

Neck and Mouth Area Radiation Side Effects

Side effects may happen because the high doses of radiation used to kill cancer can also damage healthy cells in the area around the treatment site. Side effects differ from person to person, ranging from none to severe. Some side effects may not happen until 2 to 3 weeks after you start radiation. Most side effects go away within 2 months after treatment is done.



This handout lists the most common side effects from radiation to the neck and mouth area. It does not list all possible side effects. Tell your radiation doctor or nurse if you have any side effects, whether mild or severe.

Skin changes

Your skin in your treatment area may look red, tan or darker for days or weeks. Dry, peeling skin is normal. Your skin may become swollen or tender. Other skin changes include itching, swelling, or puffiness. Skin may become wet, sore or infected. This is more common in skin folds and places where the skin is very thin.

The skin that was treated may be more sensitive to the sun and it may sunburn easier.

Protect your skin from the sun each day

- **Avoid having your treatment area in the direct sun until all of your radiation treatments are done and your skin has fully healed.** If you go outside, protect your skin from the sun by using sun protective clothing to cover the treatment area. Some companies that sell sun protective clothing online are Coolibar and UVSkinz. Choose clothing with a UPF rating of 50 or higher.
- Be careful with skin creams and sunscreens with active ingredients like retinol or salicylic acid because they may bother your skin.
- Once your treatment area is fully healed, ask your radiation team when it is ok to start using sunscreen. Ask for our “Self-care after completion of head or neck

radiation” handout – it provides information about which types of sunscreen are best and which ones to avoid.

What you can do

- Wash skin and any stickers/markings gently with lukewarm water and mild, unscented soap and pat dry.
- Don’t rub or scratch the treatment area even if it itches
- Wear loose fitting clothing, especially around the neck, and bras without wires
- Don’t put anything on your skin that is very hot or cold, such as ice or heating pads, until your skin is fully healed.
- Don’t use sticky tape, bandages or band aids on the treatment area unless your team says to do so
- Tell your radiation doctor or nurse if you have any skin sores blisters or moist areas on your skin
- Ask your doctor or nurse if you can shave the treated area. If they say yes, use an electric razor and don’t use pre or after shave lotion.
- Don’t put makeup, antiseptics, medicines or perfumes on the treatment area. Use only those lotions and skin products your radiation doctor or nurse suggests.

Fatigue

Fatigue is a common side effect that affects most people. Fatigue can be mild to severe. Some ways to manage fatigue:



Be active. Exercise is the best way to lessen fatigue. Ask your doctor if it’s safe for you to exercise. Even 15 or 30 minutes of exercise a day, like walking or gentle stretching, can help give you more energy.



Try to get at least 8 hours of sleep each night. Avoid alcohol and high sugar foods in the evening and caffeine 6 to 8 hours before bed since they may keep you awake. Avoid cell phone and computer use late at night.



Eat and drink well. Try to eat 5 or 6 small meals and snacks rather than 3 large meals. Keep foods around that are easy to fix, such as canned soups and frozen meals. Drink 6 to 8 cups of fluids each day, unless your cancer care team tells you otherwise. If you need help with food and drink choices, you can ask to meet with a dietitian.



Let family and friends help. They can help with chores, rides, shopping and meals.

Hair loss

You may lose hair in the treatment area. It may start 2 to 3 weeks after your first radiation treatment. It takes about 1 week for all hair in the treatment area to fall out. Your hair may grow back 3 to 6 months after treatment is done. If the dose of radiation was high, hair may not grow back. Hair regrowth may not look or feel the way it did before. It may be thinner, darker or lighter, or curly instead of straight.

Ways to manage hair loss

- **Be gentle when washing your hair.** Use a mild shampoo, such as baby shampoo. Dry hair by patting (not rubbing) with a soft towel.
- **Don't use items that can hurt your scalp.** These include: hair bands or clips, straightening or curling irons, brush rollers or curlers, electric hair dryers, hairsprays, hair dyes or products to perm or relax your hair.
- **Protect your scalp.** Protect your scalp from very cold air and sunburn by wearing a hat, turban or scarf. Do not use a tanning bed. Brush your hair gently and only as needed. Ask your doctor or nurse if you need to use sunscreen on your scalp.

Mouth changes

Radiation to the neck and mouth area can cause problems such as:

- Mouth sores or ulcers
- Dry mouth and throat
- Loss of taste
- Changes in taste
- Tooth decay
- Teeth, tongue or gum infections
- Jaw stiffness and bone changes
- Thick, rope-like saliva

Radiation may harm healthy cells such as those in the glands that make saliva and the moist lining of your mouth. Some problems, like mouth sores, may go away after treatment ends. Others, such as taste changes, may last for months or years. Some problems, like dry mouth, may never go away.

What you can do

- **See a dentist before treatment starts.** You should see a dentist at least 2 weeks before starting radiation. If you can't, ask your doctor when you should schedule a dental visit.
- **Check your mouth each day.** This helps you see or feel problems as soon as they start. Problems can include mouth sores, white patches or infection.
- **Keep your mouth moist.** Here are tips to help you:
 - Sip water often during the day – try to drink at least 64 ounces (8 cups) of water each day.
 - Suck on sugarless hard candies or ice chips, or chew sugar-free gum
 - Try a saliva substitute like Biotene or Xylimelts
- **Clean your mouth, teeth, gums and tongue.**
 - Ask your radiation doctor or nurse about how often you should brush and floss your teeth.
 - Rinse your mouth with alcohol free mouthwash.



