Patient Education



Head and Neck Radiation Treatment Guide

Thank you for choosing MD Anderson Cancer Center at Cooper for your radiation treatment. The following information will help you understand your treatment process as we work together toward your recovery.

Radiation Treatment

Radiation treatment, sometimes called radiotherapy, effectively treats cancer by using high-energy rays to pinpoint and destroy cancerous cells in your body. Although radiation treatment is similar to having an x-ray taken of a broken bone, the dose of radiation in cancer treatment is higher and is given over a longer period of time. Many forms of radiation are available. The best choice for you depends on the type of cancer you have, the extent of the cancer and its location.

Your Health Care Team

Many different specialists will participate in planning and monitoring your radiation treatment. Your health care team may include doctors, nurses, therapists, dosimetrists, physicists and others.

If the process seems overwhelming, please talk with your health care team about your concerns. They are available to help and support you and your caregiver during your treatment.

Consult Visit

You will have a consult visit before you receive radiation. You will meet with your nurse and doctor to discuss your individual treatment plan. Your nurse may give you educational materials and you may sign consents for treatment. You may receive an appointment date and time for a simulation session.

Your radiation oncologist may require you to see a dentist to evaluate your teeth prior to treatment. Additional consultations for other services may be necessary before and during treatment.

Simulation

Before you receive radiation, you will undergo a simulation, which is used to map out the treatment. The simulation allows your radiation doctor to locate the exact area to be treated, to take measurements and to create shielding that protects normal tissue. This treatment planning session usually takes about 45 minutes to one hour to complete.

During the Simulation

You will be positioned on a treatment table. Your radiation therapist will make a custom head and neck mask made out of plastic mesh. The mask helps to keep you very still and to ensure correct positioning during treatment.

A computerized tomography (CT) scan and x-rays will be taken. These are used to create a threedimensional picture of your treatment area. While these scans are taken, the therapist will leave the room, close the door and monitor you from an adjacent area by closed-circuit television. If you need something during the simulation, speak normally and your therapists will hear you over the intercom. If necessary, they can turn off the machine and come into the room immediately.

Marks may be made on your skin to ensure the radiation is aimed at the same area during each treatment. Under your clothing, wear a soft undershirt or a cotton t-shirt to absorb any stains from the marking fluid. The stains may be permanent. If the treatment area (the area of your body that is being treated with radiation) is on your face or head, the marks are usually made on the plastic mask. Your radiation therapist will mark your chest and sides to make sure that your body is not rotated during treatment. The marks may be redrawn by the therapist if they fade or if your doctor wants to change them as your treatment progresses.

Do not wash the ink marks off until a member of your health care team tells you it is okay.

Port Film

Prior to starting the actual radiation it is important to make sure that everything sets up correctly. You will come back for a special session to take port films, which double check to make certain the radiation set-up is accurate. You will not receive any actual radiation on this day. If adjustments are needed, this allows your doctor to safely make changes prior to the radiation.

Treatment Schedule

Radiation treatments are usually scheduled every weekday, Monday through Friday, allowing you to rest on Saturday and Sunday. You will receive all of your treatments as an outpatient over a period of six to seven weeks. We will notify you if the clinic plans to close for a scheduled holiday. Ask your radiation therapist if you have questions regarding your radiation treatment schedule or need to change your schedule. Due to the number of patients we serve, schedule requests are not quaranteed.

Please pick up a treatment schedule, when you come in for your first radiation treatment and check for any schedule changes. The therapists or front desk can print an updated schedule for you.

Treatment Guidelines

Always check in at the reception desk in the radiation treatment lobby as soon as you arrive. After you check in, go to your assigned waiting area. Wait here until the radiation therapist calls your name. You may be asked to put on a gown or remove some clothing to show the marks.

The treatment itself is short, lasting only a few minutes, but it may take 15 to 45 minutes in the treatment room before you are finished. A staff person will help you on and off the treatment table.

