Radiation Therapy for Head and Neck Cancer



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How does radiation therapy work?

This form of therapy uses high-energy X-rays to kill cancer cells. Radiation therapy can be used alone for head and neck cancer treatment or in conjunction with chemotherapy and surgery. Radiation therapy can be used to shrink a tumor before surgery so that a smaller operation can be done or to get rid of any cancer cells that are left after surgery. Radiation may also be used if the cancer comes back after initial treatment.

How do you determine if radiation is the best option for me?

Treatment choices depend on these factors:

- Type, size and location of the cancer
- Results of lab tests
- Extent of the disease, called the stage
- Status of your health
- Your age
- · Your personal concerns and preferences

How is radiation therapy performed?

Before starting treatment, you will be scheduled for a planning session. During this session, the best position for treatment for your specific situation will be established. This is often lying down on your back with a plastic mesh mask, which you can see and breathe through. A CT scan will then be performed so that radiation planning can be tailored to your specific tumor and anatomy. The mask will be marked and you may also be marked on the skin with permanent, freckle-like tattoos. Over the next several days, a treatment plan will be developed.

Once treatment begins, each day you will be escorted into the treatment room and positioned on a table under the radiation machine. The mask will be placed over your head. Your radiation therapist will then leave the room and start treatment; however, you will be under observation and can communicate with your therapist via intercom.

External radiation therapy is painless. The treatment machine does not touch you, and it lasts only a few minutes.

What are the side effects of radiation therapy?

Radiation affects all cells that are in the radiation field, normal ones as well as cancer cells. That means you may have side effects. What they are and how strong they are depends on the dose, whether you are also receiving chemotherapy and the location of the tumor on your head or neck.

These are common side effects of radiation:

- Fatigue
- Skin redness of the neck and face
- Mouth sores
- Difficulty swallowing
- Dry mouth
- Loss of appetite
- Dental problems
- Thyroid problems
- Weight loss

- Hair loss (most likely at the lower back part of your hairline)
- Nausea

Improvements in radiation treatment may reduce side effects. For instance, intensity modulated radiation therapy (IMRT) precisely targets the area to be radiated, and helps preserve nearby healthy tissue.

What should I eat following radiation therapy?

You may experience mouth soreness following treatment. If so, be careful to choose foods that are moist and soft, such as cooked cereals, mashed potatoes, and scrambled eggs, which are easier to chew and to swallow. Eat slowly, take small bites, and sip liquids while you eat. Food can be softened with gravy, sauce, broth, yogurt, milk or other liquids. Because your mouth may be particularly sensitive during this time, your food should be eaten warm or at room temperature. Because swallowing can temporarily be difficult during radiation therapy, your physicians may suggest that you have a feeding tube placed to ensure that you receive adequate nutrition during your treatments.

What to avoid:

- Anything sharp, crunchy or too hot
- Spicy foods
- Highly acidic foods (tomatoes, red sauce, oranges, lemons and grapefruits)
- Toothpicks or other sharp objects
- All tobacco products, including cigarettes, pipes, cigars and chewing tobacco
- Alcohol

• Foods and drinks that are high in sugar (such as regular soda, gum, and candy), which can cause tooth decay

Are there any steps I need to take to protect my teeth?

Before getting radiation therapy to your head or neck, visit your dentist for an examination and any necessary dental work. Your physician will require that you get a special note from your dentist stating that your teeth are healthy enough to undergo radiation therapy. While getting radiation therapy, check your mouth daily to catch problems such as sores, white patches or infection as soon as they occur.

It's also important to keep your mouth moist. You can do this by sipping water throughout the day, sucking on ice chips or sugar-free hard candy, or chewing sugar free gum. Keep your mouth, teeth, gums and tongue clean by brushing them lightly with an extra-soft bristle brush and fluoride toothpaste after every meal and at bedtime. Water can help soften the bristles of your toothbrush. Avoid mouthwashes containing alcohol. Instead, mix together 1/4 teaspoon baking soda and 1/8 teaspoon salt in 1 cup of warm water, and rinse with that every 1-2 hours. Gently floss every day. If your gums bleed or hurt, avoid those areas but floss your other teeth.

Steps denture wearers should take:

- Make sure your dentures fit well, and limit how long you wear them each day.
- If you lose weight, your dentist may need to adjust them.
- Keep them clean by soaking or brushing them each day.

The Comprehensive Cancer Center's Radiation Oncology Services at Rhode Island Hospital includes pioneering physicians, unique and sophisticated technology, and experienced staff. Ours is the only hospital-based radiation oncology program in the state.

Using an array of advanced technologies, the department of radiation oncology has a proven record of superior outcomes for patients who have been diagnosed with common and uncommon cancers of every anatomical site.

Our multidisciplinary team works together to provide integrated, streamlined care for every patient.

Team members include:

- Physicians
- Medical physicists
- Dosimetrists
- Radiation therapists
- Nurses
- Nutritionists
- Social workers

Our program works within the Comprehensive Cancer Center's multidisciplinary services to meet all of our patients' needs. We encourage patients to use free services such as patient navigation, clinical social work and complementary therapies.

As a critical member of your treatment team, it is important that you are informed and feel comfortable with your care plan. If you have any questions, please do not hesitate to ask. You can reach us at 401-444-8311.