



# Mandibulectomy

If your cancer is located near or within the jawbone, a surgeon may remove a portion of your mandible (lower jaw) in a procedure known as a mandibulectomy. Additionally, if you suffer from osteoradionecrosis (bone destruction) following radiation therapy, you may need a mandibulectomy.

## Before Surgery

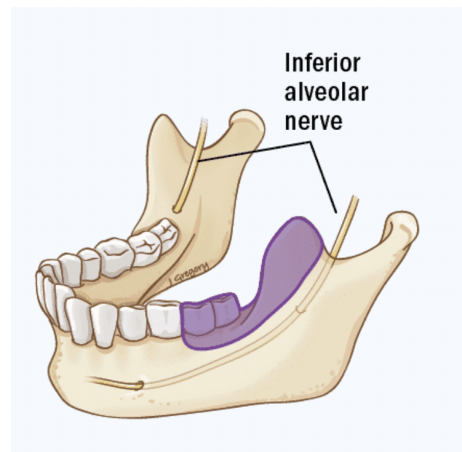
You will receive specific instructions from your physician for how to appropriately prepare for the procedure, such as when to arrive and food/drink restrictions. A few days before your operation, the anesthesiologist will ask you a few questions so that they can create a comprehensive anesthesia plan based on your medical history. On the day of your surgery, you will arrive at the hospital a few hours before your scheduled procedure. The nurses, anesthesiologist, and head and neck surgery teams will check in with you. If you have any last minute questions, this is a good time to ask them.

## The Surgery

A tracheostomy may be performed to make sure you can breathe after surgery. This is usually temporary and will be removed before discharge from the hospital.

Multiple approaches exist for the mandibulectomy procedure depending on the location, size, and extent of the tumor:

**Marginal Mandibulectomy:** A small saw is used to remove only a portion of the mandible, leaving the lower part of the bone intact (see image to the right). This is done only when the tumor has grown up *against* the jawbone but



Please note that this information is intended for educational purposes. It does not replace consultation with your doctor, and it should not be interpreted as medical advice. We encourage you to speak to your health care provider if you have further questions or concerns regarding your medical care.

For more information scan this code or visit:

<https://thancguide.org/cancer-basics/treatments/surgery/ablative/mandibulectomy/>

*has not invaded* it. If the cancer has invaded the mandible, a more extensive mandibulectomy is required.

**Segmental Mandibulectomy:** A cut is made through the full extent of the mandible, thus removing an entire section of bone and leaving a discontinuous gap in the jaw that must be reconstructed. Reconstruction allows the surgeon to maintain the function and appearance of your jaw. The inferior alveolar and mental nerves communicate the sense of feeling from the lower teeth, skin of the chin, and lower lip. Unfortunately, this nerve is often sacrificed during these surgeries, possibly resulting in loss of sensation to those areas. However, your surgeon may be able to perform a nerve graft to restore some sensation in the long term.

**Reconstruction:** Once a piece of the mandible has been removed, the jaw will be reconstructed. Reconstruction preserves the appearance and function of the jaw using bone and tissue from another part of the body (known as a free flap). Without reconstruction, the mandible will inevitably shift into displacement. Plates and screws can temporarily restore the shape of the mandible in the absence of reconstruction, however these tend to fracture or fail over time. Reconstruction is strongly suggested for all suitable patients.

There are specific risks associated with the mandibulectomy procedure:

- Bleeding, including hematoma (mild bleeding under the skin).
- Infection.
- Seroma (collection of normal body fluid upon removal of the surgical drain).
- Nerve damage.
- Salivary fistula: a small channel that allows saliva to leak from the mouth into the neck. This can be treated by inserting a drain to divert the saliva away from critical structures in the neck and allowing the body to heal on its own.
- Free flap failure: when there is a problem with blood flow in the reconstruction. This may require a surgery to improve the blood flow or another reconstruction.

## After Surgery

When you wake up, you may have a drain in your neck to remove excess fluid and secondarily prevent infection. You will be given pain medications to alleviate any pain. You may return home after a few days, or you may stay at the hospital for a week or more, depending on the extent of the surgery. A dedicated discharge planning team will work with your family to ensure you are properly cared for once you leave the hospital.



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