

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.

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.

Bladder Irritation

Radiation therapy to the pelvis may result in irritation to the lining of the bladder.

- Common symptoms include pain with urination, urgency, hesitancy, increased nighttime urination, and an increase in urinary frequency.
- Bladder capacity may be reduced slightly because of bladder irritability.
- We do recommend that you maintain adequate fluid intake (at least 1 liter or 4 8oz glasses of water per day); this may decrease symptoms by diluting the urine.
- It is recommended that you avoid caffeine (coffee, tea, colas) and alcohol.
- Limiting fluid intake in the evening may decrease the need for nighttime urination.
- Our clinical staff can provide you with a list of foods that generally result in increased bladder irritation.
- Our clinical staff will make specific medication recommendations for control of your symptoms during treatment.
- Bladder symptoms mimic those of a bladder infection. Please report any fever or blood in the urine. Our clinical staff may order a urine analysis/culture if needed.
- Most acute symptoms resolve 2 to 6 weeks after completing your treatments.

Proctitis/Anal Pain

During radiation treatment, you may experience symptoms of inflammation in the low rectum or anal area. This is especially common in patients with known hemorrhoids who experience significant diarrhea.

Common symptoms of inflammation in the rectum include:

- a persistent sensation of feeling like moving your bowels
- burning pain or mild bleeding with bowel movements
- passage of mucus.

Interventions that patients have reported helpful in reducing their symptoms during treatment include:

- sitz baths (bathtub soaks in soothing warm water; the water temperature should be comfortable to touch)
- use of your regular hemorrhoid medications
- keeping stools soft to avoid further irritation
- cleansing with medicated wipes (baby wipes) after bowel movements.

Please inform our clinical staff of any rectal symptoms you are experiencing so appropriate recommendations may be made for your situation.

Nutrition

Maintaining your weight is a very important part of your treatment program. Eating well helps maintain your strength and energy and provides building blocks for repair of normal tissues. You will feel better and, thus, be more able to cope with your therapy and possible side effects. If you are having difficulty eating, please inform our clinical staff so appropriate recommendations may be provided for you.

Skin Reactions

Significant skin reactions with abdominopelvic 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

Because of the large volume of your treatment, we may check your blood counts periodically during your treatment.

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

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

Fertility and Sexuality

If you or your sexual partner are premenopausal, it is important to use birth control throughout treatment. As a long-term side effect of your treatment, your fertility may be affected. Please talk with your radiation physician about fertility concerns you might have.

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.