Memorial Sloan Kettering Cancer Center

PATIENT & CAREGIVER EDUCATION

Radiation Therapy to Your Head and Neck

This information will help you get ready for radiation therapy to your head and neck. It will help you know what to expect before, during, and after your treatment. It will also help you learn about side effects and how to care for yourself during treatment.

This resource has a lot of information. Different sections may be helpful at different times. We suggest reading through this resource once before you start radiation therapy, so you know what to expect. Then, refer back to it during your radiation therapy.

This information is general. Your radiation therapy team will design a treatment and care plan just for you. Because of that, some parts of your treatment may be different than what's described here. Your radiation therapy team will talk with you about what to expect.

About radiation therapy

Radiation therapy uses high-energy beams to treat cancer. It works by damaging the cancer cells and making it hard for them to reproduce. Your body is then naturally able to get rid of the damaged cancer cells. Radiation therapy also affects normal cells. However, your normal cells are able to repair themselves in a way that cancer cells can't.

You will have a type of radiation therapy called external beam radiation. During your treatments, a machine will aim beams of radiation directly at the tumor. The beams will pass through your body and destroy cancer cells in their path.

You will not see or feel the radiation.

Radiation therapy takes time to work. It takes days or weeks of treatment before cancer cells start to die. They will keep dying for weeks or months after treatment ends.

You can have radiation therapy before, during, or after surgery or chemotherapy.

Below is a picture of the structures in your head and neck (see Figure 1). Your nurse will show you what area will be treated.

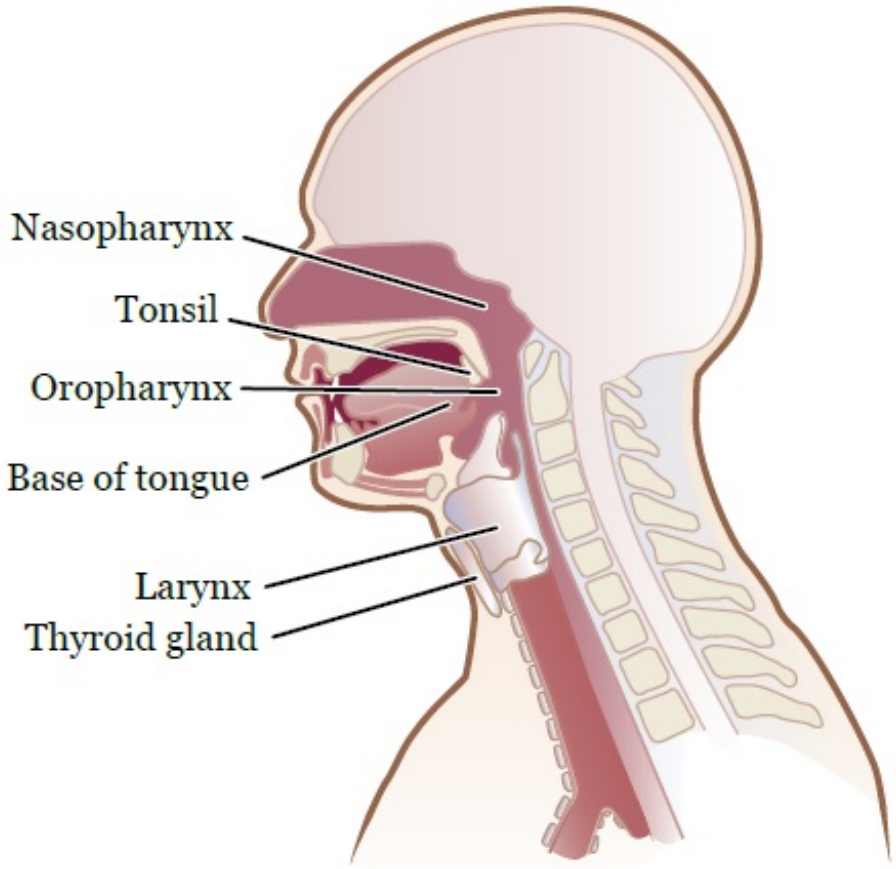


Figure 1. Your head and neck

Your radiation therapy team

You will have a team of healthcare providers working together to provide the right care for you.

- Your **radiation oncologist** is the doctor who will plan your radiation therapy.

- Your **medical oncologist** is the doctor who will manage your care with your radiation oncologist during and after your treatment.
- Your **radiation oncology nurse** will work with the other members of your radiation therapy team to care for you and your family during your treatments. They will check how you're doing and give you information about your treatment and the side effects you may have. They will also teach you how to manage these side effects and support you during your treatment.
- Your **dentist** will check your teeth and explain how radiation will affect your mouth. You must see your dentist before your simulation. Read the "Simulation" section for more information.
    - Your dentist will check your teeth for problems and do any dental work that's needed. They will also prescribe special toothpaste that has fluoride to help prevent cavities.
    - If you have a lot of fillings in your teeth, your dentist may make a rubber mouth guard for you. It fits over your teeth to keep the metal in the fillings from irritating your mouth. The mouth guard must be made before your simulation. You will need to pick it up from your dentist and bring it to your simulation.
- Your **swallowing specialist** will check to see how well you can swallow. Swallowing can become difficult during treatment. Your swallowing specialist will teach you exercises to keep your swallowing muscles strong.
- Your **dietitian** will help you choose what to eat and drink during your treatment. You will need foods that are high in protein and easy to swallow. Your dietitian will contact you during the first 2 weeks of your treatment.
- If you smoke, you will meet with a **Tobacco Treatment Specialist** from our Tobacco Treatment Program. Smoking is a risk factor for head and neck cancer. If you smoke now, it's important for you to stop. Your nurse can schedule this appointment for you, or you can reach the Tobacco Treatment Program by calling 212-610-0507.
- You may also see other healthcare providers (such as social workers) during and after your treatment. If you need to see any other healthcare providers,

your radiation therapy team will explain why and help you schedule the appointment.

