

TONSILLECTOMY: COBLATION TECHNIQUE



Coblation technology has been used in over **1** million surgical procedures worldwide in specialties such as ear, nose, and throat (ENT) surgery, general surgery, arthroscopic surgery, neurosurgery, and cosmetic surgery for the removal of soft tissue. Our surgeons have been using coblation for over **20** years. Coblation is a unique, targeted method of tissue removal that uses radiofrequency (RF) energy. Unlike other forms of electrical surgery, coblation produces very little heat, so damage to the adjacent tissue is minimal.

The Coblation procedure allows the removal of tonsil tissue without penetrating the tonsil capsule (fascia) leaving it in place protecting the throat muscle, diminishing pain, and the risk of bleeding.

THE COBLATION PROCESS

Most radiofrequency electro-surgical techniques use a heat driven process to ablate or cut tissue. High amounts of energy are discharged into tissue causing tissue structures to explode at high temperatures. During this process, surrounding tissue can be inadvertently charred or burned. The coblation process, in contrast, is a controlled, non-heat driven process. With coblation technology, radiofrequency (RF) energy is applied to a conductive medium (usually saline), causing a highly focused plasma field to form around the energized electrodes. The plasma field is comprised of highly ionized particles. These ionized particles have sufficient energy to break organic molecular bonds within tissue. The by-products of this non-heat driven process are elementary molecules and low molecular weight inert gases. Instead of exploding tissue, coblation causes a low temperature molecular disintegration. The result is volumetric removal of target tissue with minimal damage to surrounding tissue.

Patient satisfaction has been remarkable. The decrease in the duration and intensity of the pain following tonsillectomy with Coblation is significant. Many patients can eat the following day or at least by day **3-4**, which is a big contrast to traditional tonsillectomy. Due to this advantage, we use of coblation technology for the majority of patients undergoing a tonsillectomy. As **90-95%** of the tonsil tissue is removed, there exists a theoretical chance that the focus of the infection has not been removed. To date, this concern has not been realized.

Tonsillectomy involves a brief anesthesia, typically **60** minutes. Patients may be quite irritable for several hours after surgery. If sedatives were given, some patients would remain sleepy for much of the day. Nausea and vomiting are occasionally seen and usually resolved by the evening of surgery - even without therapy.

WHAT CAN I EAT AND HOW ACTIVE I BE AFTER SURGERY?

Most patients, because of throat pain, prefer liquids or soft foods for **5-10** days after surgery. Either cool or warm foods are acceptable. Dairy products are OK to eat. Soft solid foods are recommended. Avoid crispy or brittle until healing is complete. Favorite foods include popsicles, ice cream, frozen drinks (slushes, etc.), and Gatorade. Chewing gum encourages swallowing and saliva flow and may even speed up the healing. Avoid acidic or citrus products such as orange juice (it burns). Almost everyone, even slender patients, lose **5-10** lbs. after tonsillectomy (regaining the weight occurs in the month after surgery). Adequate liquid intake by avoiding dehydration speeds recovery. Stay hydrated!

Exercise should be avoided for **12-14** days after surgery. No strenuous activity. Baths and showers are acceptable. Many patients have reduced energy levels until their pain decreases and they are taking in more nourishment and calories.

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WHAT MEDICATIONS ARE USED AFTER SURGERY?

Antibiotics for **5** days after surgery are prescribed as they improve healing. However, if a dose or two is missed, there should be no cause for alarm. If a rash develops, stop the antibiotic.

Tonsillectomy is a painful procedure. Pain medications help, but do not completely alleviate the discomfort. Advil, Nuprin, or Tylenol can be used to control pain. A separate sheet will be given regarding the dosing of these medications. Narcotics are used for breakthrough pain in adults. If nausea or stomach pains develop, the narcotic pain medicine may be the cause. Do not use aspirin (Bayer's, Excedrin) - they may increase the chance of bleeding. Continue other medications that the patient may have been on prior to surgery.

WHAT SHOULD WE EXPECT AFTER SURGERY?

As previously mentioned, most patients have a significant amount of pain after tonsillectomy, with pain resolving **5-12** days after surgery. Older children and adults seem to have more discomfort.

- ▶ **Ear Pain:** Many patients will complain of earaches after tonsillectomy. This is caused by pain coming from throat and not the ears. It is referred to the ears. Give pain medications and encourage liquid intake.
- ▶ **Fever:** Many patients have a low-grade fever after tonsillectomy - up to **101.5** degrees (**38°** C). Give Tylenol and plenty of fluids. Higher prolonged fever should be reported to the office.
- ▶ **Bad Looking (and Bad Smelling) Throat:** Most tonsillar areas (after surgery) are covered with a white scab - sometimes with bad breath - for up to **12** days. There will be some redness and swelling as well. The uvula (the thing hanging down in the middle) is occasionally swollen. ICE to the neck, popsicles, chewing gum help with the discomfort.
- ▶ **Bleeding:** Significant bleeding is rare. More than two tablespoons of fresh blood should be reported. If bleeding persists, ice water mouthwashes may help. Call the office immediately. For severe bleeding, go to the nearest emergency room.
- ▶ **Dehydration:** If there has been little or no liquids consumed for **24** hours, notify your surgeon. Signs of dehydration include lethargy, and reduced or very concentrated urine output.
- ▶ **High Fever:** Temperatures greater than **102°**, or when accompanied by cough or difficulty breathing should be reported to your surgeon.