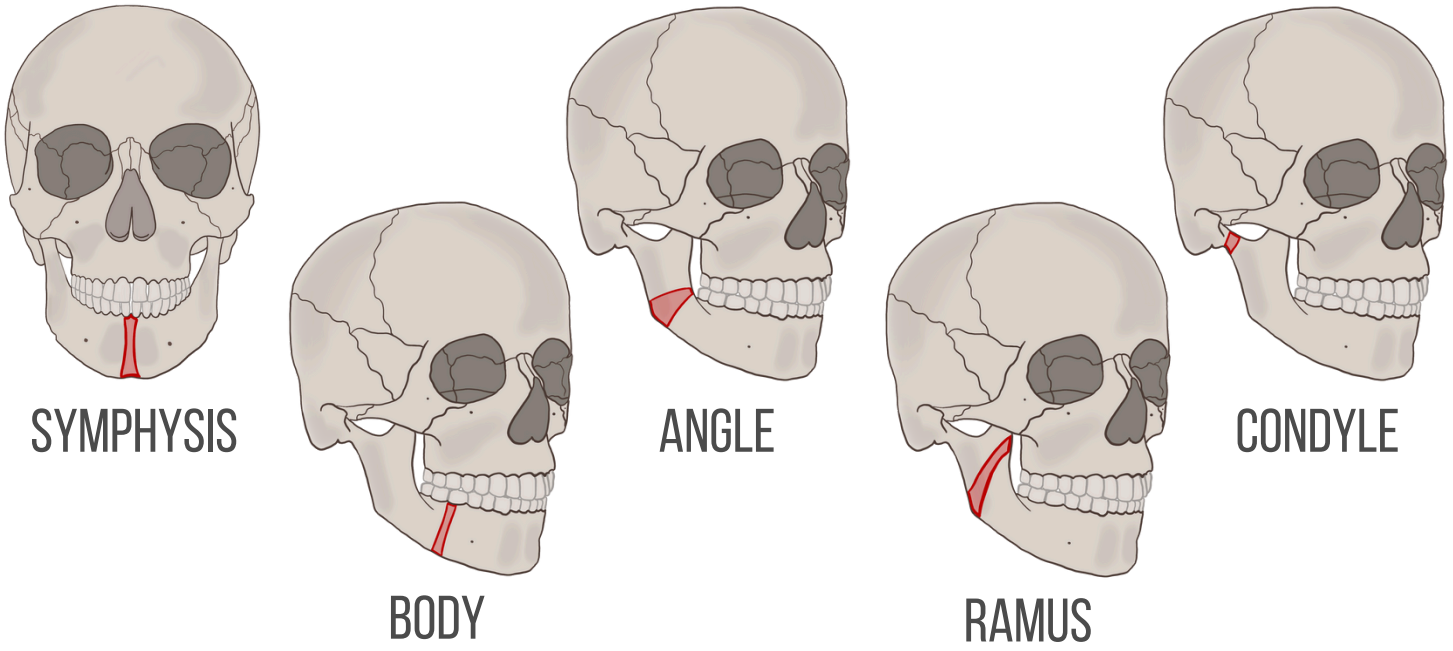
ONTARIO ASSOCIATION OF CRANIOFACIAL TRAUMA SURGEONS

(OACTS)

MANDIBLE FRACTURE



What is it?
Fracture of the mandibular bone, (the jaw); can be at unilateral (one side) or bilateral (both sides)

How does it happen?
A high impact force (e.g., vehicle collision, sports, fall, trauma)

Signs of a mandible fracture:

- Abnormal bite (malocclusion)
- Loose/mobile teeth
- Bruising/cuts inside mouth
- Pain in front of ears (pre-auricular)
- Mobility of part of jaw relative to another part

How is it diagnosed?
X-ray (dental panorex) has a role, CT of facial bones is gold standard

Indications for Surgery:
1. Restoring normal alignment of bite prior to the injury

Risks of Surgery:

