

## **Uvulopalatopharyngoplasty (UPPP)**

### **UVULOPALATOPHARYNGOPLASTY**

The medical problem of obstructive sleep apnea has now been recognized for the last decade and a great amount of research has improved our understanding of this problem. Patients with obstructive sleep apnea stop breathing as their tissues in the throat collapse and obstruct the air passages. They are easier to arouse because they maintain a lighter stage of sleep after the episode of such an obstructive spell. The throat muscle tone then improves and their breathing is again initiated. These obstructive spells generally are associated with snoring and can last from thirty seconds to as long as two minutes at one time. The cycle is repeated hundreds of times during a typical sleep period of about eight hours.

The operation of uvulopalatopharyngoplasty is successful in improving on these obstructions about 50-75% of the time. The snoring in the course of this treatment invariably improves. Many surgeons in the country are now doing this operation for the social problem of snoring and report a success rate of up to 95%.

Not every patient who snores is a potential candidate for surgery. This is because snoring can be due to different mechanisms. The patients who have snoring only when they are lying on their back generally have a relaxation of the tongue which causes obstruction and turbulence of the airflow leading to snoring. These patients are generally not candidates for surgery. Most snorers, however, snore in any body position and this snoring is caused by the relaxation of their soft palate which vibrates freely as they breathe. The operation is meant to remove all the flopping and redundant tissue in the back of the throat and is basically considered a facelift where the wrinkles are removed. The surgery generally takes about one hour and requires a general anesthetic. The procedure for obstructive sleep apnea is similar. However, when a patient has obstructive sleep apnea, an extensive study is required to exactly diagnose the extensiveness of this problem. The medical risks of the surgery are about the same as having a tonsillectomy done. Hospital stay averages about three days and sore throat lasts for about a week and a half. The patients are generally unable to swallow liquids because of pain initially. There are a number of possible complications and the most important one of these is that the operation may not work at all. The careful preoperative examination and investigations give us a good clue about the possibility of success. The second risk is that a little bit too much tissue might be removed from the soft palate and this may force some of the liquid to come out of the nose during the process of swallowing. This has been reported to happen about five percent of times. Most of the patients who develop this complication generally have spontaneous improvement. However, should this persist, a surgical correction of this complication can be accomplished. Most of the time we require an x-ray, CT scan and polysomnography for documentation of the airway obstruction. This is generally done in our Sleep Disorders Laboratory where, as an outpatient procedure, the assessment of the degree of obstruction and degree of sleepiness during the day, etc., can be performed. In patients with moderate to severe amounts of obstructive sleep apnea, induction of anesthesia can lead to an airway obstruction and this may mandate a tracheostomy in a very occasional patient. The postoperative period also has to be carefully

monitored for any obstruction, as the postoperative surgical swelling in the throat can lead to difficulties in breathing and we, therefore, like to observe patients overnight in the Intensive Care Unit or the Recovery Room when they have moderate to severe obstructive sleep apnea preoperatively. Many patients will also have nasal problems and this would require a correction to give them the best possible change of improvement in their apnea.

Since the operative does require a general anesthetic, the patient needs to be in the optimal physical condition to minimize the risk. The patient should have good control on blood pressure. Also, they should not be on any sedatives, alcohol or cigarette smoking for at least two or three months prior to testing for obstructive sleep apnea.