Corrective Jaw Surgery (AKA Orthognathic Surgery)

People who may benefit from corrective jaw surgery include those with an abnormality in the position, shape, or size of the jaw(s) that results in a bite abnormality (malocclusion) that cannot be corrected by braces alone. Corrective jaw surgery involves moving the bones of the upper jaw, lower jaw, or both. It is done in conjunction with braces (orthodontia) to provide the most stable and optimal of results. Please see below images for some examples of corrective jaw surgery cases.









Correcting an Open Bite:

Some of the bone in the upper toothbearing portion of the jaw is removed. The upper jaw is then secured in position with plates and screws.

Correcting a Protruding Lower Jaw:

The bone in the rear portion of the jaw is separated from the front portion and modified so that the tooth-bearing portion of the lower jaw can be moved back for proper alignment.

















Correcting a Receding Lower Jaw or "Weak Chin":

The bone in the lower portion of the jaw is separated from its base and modified. The tooth-bearing portion of the lower jaw and a portion of the chin are repositioned forward.

When deciding if you want to proceed with this surgery or not, it is important for you to weigh the risks with the benefits. Benefits of these interventions may include improved bite and orofacial health, airway/sleep apnea, facial form and in some cases speech articulation. Complications of surgery in healthy and compliant patients are uncommon but all surgical interventions do carry risks. Some risks associated with corrective jaw surgery include; death, blindness, pain, bleeding, bruising, swelling, infection, damage to adjacent structures (teeth, bone, gums, nerves, cartilage, blood vessels, sinuses, muscles, soft tissues), need for additional procedures, relapse and recurrence, numbness of the lower lip and chin (temporary versus permanent), loss of teeth, need for further dental treatment, malunion, nonunion, malocclusion, asymmetry, failure to achieve desired cosmetic result, failure to achieve definitive diagnosis.

This surgery is not done as a treatment of TMJ dysfunction.



Surgery

The surgery is done in the operating room with the patient asleep under general anesthesia. The surgery lasts, on average, between 2 to 5 hours. Patients who have upper jaw surgery may be kept overnight in the hospital and are typically discharged home the following morning. Patients with lower jaw surgery only are typically discharged home on the same day. Most of the incisions for this surgery are made on the inside of the mouth, however, small incisions are often made through the skin in your cheek regions as well (these are small and typically only require a single stitch to close).

Diet

Following surgery, your teeth will be held together with rubber bands (most commonly) or with wires and you will be on a liquid diet for the first 2 weeks. A 5 to 10 pound weight loss is common during these first 2 weeks. It is important to maintain your hydration and nutrition as much as is possible. Pureed diet instructions (including a recipe book) will be provided at the pre-op class with our clinic nurse. You will remain on a modified, non-chew diet until 6 weeks post-op. After 6 weeks, you may resume chewing and return to a normal diet as your comfort allows.

Medications

Medications will be prescribed to you in liquid form. If you take any medications in a pill form, many pills can be crushed and taken with a liquid (water/milk/juice). Please discuss with your primary care physician or a pharmacist if your pills can be crushed or if you need a substitute medication.

Speech

You will be able to speak following surgery, even with your teeth held together with rubber bands/ wires. It is advised that you speak and animate your lips often (instead of just writing down everything) to aid in reducing muscle stiffness and reducing swelling.

Swelling and Bruising

Swelling (and often bruising) following corrective jaw surgery is expected and typically peaks around 3 to 5 days post-op. It will take several months to fully resolve, although the majority of swelling will subside by 1 month post-op. Applying ice regularly in the first week following surgery is helpful in reducing swelling as is keeping your head elevated. You can sleep with at least two pillows or in a recliner chair to keep your head elevated. You will be provided with ice packs.

Numbness

Most patients experience numbness in the respective jaw (including gums, teeth, overlying skin, and lip) following surgery. This numbness can take a long time (more than 1 year) to resolve and may result in permanent changes to feeling. The chin/lower lip region has the highest risk of a permanent change. Many patients with permanent change to sensation report it to be an area with decreased sensation/tingling, but a more profound numbness or altered sensation in a different manner is possible. Young, healthy patients have the best chance of a good return of sensation. Advanced age is associated with increased risk of worse nerve healing/less return of sensation. It is also possible to have altered sensation result in the tongue and/or palate.



