



GREEN / JONES
ORAL AND MAXILLOFACIAL SURGERY

Preparing for Orthognathic (Jaw) Surgery

Lefort I Osteotomy
Bilateral Sagittal Split Osteotomy (BSSO)
Genioplasty

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Preparing for Surgery

Optimizing your health is important when preparing for surgery. You can accomplish this by maintaining good nutrition and an active lifestyle—always good advice! You should also avoid sick individuals as you near your surgery to decrease risk of coming down with an illness and needing to postpone your surgery. Good hand hygiene (washing) is also helpful in maintaining a healthy lifestyle. A general vitamin supplement can help ensure that the building blocks required for rapid healing are present in adequate amounts. Careful oral hygiene is especially important leading up to your surgery. It is also a **must** after surgery. Finally, practice placing and removing your elastics (rubber bands) prior to surgery. The more adept you become at doing this, the easier it will be when you need to place elastics after you are swollen and not feeling well immediately following your surgery.

To summarize:

- Take a multi-vitamin
- Good hand hygiene
- Good oral hygiene
- Be healthy!!!

The Operating Room

Most orthognathic (jaw) surgery take between 90 minutes and 5 hours depending on the complexity of the case. Obviously, single jaw surgery is of shorter duration than two jaw surgery.

The Recovery Room

Immediately following surgery, you will be transported to a recovery room for monitoring. You will remain with the recovery nurses in this area until you are ready to be transported to your room. Each hospital has different policies—but most often, one family member is permitted to sit with you after you are alert in the recovery room. You will feel a tightness to your face due to swelling. You will feel numbness overlying the jaw (or jaws) operated on. There will be some oozing from the incision sites which is also normal. The nurses in the recovery room will be monitoring your vital signs (pulse, respiratory rate, blood pressure) throughout your stay in recovery. They will also place ice packs on your face to help minimize swelling. Once you are appropriately recovered and your hospital room is ready, you will be transported in your bed to the hospital room where you will stay the night.



The Hospital Stay

Once transferred to your hospital room, your vitals will continue to be checked—although less frequently (usually once every 4 hours). You will likely be sleepy from anesthesia. When sleeping, ensure that the head of your bed is elevated to help prevent excessive swelling. Your bed should be inclined and you can rest/sleep with two pillows behind your head to further aid with head elevation. You can expect some (or even all) of the following scenarios.

Numbness—this surgery requires the manipulation of nerves. Upper jaw surgery (Lefort I surgery) will result in temporary numbness that extends from the lower eyelids to the upper lip and over both cheeks. Lower jaw surgery (BSSO) results in numbness in the lower lip and chin regions. This numbness should resolve over a period of weeks to even months—in some cases there is a distribution of numbness that does not resolve. Your risk of this occurring is based on several factors and will be discussed with you individually during the stages leading up to your surgery.

Nausea—This can result from several factors including the anesthesia, side effects of pain medication, or even oral/nasal bleeding that results in blood irritating your stomach lining. There are medications ordered to help decrease nausea in the early postoperative period—but these are administered on an “as-needed” (or PRN) basis and this requires you to tell your nurse that you are feeling nauseated in order to receive this medication. Occasionally, patients will vomit following surgery. Do your best to remain calm and utilize bedside suction.

Bleeding—Inevitably, you will have some oozing from incision sites as well as from the nose. If it seems excessive, again, notify your nurse. If necessary, they will notify your surgeon and it will be dealt with appropriately. Bleeding from the nose can often be staunched with the use of Afrin (oxymetazoline) nasal spray.

Diet—Your initial diet following surgery will be clear liquids. This includes water/coffee (without cream/milk) and Gatorade or jello. This will be advanced to a soft, non-chew diet as you begin to tolerate food and liquids on your stomach. It is important to stay hydrated following surgery and the sooner you are able to drink, the sooner the IV fluids can be slowed or even stopped.

Activity—You can begin getting out of bed after surgery, but should only do so with assistance. Even if it is to use the restroom, you should have assistance in the early period following surgery. The use of general anesthesia can disrupt your equilibrium and make you feel unsteady after surgery. Call your nurse for assistance when getting out of bed.



Most patients are ready for discharge to home after one night stay in the hospital. Occasionally a patient will require a second night prior to meeting discharge criteria. It is important to remember that a hospital is a place where sick patients are monitored. As soon as you are well enough to continue the recovery process at home, it is prudent to get you home where you are less likely to come into contact with the illness that is present in large quantities in the hospital.

The discharge process can take several hours as the nurse prepares and processes the paperwork necessary and gathers your prescriptions to send with you.

At Home

Once at home, the recover process continues. It is important to adhere to the following instructions:

Eating: Everyday tasks such as eating will initially be more difficult after jaw surgery. This is normal and is due to a variety of reasons including soreness, swelling, nausea, and numbness after surgery. However, it is important to continue to drink fluids and eat appropriate foods to maintain hydration and nutrition. Using a cup is the most effective way to drink despite the messy nature of drinking with a numb mouth. The more you practice, the more adept you will become as you continue to drink and eat. Eating will be more difficult and time consuming and it will be important to eat more frequently if necessary to maintain adequate caloric intake. Supplements such as Boost, Ensure, and Carnation instant breakfast can help supplement your diet in the early stages after surgery.