- Avoid the common toothpaste ingredient Sodium Laurel Sulfate (SLS) because it may cause dry mouth.
- Rinse your mouth after each meal and at bedtime. Make a mouth rinse by mixing 1 teaspoon of salt and 1 teaspoon of baking soda in 4 cups of water. Swish the mixture around in your mouth and spit it out. Store any unused mouth rinse in a covered container at room temperature. If your mouth rinse is more than 24 hours old, throw it away and make a new batch.
- If you have dentures, make sure they fit well and aren't causing sore spots
- Keep 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 meals
 - Eat moist, soft foods such as cooked cereals, mashed potatoes and scrambled eggs
 - Soften food with gravy, sauce, broth, yogurt or other liquids
 - Eat foods that are warm or at room temperature
- **Avoid things that can hurt, scrape, burn or dry out your mouth such as:**
 - Sharp, crunchy foods such as chips
 - Hot foods
 - Vinegar and spicy foods and sauces
 - Pop or fizzy carbonated drinks
 - Fruits and juices that are high in acid such as: tomatoes, oranges, lemons, and grapefruits
 - Toothpicks or other sharp objects
 - All tobacco products
 - Drinks that contain alcohol
- **Use lip balm, Aquaphor or petroleum jelly to keep your lips moist.**



- **Avoid foods and drinks that are high in sugar because they can cause tooth decay.**
- **Take good care of your mouth for the rest of your life.**
Ask your dentist how often you need dental check-ups and how to best care for your teeth and mouth after you finish radiation.

Throat changes

Radiation to the neck and mouth area can cause the lining of your throat to become inflamed and sore. This is called esophagitis. You may feel as if you have a lump in your throat or burning in your chest or throat. You may also have trouble swallowing.

Your chances of having throat changes depends on how much radiation you get, whether you are also having chemo and whether you use tobacco and alcohol while getting radiation.

You may notice throat changes 2 to 3 weeks after starting radiation. You will most likely feel better 3 to 4 weeks after radiation has finished.

What you can do

- **Eat small meals and snacks.** It may be easier to eat 5 or 6 small meals and snacks each day instead of 3 large meals.
- **Be careful what you eat when your throat is sore.**
 - Choose foods that are easy to swallow. Cut, blend or shred foods to make them easier to swallow. Cook foods well so they are soft and easy to chew.
 - Eat moist, soft foods such as cooked cereals, mashed potatoes and scrambled eggs. Wet and soften food with gravy, sauce, butter, broth, yogurt or other liquids.
 - Drink cool drinks. Sip drinks through a straw.
 - Use a blender or food processor to make smoothies or soups.

- **Choose foods and drinks that are high in calories and protein.** When it hurts to swallow, you may eat less and lose weight. It's important to keep your weight the same during radiation. Having foods and drinks that are high in calories and protein can help you. **See the chart on page 9 for ideas.**

- **Avoid things that can burn or scrape your throat, such as:**
 - Hot foods and drinks
 - Spicy foods and spices like chili powder, clovers, curry, hot sauces and pepper
 - Foods and juices that are high in acid, such as tomatoes and oranges
 - Sharp, crunchy foods such as crackers, chips, nuts, toast, raw vegetables or fruits like pineapples or apples
 - Tobacco products, such as cigarettes, pipes, cigars and chewing tobacco
 - Carbonated drinks like pop
 - Drinks that contain caffeine or alcohol

- **Talk with a dietitian.** They can give you ideas about what to eat and drink so you can maintain your weight.

Questions and concerns

Let your team know if you have any questions or concerns during your treatment.

Call your radiation doctor or nurse if you have:



- Painful sores or white patches in your mouth
- Mouth soreness that makes it hard to eat
- Dry or moist peeling of skin in the treatment area
- Skin changes - blisters, moist areas, pain, redness or swelling
- Sudden or bad skin changes that happen between your radiation treatment
- Trouble swallowing
- Throat pain
- Coughing while eating or drinking
- A feeling like you're choking or that food is stuck in your throat
- Weight loss
- Questions or concerns


To learn more

- Ask your nurse for a copy of the book **Radiation and You** or scan the QR code to view it online. See page 21 for more details about common head and neck radiation side effects.



This info is a general resource. It is not meant to replace your doctor's advice. Ask your doctor or health care team any questions. Always follow their instructions.

High Calorie or Protein Food and Drinks

Types of foods and drinks	Includes...
Soups	Cream soups Soups with lentils, dried peas or beans
Drinks	Instant breakfast shakes Milkshakes and smoothies Whole milk
Main meals and other foods	Beans and lentils Butter, margarine or oil Cheese – soft or melted Chicken, fish or beef – ground/tender Chicken or egg salad made with mayo Cottage cheese, cream cheese Creamy peanut butter Eggs Macaroni and cheese
Dessert and other sweets	Custards, puddings Frozen yogurt, ice cream Yogurt
Replacements and supplements	Powdered milk added to foods like puddings, milkshakes or scrambled eggs High protein supplements like Ensure and Carnation Instant Breakfast
<div style="display: flex; align-items: flex-start;"> <div style="margin-right: 20px;">  </div> <div> <p>If you lose weight or have problems maintaining your weight, ask to speak with a dietitian.</p> <p>If you have problems chewing or swallowing, ask to speak with a speech language pathologist.</p> </div> </div>	