tissue like conventional electrosurgery and laser surgery. It combines radiofrequency energy with a natural saline solution to gently and precisely remove tissue leading to a fast and easier recovery.

Coblation technology has been used in more than 2 million surgeries, including more than 500,000 ear, nose and throat surgeries.

Why is Coblation Tonsillectomy a better choice?

Older ways of removing the tonsils and adenoids include cutting or burning. These methods could cause extensive pain and may damage healthy tissue around the tissue that is removed. Coblation is an advanced technology that uses gentle radiofrequency energy with a saline solution - to quickly and safely remove tonsils and adenoids. Coblation does not remove the tonsils or adenoids by heating or burning preserving healthy surrounding tissue.

What are the benefits of Coblation Tonsillectomy?

- **Fewer 'bad days'** - Patients report a better overall experience with Coblation Tonsillectomy after surgery when compared to other procedures. Studies show that patient calls and visits to the doctor due to problems after surgery are significantly less with Coblation Tonsillectomy.¹
- **Faster recovery** - Coblation Tonsillectomy has been shown in clinical studies to speed a child's return to normal activity and diet. On average, patients return to a normal diet in 2.4 days after Coblation, versus 7.6 days after electrocautery.²
- **Less pain** - Coblation Tonsillectomy has also been shown to decrease pain and use of medications after the procedure.^{2,3}

What are some potential complications following a Coblation Tonsillectomy?

All tonsillectomy procedures have the same general risks. Parents should consult a physician about the possible risks and complications that may result from a procedure involving general anesthesia.

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References:

¹Stoker K, Don D, Kang R, Haupt M, Madgy D. Total Tonsillectomy with Coblation Compared to Conventional Electrocautery in Pediatric Patients. *Otolaryngology, Head and Neck Surgery*. 2004; 130 (6): 666-675.

²Temple RH, Timms MS. Paediatric coblation tonsillectomy. *Int J Pediatric Otorhinolaryngology* 2001;61:195-198.

³Timms MS, Temple RH. Coblation tonsillectomy: a double blind randomized controlled study. *J Laryngology & Otology*. 2002;116:450-452.