Your diet should be soft enough to eat without the use of teeth. This includes foods such as scrambled eggs, hot cereal (oatmeal/grits/etc), mashed potatoes, well cooked pasta, and many soups. You will need to plan to adhere to this diet for six weeks following your surgery. **FAILURE TO DO SO MAY RESULT IN THE NEED FOR ADDITIONAL SURGERY!!! DO NOT ADVANCE YOUR DIET TO HARDER FOODS PRIOR TO SIX WEEKS NO MATTER HOW GOOD OR READY YOU FEEL TO DO SO!**

Six weeks after surgery, you will begin to chew foods and graduate to a regular diet over the several weeks that follow.

Hygiene: You **MUST** maintain good oral hygiene following surgery despite the many challenges you will face due to swelling and numbness. Food in braces and teeth will become a hygiene problem if not properly cleaned and this can lead to infection of incision and/or the hardware holding your jaws in their new position. Hygiene is the first and best measure to combat infection. In addition to brushing as per your routine, you will be prescribed a mouth rinse (chlorhexidine) to be used each morning and evening for 7-10 days following surgery. Do not use a water pick after



surgery as this can introduce debris or bacteria into the incision sites and should be avoided for several weeks following surgery.

Tobacco products: It is imperative that you avoid all tobacco products—both cigarettes and smokeless tobacco contains products that impede the healing process and can lead to poor healing and/or infection. **DO NOT SMOKE OR USE OTHER FORMS OF TOBACCO.**

Splints/Elastics: After surgery many patients will have a splint wired into the upper teeth. This splint has grooves in the lower aspect to help guide the lower jaw into position. Elastics, or rubber bands, are often used to help this process as they can aid in guiding the lower jaw into the “new” bite and into the splint. A patient is almost never “wired shut” due to the use of plates and screws that are available. Configuration of the elastics is very important and does need to be followed closely in the weeks after surgery. Eventually, your surgeon will turn the responsibility of the elastic configurations over to your orthodontist.

Activity: Everybody responds differently to the experience of surgery. The recovery process is different and depends upon many factors including the extent of surgery, blood loss, and pain levels. Gradually increase your activity level in the weeks following surgery. You can return to work and/or school after you no longer require narcotics for pain control. Returning to vigorous activity such as exercise, weight lifting, swimming, running, cycling should be postponed for 4-6 weeks after surgery. Ask your surgeon regarding specific activities and their restricted timeframe.

Swelling/Bruising/Bleeding: You should expect swelling and some bruising following your surgery. The swelling can increase for up to 72 hours after surgery. Most patients receive intraoperative steroids to help decrease the swelling, and other measures such as keeping the head of bed elevated and use of ice packs will also aid in decreasing the amount of swelling. The swelling will then slowly subside and approximately 80% will have resolved by 4 weeks. Some swelling, however, will remain for several months following surgery.

Minor bleeding from the nose and mouth is expected. You may use over the counter Afrin (oxymetazoline) for up to 5 days following surgery. **DO NOT USE IT BEYOND 5 DAYS.** The blood which drains from the nose should be dark blood, indicative of old blood draining from the sinuses through the nose.

Some patients will develop bruising on the face and neck. This will change colors over the first several days and drift down into the neck and chest region before fading completely. It can take several weeks to fully resolve.

Pain: Pain is highly subjective and varies widely from patient to patient in terms of both perceived amount of pain and the treatment of the pain. Most patients feel uncomfortable, but without significant amounts of pain due to the numbness and decreased sensation following surgery. The narcotic pain medicines often prescribed after surgery do not address the inflammation which is the source of the pain. For this



reason, anti-inflammatories are the treatment of choice to address both the pain and the body's response to surgery. This class of medication is often used in conjunction with the narcotic pain medicine to address the discomfort. The goal is to discontinue the use of narcotic pain medicine within the first 3-4 days following surgery.

Jaw Movement/Stretching: Initially after surgery many patients have elastics which limit their jaw movement. You should not attempt to open wide or stretch your jaw for the first two weeks. After two weeks patients should begin to stretch their jaw with opening exercises at least twice per day. Moist heat (warm wet towels) may help to minimize discomfort in the overlying muscles. Your goal should be to slowly increase your opening weekly until returning to your "normal" opening. If you have muscle aches and cramping, take ibuprofen as directed.

Emotional Changes: Occasionally, patients will have emotional changes after surgery, especially during the first post-operative week. Also, due to the administered steroids, many patients feel good for the first 2-3 days and then experience a "slump" in the days following. If this persists, or if you feel poorly—please contact Dr. Jones/Green.

Finally—Jaw surgery is a long process and we take our responsibility to help you through the process very seriously. If you have any questions at any time throughout the process, please contact us so we can help you along your way to a full recovery.