

## Mouth Changes

### What they are:

Radiation therapy to the head or neck can cause problems such as:

- Mouth sores (little cuts or ulcers in your mouth)
- Dry mouth (also called xerostomia) and throat
- Loss of taste
- Tooth decay
- Changes in taste (such as a metallic taste when you eat meat)
- Infections of your gums, teeth, or tongue
- Jaw stiffness and bone changes
- Thick, rope-like saliva

### Why they occur

Radiation therapy kills cancer cells and can also damage healthy cells such as those in the glands that make saliva and the soft, moist lining of your mouth.

### How long they last

Some problems, like mouth sores, may go away after treatment ends. Others, such as taste changes, may last for months or even years. Some problems, like dry mouth, may never go away.

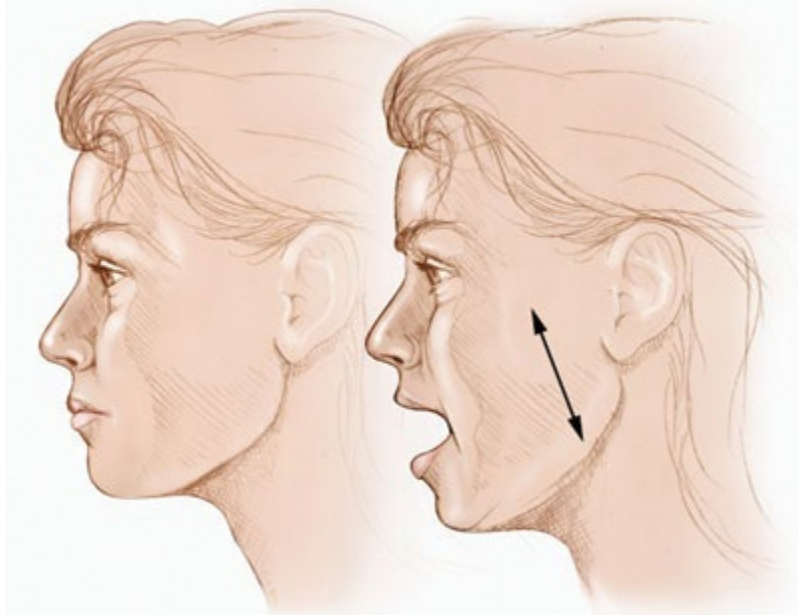
**Visit a dentist at least 2 weeks before starting radiation therapy to your head or neck.**

### Ways to manage

- If you are getting radiation therapy to your head or neck, **visit a dentist at least 2 weeks before treatment starts**. At this time, your dentist will examine your teeth and mouth and do any needed dental work to make sure your mouth is as healthy as possible before radiation therapy. If you cannot get to the dentist before treatment starts, ask your doctor if you should schedule a visit soon after treatment begins.
- **Check your mouth every day**. This way, you can see or feel problems as soon as they start. Problems can include mouth sores, white patches, or infection.
- **Keep your mouth moist**. You can do this by:
  - Sipping water often during the day
  - Sucking on ice chips

- Chewing sugar-free gum or sucking on sugar-free hard candy. Products that contain xylitol may also help prevent cavities. However, in some people, xylitol, which is often found in sugar-free gum or sugar-free candies, may cause gas or diarrhea if consumed in large amounts.
- **Try over-the-counter saliva substitutes** that contain xylitol, such as Mouth Kote or Oasis Moisturizing Mouth Spray, or that contain carboxymethylcellulose or hydroxyethyl cellulose, such as Biotene Oral Balance Moisturizing Gel.
- **Add moisture to the air at night** with a room humidifier.
- **Avoid products that can make your symptoms worse, which can include:**
  - **Caffeine and alcohol.** These products can cause dryness and irritation. Don't use a mouthwash that contains alcohol.
  - **All tobacco.** If you smoke or chew tobacco, stop, because tobacco products can dry and irritate your mouth.
  - **Over-the-counter antihistamines and decongestants.** These can worsen your dry mouth.
  - **Sugary or acidic foods and candies.** These increase the risk of tooth decay. Also avoid spicy or salty food because they can cause irritation.
- Asking your doctor to prescribe medicine that helps increase saliva
- **Clean your mouth, teeth, gums, and tongue.**
  - Brush your teeth, gums, and tongue after every meal and at bedtime.
  - Use an extra-soft toothbrush. You can make the bristles softer by running warm water over them just before you brush.
  - Use a fluoride toothpaste.
  - Use a special fluoride gel that your dentist can prescribe, or a fluoride rinse.
  - Do not use mouthwashes that contain alcohol.
  - Gently floss your teeth every day. If your gums bleed or hurt, avoid those areas but floss your other teeth.
  - Take 1 tablespoon of table salt and 1 tablespoon of baking soda and dissolve fully into 1 quart of warm water. Swish, gargle, and spit before meals and every 3 hours.
  - If you have dentures, make sure they fit well and limit how long you wear them each day. If you lose weight, your dentist may need to adjust them.
  - Keep your dentures clean by soaking or brushing them each day.
- **Be careful what you eat when your mouth is sore.**
  - Choose foods that are easy to chew and swallow.
  - Take small bites, chew slowly, and sip liquids with your meals.
  - Eat moist, soft foods such as cooked cereals, mashed potatoes, and scrambled eggs.
  - Wet and soften food with gravy, sauce, broth, yogurt, or other liquids.
  - Eat foods that are warm or at room temperature.
- **Stay away from things that can hurt, scrape, or burn your mouth, such as:**

- Sharp, crunchy foods such as potato or corn chips
- Hot foods
- Spicy foods such as hot sauce, curry dishes, salsa, and chili
- Fruits and juices that are high in acid such as tomatoes, oranges, lemons, and grapefruits
- Toothpicks or other sharp objects
- All tobacco products, including cigarettes, pipes, cigars, and chewing tobacco
- Drinks that contain alcohol
- **Stay away from foods and drinks that are high in sugar.** Foods and drinks that have a lot of sugar (such as regular soda, gum, and candy) can cause tooth decay.
- **Exercise your jaw muscles.** Open and close your mouth 20 times as far as you can without causing pain. Do this exercise 3 times a day, even if your jaw isn't stiff.



- **Medicine.** Ask your doctor or nurse about medicines that can protect your saliva glands and the moist tissues that line your mouth.
- **Call your doctor or nurse when your mouth hurts.** There are medicines and other products, such as mouth gels, that can help control mouth pain.
- **You will need to take extra good care of your mouth for the rest of your life.** Ask your dentist how often you will need dental check-ups and how best to take care of your teeth and mouth after radiation therapy is over.

**Do not use tobacco or drink alcohol while you are getting radiation therapy to your head or neck.**