Before your treatment starts, you will have appointments with the providers on your radiation therapy team so that they can plan your care. They will talk with you and help you get ready for your treatment. You will also have appointments with many of these providers during and after your treatment.

Your role on your radiation therapy team

Your radiation therapy care team will work together to care for you. You're a part of that team, and your role includes:

- Getting to your appointments on time.
- Asking questions and talking about your concerns.
- Telling us when you have side effects.
- Telling us if you're in pain.
- Caring for yourself at home by:
  - Quitting smoking if you smoke. MSK has specialists who can help. To learn more about our Tobacco Treatment Program, call 212-610-0507. You can also ask your nurse about the program.
  - Caring for your skin based on our instructions.
  - Drinking liquids based on our instructions.
  - Eating or avoiding the foods and drinks we suggest.
  - Staying around the same weight.

Simulation

Before you start radiation therapy, you will have a treatment planning procedure called a simulation. This is done to make sure that:

- Your treatment area is mapped out.
- You get the right dose of radiation.

- The radiation dose to nearby tissue is as small as possible.

During your simulation, you will have imaging scans and your skin will be marked with little tattoo dots. These marks help your team make sure you're in the correct position for your radiation treatments. Your simulation will take about 4 hours.

Getting ready for your simulation

- **During your simulation, you will be lying in one position for a long time.** If you think you will be uncomfortable lying still, you can take acetaminophen (Tylenol®) or your usual pain medication before your simulation.
- If you think you may get anxious during your procedure, ask your doctor if medication may be helpful.
- Wear comfortable clothes that are easy to take off. You will need to change into a hospital gown.
- Don't wear jewelry, powder, or lotion.
- If your dentist made mouth guards for you, bring them to your simulation.

To help pass the time during your simulation, your radiation therapists can play music for you.

If you don't need any special preparation, you can eat and drink as you normally would on the day of your simulation. Your doctor or nurse will tell you if you need special preparation.

For people having a positron emission tomography-computed tomography (PET-CT) scan

- Starting 6 hours before your simulation appointment time, don't eat or drink anything except water. This includes gum, hard candy, cough drops, and mints. If you eat or drink anything except water, your PET-CT scan may need to be rescheduled.
- You may get intravenous (IV) contrast (dye) during your PET-CT scan. If you're allergic to IV contrast, tell your nurse. They will give you special instructions.

Take devices off your skin

You may wear certain devices on your skin. Before your simulation or treatment, some device makers recommend you take off your:

- Continuous glucose monitor (CGM)
- Insulin pump

If you use one of these, ask your radiation oncologist if you need to take it off. If you do, make sure to bring an extra device to put on after your simulation or treatment.

You may not be sure how to manage your glucose (blood sugar) while your device is off. If so, before your appointment, talk with the healthcare provider who manages your diabetes care.

Day of your simulation

What to expect when you arrive

A member of your radiation therapy team will check you in when you arrive. They'll give you an identification (ID) wristband with your name and date of birth. During your appointment, many staff members will check your ID wristband and ask you to say and spell your name and date of birth. This is for your safety. People with the same or a similar name may be getting care on the

same day.

Your radiation therapists will review what to expect during the simulation. If you haven't already signed a consent form, they will go over the form with you. They will answer any questions you have and ask for your signature.

During your simulation

For your simulation, you will need to undress from the waist up and change into a hospital gown. Keep your shoes on.

If you wear any of these, you may need to take them off:

- A head covering, such as a wig, turban, or cap.
- Dentures.
- A hearing aid.

After you change, your radiation therapists will bring you to the simulation room and help you lie down on the table. They will do everything they can to make sure you're comfortable and have privacy.

The table will have a sheet on it, but it's hard and has no cushion. Also, the room is usually cool. If you feel uncomfortable at any time, tell your radiation therapists. If you haven't taken pain medication and think you may need it, tell your radiation therapists before your simulation starts. If you feel uncomfortable at any time, tell your radiation therapists.

Once your simulation starts, don't move. Moving may change your position. However, if you're uncomfortable or need help, tell your radiation therapists.

During your simulation, you will feel the table move into different positions. The lights in the room will be turned on and off and you will see red laser lights on each wall. Your radiation therapists will use these laser lights as a guide to help position you on the table. Don't look directly into the laser lights, because they may damage your eyes.

There will be an intercom (microphone and speaker) and a camera inside the simulation room. Your radiation therapists will walk in and out of the room

during your simulation, but there will always be someone who can see and hear you. You will hear your radiation therapists talking to each other as they work, and they will talk to you to explain what they're doing.