Damage to Teeth

There is a risk of damage to your teeth with this surgery. If such damage occurs, you may need a root canal and/or extraction of the affected tooth/teeth. Damage to teeth can result from direct trauma from being cut during surgery or indirectly from diminished blood supply to the tooth/teeth related to nearby bony cuts/incisions.

Facial Appearance

Corrective jaw surgery will result in a changed facial appearance. We do not have any predictive software to show you what your face will look like after surgery (no accurate software exists due to the complexity/variability of how soft tissues of the face respond to bony movements). We certainly take facial esthetics into account when treatment planning with the hope to not only optimize your bite, but to also optimize facial balance. If you have concerns regarding any facial changes, please let your surgeon know.

Possible Need for Revision

Although not common, you may require revision surgery. This could involve removing and/or replacing the hardware, bone grafting, and/or repositioning of your jaw.

Physical Activity

It is encouraged that you get up and walk around often during your recovery. Please avoid activities that bring your head below your waist level for the first several weeks. Please limit your physical activity level to no more than walking and light hiking for the first 6 weeks. Physical activities requiring heavy lifting (anything that is strenuous enough to cause you to clench your teeth) or activities where the jaws would have a tendency to be hit or jarred, such as contact sports, should be avoided for 3 months. Examples of exercises that are non-jarring/non-contact: stationary bike, elliptical, stair climber. You can resume ALL physical activity including contact sports after 3 months.

Coverage

Corrective jaw surgery is an approved surgery under your health plan. For specifics regarding your copay, please contact Member Services (number is on your Kaiser Permanente ID card) and they will tell you what your copay for outpatient surgery is. Orthodontic treatment is a dental benefit and is not included in the health plan. You will also need pre and post-op imaging (cone beam CT); you can inquire about your radiology copay with Member Services as well.

Time Off Work/School

Following surgery it is important to allow your body time to rest and heal. It is recommended that you plan a minimum of 2 weeks off. Many people find having 4 to 6 weeks off to be more optimal. You will not be able to perform any strenuous physical activities for 3 months following surgery; if your job/school class requires strenuous physical activity please let us know so that we can generate a work/school note for you that lists modified duty requirements. Many patients file for disability during this time; if you need any forms for disability/FMLA/work filled out, please contact the Medical Secretaries Department:

Oakland Medical Secretaries Department 3701 Broadway, 5th Floor 510-752-6026



Common Timeline of Care

- 1. Start pre-surgical orthodontic treatment (takes on average 12 to 18 months to prepare the teeth orthodontically for surgery).
- 2. Have lower wisdom teeth extracted ASAP if you are having lower jaw surgery. This must be done at least 6 months prior to lower jaw surgery. Please consult with your orthodontist about this; they will provide referral as needed.
- 3. You should return to our office with progress (unmounted) dental models approximately 3 to 6 months* before you are ready for surgery so that we can get you scheduled for surgery. Please call 510-752-6821 to schedule this appointment. Once you get a surgery date, you will also be scheduled the necessary pre-op and post-op appointments.
- 4. 3 to 4 weeks before surgery: pre-op appointment with final dental models (unmounted).
- 5. Surgery.
- 6. 10 to 14 days post-op: first post-op appointment.
- 7. Additional post-op appointments as needed (often 2, 4, 6 weeks post-op).
- 8. You are expected to remain in the immediate area for 6 weeks post-op and if you had upper jaw surgery you are not permitted to fly during this period.
- 9. Post-surgical orthodontic treatment (takes on average 6 to 12 months to complete).

*Please be aware that surgical scheduling during traditional school holidays such as summer, spring break, winter break etc., should be done <u>6 months or more</u> in advance.

All forms for disability/FMLA/work are filled out by the Medical Secretaries Department.

Oakland Medical Secretaries Department 3701 Broadway, 5th floor Hours: Monday through Friday, 8:30 a.m. to 4:45 p.m. 510-752-6026

