

When you return to begin your treatments, you will meet the radiation therapists who deliver your daily treatments. Treatments are scheduled Monday through Friday. The exact number of treatments will be determined by your physician and is designed to best meet your specific treatment needs.

Radiation therapy is closed for certain holidays, and you will be notified if a holiday occurs during your course of treatment. Due to the number of patients under treatment and emergency hospital patients, there can be delays in the time of your daily treatment. We appreciate your patience.

Side Effects

At your initial consultation, your radiation physician reviewed the anticipated results and side effects of the radiation plan determined to best fit your needs. This handout is to acquaint you with some of the most common side effects that can occur because of your treatment. It will also explain some of the things that can be done to help manage these side effects.

It is important to remember that most people do not experience all of the side effects mentioned here. Please keep us informed of your particular needs so that appropriate recommendations can be provided for you.

Sore Throat/Difficulty Swallowing

Often with radiation treatments to the chest, the esophagus (food tube) is within the radiation field. This causes inflammation of the lining, resulting in a variety of symptoms:

- Symptoms generally begin after 2 weeks of treatment. These may be sooner or more severe if chemotherapy is used together in your care.
- Symptoms can vary greatly:
 - Some patients may notice a sensation of a lump in the throat.
 - Some patients will progress to a sore throat with pain on swallowing.
 - Discomfort can progress, resulting in difficulty swallowing foods and fluids.
- Symptoms are temporary and will resolve slowly after treatment is completed.

Some dietary changes that may minimize this discomfort are:

- Eat foods that are soft and moist. They can be swallowed more comfortably than those that are firm, rough-textured, and/or dry.
- Eat smaller amounts at more frequent intervals.
- Avoid highly seasoned foods, acidic foods, and foods that are very hot or very cold.
- Avoid alcoholic beverages and cigarettes, as they may result in dryness and irritation of your throat.
- Avoid carbonated beverages.
- Use liquid antacids, such as Mylanta or Maalox, for tightness and/or burning with swallowing.

It is most important to avoid dehydration. Please keep a record of the type and amount of fluids that you consume for our clinical staff to review with you. Please report any symptoms of dehydration to our clinical staff (lightheadedness on standing, lower blood pressure, etc.).

Loss of Appetite

Radiation to the abdomen can result in decreased appetite or an earlier sense of filling when eating. Contributing symptoms to loss of appetite can include pain, nausea, vomiting, difficulty swallowing, or constipation. Please report these symptoms to our clinical staff so that recommendations can be made for you.

Some recommendations to help with loss of appetite include the following:

- Consume small, frequent meals.
- Eat whenever hungry.
- Consume calorie-dense foods (shakes, creamed soups, puddings, cereals, cheese, fish, chicken, or commercial supplements).
- Have ready-to-eat snacks available, including supplements.
- Avoid concentrated food odors, if possible.

We do recommend that you keep a food diary so that you can be better counseled regarding your nutritional situation. We would be glad to provide you with information about commercially available supplements.

Nausea

Some patients worry about becoming nauseated from radiation. You may experience some nausea, depending on the volume and location of your treatment field. General points about nausea include:

- Many patients do not experience any nausea symptoms.
- Nausea usually occurs 1 to 2 hours after treatment and may last 4 to 6 hours.
- Nausea can occur after the first treatment.
- Nausea may persist or become less intense as treatment proceeds.

Should you experience nausea, please inform our clinical staff so that medications can be prescribed for you.

There are other factors that may be directly causing or contributing to nausea:

- Medications (i.e., pain medications, antibiotics)
- Chemotherapy agents
- Constipation
- Poorly controlled pain
- Imbalance of electrolytes from vomiting.

If our clinical staff feels you are at significant risk for nausea, a prophylactic nausea medication will be prescribed. This should be taken approximately 1 hour before arriving for your radiation treatment.

Our staff will also discuss dietary modifications to help you control symptoms.

Please report any symptoms of dehydration to us (lightheadedness on standing, lower blood pressure, etc.).

Heartburn

When the stomach or distal esophagus (food tube) are within the treatment volume, patients may experience stomach pain or heartburn symptoms. This normally occurs 2 to 3 weeks after the start of radiation and may occur sooner if you are also receiving chemotherapy.

Please report stomach pains/discomfort or pain with swallowing foods or fluids to our clinical staff so dietary and/or medication recommendations can be made for you.

Increased Gas

Radiation treatments directed to the abdominal area cause some irritation of the bowels, which may result in problems with gas, a feeling of fullness in the stomach, and some bloating. If these symptoms occur, our clinical staff may suggest some changes in your diet or recommend a medication for relief.

Diarrhea

If there are significant volumes of small bowel in your treatment field, patients can experience a temporary decrease in absorptive capacity. Diarrhea can occur as a result of malabsorption of fat, carbohydrate, and protein. Radiation also increases the motility of bowel, thereby forcing the small intestine to pass contents at a rapid rate. General principles about radiation-induced diarrhea include the following:

- Diarrhea may begin as early as the third week of treatment.
- Symptoms may occur earlier and be more significant if you are receiving chemotherapy.
- Our clinical staff will recommend dietary modifications to help control your symptoms (low fiber, low residue, low lactose). We may suggest bulking agents to bulk the stools and absorb excess fluid within the bowel.
- Patients may experience local irritation from frequent bowel movements. We recommend that you pat dry when wiping and use sitz baths to help with comfort.
- Please record the number and consistency of bowel movements per day so that we can better instruct you on management.
- Our clinical staff will instruct you on medications appropriate for your situation.

Skin Reactions

Significant skin reactions with abdominal radiation are unusual. Our clinical staff will monitor and direct you regarding proper treatment for any skin reaction.

Fatigue

Fatigue is a common experience in patients with cancer. It is believed that this results from a combination of factors, including: 1) your body's effort to reserve energy for healing; 2) your body's effort to process the waste products from the cancer cells killed from treatment; 3) anemia related to cancer treatments; 4) the act of going to radiation treatments 5 times a week.

Fatigue may occur around the second or third week of radiation and can persist up to 3 months after the completion of treatment.

Strategies you can use to reduce energy expenditure:

- Planning/scheduling activities (e.g., spreading chores over the course of the week; planning to take a nap in the afternoon).
- Decreasing non-essential activities, such as cleaning, cooking, or socializing.
- Increasing dependence on others (allowing family members or friends to assist in housework, childcare, and shopping).

Other activities that patients have reported helpful in reducing their fatigue during treatment include:

- Walking/light exercise
- Distractions (gardening, listening to music)
- Balancing pleasurable activities with work activities

Blood Counts

If you are receiving chemotherapy during your radiation treatments, your medical oncologist will be checking your blood counts periodically during your treatment.

NOTE: Please inform our clinical staff if your chemotherapy is being held due to low blood counts.

While Receiving Radiation

You will have scheduled visits with our clinical staff at least one time per week during treatment. We will be assessing your progress and making recommendations to you on changes in your care program as needed. Our clinical staff will be available at any time if you have questions or concerns that need to be addressed between these scheduled weekly visits.