Positioning and mask

You will lie on your back during your simulation and treatments. To help you stay in the same position for each treatment, you will wear a mask that covers your face and upper body and attaches to the table (see Figure 2). You will wear the mask during your simulation and each of your treatments.

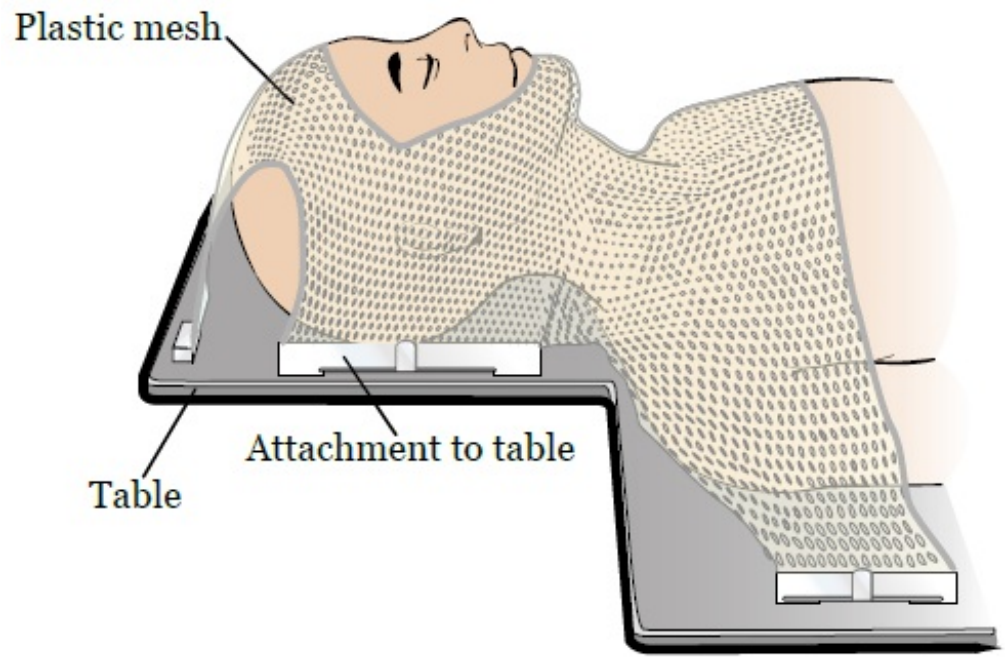


Figure 2. Mask on your face and upper body

To make the mask, your radiation therapists will place a warm, wet sheet of plastic mesh over your face and upper body while you're lying on the simulation table. The mesh has openings for your eyes, nose, and mouth. You will not have any trouble seeing or breathing while it's over your face.

As the mesh cools, it will harden. This takes about 15 minutes. As the mesh is cooling, your radiation therapists will shape it to your face and upper body. You will feel some pressure as they do this. If you feel uncomfortable at any time, tell your radiation therapists.

Depending on your treatment area, you may also use a bite block during your

simulation and treatments. The bite block will help you keep from swallowing. To make the bite block, your radiation therapists will place a soft piece of plastic on your tongue and ask you to bite down while it hardens. This will take a few minutes.

If your dentist made mouth guards for you, you will also wear these during your simulation and each treatment.

Imaging

You will have imaging scans while you're in your treatment position and wearing your mask. The scans will be used only to map your treatment area. They aren't used for diagnosis or to find tumors.

You will have 1 or more of the following scans.

- ☐ **X-ray scan**. This will be done on an x-ray machine called a simulator.
- ☐ **Computed tomography (CT) scan**. If you're having a CT scan, your nurse may place an IV line in one of your veins before the scan. It will be used to give you IV contrast before the scan. The contrast allows us to get clear images of the treatment area.
- ☐ **PET scan**. If you're having a PET scan, your nurse will give you separate instructions. Please follow them carefully.
- ☐ **Magnetic resonance imaging (MRI) scan**. If you're having a MRI scan, your nurse will give you separate instructions. Please follow them carefully.

If you need other imaging scans, your nurse will give you more information.

Depending on your treatment area, you may be asked to grab special straps that push your shoulders down during the imaging scans. This is to make sure your shoulders are out of the area of the scan.

During the scan(s), you will hear the machine turn on and off. Even if the noise seems loud, your radiation therapists will be able to hear you if you talk to them.

The scans will take 2 to 4 hours.

Skin markings (tattoos)

While you're lying in your treatment position, your radiation therapists will draw on your skin with a felt marker. You can wash off the felt markings after your simulation.

You will also need permanent skin markings called tattoos. The tattoo marks are no bigger than the head of a pin. Your radiation therapists will use a sterile needle and a drop of ink to make each tattoo. Getting them will feel like a pinprick. **The tattoos are permanent and will not wash off.** If you're concerned about having tattoos as part of your radiation treatment, talk with your radiation oncologist.

After the tattoos are made, your radiation therapists will take photographs of you in your treatment position. The photographs and tattoos will be used to position you correctly on the table each day of your treatment.

After your simulation

At the end of your simulation appointment, we will schedule an appointment for your set-up procedure. This is the final appointment before your treatment starts. You will also be assigned to a machine for your daily treatment.