On the first day and at least once per week, the radiation therapist will take x-rays before the treatment begins. This is done to verify that the radiation is targeted to the correct area. Sometimes, slight adjustments are required. The therapist will make these adjustments and your radiation doctor will verify that it is correct with another x-ray.

Although the treatment machines are large and may be noisy when in use, try to relax and breathe normally. You should not feel pain.

Once you are positioned, do not move until the therapist tells you the treatment is finished. You will be in the same position every day for your treatment.



When you are positioned on the table, the therapist will leave the room, close the door and monitor you by closed-circuit television. If you need something during treatment, you can speak to your therapist over the intercom in the room. If necessary, the therapist can turn off the machine and come into the room immediately. The radiation will stop when the machine is turned off.

Your radiation doctor may want to change the treatment area and marks as the treatment progresses. If you have questions or concerns about your treatment or schedule, talk with your radiation doctor, nurse or therapist.

Weekly Management Visits

You will see your doctor once a week while you are receiving treatment. These visits are held Monday through Thursday either in the morning or the afternoon according to your particular radiation physician's schedule. Refer to your radiation schedule for these appointments.

When you arrive, check in at the reception desk. Please be patient as there are many reasons the clinic may run behind. Tell the patient access service specialist (PASS) if you have waited for more than 30 minutes.

Schedule Changes

Your weekly management visits may change during holidays and when your doctor is out. Some of these changes happen suddenly, so check your schedule daily.

MD Anderson Cancer Center at Cooper may close all clinics and cancel appointments due to inclement weather in the area. To confirm if the treatment center is open or closed, call our toll-free number at 1.856.342.2000 and choose option 0 for an operator, ask for the radiation oncologist on call.

The telephone number to reach your therapist at the treatment machine is on the welcome letter. If you are unable to keep your appointment due to flooding or mandatory evacuation in your area, please call this telephone number. We will add the missed treatment to the end of your schedule.

Medicines and Allergies

We want to make sure you take your medicines safely. Please bring a list of all your current prescription and non-prescription medicines, vitamins, nutritional supplements, herbal products and over-the-counter drugs to every doctor's appointment.

Coping with Side Effects

Side effects will depend on the part of the body being treated and the stage of the tumor. Most side effects will go away within a few weeks after your treatment has stopped. Your doctor will review side effects with you before you start treatment. Ask your doctor or nurse if you have questions about side effects.

The skin in the treatment area may become red and itchy and peel. This usually happens two to three weeks after treatment begins. Do not scratch your skin or wear tight clothing. Please ask your doctor or nurse about medicines to help relieve the itching. Use only the products that your doctor or nurse has approved.

You may feel more tired than usual. Get plenty of rest and do not overexert yourself. However, some patients find it helpful to do light activity, such as walking for 15 to 20 minutes, two to three times per day. If you feel tired, stop and rest.



You may lose hair in the area being treated. This hair loss may be permanent. You may also lose hair if you also receive chemotherapy.

You may have changes in taste and may not feel like eating or drinking. You may also have nausea. It helps to eat small meals or snacks throughout the day, instead of three big meals. A dietitian will give you more eating tips. If you are unable to eat, your doctor will talk to you about tube feeding as another way to take in nutrients.

You may lose your sense of taste. Your sense of taste may begin to return four to six weeks after treatment and may continue to improve for up to one year. In some patients, the sense of taste does not return to the level before treatment.

If any part of your mouth or neck is in the treatment field, you may have painful and difficult swallowing, mouth sores and blood in your saliva (spit). If this happens, you may need to eat soft foods or liquids until your mouth feels better. Your doctor will prescribe pain medicine.

Your saliva may get thick and sticky. Drink fluids as directed to help thin the saliva. Rinse your mouth with a baking soda solution (see instructions below). Your saliva will improve two to four months after treatment has ended. You may have dry mouth for the rest of your life or the salivary glands may recover and produce saliva over time.

