

## Method:

General anesthesia (complete anesthesia) will be given and a tube will be placed through your nose into your windpipe. If this is not possible, the tube will be placed into your windpipe through the mouth or through the hole opened in the front of the neck (tracheotomy). An incision will be made inside the mouth or through the skin to reach the fracture line. Additionally, if it is necessary to take bone or tissue from other parts of the body, it may be necessary to make an incision in the relevant body part. The broken bone fragments will be fixed and determined using one or more of the following:

- Titanium plates and/or screws
- Fusible plate and/or screws
- External fixator (fixation tool applied from outside).
- Bone, cartilage, bone paste, bone powder taken from another person
- Alloplastic materials such as silicone, porous hydroxyapatite, methyl methacrylate, titanium mesh

Unless they cause a problem, these will stay in place for life. If problems arise, a second surgery may be required to remove them. Depending on their location, they may also need to be removed.

## SURGICAL STEPS:

You will be given a day to come to the hospital, you will be called to the hospital early in the morning on an empty stomach, it would be appropriate to take a shower in the morning.

Blood is taken for preoperative examinations.

The anesthesiologist will meet and examine you, you will rest in bed while waiting for your surgery, and when the time comes, you will be taken to the operating room. You may stay in the recovery room for 1 or 2 hours until you wake up after surgery. After your values are monitored in the wake-up room, you will be taken to your room. Your

mouth may swell and possibly blood will leak from the incisions in your mouth within the first 24 hours. There will be swelling and bruises on your face and cheeks. These swelling and bruises may be excessive depending on the procedures performed in the surgery and sometimes the characteristics of the person.

You may need to sleep with 2-3 pillows to elevate your head at night to prevent some of the swelling in your mouth and cheeks. You can usually be discharged within 1 or 2 days after surgery. This depends on how you feel, how much edema (swelling) you have, and whether you are getting enough oral fluids to avoid needing intravenous fluids. In some cases, you can even be discharged on the same day. There will be brackets and/or wires and often plastic splints that will be attached to your teeth. These devices serve to keep your teeth and jaw immobile, position them correctly, and protect the surgical site to ensure your healing. The need for splints may vary and can be discussed prior to surgery. Oral cleaning (hygiene) accelerates healing and is extremely important. Please rinse your mouth with plenty of water after each meal and then rinse your mouth again by preparing the medication or disinfectant solution provided as described. After 3-4 days, gently brush with a children's toothbrush (small and soft) to clean your teeth and braces. Make sure you do not damage the incisions on your gums. Nutrition plays an important role in your post-operative care. Generally, it is necessary to feed without chewing for about 10 weeks. You should only eat liquid foods for at least the first 7-10 days after the surgery. The doctor will inform you about when to switch to a non-chewable diet and for how long to continue it. Continuing with a non-chewable diet is very important in healing the bone grafted area and/or jaw. Excessive movements in this area may disrupt the healing process. Your doctor will also help you with nutritional recommendations. Remember that sweeteners and flavors are of great importance because they change the normal appearance of food. There should be no hesitation in

trying different spices. Irritating spices such as green pepper and hot sauce and very hot foods should be avoided. If you are preparing seafood, remember that these dishes should be eaten on the same day they are prepared. We recommend that you dilute the biokadin solution and use it for 7-10 days by swishing it in your mouth to clean your mouth throughout the day. Additionally, we recommend that you rinse your mouth with salt water, half-diluted oxygenated water (hydrogen peroxide), or half-diluted mouthwash and water.

Both mouthwash and salt water will enhance healing and help minimize the number of bacteria in your mouth. It is very important that you use these mouthwashes. You should always use it after every meal. You will also be given petroleum jelly or a cream containing petroleum jelly to apply to your lips, and you will apply it regularly.

You will receive antibiotics for at least seven days after surgery. Please take your medications as prescribed. It is very important to take your medications to prevent infection. The stitches in your mouth are the type that dissolves on their own over time. They do not require any special care other than keeping them clean. Again, it is very important to keep the inside of your mouth clean to prevent bacteria from sticking to the stitches. If there are stitches on the skin, they are usually removed in 5-7 days. If you are a student, you will be away from your school for at least 1 week. You can return to school when you feel well enough to go, which will usually be after 2-3 weeks. Don't forget to bring your liquid food and mouth cleaner with you. When you return to school, you can do your normal activities other than physical education classes. You will not be allowed to engage in sports for 3 months. If a document regarding this issue is requested, we will be happy to provide you with a written report. Your first office appointment after surgery is in 1-2 weeks. Meanwhile, the doctor will check your recovery process and provide necessary information to further accelerate your recovery.