Scheduling your treatment

You will have radiation treatments every day (Monday through Friday) for about 7 weeks. You may have chemotherapy and radiation treatments on the same day. It's safe to get chemotherapy either before or after your radiation treatment.

Your therapist will ask you what time of day you would like to have your treatments. We will try to give you the time you like. However, we need a 2-hour window, because the time you prefer may not be open. We will move you to that time slot once it opens up. Please know that we will do our best to give you the appointment time you want as soon as we can. The appointment for the following week is usually given on Friday. The Radiation Oncology Department is open from 7:00 a.m. to 7:00 p.m.

You must come in every day that you're scheduled for treatment. Your radiation therapy may not work as well if you skip or miss treatments. If you need to miss a treatment for any reason, you must call your radiation oncologist's office to tell your team. If you need to change your schedule for any reason, speak with the scheduler or call your doctor's office.

Planning your treatment

During the time between your simulation and your set-up procedure, your radiation oncologist will work with a team to plan your treatment. They will use the images taken during your simulation to plan the angles and shapes of your radiation beams. They will also determine the dose of radiation that you will receive. These details are carefully planned and checked. This takes between 5 days and 2 weeks.

Set-up procedure

Before your first treatment, you will have a set-up procedure. This procedure usually takes about 1 hour. If pain or anxiety medication was helpful during your simulation, you may want to take it before this procedure.

When you arrive for your set-up procedure, you will be shown to the dressing room and asked to change into a hospital gown.

Your radiation therapists will bring you to the room where you will receive your treatment each day. They will position you on the table. You will lie exactly as you did on the day of your simulation.

Special x-rays called beam films will be taken to make sure that your position and the area being treated are correct. Beam films may also be taken before some of your other treatments. They aren't used to see how your tumor responds to the treatment.

Most people have their first treatment 1 day after their set-up procedure.

During your treatment

For each of your treatments, check in at the reception desk and have a seat in the waiting room. When your radiation therapists are ready for you, you will be shown to the dressing room and asked to change into a hospital gown. Keep your shoes on during your treatment.

Your radiation therapists will bring you into the treatment room. They will help you lie on the table and put on your mask. You will be positioned exactly how you were lying during your set-up procedure.

Once you're positioned correctly, your radiation therapists will leave the room, close the door, and start your treatment. You will not see or feel the radiation, but you may hear the machine as it moves around you and is turned on and off. You will be in the treatment room for 20 to 30 minutes, depending on your treatment plan. Most of this time will be spent putting you in the correct position. The actual treatment only takes a few minutes.

You will be alone in the room during your treatment, but your radiation therapists will be able to see you on a monitor and hear you through an intercom at all times. They will make sure you're comfortable during your treatment.

Breathe normally during your treatment, but don't move. However, if you're uncomfortable or need help, tell your radiation therapists. They can turn off the machine and come in to see you at any time, if needed.

Neither you nor your clothes will become radioactive during or after treatment. It's safe for you to be around other people.

Weekly visits during your treatment

Your radiation oncologist and nurse will see you each week to check how you're responding to treatment. They will also ask you about any side effects you're having, talk with you about your concerns, and answer your questions. This visit will be before or after your treatments each _____. You should plan to be at your appointment for about 1 extra hour on those days.

If you need to speak with your radiation oncologist or radiation oncology nurse between these weekly visits, call your radiation oncologist's office. You can also ask the support staff or your radiation therapists to contact your radiation oncologist or nurse when you come in for treatment.

Vitamins and dietary supplements during radiation therapy

Vitamins, minerals, and herbal or botanical (plant-based) supplements are examples of dietary supplements.

It's OK to take a multivitamin during your radiation therapy. Do not take any other dietary supplements without talking with a member of your care team.

Side effects of treatment

You may have side effects from radiation therapy. The type and how severe they are depends on many things. These include the dose of radiation, the number of treatments, and your overall health. The side effects may be worse if you're also getting chemotherapy.

You may start to notice side effects about 2 weeks after you start treatment. They may get worse during treatment, but they will slowly get better over 6 to 8 weeks after you finish treatment. Some side effects may take longer to go away. Follow the guidelines in this section to help manage your side effects during and after treatment.

Below are the most common side effects of radiation therapy to the head and neck. You may have all, some, or none of these. Your nurse will talk with you about the side effects you're most likely to have.

Changes to your mouth and throat

Your treatments will cause changes in your mouth and throat. You may have:

- Mouth sores
- Mouth pain
- Throat sores

- Throat pain
- Pain when you swallow
- Trouble swallowing
- Thicker saliva than usual
- Dry mouth
- Taste changes

Follow the guidelines below to help manage these side effects.

- Brush your teeth after you eat and before you go to bed. Use a soft-bristle toothbrush and the toothpaste your dentist recommended or a mild toothpaste that has fluoride.
- If you have dentures, a bridge, or a dental prosthesis, take it out and clean it each time you clean your mouth. Leave it out while you sleep. If your mouth becomes irritated, keep it out of your mouth as much as you can.
- If you currently floss your teeth, keep flossing once a day before you go to bed. If you haven't flossed in the past, don't start during your treatment.
- Rinse your mouth every 4 to 6 hours, or more often for comfort. Use 1 of the following liquids:
    - One quart (4 cups) of water mixed with 1 teaspoon of salt and 1 teaspoon of baking soda
    - One quart of water mixed with 1 teaspoon of salt
    - One quart of water mixed with 1 teaspoon of baking soda
    - Water
    - A mouthwash with no alcohol or sugar

    To rinse, swish and gargle the liquid for 15 to 30 seconds, then spit it out.
- Use a lip moisturizer after you care for your mouth. Don't apply it 4 hours before your treatment.

