

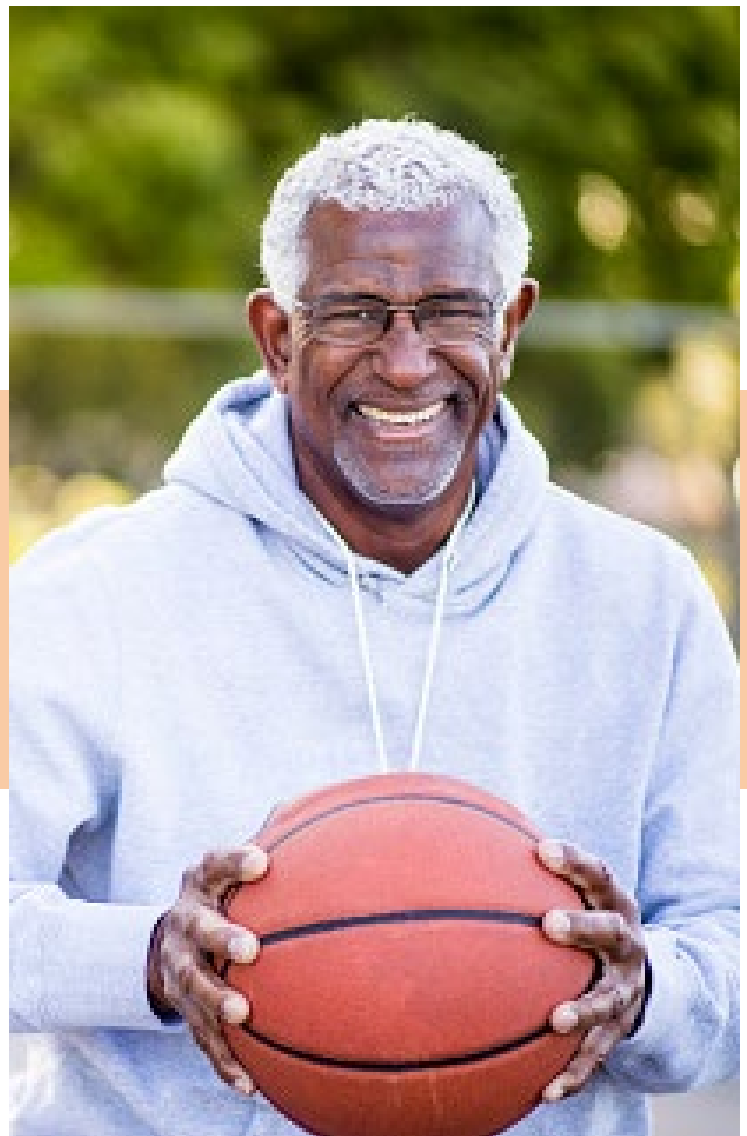
Urinary Problems after Radiation

Radiation treatment can result in side effects with urination.

While most men will not have any of these problems, some men will experience issues with urination. These temporary effects can happen during or immediately after the radiation treatments or months to years later.

The most common urinary problems after radiation treatment for prostate cancer include:

- The need to pass urine more often (frequency).
- A feeling that you can't "hold it" and must rush to the bathroom (urgency).
- Incontinence (urine leakage).
- A hard time starting the urine stream.
- Blood in the urine.
- Burning sensation with urination.



