Head and Neck Radiation Treatment Guide

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

This material contains standard information and procedures. Because each patient receives individualized treatment, your healthcare team will give you specific information for you and your caregivers to follow which may not be the same as in this document. Please follow the instructions you receive from your nurse or doctor.

**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 your treatment and monitoring and treating you during your radiation treatment. Your health care team may include doctors, physician assistants (PAs), nurses, therapists, dosimetrists, physicists and others.

If the process seems overwhelming to you, please talk with your health care team about your concerns. They are here 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 at that time 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 make a device (stent) for your treatment. This stent will help push healthy tissue in your mouth away from the radiation treatment area. Additional consultations for other services may be necessary before and during treatment.

**Simulation**

Before you receive treatment, you will have a simulation, which is a treatment planning session. The simulation allows your radiation doctor to locate the exact area to be treated, to take measurements for treatment planning and to create shielding to protect normal tissue. This 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 you to keep very still during treatments. This device is used to ensure correct positioning during treatment.
- A computerized tomography (CT) scan and x-rays will be taken. These are used to create a three-dimensional picture of your treatment area. While these scans are being taken, the therapists will leave the room, close the door and will monitor you from the adjacent room by closed-circuit television. If you need something during this procedure, 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 will be made to your skin to ensure that 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 usually are 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 and 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.

Treatment Planning

Soon after your simulation is completed, you will receive an appointment to attend a development and planning clinic. During this appointment, other doctors in the Head and Neck Radiation Oncology service will examine you and discuss your treatment plan with you. Once your radiation doctor approves your treatment plan, you will receive a copy of your treatment schedule.

Treatment will begin approximately 5-7 working days after the development and planning clinic. This will allow time for your health care team to design your treatment plan. On the first day of treatment, more x-rays will be taken.

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 6-7 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 treatment schedule or need to change your schedule. Due to the number of patients we serve, schedule requests are not guaranteed.

Please pick up a treatment schedule when you come in for your first radiation treatment and check for any schedule changes. The patient service coordinator (PSC) or the receptionist can print an updated schedule for you. Please clarify if you want a radiation schedule or a
hospital/clinic schedule.

**Treatment Guidelines**

1. Always check in at the reception desk in the radiation treatment lobby as soon as you arrive. Check in here also if you are going to see your doctor, physician assistant or nurse in the Head and Neck radiation clinic.

2. 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.

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

4. On the first day of treatment, 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.

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

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

7. 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.

8. 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 treatment schedule, talk with your radiation doctor, physician assistant, nurse or therapist.
Parking

Patients receive free parking for simulation, weekly management visits and treatments. Patients will pay parking fees incurred for all other appointments including radiation consults and follow-up visits.

If you are receiving treatment at the Main Building, park in the Radiation Treatment Center valet parking area on Bertner Street. Turn into entrance #4 on Bertner Street and pass the first stop sign (Bates Street). The first driveway on the right is the Radiation Treatment Center entrance. Refer to the map below. If you park anywhere else, you will be responsible for the parking fees. When you check in at the reception desk, you will receive parking validation for two hours. If you have other appointments, please move your vehicle to another parking area. This will allow us to continue to provide free parking for all of our radiation therapy patients.

The valet service charges the full daily rate (which amounts to $20.00) for one minute past the two free hours.

The University of Texas M. D. Anderson Cancer Center – North Campus
The Radiation Oncology Head and Neck Clinic

How to Contact Us: Main Building, Floor 1, near the G Elevator
Please call the main clinic number: 713-794-1974
Our fax number is 713-745-8273

Emergency and After Hours: If you have a medical emergency, call 911 or go to your nearest Emergency Center. If you need urgent assistance with radiation treatment issues before 8:00 a.m. and after 5:00 p.m. Monday through Friday, or during weekends and holidays, call the hospital operator at 713-792-7090 and ask for the Radiation Oncology resident on-call.

MD Anderson’s Emergency Center is open 24 hours a day, every day. From Holcombe Boulevard, turn at Entrance Marker 3. The entrance is on Bates Street near Garage 2. From inside the Main Building, go to Floor 1, near The Fountain, Room P1.3000.

Head and Neck Radiation Team: Doctor, PA, RN and PSC 713-794-1974
Patient Advocate 713-792-7776
Social Worker 713-792-6195

Clinic Business Hours: Monday through Thursday 8:30 a.m. - 5 p.m.
Friday 8:30 a.m. - 4 p.m.

Head and Neck Clinic: Call 713-792-6525 for other questions and appointments related to surgery or chemotherapy.

Medical Records: Call 713-792-6710 for release of medical records.

Film Library: Call 713-792-6210 for release of diagnostic films.

Pathology Material: Call 713-792-3111 for release of pathology slides/materials.
**Weekly Management Visits**

You will see your doctor once a week while you are receiving treatment. These visits are held in the Main Building Radiation Treatment Center, Monday through Thursday either in the morning or the afternoon, according to your doctor’s schedule. Refer to your radiation schedule for these appointments.