If your mouth is dry, try the suggestions below.

- Use a mouth moisturizer.
- Take sips of water or other liquids (such as coconut water, almond milk, Gatorade®, and broth) often during the day. It may be helpful to carry a bottle of water.
- Use an aerosol pump spray bottle filled with water to moisten your mouth.
- Use a humidifier, especially at night. Be sure to change the water in the humidifier and clean it as directed.
- Avoid using air conditioners.

If you start having trouble swallowing or pain when you swallow, tell your doctor or nurse. They can prescribe medication to make you more comfortable.

As side effects develop, your doctor may ask you to see your nurse every day. Your nurse will look at your mouth and spray your mouth, if needed.

Changes inside your nose

Your treatments may cause changes inside your nose, such as dryness, stuffiness, occasional minor nosebleeds, or all 3.

To help manage these side effects, keep the inside of your nose moist. You can do this by using saline nose spray, a humidifier, or both.

Ear pain

You may have ear pain from the swelling caused by your treatments. If you do, tell your doctor or nurse. Ear pain can also be a sign of infection.

Don't try to clean or clear out your ears. Don't use cotton swabs (Q-tips®) inside your ears.

Voice changes (hoarseness)

You may have hoarseness from the swelling caused by your treatments. Your voice may be more breathy, strained, rough, or high or low pitched. To help manage voice changes:

- Rest your voice as much as you can.

- Don’t whisper. This can cause strain on your vocal cords.
- Use a humidifier.
- Gargle with one of the liquids listed in the “Changes to your mouth and throat” section.

Skin and hair reactions

During radiation therapy, the skin and hair in the treatment area may change.

- After 2 to 3 weeks, your skin may become pink or tanned. Later in your treatment, your skin may become bright red or very dark.
- Your skin may feel dry, itchy, and look flaky.
- You may have a rash, especially in areas where your skin has been exposed to the sun. If this happens, tell your doctor or nurse. A rash can also be a sign of infection.
- The skin in sensitive areas (such as behind your ear and near your collarbone) may blister, open, or peel. If this happens, tell your doctor or nurse.
- You may lose some or all of the hair in the treatment area. The hair will usually grow back 3 to 6 months after you finish treatment.

Your skin will gradually heal after you finish treatment, but this often takes 3 to 4 weeks. Sometimes, skin reactions get worse during the week after you finish treatment. If this happens, call your doctor or nurse.

Your nurse will apply special dressings (bandages) or creams, if needed. They will also teach you how to care for your skin. Start following the guidelines below when you start treatment. Keep following them until your skin gets better. **These guidelines refer only to the skin in the treatment area.**

Keep your skin clean

- Bathe or shower every day. Use warm water and a mild, unscented soap (such as Neutrogena®, Dove®, baby soap, Basis®, or Cetaphil®). Rinse your skin well and pat it dry with a soft towel.

- When washing, be gentle with the skin in the treatment area. Don't use a washcloth, scrubbing cloth, or brush.
- The tattoo marks you got before your treatment are permanent and will not wash off. You may get other markings during treatment, such as an outline of the treatment area with a purple felt-tipped marker. You can remove these markings with mineral oil when your radiation therapists say it's okay.
- **Don't use alcohol or alcohol pads on the skin in the treatment area.**

Moisturize your skin often

Start using a moisturizer when you start treatment. This can help minimize skin reactions. You can use an over-the-counter (not prescription) moisturizer.

- Use a moisturizer that doesn't have any fragrances or lanolin. Your nurse may suggest a moisturizer for you to use.
- Don't use more than 1 moisturizer at a time, unless your nurse tells you to use more.
- Apply the moisturizer 2 times each day.

Avoid irritating your skin

- If your skin is itchy, don't scratch it. Apply moisturizer. Ask your nurse for recommendations on how to relieve the itching. They may give you a prescription for a medication to treat itchy skin.
- Wear loose-fitting cotton clothing and undergarments over the treatment area. Avoid underwire bras or tight clothing that will rub against your skin.
- Use only the moisturizers, creams, or lotions that you have discussed with your radiation oncologist or nurse.
- Don't use makeup, perfume, powder, or aftershave on the treatment area.
- Don't use deodorant if your skin is open, cracked, or irritated. You can use deodorant on intact skin in the treatment area. Stop using it if your skin becomes irritated.
- Don't shave in the treatment area. If you must shave, use only an electric razor. Stop if your skin becomes irritated.

- Don’t put tape on the treatment area.
- Don’t put skin patches (including pain patches) on the treatment area.
- Don’t let the skin in the treatment area come into contact with extreme hot or cold temperatures. This includes hot tubs, water bottles, heating pads, and ice packs.
- If you don’t have any skin reactions, you can swim in a chlorinated pool. Shower right after you get out of the pool to rinse off the chlorine.
- Avoid tanning or burning your skin. If you’re going to be in the sun:
  - Use a PABA-free sunblock with an SPF of 30 or higher.
  - Wear loose-fitting clothing that covers as much of the skin in the treatment area as possible.