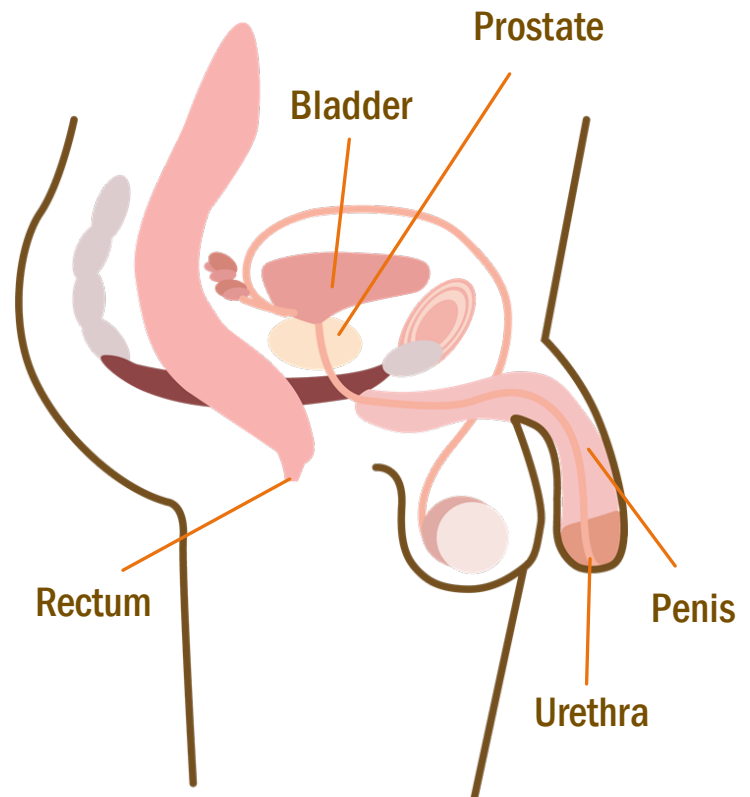
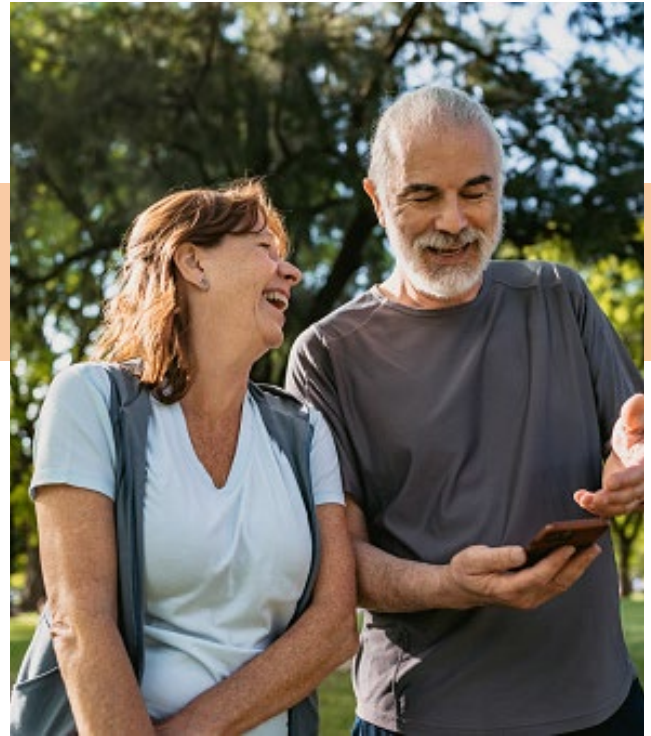
How does radiation treatment cause urinary problems?

Radiation can damage the cells.

While radiation kills cancer cells, it can also affect the surrounding normal cells, including the bladder and the urethra (u-REE-thra). The bladder is a muscular organ that stores the urine made by the kidneys and the urethra is the tube that carries urine from the bladder outside the body through the penis. If radiation affects the bladder or the urethra, problems with urination can result.

Most men heal quickly.

Not all men develop these problems and those that do often have them go away within weeks of completing radiation treatment. Sometimes problems can continue for months or even years after completing radiation treatment. Some men may continue to have a hard time passing urine, notice blood in the urine, or have a continued sensation that they need to pass urine even after emptying their bladder.



How can I manage urinary problems after radiation treatment?

Urinary symptoms can often be managed without the need for medication. Some suggestions include avoiding food, drinks, and drugs that can irritate or bother your bladder including:



Spicy foods for example, foods with pepper, curry, or hot chili.



Caffeine found in coffee, tea, colas, energy drinks, and hot chocolate. You may be able to drink small amounts without problems.



Alcohol and bubbly (carbonated) drinks.



Tobacco: Cigarettes, pipe, and chewing tobacco. If you need help to quit tobacco, ask your healthcare team.

Lose extra weight. Extra fat can push on your bladder and make you feel like you need to pass urine more often. Men with increased abdominal obesity are also more likely to have trouble with incontinence. If you need help losing weight, ask your healthcare team.

Take steps to avoid a bladder infection:



Pass urine often. When you feel the need to go, listen to your bladder and go!



Drink lots of fluids. Choose mostly water or clear liquids, about 8 to 10 glasses a day. This will dilute your urine and lower your chance for infection. Staying well hydrated is the best thing most men can do to promote healthy urinary function. However, if you have heart or kidney problems, be sure to ask your doctor or nurse how much you can drink. Drinking too many fluids may put additional strain on your heart.

Ask your doctor or nurse if there are medicines you could take for your urine problems.



Try these tips:

- 1. If you have a hard time starting to urinate,** run the water in the sink or sit in a bathtub of warm water as you try to start the urine stream.
- 2. If you leak urine,** use pads in your underwear to absorb the urine.
- 3. Kegel exercise program.** The goal of Kegel exercises is to strengthen the muscles that control urine flow (see Kegel Exercises Program at the end of this guide). These exercises are particularly good for reducing urinary incontinence but may also help with other bothersome symptoms. Check with your doctor before beginning your Kegel Exercise Program.