You should have a wire cutter and tire-cutting scissors at home. If you experience nausea or shortness of breath while your mouth is locked (intermaxillary fixation - connecting the lower and upper jaw to each other to provide stabilization), you should cut the tires and wires immediately.

It will take some time for the swelling in your mouth and face to go down. Don't be surprised if they still exist after 3 months. Be as comfortable and quiet as possible and you can get up to walk around the house. But definitely no carrying heavy items. Always keep your head above the level of your heart. The head will be above heart level in every way and there will be absolutely no bending over for 10 days. Postoperative depression (feeling down due to low mood) is common after any surgery. This depression is related to discomfort and fear with appearance and limitation in activities and movements, which usually occurs after surgery. These feelings will disappear as your appearance improves and you return to your normal activities.

When you are discharged, we send you home with:

- With post-operative instructions, Medications, or a prescription for taking medication. Post-operative appointment

## **RISKS OF SURGERY: RISKS OF ANESTHESIA**

Some lung areas may collapse and infection (microbial diseases) may occur there. In this case, antibiotics and physiotherapy may be required.

Clots may form in the legs, causing pain and swelling (deep vein thrombosis - blockage of the deep vein with a clot - DVT). Rarely, some of these clots can break off and travel to your lungs or other organs, which can be fatal. A heart attack or stroke may occur due to the load on the heart. Depending on the application, death may occur.

The rate of lung infection (microbial diseases), thrombosis, heart and lung complications (negative outcomes) is higher in obese people.

The rate of lung infection (microbial diseases), thrombosis, and heart and lung-related complications (adverse events) is higher in smokers. Quitting smoking 6 weeks before the procedure may help reduce the risk. Like other surgeries, jaw surgeries carry certain risks.

These can be simple risks or they can be fatal. It is very important that you understand some of the risks that may occur after surgery for mandibular fracture.

## **RISKS OF JAW FRACTURE SURGERY:**

Side effects that may occur due to any surgical intervention; These are not real risks. But they can accompany every surgical intervention:

a. Discomfort from the surgery itself/post-operative pain

b. Edema (swelling)

c. Bleeding: Since jaw surgery is usually performed through incisions made through the mouth, dressing cannot be done. Bleeding from the mouth and nose may occur. There are some risks and complications (negative situation) associated with the application. In order to minimize these risks, it is very important to ensure maximum compliance with your treatment, especially to prevent the movement of your jaws. These risks include:

Blood transfusion: Bleeding (in or after surgery) requiring autologous donor or blood transfusion may occur.

Numbness: The inferior alveolar nerve runs on both sides of the lower jaw. This nerve passes through the fracture line. This nerve is often damaged by fracture. There is a slight possibility of damage due to its proximity to the surgical area. As a result of damage to this nerve, the lower teeth, lower lip and lower parts of the cheek become numb. If this condition is temporary, it usually lasts 6-12 months, but it may also be permanent. The lingual nerve runs on both sides of the inner side of the lower jaw. This nerve runs on the side of the fracture line

closest to the tongue. It provides sensation and taste to this side of the tongue. This nerve may have been damaged during the injury. There is a slight possibility of damage due to its proximity to the surgical area. As a result of damage to this nerve, that side of the tongue becomes numb. More rarely, it may cause uncomfortable complaints such as loss of taste on that side of the tongue. This condition is temporary, usually lasting 6-12 months, but it can also be permanent. The facial nerve comes from under the ear to the cheek and operates all the facial muscles in one half of the face. Injuries due to jaw fractures are rare. However, in surgery for fractures close to the joint, the branch that lifts the eyebrow and closes the eyelid may be injured, and in surgery for fractures in the area where the teeth are located, the branch that pulls the lower lip down and out may be injured. In these cases, the eyelid cannot be closed and the lip cannot be pulled down and out. If this condition is temporary, it may last 6-12 months or sometimes it may be permanent.