Difficulty eating and drinking

Many side effects of radiation therapy to your head and neck can make it hard to eat and drink. This can cause weight loss, fatigue (having less energy than usual), and dehydration.

If your weight changes, the mask used during your treatment may not fit correctly. This can make it harder to stay in the correct position for your treatments. Follow the guidelines below to help keep your weight from changing.

Change what you eat and drink based on your side effects

If you have pain or soreness in your mouth or throat or have trouble swallowing:

- Eat soft, moist, bland foods. Take small bites and chew the food well.
- Use sauces and gravies to soften foods.
- Avoid things that may irritate your mouth and throat, such as:
  - Very hot foods and liquids
  - Dry, hard, and coarse foods (such as chips, pretzels, crackers, and raw vegetables)
  - Spices (such as pepper, chili, horseradish, hot sauce, and curry)

- Acidic or citrus foods and juices (such as orange, grapefruit, lemon, lime, pineapple, and tomato)
- Alcohol
- Tobacco

- Blend or purée your foods to change the texture.

If your mouth is dry:

- Rinse your mouth before eating.
- Use gravies and sauces to make your food.
- Drink liquids while eating dry foods (such as rice or bread).

If you have appetite loss:

- Eat small, frequent meals throughout the day. If you never seem to feel hungry, set up a schedule to make sure you eat regularly.
- Choose foods and drinks that are high in calories and protein. Avoid foods and drinks that are filling but don't have many calories or protein.
- Eat your meals in a calm place. Take your time while eating. Eat with family or friends whenever possible.
- Bring snacks and drinks to your treatments. You can have them while you're waiting or while you're coming to and from your appointments each day.

If you have nausea:

- Tell your doctor or nurse. They may prescribe medication to help.
- Eat foods that are less likely to upset your stomach, such as:
  - Foods at room temperature or cooler.
  - Liquids that are cooled or chilled.
  - Dry, starchy foods (such as toast, soda crackers, melba toast, dry cereal, pretzels, and angel food cake).
  - Yogurt, sherbet, and clear liquids (such as apple juice, Jell-O ®, and ginger

ale).
    - Cold chicken or turkey, baked or broiled, with the skin removed.
    - Soft fruits and vegetables.
- Avoid foods and liquids that may make nausea worse, such as:
    - Hot foods with strong odors (smells).
    - Spicy, fatty, greasy, and fried foods.
    - Very sweet foods.
    - Acidic or citrus foods and juices (such as orange, grapefruit, pineapple, and tomato).
    - Alcohol.

Get enough nutrition during your treatment

- Eat a well-balanced diet that's high in calories and protein. This will help you maintain your weight and feel better during treatment. Your dietitian will work with you to help you choose the best foods and liquids.
- Use liquid nutritional supplements. There are many different products and flavors you can try. Talk with your doctor, nurse, or dietitian about which one is best for you.
- If you want, you can take a daily multivitamin.
    - Read the multivitamin's label. Don't take more than the recommended daily amount of any vitamins or minerals.
    - Don't take any other dietary supplements (such as vitamins and herbal supplements) without talking with your doctor.

For information about eating during treatment, read the resource *Eating Well During Your Cancer Treatment* (www.mskcc.org/pe/eating-cancer-treatment). You can find it on our website, or you can ask your nurse or dietitian.

For information about getting enough nutrition before, during, and after radiation therapy to the head and neck, watch the video *Nutrition Before and During Treatment for Head and Neck Cancer* (www.mskcc.org/pe/hn-nutrition-

before-radiation).

Fatigue

Fatigue is feeling tired or weak, not wanting to do things, not being able to concentrate, or feeling slowed down. You may develop fatigue after 2 to 3 weeks of treatment, and it can range from mild to severe. Fatigue will gradually go away after your treatment is done, but it can last for several months.

There are many reasons you may develop fatigue during treatment, including:

- The effects of radiation on your body.
- Traveling to and from your treatments.
- Not having enough restful sleep at night.
- Not eating enough protein and calories.
- Having pain or other symptoms.
- Feeling anxious or depressed.
- Side effects of certain medications.

You may find that your fatigue is worse at certain times of the day.

Ways to manage fatigue

- If you're working and are feeling well, keep doing so. However, working less may help you have more energy.
- Plan your daily activities. Think about the things you need to do or that are most important to you. Do these activities when you have the most energy.
- Plan time to rest or take short (10 to 15 minute) naps during the day, especially when you feel more tired. When you nap, try to sleep for less than 1 hour at a time.
- Try to sleep for 8 or more hours every night. This may be more sleep than you needed before you started radiation therapy.
    - Being active during the day can help you sleep better at night. For example, if you're able to exercise, you can go for a walk, do yoga, or ride

a bike.
    - Relaxing before you go to bed can also help you sleep better at night. For example, you can read a book, work on a jigsaw puzzle, listen to music, or do calming hobbies.
    - You may also find it helpful to go to sleep earlier at night and get up later in the morning.
- Ask family and friends to help you with things like shopping, cooking, and cleaning. Check with your insurance company to see if they cover home care services.
- You may have more energy if you exercise. Ask your doctor if you can do light exercise, such as walking, stretching, or yoga.
- Eat foods and drink liquids that are high in protein and calories.
- Ask your radiation oncologist or nurse for help managing any other side effects you have. Pain, nausea, diarrhea, trouble sleeping, or feeling depressed or anxious can increase your fatigue.

