



Radiation to the Abdomen

What you should know

This handout describes the most common side effects from radiation to the abdomen.

It also includes guidelines that describe what you can do to treat or cope with these side effects, and what symptoms to tell your doctor or nurse about.

Your Radiation Treatment

Radiation therapy is a local treatment that focuses on killing cancer cells and reducing the size of tumors. Both normal cells and tumor cells within the treated area can be damaged during radiation. Normal cells, such as skin cells and mucous membranes, can repair themselves when treatment is over. Damaged tumor cells cannot repair themselves.

You will have radiation treatments 5 days a week, Monday through Friday, until the desired dose is reached. It is important to come for all of your treatments.

General Side Effects

The most common side effects of radiation to the abdomen are:

- Nausea, upset stomach
- Diarrhea
- Stomach and swallowing discomfort
- Fatigue
- Difficulty with urination
- Skin reactions

Side effects vary from patient to patient and depend on which area of your abdomen is being treated. Most side effects will go away 2 to 4 weeks after your treatment is finished.

Please tell your doctor or nurse about your symptoms. We will try to figure out why they are happening and will help you find ways to prevent or lessen them.

Nausea, Upset Stomach

Nausea may occur during radiation treatment if a large amount of your small bowel, stomach, or liver is in the area that is radiated. Your doctor may prescribe medicine for you to take 30 to 60 minutes before treatment each day to prevent nausea. Also, radiation combined with chemotherapy may cause nausea, vomiting, or even loss of appetite.

Our clinic dietitian can help you find foods that will work for you.

What You Can Do

To help prevent nausea, you can also:

- Try dry foods, such as toast or crackers.
- Eat small amounts at a time, and eat more often.
- Avoid fatty or fried foods.
- Avoid drinking liquids with meals.

Diarrhea

The radiation that passes through your intestines can irritate the mucous membranes that line your intestines. The food that passes through these areas is not completely digested and absorbed. This can cause cramps and diarrhea. This side effect builds over time, and it may not start until 2 or 3 weeks into your treatment.

What You Can Do

- Eat soft, smooth, and moist foods to avoid irritating mucous membranes. Eat fruits and vegetables that have been peeled and cooked. Try applesauce and canned fruits and vegetables.
- Drink plenty of liquids to replace lost fluids, to avoid becoming dehydrated and to soothe irritated tissues. Good choices are Kool-Aid, popsicles, Jell-O, water, juices (**not** orange, apple, or grapefruit), soups, Gatorade, or any liquid that you enjoy.
- Eat warm or room-temperature foods. Very hot or very cold foods tend to speed up the movement of foods in your intestines, and this can cause diarrhea.
- Eat small amounts of food at a time, and eat more often.
- Eat potassium-rich foods to replace potassium lost with diarrhea. Some of these foods are bananas, peaches, watermelon, potatoes, fish, and meat.

What to Avoid

- High-fiber foods such as legumes, broccoli, corn, onions, popcorn, nuts, and whole-grain products
- Spicy foods
- Gas-producing foods like carbonated beverages or cabbage
- Fried and greasy foods, and other high-fat foods
- Milk or milk products, if they irritate your bowels

There are medicines to control diarrhea. Please talk with your doctor or nurse before using them.

Stomach and Swallowing Discomfort

Your stomach may feel full if the mucous membranes that line your *esophagus* are irritated by radiation. Your esophagus is the tube that carries food from your mouth to your stomach. Also, swallowing may be painful. You may feel like you have a “lump” in your throat. Your doctor can prescribe medicines to ease these symptoms, if needed.

What You Can Do

These tips might also help:

- Choose soft, smooth, moist foods. Cold foods may feel better than warm or hot foods. Avoid foods and drinks that are spicy and contain acid, such as hot sauce, orange juice, and others.
- Carry a water bottle with you and sip cool liquids throughout the day. Fluids soothe irritated tissue.

Eating healthy foods and staying hydrated is important. Your doctor or dietitian may advise nutritional supplements. And, our clinic dietitian can help you find foods that appeal to you.

Fatigue

During radiation therapy, your body uses a lot of energy. Stress related to your illness, daily trips for treatment, and the effects of radiation on normal cells can all make you more fatigued.

Fatigue varies with each person. It often begins in the first 2 weeks of treatment, and it can increase as you receive more radiation.

What You Can Do

When you start treatment, weekend breaks usually provide enough time to recover. If needed, take naps, go to bed earlier, or sleep in later.

Mild activity and gentle exercise can help decrease fatigue. Pace your activities. Plan rest periods to help avoid getting too tired. Keep as normal a schedule as possible.

Accept offers of help to clean your house, shop, or cook, if needed. If you live alone and are too tired to cook full meals, try some of the healthy frozen meals available, or consider using a community service that delivers meals, such as Meals on Wheels.

Fatigue will go away slowly after your treatment is over.

Difficulty with Urination

You may have some difficulty with urination. This is called *dysuria*. The symptoms of dysuria are increased frequency or urgency, or burning, stinging pain when you urinate. Rarely, some patients with dysuria have urine odor changes, blood in their urine, or difficulty starting urination. Please tell your doctor or nurse if you have any of these symptoms.

What You Can Do

- Drink liquids throughout the day to stay hydrated.
- Ask your doctor or nurse about medicines to soothe irritated tissues, if needed.

Skin Reactions

You may have skin reactions from radiation treatment because radiation beams pass through your skin to reach the tumor. Skin reactions depend on the amount of radiation you are receiving. It may take 3 to 4 weeks before your skin is affected.

Skin reactions include:

- Dryness
- Increased redness
- Itching
- Flaking skin
- Blistering or skin breakdown

What You Can Do

Special care of your skin in the treatment area helps. Try to:

- **Use mild soaps.** These include Ivory, Neutrogena, Dove Sensitive Skin, or other soaps without perfumes or conditioners. Avoid using lotions or perfumes on your skin within the treatment field.

Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns. UWMC clinic staff are also available to help.

Radiation Oncology:
206-598-4100

After hours and on weekends and holidays, call 206-598-6190 and ask for the Radiation Oncology resident on call to be paged.

- **Minimize chafing.** Choose clothing that is loose and soft. Avoid fabrics that irritate your skin, tight waistbands, and clothing that fits tightly in any part of the treatment field.
- **Watch skin folds.** Watch areas that fold over on each other, such as under stomach pouches or breast tissue, or in groin areas. The skin in these areas can be warm and moist, which makes it more easily irritated by radiation.
- **Please use only the skin care products your provider gives you for reducing skin irritation.** Follow your provider's directions for using these. Using other products may cause skin irritation to get worse.

Side Effects by Treatment Area

These side effects are listed by the specific treatment area. Your doctor will talk with you about side effects that may occur depending on where you are receiving radiation. Effects on any nearby organs will also be discussed.

Treatment Area	Nearby Organs	Possible Side Effects
Upper abdomen	Liver, gallbladder, stomach, kidneys, large intestine, small intestine, pancreas, and spleen	<ul style="list-style-type: none"> • Nausea • Stomach upset • Diarrhea
Lower abdomen	Small intestine, large intestine, ureters (tubes that carry urine from your kidneys to your bladder), appendix, and urinary bladder	<ul style="list-style-type: none"> • Diarrhea or loose bowel movements • Frequent, urgent, or painful urination, called <i>dysuria</i>

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