

Radiation Therapy for Head and Neck Cancer

What is Radiation Therapy?

Radiation Therapy (also called radiotherapy) is a type of cancer treatment that uses high doses of radiation to kill cancer cells and stop them from spreading. The type of radiation therapy most often used to treat head and neck cancers is called **external beam radiation therapy**. A machine outside your body, called a **linear accelerator**, will aim a beam of radiation to the area of your cancer. The total amount of radiation you will get is spread out over several weeks.

There are many steps that need to be done before you can start your radiation treatment. This handout will give you information about each step and how you can plan for your treatment.

Who is on the radiation oncology treatment team?

Your radiation oncology treatment team includes a radiation oncologist, medical radiation physicist and dosimetrist, radiation therapists and nurses. Your radiation oncologist (a doctor who specializes in radiation therapy) will develop and order your radiation treatment. Your medical radiation physicist and dosimetrist work with your doctor to plan how your treatment will be done. Radiation therapists and nurses care for you during your treatments.

What will happen at my first appointment?

During your first appointment with your radiation oncologist your doctor will talk with you about your cancer diagnosis, what treatment is best for you and what to expect during radiation therapy. You will **not** have a treatment at your first appointment. You will be scheduled to come back for a treatment planning appointment.

This handout is for informational purposes only. Talk with your doctor or health care team if you have any questions about your care.

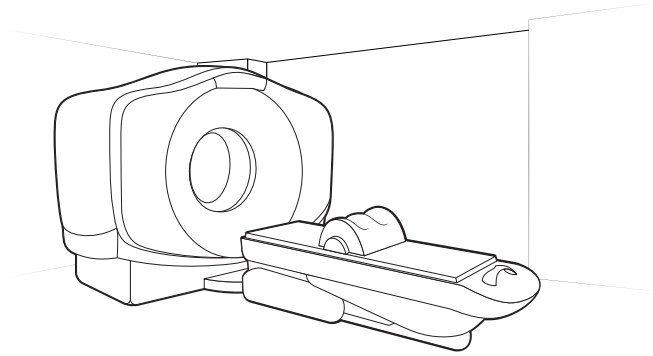
Why do I need to see a dentist before I start radiation therapy?

You will need to see a dentist before you start your treatment. The dentist will check your teeth for any problems and will do dental work if needed. This will help make sure your mouth is healthy before you start radiation therapy. Radiation therapy can increase your risk of tooth decay.

What will happen at my treatment planning appointment?

At your treatment planning appointment, your treatment team will work together to take measurements of your body and determine the positions that are best for your radiation treatment. You will not have radiation treatment at this appointment.

A CT scan, also called a **CT simulation**, will be used to locate the area of your body that needs to be treated. If contrast dye is used, a member of your health care team will place an intravenous (IV) catheter. An IV catheter is a long, thin, flexible tube that is placed in a vein, most often in your arm or hand.

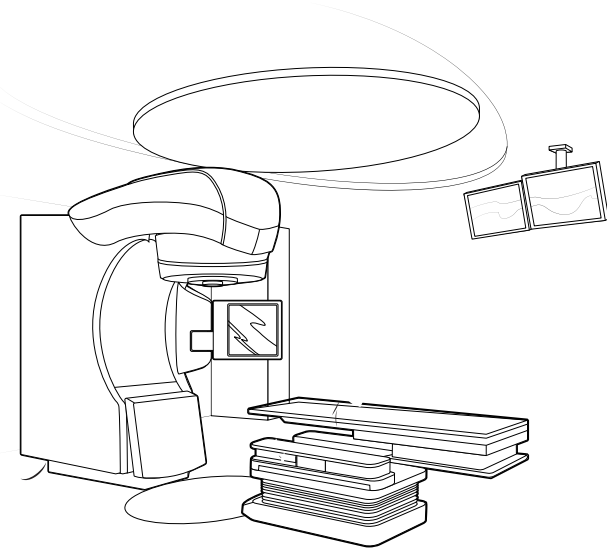


During the planning, a face mask will be made to fit your face and neck. The mask is made of moldable mesh plastic. It has many air holes so you can see and breathe. You will wear the mask for each treatment. The mask will be attached to the table when you lie down for your treatment. The mask helps to keep your head and shoulders from moving, so that your treatment is given to the same exact location every time.

