Pain Control. The regimen used will be tailored to each patient but will likely include over the counter anti-inflammatory medications to help with swelling as long as not contraindicated. The amount of discomfort may vary as the initial numbness improves.

Nasal Congestion. A saline spray will be provided to help loosen any debris within the nose during the recovery period. Additionally, a decongestant may be used to help with nasal congestion.

Activity. While strenuous activity or exercise is to be avoided for six weeks, ambulation (at least three walks per day) is encouraged. Contact sports are prohibited for a period of 12 weeks.

Sleep. This will be monitored closely during the inpatient stay. Additionally, the head of the bed will be elevated 45 degrees to help decrease swelling after surgery.

Long-term. A repeat sleep study will be performed three months after surgery to gauge the improvement achieved with surgery.

ADDITIONAL QUESTIONS

Individual patient specifics will be discussed at the time of the comprehensive patient consultation appointment. Radiographic imaging will be performed at the time of the consultation in order to evaluate the jaws and airway space three-dimensionally and to use for surgical planning.
WHAT IS MAXILLOMANDIBULAR ADVANCEMENT?
Maxillomandibular advancement, also known as bimaxillary advancement, involves moving the upper and lower jaws forward to open and improve the size of the airway. The airway is enlarged near the tongue and palate in patients with obstructive sleep apnea. Compared with other sleep apnea treatments, this intervention tends to have the highest success rates for improvement of sleep apnea symptoms, with studies indicating a greater than 90% chance of resolution of major signs and symptoms of sleep apnea as well as improvement in sleep studies. Recovery from surgery is more extensive than other treatments and is generally considered in those patients who have not experienced relief from other nonsurgical and surgical interventions.

HOW IS THIS SURGERY PERFORMED?
The maxillomandibular advancement surgery is performed under general anesthesia in an operating room. The surgical team comprises surgeons from the Department of Oral and Maxillofacial Surgery working closely with the sleep medicine specialists. All incisions are made inside the mouth allowing access to move the upper and lower jaws forward. Small titanium plates and screws maintain the new position of the jaws. Temporary wire braces may be used during the healing process, which is typically 10–14 days. The surgery itself usually takes 2–3 hours and typically requires a one-night hospital stay.

WHAT ARE THE RISKS OF THIS SURGICAL PROCEDURE?

Breathing. The initial swelling after surgery tends to decrease the airway size during the first night. Subsequently, a breathing tube is commonly left in place overnight after the surgery. In some instances, a more advanced airway, such as a temporary tracheostomy, may be performed.

Bleeding. As with any surgical procedure, bleeding is a potential risk. Home medications and supplements that may increase bleeding risk must be discontinued prior to surgery. Some patients experience bruising of the skin after surgery that resolves after a few weeks.

Infection. Antibiotics are administered around the time of surgery to reduce the risk of infection.

Change in bite. The jaw movements are designed to maintain the original fit of the teeth. However, during the procedure, or afterwards, changes may occur. If significant occlusal change occurs, this may be improved through minor recontouring of the tooth enamel.

Numbness. Numbness may occur with the teeth or along regions of the lower lip and middle portions of the face, including the cheeks. Numbness may be accompanied by tingling or sensitivity and may last for 6–12 months. Permanent neurosensory changes are rare, but do occur in some patients.

Appearance. The midface and lower jaw become more prominent as a consequence of jaw advancement. Additionally, changes to the nose may occur, although steps are taken during surgery and planning to prevent these changes.

Need for additional procedures. Despite having a relatively higher success rate than other modalities, other procedures may be necessary to finalize the treatment or if complications occur.

PAYMENT FOR SERVICES
There are standard fees for the consultation and three-dimensional imaging that is required. The surgical care and postoperative care is considered medical (not dental) in nature, and with appropriate documentation of the severity of the sleep apnea (i.e., clinical and radiographic findings, as well as sleep-study results), the surgery and hospitalization are covered by medical insurance plans.

POSTOPERATIVE CARE

Diet. Temporary wire braces require a soft, nonchew diet for six weeks. A liquid diet is initially started after surgery as oral intake may be difficult. This is transitioned to a soft blended food diet for a total of six weeks after surgery. It is important to ensure adequate oral intake during the recovery period. Consultation with a nutritionist may be helpful during your hospital stay.