Ask your doctor or nurse if there are medicines you could take for your urine problems. The medications listed below require provider input and advice.

Phenazopyridine (Pyridium) may help you with pain and burning but should only be taken for a few days at a time. This medication can cause your urine to temporarily change to an orange color, which can stain clothing, but can be helpful especially when undergoing radiation treatment. There are many over-the-counter medicines, such as AZO, that also can be used for these symptoms.

Oxybutinin (Ditropan) or **Tolteradine** (Detrol) or some other bladder medicines may help with urinating too often (frequency), urinary urgency, and with leaking. There are several prescription drugs in this category, and your doctor can help find the right one for you given your health status and health insurance.

Prostate medicines, such as **Tamsulosin** (Flomax), **Silodosin** (Rapaflo), **Alfuzosin** (Uroxatral), **Terazosin** (Hytrin), and **Doxazosin** (Cardura) may make it easier for you to urinate by relaxing the muscle of the prostate and opening the channel through which the urine flows. These medicines should be used with caution if you have issues with your heart or blood pressure, as they can cause lower blood pressure with the initial few doses.

Other prostate medicines, such as **Finasteride** (Proscar) and **Dutasteride** (Avodart) can shrink your prostate. Finasteride may decrease the blood in your urine if the blood is coming from the prostate. Sometimes bleeding comes from the bladder which may require other treatments.

Strengthening Muscles That Control Urine Flow

Kegel exercise program.

The goal of Kegel exercises is to help you strengthen the muscles that control urine flow. This means you may have better control and regain it sooner.

Check with your doctor before beginning your Kegel program. Many feel that beginning to learn these pelvic floor exercises is a great idea even before surgery. Most urologists will also advise against doing them just after surgery (while the catheter is in), but they can be resumed one to two weeks afterward.

To begin, find the right muscles to strengthen. They are between your scrotum (that contains your testicles or balls) and anus (opening for bowel movements). You'll know which ones they are by trying to stop your urine in midstream and counting to three. These are the muscles you tighten when you don't want to leak urine while laughing hard or if you try to prevent yourself from passing gas. When you squeeze or tighten the muscles, think of it as pulling your muscles up and in. You don't want to be pushing out or bearing down.

Set up practice times. You can tighten and release these muscles without anyone knowing. So, you can do them while watching TV, reading, waiting at a red light, or any other time. Remember to exhale when you tighten your muscles and don't overdo it.

A practice session lasts about five minutes. As you get better with Kegels, find three or four times during the day to practice.

Do both Long and Short Kegel exercises. See the directions below for how to include both Long and Short Kegel exercises. Start your session with Long Kegels. Build up to tightening your muscles for 10 seconds. When you can't hold your muscles tight for 10 seconds any longer, switch to Short Kegels.

Start slowly and build up. How strongly you tighten the muscles is more important than how many times you do it. Over time, you'll be able to tighten your muscles for a longer time and do more repetitions.





Directions for Long Kegels (start practice sessions with these):

1. Tighten the muscles between your scrotum and anus for three to five seconds. Then, *relax* the muscles for three to five seconds.
2. Repeat this pattern 10 times.
3. Your goal is to work up to tightening the muscles for 10 seconds, followed by relaxing for 10 seconds. It may take several weeks or longer to be able to do this.
4. When you're tired, rest for 30 seconds, and then switch to Short Kegels.

Directions for Short Kegels:

1. Tighten your muscles for one second and then relax them for one second. Repeat this pattern five times.
2. Rest for 10 seconds.
3. Repeat steps 1 and 2 a total of five times.
4. You may want to keep track of your exercises on the Kegel log sheet on the next page.

Kegel Exercise Record

Use this sheet to record one week of Kegel exercises. You should practice three to four times each day. There is space to record the number of muscle squeezes you do, twice in the morning and twice in the afternoon/evening. You may print the sheet as needed.

Date	Time AM	Time PM	Long Kegels # of squeezes held between 3-10 secs	Short Kegels # of 5 one-second squeezes



When should I see or call my doctor or nurse?

Call or talk with your doctor or nurse if:



If you have any signs of an infection: urinating often, needing to urinate right away, pain or burning with urination, blood or pus in your urine, dull aching back pain, or fever.



You are not able to urinate for 12 hours.

This guide contains general information and is not meant to replace consultation with your doctor or nurse.

This information was developed under guidance of the Michigan Cancer Consortium. Their effort was supported by Cooperative Agreement NU58DP006334 from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention.

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