At this appointment, you will also meet with a nurse to talk about your care during your radiation treatments. Before you leave, a team member will talk with you about parking and the check-in process for your next appointment. You will be given a radiation check-in wristband to wear to your future appointments.

When will I start radiation treatments?

After your CT simulation, a member of your radiation oncology treatment team will talk with you about when your radiation treatments will begin. It can take 1 to 2 weeks for your treatment plan to be completed. Your treatment schedule will depend on what is ordered by your doctor. You will be scheduled for a **verification simulation**, also called a “**dry run**” appointment before your radiation treatments can begin.



What will happen at my dry run appointment?

At your dry run appointment, you will be in a radiation treatment room with a **linear accelerator**.

Your radiation oncology treatment team will use the face mask from your CT simulation to position you on the machine and take images of your body. Your doctor will decide if you can have your first radiation treatment at this appointment.

What will happen on my first day of radiation treatment?

A radiation therapist will take you to the treatment room and help position you on the linear accelerator.

Before your radiation begins, all members of your treatment team will leave the treatment room. A TV monitor and intercom lets your radiation oncology treatment team see and hear you during your treatment.

Before your treatment, radiation therapists will take images of your body to make sure you are in the correct position. The linear accelerator will move around your body to aim radiation from different directions. It is important to hold still during your treatment. Try to relax and breathe normal. Most treatments take about 20 minutes. You will not see or feel anything during your treatment, but you may hear a buzzing sound from the machine. It may help to listen to music during your treatment.

How long does radiation therapy take to work?

Radiation therapy attacks the cancer cells right away and the cells will keep dying for weeks and months after your treatment.

Will I be radioactive?

No, external beam radiation therapy will not make you radioactive. You are safe to be around other people.

What are common short-term side effects from radiation therapy to the head and neck?

- Radiation therapy may also damage healthy cells near your tumor. This may cause side effects. Common short-term side effects include:
 - ▶ Fatigue
 - ▶ Dry mouth and thick saliva
 - ▶ Taste changes, including complete loss of taste
 - ▶ Sores in your mouth and throat (mucositis)
 - ▶ Pain with swallowing or difficulty swallowing
 - ▶ Skin changes such as redness, soreness, dryness, peeling and sun sensitivity
 - ▶ Hair loss in the treatment area
 - ▶ Voice changes
 - ▶ Hearing problems
 - ▶ Nausea or vomiting due to thick saliva
- Side effects can happen 2 to 3 weeks after your treatment starts and are different for each person. It is hard to know how long or how bad side effects may affect you.
- Side effects often slowly get worse during treatment and for 1 to 2 weeks after your radiation therapy is done.
- You will see your radiation oncologist and a nurse at least 1 time each week during your treatment. It is important to talk with your doctor or nurse about your side effects and how you feel.
- It can take several weeks to months, or longer, for your side effects to improve or go away.
- For more information about how to manage side effects, read the symptom management section of your patient education binder.

What happens after my treatment is done?

After you complete your treatment, it is important to keep your follow-up appointments with your radiation oncologist. At these appointments, you will be asked about any side effects that you may have. You may also have imaging tests done.

What else should I know about radiation treatment?

- If you are a smoker, the most important thing that you can do to help improve your recovery is to **quit smoking**. Ask your doctor or nurse for information about programs that can help you quit.
- **Do not miss any of your appointments.** Each missed treatment lowers the chance for your radiation therapy to be successful.
- It is important to exercise and stay as active as possible. Plan for rest periods before and after activities.
- Drink 8 to 10 cups of non-caffeinated fluids each day to stay hydrated and eat a high-calorie, high-protein diet.
- **Do not get pregnant** while you are getting radiation therapy and for about 6 to 12 months after your treatment has ended. This could put an unborn baby at risk for a genetic problem. Talk with your doctor about what birth control you can use.

For more information on Radiation Therapy, we encourage you to visit our video library at <http://cancer.osu.edu/patientedvideos>.