Short-Term Side Effects from Head and Neck Radiation with Chemotherapy

Side effects are problems that are caused by radiation therapy and chemotherapy. These problems are different for each person and it is hard to know how long or how severe they may be for you.

Most side effects from radiation are limited to the area that is being treated. Side effects usually increase during treatment and continue to get worse for 1 to 2 weeks after the end of your treatment. It may be several weeks or months after your treatment has ended before side effects improve.

The side effects you may have from chemotherapy depend on the type of chemotherapy drug that is used for your treatment. Chemotherapy can make radiation side effects more severe.

You will see your Radiation Oncologist (a doctor who specializes in using radiation therapy) and a nurse at least one time each week during your treatment. They will ask how you are feeling and answer your questions about how to manage side effects. You will also see your chemotherapy team when you come to the clinic for your chemotherapy.

Common Short-Term Side Effects

Weight Loss

- Radiation treatment to the head and neck causes side effects, such as sore mouth and throat, loss of appetite and taste changes. These side effects make it hard to eat and can lead to weight loss.

- **It is very important to gain some weight before you start treatment.**
  It is good to eat healthy foods, but it is more important to eat as many calories as possible right now. It may help to add a nutritional supplement (Ensure, Boost, or Carnation Instant Breakfast) to increase your calories.
• It is also important to continue eating as many calories as possible during your treatment. A dietitian will meet with you before treatment and during the first few weeks after you start your radiation treatments. The dietitian will talk with you about what foods to eat and how to count your calories.

Fatigue

Fatigue from treatment can make you feel more tired than usual, with or without activity. Here are some things you can do to help with fatigue:

• Stay active – get some light exercise each day
• Plan time for rest in your day
• Drink plenty of non-caffeinated fluids
• Eat as well as you can
• Accept offers of help from others
• Talk with your doctor about your fatigue. Your doctor may want to do some tests to see if there is another reason for your fatigue.

Dry Mouth and Thick Saliva

• Treatment may damage the glands that make saliva. This may make your saliva thick or your mouth dry. A dry mouth can make it hard for you to swallow, eat, and talk. These problems may start in the first couple of weeks of your treatment.

• These problems usually start to get better 3 to 4 weeks after your treatment has ended, but are different for each person. Your dry mouth should keep getting better the first 6 months after treatment and may continue to improve in the years ahead.

• Here are ways to help thin your saliva:
  ► Eat soft, moist or pureed foods. Wet and soften foods with gravy, sauce, broth, yogurt or other liquids.
  ► Drink plenty (1 ½ to 2 quarts) of fluids (water, Gatorade, Powerade or Pedialyte) each day. Limit your caffeine to one drink each day.
  ► Use a cool mist humidifier by your bed at night.
  ► Rinse your mouth with a mixture of salt water and baking soda.
• Mix one glass (8 ounces) of water with a 1/2 teaspoon of salt and a 1/2 teaspoon of baking soda. Rinse and gargle with this mixture for one minute and then spit it out.

• You can do this after meals and at bedtime or more often, if desired.

• If it burns when you rinse with the mixture, you can leave out the salt.

➤ You may use clear diet sodas (Diet Sprite, Diet 7Up, or club soda) or alcohol free products to rinse your mouth. These products are available over the counter and include gum, spray or gel.

➤ Take Mucinex to help thin out your saliva. Follow directions on the box. You need to drink lots of water with this medicine. Do not buy Mucinex D or Mucinex DM. If you are using your feeding tube to take this medicine, use the liquid product. The extended release tablet (12 hour Mucinex) cannot be crushed.

➤ Do not use tobacco products or alcohol.

➤ Do not use a mouthwash that contains alcohol.

➤ Use the over-the-counter medicines (xylitol lozenges or xylimelts).

➤ Talk to your doctor about using a suction canister at home.

➤ Your doctor may prescribe a medicine to help with your dry mouth.

Taste Changes

• Treatment will cause damage to your taste buds and decrease your saliva. This will change the way your food tastes and smells.

• Most people have taste changes within the first 2 weeks of treatment. Some foods may taste different or cause a metal taste in your mouth. Most people lose their taste all together during treatment.

• Taste changes usually start to improve about a month after treatment ends. Your taste will not be the same as it was before you started treatment. You may only be able to taste certain kinds of foods. Your taste may be duller than it was before or may fade away after a few bites.

• Most of the improvement with your taste buds will happen in the first 4 to 6 months after treatment ends.

• There are no medicines to help with taste changes.
• It is important for you to eat, even though foods may not taste the same. You may need to try different kinds of foods until you find something that tastes good to you.

Mouth Changes
• Treatment will cause problems such as sores in your mouth and throat, pain and difficulty swallowing. These problems will start in the first 2 to 3 weeks of treatment; get worse during treatment and for up to 10 days after treatment has ended. It can take a few months after your last treatment for these side effects to get better.
• You should look in your mouth each day to check for any mouth changes.
• White patches in your mouth or throat (thrush) are common with head and neck radiation. This infection can cause mouth pain. If you have pain, tell your doctor. There are different kinds of medicines to help reduce your symptoms.