When you arrive, check in at the reception desk in the radiation treatment lobby by Elevator G. After checking in with the receptionist, go down the hall to the Head and Neck radiation clinic in Waiting Area ‘A’. Once there, pick up and complete a ‘weekly see’ questionnaire. When you are finished, knock on the window and return the form back to the patient service coordinator (PSC) and wait to be called. Please be patient; there are many reasons the clinic may run behind. Tell the PSC 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 may close all clinics and cancel appointments due to flooding conditions or other inclement weather in the Texas Medical Center. If this happens, call our toll-free number at 1-866-423-2129 and choose option #3. By doing so, you can find out if the Radiation Treatment Center is open for treatments. Your therapist will give you a telephone number to reach him or her at the treatment machine. 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 to every doctor’s appointment a list of all your current prescription and non-prescription medicines, vitamins, nutritional supplements, herbal products and over-the-counter drugs.

**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, physician assistant or nurse if you have questions about side effects.

- The skin in the treatment area may become red, itchy and peel. This usually happens 2-3 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 15-20 minutes, 2-3 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 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 3 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 and fluids.

• 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.

• You may lose your sense of taste. Your sense of taste may begin to return 4-6 weeks after treatment and may continue to improve for up to 1 year. Sense of taste does not return to the level before treatment in some patients.

• 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 “Mouth and Throat Care” on this page). Your saliva will improve 2-4 months after treatment has ended. You may have dry mouth for the rest of your life; however, 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 mucus.

**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.

**Nutrition**

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

**Mouth and Throat 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, flossing and using fluoride therapy as 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 the instructions below.
• Mix 2 teaspoons of baking soda in 1 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, 7 days a week. Once your treatment is completed, continue using the baking soda mixture for at least 6 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® or Aim®, and 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 to treat irritated skin.

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

Other ointments or creams that may be recommended during your treatment include: Lindi Lotion® and Jean’s Cream® (available at the May’s Clinic Appearances Shop) and Elta Cream® (available at Kroger® stores). Biafene® and Xenaderm® are available only with a prescription.

Instructions for applying skin ointment/cream
1. Begin applying skin ointment or cream to your skin in the treated area the first day of treatment.
2. Apply the ointment or cream in a thin layer 3-5 times a day.
3. It is important to wash your hands before and after performing any skin care.
4. Do not apply the ointment or cream over markings that the therapist may have drawn on your skin.
5. Do not apply ointment or cream on your skin within 4 hours before a scheduled treatment.
6. Once all of your treatments are finished, continue to apply ointment or cream to the skin until it is completely healed.
If your skin becomes moist and weeps, or if it becomes 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 mild soap such as Ivory® or Dove®. Avoid deodorant soaps; they 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 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

These exercises are designed to improve the range of motion (flexibility) of your neck and jaw. Follow the guidelines below.

- 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.
- For more information, call the Rehabilitation Services Department at 713-792-3192.

These two exercises help you control the function of your mouth.

1. Turn the corners of your mouth up
2. Hold 5 seconds
3. 5 repetitions, 3 times per day

1. Suck in your cheeks and push your lips forward
2. Hold 5 seconds
3. 5 repetitions, 3 times per day
These three exercises help you open your mouth wide:
1. Gently stretch your mouth open
2. Hold 5 seconds
3. 5 repetitions, 3 times per day

1. Jut your lower jaw forward as shown
2. Hold 5 seconds
3. 5 repetitions, 3 times per day

1. Move you lower jaw side to side
2. Hold 5 seconds each direction
3. 5 repetitions, 3 times per day

These four exercises help you keep your neck flexible. They also help promote good posture.
1. Sit with good posture
2. Bend neck forward as shown
3. Hold 5 seconds
4. 5 repetitions, 3 times per day
1. Sit with good posture.
2. Tuck your chin in and pull your head straight back
3. Hold 5 seconds
4. 5 repetitions, 3 times per day

1. Sit with good posture
2. Keeping face forward, tip ear toward shoulder. Repeat to opposite shoulder.
3. Hold 5 seconds each side
4. 5 repetitions, 3 times per day

1. Sit with good posture
2. Turn head to look over your shoulder, without moving your body. Repeat to opposite shoulder.
3. Hold 5 seconds each side
4. 5 repetitions, 3 times per day
Home Care After Treatment

Radiation side effects often become worse 10-14 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 Do’s and Don’ts listed below.

Dos

- Arrange for follow up care before returning home, 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: 1) keep the skin properly cleansed, 2) use skin care products to keep the skin moisturized and 3) perform 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 6 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, physician assistant or nurse.
- Call 911 or go to the nearest emergency room if you need immediate medical attention or treatment.

Don’ts (avoid these activities)

- Smoke or drink alcoholic beverages.
- Eat 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).
- Drink extreme temperature beverages until the radiated area heals completely.
- Wear dentures, other than to eat, until your next dental appointment or until your doctor says you may wear them.
- Use pre-shave, after-shave lotions or other skin irritants until the treatment area heals.
If you have questions, call the Head and Neck Radiation clinic at 713-794-1974.

Follow Up

- It is important that you 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 or 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 family doctor can contact your oncologist for more information.