Mandible Fractures

The jawbone or mandible is the largest and main bone of the lower part of the face. Men are about three times more likely than women to suffer from a mandible fracture. The most common age group is 20 – 29 years.

**Causes:** Most common causes are from an accident or trauma involving a blow to the face such as:
- Motor vehicle accidents
- Assaults
- Sports related injuries
- Falls

**Symptoms:** Some of the symptoms of a mandible fracture are:
- Jaw pain in the front of the ear and along the side of the jaw
- Pain that increases with jaw movement, as when chewing and biting down.
- Teeth do not fit together correctly when biting down. This is called malocclusion.
- Unable to open your mouth fully.
- Swelling of the jaw area.
- Lips may feel numb.

**Diagnosis:** The doctor will:
- Inspect the face for deformities, bruising and swelling.
- Check movement of the jaw and jaw stability.
- Check your teeth to see if they are aligning correctly when biting down.
- Obtain a panoramic x-ray called a panorex. This x-ray provides a full view of the upper and lower jaws and the condition of the teeth.
- Obtain a CAT scan of the mandible

**Types of mandible fractures**
Treatment: Depends on type of fractures and location of the fracture on your mandible.

- **Stable fractures** are treated by following a soft, non chewing diet. This consists of food that can be eaten without chewing or biting. This can include soft foods, such as, scrambled eggs, well cooked pasta, mashed potatoes or soups as well as liquids. You will be given pain medication to keep you comfortable while healing.

- Some **stable fractures** may require surgery. The surgery is called maxillomandibular fixation or MMF. This is done by applying a thin metal bar along the upper and lower gum line. These are called **arch bars** and are held in place with thin wires that run between your teeth and around the bars. Wires or rubber bands are often used to connect the upper and lower jaws to insure that your jaw is properly aligned while healing. The arch bars are left in place for 6 to 8 weeks.

![Repair of mandible fracture with arch bars](image)

- Other fractures are treated by surgery. The surgery is called Open Reduction and Internal Fixation or ORIF of the mandible. Broken pieces of jaw bone are put together in their original position using plates and screws. You may or may not have arch bars placed with this type of mandible repair.

Risks of Surgery: There are some risks involved in having surgery

- Anesthesia complications - allergic or a bad reaction to the medicines given
- Bleeding
- Infection
- Delayed union or non union of the fracture site
- Poor alignment or immobility of the jaw
- Nerve damage resulting in facial muscle paralysis and facial numbness
- Loss of teeth involved in the fracture
Important information for after surgery:

Swelling
- Often occurs after surgery
- Will disappear in 1 to 2 weeks
- Moist heat will help to decrease swelling
- Lip numbness may be present

Medication
- Take all medications as prescribed by your doctor
- May include antibiotics that are used to prevent infection
- Pain medication will be prescribed to make you comfortable after surgery

Diet
- Important to eat a well balanced diet high in protein for healing
- You will need to take a full liquid diet because you will not be able to chew or open your mouth wide
- Include foods such as yogurt, soup, nutritional supplement drinks, pudding or table foods that have been put into a blender or food processor and made into liquid consistency

Oral Hygiene
- Keep your mouth clean to avoid infection and tooth decay
- Brush your teeth carefully with a soft toothbrush after every meal to prevent food from becoming stuck in the wires. Food left in your mouth can cause bad mouth odors and possible infection
- Rinse your mouth with prescribed mouthwash three times a day and after eating.

Wire Irritation
- Wires may irritate your cheeks, lips and gums
- Dental wax can be applied over the wires. Soften wax in your hand and then lay on top of the wires
- Wax can be obtained from the ENT clinic or your local drug store

Vomiting
- If you vomit, bend your head over to allow the emesis to flow out your mouth and nose
- If your upper and lower jaws are wired together, you will be given a pair of wire cutters when you leave the hospital. If you begin to vomit, cut the wires allowing you to open your mouth
Removal of arch bars and wires
- Usually removed in the ENT clinic six to eight weeks after they are put on
- Local anesthesia applied to the gums to help numb gums.
- Removed by cutting the wires that run between your teeth. The wires are then pulled out.
- Usually takes about 30 minutes

After removal
- Use over the counter medication, such as acetaminophen (Tylenol®), to relieve any mouth soreness. Avoid medications with aspirin or ibuprofen.
- You may have some bleeding from your gums
- Brush and floss your teeth
- Schedule a dental cleaning with your dentist. If you do not have a dentist, we can help you arrange an appointment.
- Call 315-464-4678 if you have increased pain or swelling at the fracture area or you have difficulty moving your jaw, opening your mouth, or pain when chewing.

Emergencies
- In case of abnormal bleeding, fever or uncontrolled pain, call the ENT clinic at (315) 464-4678.

- For breathing difficulties call 911 or go to the nearest Emergency Department