Uvulopalatopharyngoplasty (UPPP) for Obstructive Sleep Apnea (OSA)

One of the most common surgical procedures to treat obstructive sleep apnea (OSA) is uvulopalatopharyngoplasty otherwise known as UPPP. This is a surgical operation performed under general anesthesia in a hospital operating room. This procedure entails removal of both tonsils (if present), removal of the uvula, trimming the soft palate, and suture all cut edges together.

What this operation attempts to accomplish is to enlarge the airway opening at the mouth level as much as possible through tissue removal as well as induce as much scarring as possible which makes the throat less prone to collapse (as well as vibrate).

The Perfect Patient

The perfect patient who would most benefit from this procedure is someone with documented obstructive sleep apnea based on a sleep study, failed using CPAP machine to resolve the OSA, and anatomic factors suggesting obstruction that is occurring at the mouth level. What are some of these anatomic factors an ENT surgeon looks for? They include a large soft palate with a long uvula and large tonsils. On fiber optic nasopharyngoscopy, the lateral aspects of the throat collapses causing obstruction on Mueller's maneuver (nasal inhalation while the nose is pinched closed). To absolutely confirm uvula-palatal factors causing obstruction, sedated sleep endoscopy can be performed.

How effective is UPPP?

This procedure is very effective if performed on the right individuals. Some reports state that long-term success rates are low with this procedure when performed alone. However, if patients are selected carefully, and if other procedures are combined with UPPP, the success rate can be as high as 60-70%. UPPP is rarely the only surgery recommended to treat sleep apnea.

What are the risks of this surgery?

There are risks associated with any surgical procedure. Complications with UPPP are very uncommon. Risks most commonly associated with UPPP are bleeding, infection, the possibility of no improvement of sleep apnea, taste disturbance and tongue numbness (usually temporary), and velopharyngeal insufficiency (VPI). VPI is when the soft palate does not close completely when you swallow. This condition is almost always temporary.

What can I expect after surgery?

Following this procedure:
- you will spend one night in the hospital and will most likely be able to go home the following morning
- unfortunately, UPPP is a fairly painful procedure, the worst of the pain is usually over after a week
- you will be given a liquid pain medication
- the absorbable stitches used by your physician will dissolve after about 2 weeks
- avoid eating foods that are very hot, spicy or have sharp edges (e.g. chips)
- cool liquids are usually well tolerated after this procedure

A common question is whether the uvula is an important structure. The blunt answer is that the uvula plays absolutely no essential role. You will not miss it after it is gone. HOWEVER, some patients may experience a side effect of a chronic sensation of excess phlegm, globus, and dryness. The uvula has salivary glands and does help distribute saliva in the pharynx (like a windshield wiper). In order to minimize this potential side effect, only a conservative amount of the uvula is removed without removing any central palate.
The Procedure
The procedure is performed in the following manner:

**Step 1:**

The patient is placed under general anesthesia and structures identified. Prior to any surgical excision, measurements are taken on how much palate is to be removed.

**Step 2:**

The tonsils are removed (if present), uvula is excised, and the soft palate trimmed. After these structures have been removed, all cut edges are sutured together with bio-absorbable stitches.

For those wondering, we use coblation to remove most of these structures.

**Step 3:**

Recovery takes about 3 weeks. During this recovery period, the patient has a pretty horrific sore throat and it is not unusual for an adult patient to lose 10-20 pounds given how bad the pain is.

If a patient looks in the back of the mouth, white plaque-like debris is seen throughout the surgical site. This is NORMAL! This debris is known as eschar and it basically is a scab that's wet. (Imagine looking at a scab elsewhere on the body after you take a shower.)

**Step 4:**

This is what the back of the throat area looks like about 6 weeks after a UPPP. By this point, a person should hopefully be sleeping much better!

*Even with this procedure, snoring may not completely go away as snoring may be due to many different other levels of the airway (i.e., tongue vibration, nose vibration, cheek vibration, etc).*
For questions or emergency care, please contact us at 985-327-5905.