Mouth Care
• Carefully brush your teeth and use fluoride gels or trays to help lower your chance of having dry mouth and tooth decay. Your dentist can make a fluoride tray for you and will teach you how to use your tray.
• During treatment, it is important to keep brushing your teeth. Brush all tooth surfaces for 2 minutes at least twice a day. Do not brush your gums if they are tender. Floss with waxed dental floss every day if your platelet count is above 50,000. If your platelet count falls below 50,000 your gums may bleed more easily.
• Use a soft toothbrush and gentle toothpaste. You may find it helpful to use a child’s toothbrush. Do not use toothpaste that brightens, whitens, or controls tartar.
• If you have a sore mouth and are unable to brush your teeth or use your fluoride trays due to pain, rinse your mouth with an alcohol free mouthwash. You can also make a mouthwash by mixing the following:
  ▶ 1/4 teaspoon of table salt
  ▶ 1/4 teaspoon baking soda
  ▶ 1 cup (8 ounces) warm water
• Rinse your mouth after meals and at bedtime or more often, if desired. If it burns when you rinse with the mixture, you can leave out the salt.

• If your teeth feel gritty, mix 1 ounce of 3% hydrogen peroxide and 1 ounce water. Use this rinse three times a day. Use this rinse only for three days.

• It is very important to take good care of your teeth and gums after your treatment ends. You should brush and floss after every meal and use fluoride trays at night.

• You should see your dentist every 3 months for cleanings.

Pain

• Most people will have pain at some time during their treatment. If you have any pain with swallowing, talk to your doctor. It is important to control your pain so you can keep swallowing during treatment.

• Pain can be different for each person. Our goal is to help control your pain and keep you comfortable.

• If you are taking pain medicine and your pain is not controlled, call the doctor who ordered the medicine. The doctor may need to change your medicine to help control your pain.

• Pain medicine will cause constipation. Do not stop taking your pain medicine if you have this problem. Talk to your doctor about what you can do to control or prevent constipation laxatives/stool softeners during treatment.

Constipation

• Many medicines, including pain medicine, can cause constipation.

• **Tell your doctor if you have not had a bowel movement every 2 to 3 days.**

• Take medicine for constipation **every day**.

• Here are some over-the-counter medicines to help with this problem:
  - Colace (100 mg) - take 1 capsule, two times a day
  - Senna S (8.6 mg) - take 2 tablets, two times a day
  - Miralax (17g) – take as directed, two times a day

• If you still have problems after using these medicines, talk to your doctor.
Swallowing

- A speech language pathologist will meet with you to show you exercises you can do to help with swallowing.

- You will need to do your swallowing exercises several times each day. Taking your pain medicines regularly will make it easier to do the exercises. Doing these exercises can help your swallowing return to normal more quickly after your treatment ends.

Voice Changes

- Irritation from radiation causes swelling in your voice box. This may cause a hoarse voice or you may feel like you have a lump in your throat.

- These changes may make it harder for you to talk. This problem should get better within several weeks to months after your treatment has ended.

Neck Swelling and Jaw Soreness

- Irritation from radiation causes fluid to build up in the neck and makes it swell.

- Swelling happens more often if you had surgery on your neck before your radiation treatment.

- Jaw soreness is caused by muscle and nerve irritation from the radiation. Tell your doctor if jaw soreness starts or continues after the end of your treatment.

Skin Changes

- The area being treated with radiation may look like you have a mild to severe sunburn. Most often, skin changes start during week 2 or 3 of treatment.

- Your skin may become very dry and peel like it does with a sunburn. At times, the skin may develop blisters. Skin changes increase during treatment and keep getting worse for 7 to 10 days after treatment has ended. This side effect will slowly get better.

- You need to put a cream on your skin during treatment. A good cream to use is called Aquaphor. It can also be put on your lips. Your doctor can give you some samples of this cream.
• **Do not** put any cream on your skin 4 hours before your treatment. Having cream on your skin during treatment can make skin changes worse.

• If you go out in the sun, keep the area that is being treated covered. Protect yourself from the sun by wearing a scarf or wide-brimmed hat.

• **Do not** shave your face after your treatment starts.

### Hair Loss

• You may start losing hair in the areas being treated, including the lower part of the back of your head, 3 to 4 weeks after your first treatment. Most hair will grow back 3 to 6 months after your treatment has ended.

### Hearing Problems

• Some people have a feeling of fullness in their ear or trouble with their hearing during treatment. Talk with your doctor if you have this problem.

### Low Blood Counts

• Radiation treatment to the head and neck area does not usually lower your blood counts. Your Radiation Oncologist will not regularly check your blood work.

• If you are getting chemotherapy, you may have changes in your blood counts. Your Medical Oncologist will check your blood work during chemotherapy treatment.

### Feeding Tube

• If you are having problems with getting enough calories and lose too much weight, your doctor will talk with you about having a feeding tube placed. If you need to start using the feeding tube, your team will teach you how to use it and will arrange for any supplies that are needed.

• A dietitian will talk with you about how many calories you need while getting treatment.
• Some medicines should not be mixed with tube feeding formula. Tell your doctor or pharmacist about all the medicines you are taking, including prescription and over-the-counter medicines, vitamins and herbal products.

• If you cannot swallow your medicines, you can crush them and put them in your feeding tube. **Before crushing any pills, check with your doctor or pharmacist. Some medicines should not be crushed or put through a feeding tube.**

**Nausea and Vomiting**

• Nausea and vomiting can be caused by your treatments or from thick saliva. This problem may get worse throughout your treatment. Your doctor may ask you to take medicines to help prevent and control nausea and vomiting.

• If your medicine does not seem to be working, tell your doctor. There are other medicines that may help with this problem.