Sexual and reproductive health

You may have concerns about how cancer and your treatment can affect your sex life. You are not radioactive. You can't pass radiation to anyone else. It's safe to be in close contact with others.

You can be sexually active during your radiation therapy, unless your radiation oncologist gives you other instructions. If you or your partner are able to have children, you must use birth control (contraception) to prevent pregnancy during your radiation therapy.

Talking with your radiation oncologist or nurse about your sexual health can be hard, but it's an important conversation to have. They may not bring it up unless you share your questions and concerns. You may feel uncomfortable, but most people in cancer treatment have similar questions. We work hard to make sure everyone in our care feels welcome.

Sexual health programs

MSK offers sexual health programs. These programs can help you manage the ways your cancer or cancer treatment affects your sexual health or fertility. Our specialists can help you address sexual health or fertility issues before, during, or after your radiation therapy.

- To learn about our Female Sexual Medicine & Women's Health Program or to make an appointment, call 646-888-5076.
- To learn about our Male Sexual & Reproductive Medicine Program or to make an appointment, call 646-888-6024.
- To learn about our Cancer and Fertility Program, talk with your healthcare provider.

Other sexual health resources

Read *Sex and Your Cancer Treatment* (www.mskcc.org/pe/sex-cancer-treatment) to learn more about sexual health during cancer treatment.

The American Cancer Society also has information about sexual health issues during cancer treatment. You can find it online at www.cancer.org/cancer/side-effects/sexual-side-effects or call 800-227-2345 to ask for printed information.

Emotional health

Cancer diagnosis and treatment can be very stressful and overwhelming. You may feel:

• Anxious or nervous • Afraid • Alone • Angry	• Depressed • Helpless • Frustrated	• Numb • Uncertain • Worried

You might also worry about telling your employer you have cancer or about paying your medical bills. You may worry about how your family relationships may change, or that the cancer will come back. You may worry about how cancer treatment will affect your body, or if you will still be sexually attractive.

It's normal and OK to worry about all these things. All these kinds of feelings are normal when you or someone you love has a serious illness. We're here to support you.

Ways to cope with your feelings

Talk with others. When people try to protect each other by hiding their feelings, they can feel very alone. Talking can help the people around you know what you're thinking. It might help to talk about your feelings with someone you trust. For example, you can talk with your spouse or partner, close friend, or family member. You can also talk with a chaplain (spiritual advisor), nurse, social worker, or psychologist.

Join a support group. Meeting other people with cancer will give you a chance to talk about your feelings and learn from others. You can learn how other people cope with their cancer and treatment and be reminded you're not alone.

We know that all cancer diagnoses and people with cancer are not the same. We offer support groups for people who share similar diagnoses or identities. For example, you can join a support group for people with breast cancer or for LGBTQ+ people with cancer. Visit www.msk.org/vp to learn about MSK's support groups. You can also talk with your radiation oncologist, nurse, or social worker.

Try relaxation and meditation. These kinds of activities can help you feel relaxed and calm. You might try thinking of yourself in a favorite place. While you do, breathe slowly. Pay attention to each breath or listen to soothing music or sounds. For some people, praying is another way of meditation. Visit www.msk.org/meditations to find guided meditations lead by our Integrative Medicine and Wellness providers.

Exercise. Many people find that light movement, such as walking, biking, yoga, or water aerobics, helps them feel better. Talk with your healthcare provider about types of exercise you can do.

We all have our own way of dealing with tough situations. Often, we do what

worked for us in the past. But sometimes that's not enough. We encourage you to talk with your doctor, nurse, or social worker about your concerns.

After your treatment

Be sure to keep your follow-up appointments with your radiation oncologist. During these appointments, your radiation oncologist will evaluate your response to treatment. You may have blood tests, x-rays, and scans during these visits.

Before each follow-up appointment, write down your questions and concerns. Bring this and a list of all your medications to your appointment. If you're running low on any medication you need, tell your radiation oncologist before you run out. You can also call your radiation oncologist or nurse at any time if you have any questions or concerns.

Things to remember

It's important to keep taking good care of yourself even after your treatment is finished. Here are a few key things to remember:

- Side effects of treatment will slowly go away over 4 to 8 weeks after your treatment is completed. Some side effects may take longer to go away. Keep following the guidelines in the "Side effects of Treatment" section for as long as you have side effects.
- Take special care of your mouth for the rest of your life.
    - Have regular dental follow-up appointments. See your dentist if your denture or appliance isn't fitting well.
    - If you need to have any teeth pulled, have them pulled by a dentist with experience treating people who have had radiation therapy to their head and neck. Call your radiation oncologist for a referral if you need one.
    - Keep using the fluoride toothpaste recommended by your dentist.
    - Avoid sweet, sticky foods. They can increase your risk of developing cavities.
- Eat a healthy, well-balanced diet and take a daily multivitamin, if you choose

to.