**Malunion-nonunion:** In some cases, the fracture may not heal and other surgeries may be required.

It may not always be possible to restore the fracture line to its previous position, especially in multi-part fractures. In this case, there may be some changes in bite function. When the mouth is closed, the teeth do not sit properly and chewing may be impaired. Healing may be delayed or complete union may not occur in very old, or toothless patients with resorption of the jaw bone.

In this case, other complicated surgeries may be required.

**Instability:** Movement that should not occur at the fracture line. It may develop if the diagnosis is inadequate or you do not fully comply with the recommendations. Titanium plates and screws used to fix the jaw after surgery may cause pain and/or infection, which requires surgical removal at some stages.

Ischemic necrosis (tissue death) may occur due to decreased blood flow. This condition may affect the dental nerves, requiring dental treatment, or may lead to the loss of the tooth or teeth.

Decreased mouth opening: It is seen especially in cases where the locking of the lower and upper jaw (intermaxillary fixation) is applied for a long time, especially in fractures close to the joint and in cases where adequate fixation cannot be made. If it is temporary, it lasts 3-4 weeks, but sometimes it can be permanent.

Scar: Wound healing is poor in diabetics, smokers, people with malnutrition, obese patients and in some special cases.

Irregular cuts due to the impact that caused the fracture usually leave bad scars despite all efforts.

Significant scars may also remain in external surgical incisions. Every cut will leave a scar, more or less, after healing.

This is usually acceptable. However, sometimes abnormal scars may occur. The appearance of these scars is ugly and their color may differ from the surrounding area. Abnormal scars may require treatment including surgery.

Wound healing is poor in diabetics, smokers, people with malnutrition, obese patients and in some special cases. Significant scars may remain in external incisions.

Pain: There is usually no severe pain after surgery. If the surgery is performed at low blood pressure to reduce bleeding, sometimes a headache may occur.

There may be pain in the jaw joint during the adaptation process to the new situation.

However, these pains can be controlled with painkillers.

Weight loss: A loss of 3-4 kilos is expected during the period when the jaws are locked (intermaxillary fixation).

## **ADDITIONAL SURGICAL PROCEDURES THAT MAY BE REQUIRED**

There are also different situations that may affect the results in the early and late periods.

Although risks and complications (negative consequences) other than the mentioned risks may also occur, these are less common. If complications develop, additional treatments or surgical intervention may be required. There is no certainty in medicine and surgery.

Although good results are expected, no guarantee or assurance can be given as to the results that can be achieved.

## **FINANCIAL RESPONSIBILITIES**

Ask whether surgical expenses include the hospital and your doctor's fees and the method of payment. You will be responsible for any additional payments and fees required for some unexpected conditions and treatments.

Additional expenses may occur if surgical complications (unfavorable outcome) develop. You are also responsible for hospital stay and surgery fees related to secondary surgery or corrective (revision) surgery.

## **EXCEPTIONS:**

They can reach the doctors of SDÜ Faculty of Dentistry, Department of Surgery, by calling 0246 2113348 or by coming.

## **CONSENT VERIFICATION:**

I know that recommendations on nutrition and regular use of recommended medications, oral hygiene and dressings are very important in the postoperative period. I agree to comply with all recommendations regarding nutrition, medication use, dressings and the recovery period.

It was explained to me that my identity information will be kept confidential and that my anamnesis information, radiological images, photographs, examination results (pathology



report, laboratory results, etc.) may be used for diagnostic, scientific, educational or research purposes. I was informed about the Implementation Communiqué published by the Social Security Institution (SGK) regarding the relevant treatments. I was informed that the invoices for the items that SSI does not pay for the materials to be used during the stages of the treatment must be paid by me.

Dear Patient, To have information about your health condition and the benefits/harms, risks and alternatives of the procedures for the diagnosis or treatment recommended for you; accept or partially/completely reject treatment; You have the right to stop the transactions at any stage!

This document, which we want you to read and understand, has been prepared not to scare you or keep you away from medical practices, but to inform you, determine whether you consent to these practices, and obtain your consent. This consent form consists of 2 pages and is prepared in 2 copies in accordance with Article 70 of Law No. 1219 and Article 26 of the Turkish Penal Code No. 5237, and one copy is given to the patient/legal representative of the patient.

THE TREATMENT FOR MY DISEASE WAS EXPLAINED TO ME AND I HAVE READ AND UNDERSTOOD THIS FORM. I ACCEPT THE TREATMENT. Note: This statement will be written below in the patient's/relative's OWN HANDWRITING.)





