

## Dental Restoration Following Head & Neck Cancer Treatment

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Surgery for oral cavity cancer can result in changes with your jaw or teeth, that can impact your ability to chew. This could be due to:

- Removal of teeth when the tumor is resected
- Changes in the gums (alveolar ridge) so that dentures cannot be worn
- A hole in the roof of the mouth (palatal or oroantral fistula)
- Limited mouth opening (trismus)

There are a number of options for restoring teeth and the ability to chew. Since each patient and their treatment are different, not all will apply to you. Talk with your surgeon about which options may work for you.

### Dentures

Partial or full dentures can be used if there is enough of a ridge of gums (alveolar ridge) or remaining teeth for the dentures to rest on. Oftentimes when the jawbone and/or soft tissue has been removed or reconstruction in the oral cavity has been performed, this alters the normal anatomy. In many cases traditional dentures may not fit or work properly.

### Dental Implants

A dental implant is a specialized titanium cylinder that is placed into the jaw bone. The surrounding bone then attaches to the implant to make it very secure like the root of a tooth. Prosthetic (false) teeth can then be attached to the implant. Dental implants can be placed into your natural jaw bone or into bone taken from another part of your body to reconstruct your jaw (i.e., a fibular free flap). A dental implant can be used to replace a single tooth or multiple dental implants can be placed to allow all the teeth along the jaw to be replaced. You should know that it may take several months and multiple procedures to complete the process of getting teeth using dental implants.

There are multiple factors that determine whether dental implants can be used:

- **Bone quality and thickness:** The remaining jaw bone or the newly reconstructed jaw bone must be thick enough to hold the dental implants.
- **Radiation:** Radiation therapy is often given after surgery to treat oral cavity cancers. Radiation can affect the healing of the bone around the implant. Dental implants can be placed before radiation (preferred) or after radiation. If you have had radiation or you anticipate needing radiation, you must talk with your surgeon about whether dental implants are right for you.
- **Cost:** Dental implants and the prosthesis (false teeth) that attach to the implants can be expensive and medical insurance does not always cover the expense.



Dental implants



Dental prosthesis mounted on dental implants

### Palatal Obturator

When a portion of the upper jaw (maxilla) is removed, a communication between the mouth and the nose/sinuses is created. This hole is called a fistula. The fistula needs to be closed in order to eat, speak, and prevent food and liquid from going up into the nose/sinuses. The fistula can be closed surgically with your own tissue, such as a free flap, at the time of your cancer removal surgery. In some cases, the fistula can be closed with a specialized denture called a *palatal obturator*. This obturator is a specialized denture fashioned by a maxillofacial prosthodontist after your surgery. Multiple obturators and adjustments will be made while you progress through the healing process after surgery.



Example of a palatal obturator