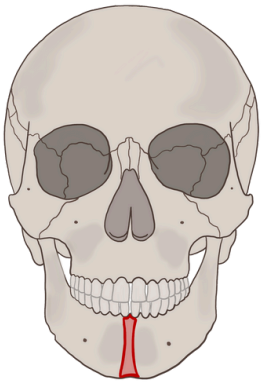
- Risks of general anesthetic
- Infection
- Bleeding
- Scarring
- Persistent malocclusion
- Malunion/nonunion leading to potential infection of the bone (osteomyelitis)
- Injury to the teeth
- Hypesthesia of the lower lip and chin
- Hardware failure, exposure, or infection
- Trismus
- Facial nerve injury

*Smoking and alcohol use are associated with a higher rate of complications.

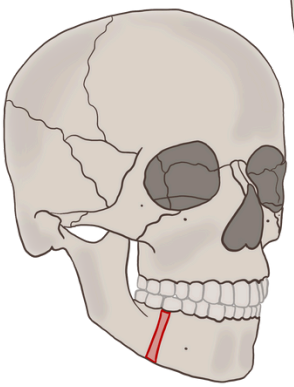
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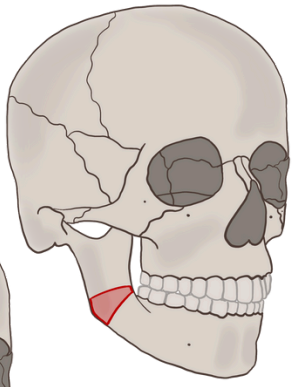
MANDIBLE FRACTURE



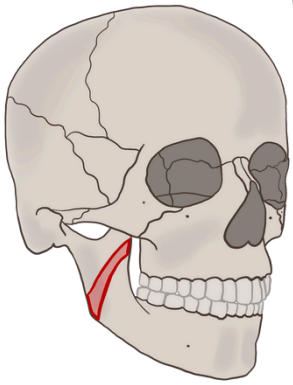
SYMPHYSIS



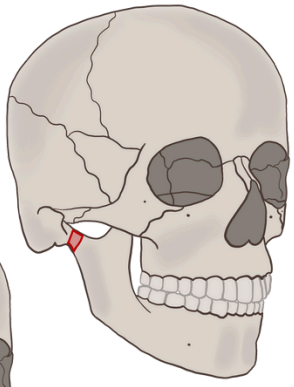
BODY



ANGLE



RAMUS



CONDYLE

Surgical Incisions to Expect

Every fracture and incision is different, surgical type and exposure will depend on each unique patient fracture.

Please speak to your surgeon to gain a better understanding of what to expect.

Typical incisions are:

- hidden in the mouth
- external incisions may be required depending on the location of the fracture

If your injury involved a cut on your face, it may be used to surgically expose the fracture. If you have sustained other fractures at the same time, incisions may differ.

Tips Before Surgery

Surgery is typically done within 1-2 weeks depending on the fracture. This allows swelling to decrease.

Before surgery:

- Try and maintain good oral hygiene (even if it's painful) to avoid infection
- Have liquid/soft diet only before surgery to avoid pain or displacement of fracture
- Keep the head of your bed elevated at 30°: this will help reduce swelling

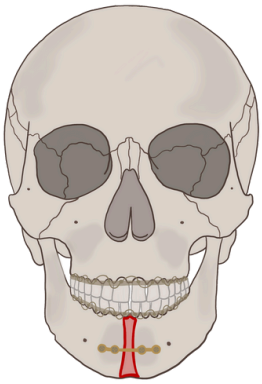
Present to the emergency room if you experience uncontrolled bleeding (most likely from the nose).