If your sinus (nose) area is in the treatment field, your nose may feel stuffy and you may have some bleeding from the nose. Washing the inside of your nose with a saline solution several times a day will help loosen dried mucous.

Home Care During Treatment

Stop smoking and avoid tobacco smoke. Programs are available to help you and/or your loved ones stop smoking. For more information, ask a member of your health care team.

It is very important that you take in enough food and fluid to stay well hydrated and to maintain your weight during treatment. Your weight will be recorded during your weekly doctor visit. A dietician will talk with you about your food and fluid needs. If you are unable to drink enough fluid or eat enough food to maintain your weight, please tell your clinic nurse.

Mouth Care

Dental visits and good mouth care are important during and after treatment. If needed, you may have an appointment with a dentist. The dentist will discuss brushing and flossing, and may decide that fluoride therapy is needed to prevent cavities. The dentist also may teach you daily mouth exercises to prevent jaw stiffness.

If any part of your mouth is in the treatment field, you will need to use baking soda rinses to keep your mouth clean and fresh and to help prevent fungal infections.

Follow these instructions for the baking soda rinse:

- Mix two teaspoons of baking soda in one quart of warm water.
- Rinse and gargle before and after meals (four to six times a day).
- If your saliva is very thick or sticky and makes you gag, try adding ½ teaspoon of salt to the baking soda mixture. This will help break up the saliva.
- Start using the baking soda rinses when you begin your first treatment and continue rinsing daily, seven days a week. Once your treatment is completed, continue using the baking soda mixture for at least six months.



If you have thick, "rope-like" saliva, use a bedside humidifier during the night. Some patients find it helpful to sleep with the head of their bed elevated to at least 30 degrees. Talk to your radiation team about other measures to help manage this.

Avoid things that can irritate the tissues of your mouth and throat, such as:

- Tobacco.
- Alcohol.
- Carbonated beverages.
- Fruit juices (citrus, pineapple or tomato).
- Sharp-edged foods, such as pretzels and potato chips.
- Highly seasoned and spicy foods.
- Extreme temperature foods and beverages.
- Over-the-counter mouthwashes (except for alcohol-free mouthwashes).
- Over-the-counter toothpastes (except for regular flavored Crest[®], Sensodyne[®], Colgate[®], Aim[®] or Biotene[®]).

Ask your nurse for a copy of Mouth Care for Radiation Therapy Patients.

Skin Care

Your radiation oncology nurse will give you instructions for skin care. These include avoiding swimming pools and hot tubs and using a skin cream or ointment on irritated skin.

Aquaphor® is the most common recommended skin ointment. It is available over-the-counter at most drug and grocery stores.

Avoid anything that may irritate your skin in the treated area, such as perfume or cologne.

To prevent infection, it is important to wash your hands thoroughly before and after doing any type of skin care.

Wash your skin with mild soap and pay it dry. Do not rub the skin.

Begin applying skin ointment or cream to your skin in the treated area the first day of treatment as instructed by your doctor or nurse. Only a small amount is needed. Apply the ointment or cream three times per day. However, only apply the product four to five hours before receiving radiation treatment.

Do not apply the ointment or cream over markings that the therapist may have drawn on your skin.

Once all of your treatments are finished, continue to apply ointment or cream until the skin is completely healed.

If your skin becomes moist and weeps or raw, your radiation oncology nurse will give you further instructions for skin care. These may include the following:

- Your doctor may prescribe a different ointment.
- Your doctor may prescribe an astringent to help clean the skin.
- Your doctor may prescribe wound dressing sheets, such as Cool Magic[™] or Mepilex[®].



Bathing

Bathe or shower in warm water using a mild soap such as Ivory[®] or Dove[®]. Avoid deodorant soaps that may irritate the skin. Use your hands, not a washcloth, on the treated skin. Do not soak the treated area in a bathtub for any period of time until your skin has fully healed and/or your doctor has told you that it is okay. Be careful not to wash off the ink markings around your treatment area.

