

## Mouth Problems Caused by Radiation Treatment to the Head and Neck

Radiation treatment to the head and neck may cause mouth problems that need special care. These problems include:

- Dry mouth (xerostomia)
- Increased tooth decay
- Damage to the jawbones that causes the bone to die (osteoradionecrosis)
- Changes in taste
- Mouth sores or ulcers (mucositis)
- Spasms and muscle contractions of the muscles that open the mouth (trismus)

### Dry Mouth and Dental Decay

Because radiation treatment can damage the glands that make saliva, you may have dry mouth. Dry mouth increases the risk of mouth infection and tooth decay, so it is important to take care of your mouth during and after radiation treatment.

To make your mouth feel more moist, sip sugar-free drinks (water or diet drinks), or suck on sugar-free candy. Liquids and candy with sugar can cause severe tooth decay.

Dry mouth may be permanent.

### Jawbone Damage and Dead Bone

Radiation treatment lessens the blood supply to the jawbones, putting them at risk for damage. Jawbone damage can create an area of dead bone called osteoradionecrosis (ORN). This can cause the bone to break, which would require surgery to fix. Anything that exposes or changes the bone can lead to ORN, including:

- Tooth infection
- Tooth removal
- Gum surgery
- Implant surgery

It is important that you have broken, and infected teeth removed before starting radiation treatment. This is because extracting teeth after radiation can lead to ORN.

Because you will always be at risk for ORN, make sure you always take care of your teeth and gums.

## Changes in Taste

Patients often notice a change in taste during and after treatment. This may improve in about six to nine months after treatment. Dry and spicy foods may be hard to eat during and after treatment.

## Mouth Sores or Ulcers

Radiation treatment can cause mouth sores or ulcers. These can be painful and may become infected. Talk to your radiation doctor or dental doctor to help manage these problems.

## Spasms and Muscle Contractions

Radiation treatment may cause the muscles that open your mouth to scar. Be mindful of how well your mouth opens during and after treatment. Talk to your radiation doctor or dental doctor if you notice that your mouth does not open as wide.

## Reduce Your Risk of Mouth Problems

Do...	Do Not...
<ul style="list-style-type: none"><li>• Practice good mouth care during and after treatment. This includes brushing after meals and before bed, flossing daily and using fluoride therapy daily.</li><li>• See your dentist every 6 months to have cleanings and any necessary X-rays, fillings, crowns, bridges and root canals.</li><li>• Drink sugar-free liquids or suck on sugar-free candy to moisten the mouth.</li></ul>	<ul style="list-style-type: none"><li>• Do not have any teeth removed after radiation treatment. If your dentist tells you that you need to have a tooth removed, call your radiation doctor. Check to see if the tooth can be removed safely.</li><li>• Do not have gum surgery, dental implants placed or root canal surgery unless your radiation doctor tells you it is OK.</li></ul>

Adapted from Mouth Care for Radiation Therapy of the Head and Neck. The University of Texas MD Anderson Cancer Center ©2003 Revised 09/2023. Patient Education BMDA Reviewed 1/22/2025.