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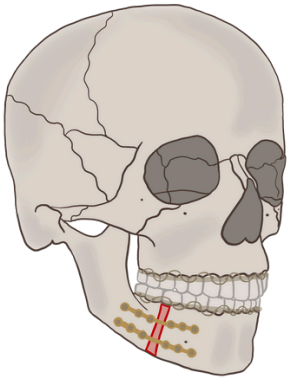
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MANDIBLE FRACTURE

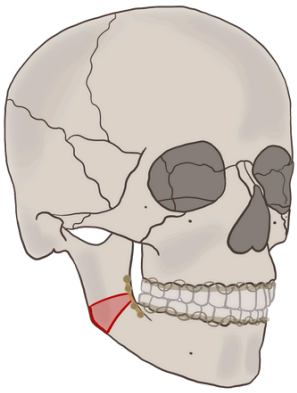
POST-OPERATIVE CARE



SYMPHYSIS



BODY



ANGLE

Treatment

Surgical Management

- Maxillomandibular fixation (MMF) where your upper and lower jaw are wired together, may be required using wires or elastics, and arch bars (similar to braces with elastics).
- Stays in place for 2 to 6 weeks to realign teeth, a second procedure will be required to cut wires and remove arch bars
- Displaced/unfavourable fractures: open reduction with internal fixation (ORIF) procedure is needed using plates and screws to stabilize the fracture. You may still be placed in MMF after surgery.

Non-Surgical Management

- No chewing for 6 weeks until fracture heals
- Rinse mouth regularly with chlorhexidine/listerine, a child's toothbrush can be used to clean outside of teeth
- With longer periods of MMF, some patients may require physical therapy to restore their range of motion

Medications

- Pain management: acetaminophen, NSAIDs, and/or opioids as prescribed
- Antibiotics: may be prescribed if the fracture involves teeth, gums, mucosa
- Sore throat/nasal congestion: over-the-counter nasal decongestant (e.g., Benadryl)

Diet

- A soft and/or fluid diet is needed consisting of smooth and easily swallowed foods; liquid diet if MMF used
- Supplements, such as Ensure, Boost, PowerAde and Gatorade can add calories and help the healing process

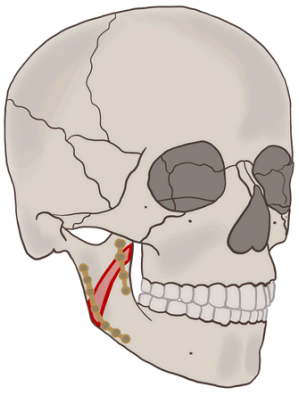
If you have sustained other fractures at the same time as your orbital floor fractures, you should consult the corresponding handout for any diet restrictions.

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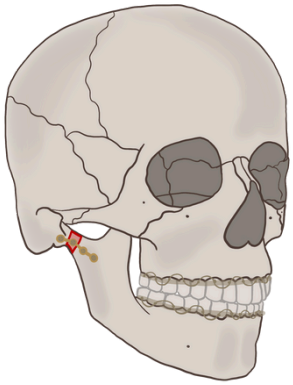
(OACTS)

MANDIBLE FRACTURE

POST-OPERATIVE CARE



RAMUS



CONDYLE

Activity

- Physical activity should be kept to a minimum for at least 6-8 weeks after surgery
- Contact or other sports should be avoided for 3 months to minimize the risk of another fracture
- Avoid dental work (dental cleaning is fine) around the fracture sites for 3 months
- Be cautious with kids and animals for 6-8 weeks (avoid rough play, risk of re-injury)

Wound Care

- For the first 48 hours after surgery, use ice packs to help minimize swelling
- Sutures inside the mouth will dissolve in 3-4 weeks
- Surgical tapes will be removed within 5-7 days
- Shower normally, if surgical tapes are used, you can shower but pat them dry
- You may start showering after your surgery unless if instructed by your surgeon to do otherwise
- Rinse mouth regularly with chlorhexidine/listerine to prevent infection

Seek care if you experience:

- Fever over 38°C
- New redness
- Swelling
- Pus or oul odour discharge
- Loosening of the MMF wires or difficulty reapplying elastics

Please contact your plastic surgeon or present to nearest emergency department.