  - If you're following a special diet because you have difficulty swallowing, ask your swallowing specialist how to go back to your usual diet.
  - If you're losing weight or can't gain weight, ask your dietitian how to get more protein and calories.
  - Avoid drinking alcohol.
- If you're taking pain medication, ask your nurse for instructions on how to gradually reduce the dose.

When to call your healthcare provider

Call your radiation oncologist or nurse if you have:

- A fever of 100.4° F (38° C) or higher.
- Chills.
- Painful, peeling, blistering, moist, or weepy skin.
- Discomfort in the treated area.
- Nausea or vomiting that keeps you from eating or drinking anything for 24 hours.
- Constipation not relieved by medication.
- Pain not relieved by medication.

Contact information

If you have questions or concerns, contact a member of your radiation therapy team. You can reach them Monday through Friday from 9 a.m. to 5 p.m. at these numbers.

Radiation oncologist: _____
Phone number: _____

Radiation nurse: _____
Phone number: _____

Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

Support services

MSK support services

Counseling Center

www.msk.org/counseling
646-888-0200
Many people find that counseling helps them. Our counseling center offers counseling for individuals, couples, families, and groups. We can also prescribe medicines to help if you feel anxious or depressed. Ask your healthcare provider for a referral or call the number above to make an appointment.

Integrative Medicine and Wellness Service

www.msk.org/integrativemedicine
Our Integrative Medicine and Wellness Service offers many services to complement (go along with) traditional medical care, including music therapy, mind/body therapies, dance and movement therapy, yoga, and touch therapy. Call 646-449-1010 to schedule an appointment for these services.

You can also schedule a consultation with a healthcare provider in the Integrative Medicine and Wellness Service. They will work with you to come up

with a plan for creating a healthy lifestyle and managing side effects. Call 646-608-8550 to make an appointment.

Nutrition Services

www.msk.org/nutrition
212-639-7312
Our Nutrition Service offers nutritional counseling with one of our clinical dietitian nutritionists. Your clinical dietitian nutritionist will talk with you about your eating habits. They can also give advice on what to eat during and after treatment. Ask a member of your care team for a referral or call the number above to make an appointment.

Rehabilitation Services

www.msk.org/rehabilitation
Cancers and cancer treatments can make your body feel weak, stiff, or tight. Some can cause lymphedema (swelling). Our physiatrists (rehabilitation medicine doctors), occupational therapists (OTs), and physical therapists (PTs) can help you get back to your usual activities.

- **Rehabilitation medicine doctors** diagnose and treat problems that affect how you move and do activities. They can design and help coordinate your rehabilitation therapy program, either at MSK or somewhere closer to home. call Rehabilitation Medicine (Physiatry) at 646-888-1929 to learn more.
- An OT can help if you're having trouble doing usual daily activities. For example, they can recommend tools to help make daily tasks easier. A PT can teach you exercises to help build strength and flexibility. Call Rehabilitation Therapy at 646-888-1900 to learn more.

Resources for Life After Cancer (RLAC) Program

646-888-8106
At MSK, care does not end after your treatment. The RLAC Program is for patients and their families who have finished treatment.

This program has many services. We offer seminars, workshops, support groups, and counseling on life after treatment. We can also help with insurance and employment issues.

Sexual Health Programs

Cancer and cancer treatments can affect your sexual health, fertility, or both. MSK's sexual health programs can help you before, during, or after your treatment.

- Our Female Sexual Medicine & Women's Health Program can help with sexual health problems such as premature menopause or fertility issues. Ask a member of your MSK care team for a referral or call 646-888-5076 to learn more.
- Our Male Sexual & Reproductive Medicine Program can help with sexual health problems such as erectile dysfunction (ED). Ask a member of your care team for a referral or call 646-888-6024 to learn more.

Tobacco Treatment Program

www.msk.org/tobacco
212-610-0507
MSK has specialists who can help you quit smoking. Visit our website or call the number above to learn more. You can also ask your nurse about the program.

Virtual Programs

www.msk.org/vp
Our Virtual Programs offer online education and support for patients and caregivers. These are live sessions where you can talk or just listen. You can learn about your diagnosis, what to expect during treatment, and how to prepare for your cancer care.

Sessions are private, free, and led by experts. Visit our website for more information about Virtual Programs or to register.

Radiation therapy support services

American Society for Therapeutic Radiology and Oncology

www.rtanswers.org
800-962-7876
This website has detailed information about treating cancer with radiation. It also has contact information for radiation oncologists in your area.

External support services

There are many other support services to help you before, during, and after your cancer treatment. Some offer support groups and information, while others can help with transportation, lodging (a place to stay), and treatment costs.

For a list of these support services, read *External Support Services* (www.mskcc.org/pe/external-support-services). You can also talk with an MSK social worker by calling 212-639-7020.

Questions to ask your radiation oncologist

Before your appointment, it's helpful to write down questions you want to ask. Examples are listed below. Write down the answers during your appointment so you can review them later.

What kind of radiation therapy will I get?

How many radiation treatments will I get?

What side effects should I expect during my radiation therapy?

Will these side effects go away after I finish my radiation therapy?

What kind of late side effects should I expect after my radiation therapy?

For more resources, visit www.mskcc.org/pe to search our virtual library.

Radiation Therapy to Your Head and Neck - Last updated on June 1, 2026
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