Shaving (Men)

You may use an electric shaver, but check with your doctor or nurse before shaving any part of your treatment area. Do not use pre-shave or after-shave lotions. These contain alcohol and will irritate your skin.

Jaw and Neck Exercises While Receiving Radiation Treatment

Ask your nurse for a copy of *Exercises After Neck Dissection While Receiving Radiation*. These exercises are designed to improve the range of motion (flexibility) of your neck and jaw. Begin these exercises when you start your course of radiation treatment.

Radiation causes tightness of the tissue in the treated area. It is important that you perform these exercises daily and for an extended period of time after completing radiation treatment.

Continue to do the exercises until you achieve full neck and jaw movement.

Perform the exercises slowly, allowing your muscles to stretch. Hold the stretch for five seconds.

Ask your doctor for a referral to physical and occupational therapy if you begin to experience swelling of the face or neck, continue to have limitation of motion or difficulty with resuming normal dressing, bathing, grooming or other daily activities.

Home Care After Treatment

The side effects of radiation may stabilize or become worse 10 to 14 days after the last treatment. They will slowly begin to improve over several weeks. To help you recover, it is very important that you follow the instructions of your radiation team and the guidelines listed below.

Do the following:

- Arrange for follow up care before returning home, especially if you live out of town. You will
 need to contact your local doctor and locate the nearest hospital emergency center.
- Drink plenty of fluids.
- Eat high-calorie, high-protein meals and/or nutritional supplements, as instructed by your health care team. This will help to prevent weight loss and promote healing.
- Continue your skin care routine until the treatment area is completely healed. This includes keeping the skin properly cleaned, using skin care products to keep the skin moisturized and performing additional skin care as ordered by your radiation oncologist.
- Avoid sun exposure to the treated area. The skin that was exposed to radiation may sunburn more quickly. If the treated area will be exposed to the sun for 10 minutes or longer and will not be covered, apply a sunscreen to the area with an SPF rating of 45 or higher that protects against UVA and UVB rays. Remember to reapply often, especially when sweating or in water.
- Continue to rinse your mouth with the baking soda solution for at least six months after finishing treatment. Use saliva substitutes as ordered by your doctor.
- Continue jaw and neck exercises daily for the rest of your life or as recommended by your radiation team. Do these exercises exactly as prescribed for at least six months following treatment.



- Resume light activity, such as walking.
- Follow up with your dentist to maintain routine dental care. Continue with your lifelong fluoride treatments and make sure you get routine check-ups with your dentist every four to six months. If you need any dental work done, tell your dentist about your radiation therapy. The dentist may want to see your radiation treatment records.
- Report any new symptoms, such as lumps or sores, or anything else unusual to your doctor or nurse.
- Call 911 or go to the nearest emergency room if you need immediate medical attention or treatment.

Avoid the following:

- Smoking or drinking alcoholic beverages.
- Eating sharp-edged, spicy or acidic foods until the mouth and throat are completely healed, and then only as tolerated (such as pretzels, potato chips, citrus, etc.).
- Drinking extreme temperature beverages until the radiated area heals completely.
- Wearing dentures, other than to eat, until your next dental appointment or until your doctor says you may wear them.
- Use pre-shave lotions, after-shave lotions or other skin irritants until the treatment area heals.

If you have questions, call the radiation clinic at 856.735.6131.

Follow Up

It is important to have regular follow-up exams with your primary cancer doctor. If your radiation doctor requests a follow-up visit with you, your appointment will be scheduled six to eight weeks after the completion of your radiation treatment. If you have not received a date for a follow-up appointment, please call your doctor's scheduler.

We want to make sure you take your medicines safely. For your follow-up appointment, please bring a list of all your current prescription and non-prescription medicines, vitamins, nutritional supplements, herbal products and over-the-counter drugs.

In the future, if you need surgical procedures, dental work (extractions, surgeries, etc.) or biopsies that involve the treated area, tell your doctor about the radiation treatments you received. If necessary, your doctor can contact your oncologist for more information.

