

Low-Dose Brachytherapy for Prostate Cancer

What is it?

Brachytherapy [brake-ee-THER-uh-pee] is a precise way to use radiation for cancer treatment. Because your doctor can place the radiation inside the cancer or right next to it, brachytherapy can limit radiation effects on the rest of your body.

With low-dose brachytherapy for prostate cancer, a doctor places dozens of tiny implants called “seeds” in the prostate. The seeds are placed in a same-day surgery, using tiny needles. The seeds give off a continuous, low dose of radiation to destroy cancer cells. The seeds become less and less radioactive over time. Eventually, they don’t give off any radiation at all. The seeds remain in the prostate.

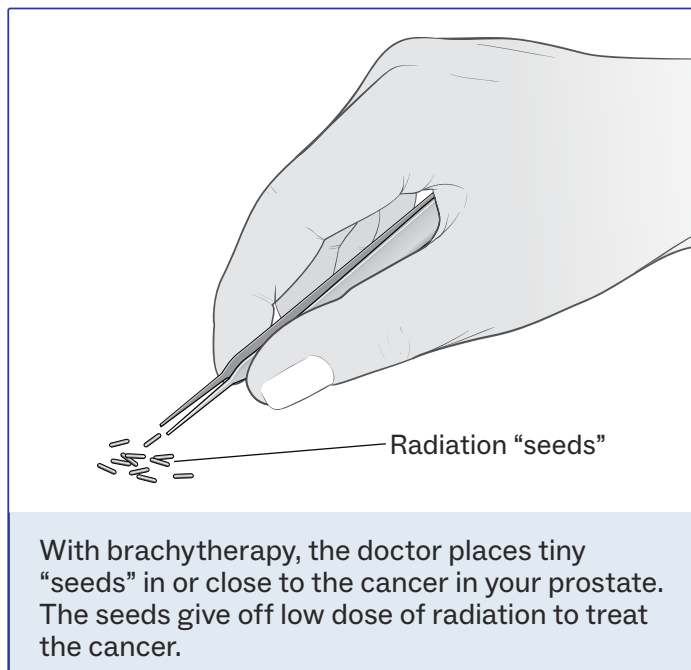
What happens before treatment?

You will have 2 pre-surgery visits. In the first visit, you will:

- Meet with the **radiation oncologist** (a doctor who treats cancer). They will help you understand how brachytherapy may help, and discuss side effects and options. Be sure to ask any questions you have.
- Have a physical exam, and fill out medical history and consent forms. The clinic will schedule the second pre-treatment visit and the surgery itself.
- Get information about a low-fiber diet and a prescription for medication to relax your bladder. You’ll use these a few days before the procedure (see page 2).

Before and during the second visit, you will:

- Prepare for this visit by giving yourself a Fleet enema (available at most drug and grocery stores).
- Have a volume study. This ultrasound test helps the oncologist decide how many seeds to implant.



How do I prepare?

- **If you take medications**, talk with your doctor and the pre-screening nurse to find out which medications you should avoid the day before the surgery.
- **7 to 10 days before surgery:**
 - Stop taking any aspirin or anti-inflammatory medications, such as ibuprofen (Advil) or naproxen (Aleve).
 - Stop taking blood thinners (Coumadin, Xarelto, heparin, lovenox, plavix, ticlid, persantine, Eliquis). You will need to talk with the doctor who manages your blood thinner prescriptions for instructions on how to prepare for this procedure.

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- **Call your radiation oncologist** if you develop any of the following during the 2 weeks before surgery:
 - A fever of 101.5°F (38.6° C) or higher
 - Sore throat
 - Nausea, vomiting, or diarrhea
 - Cough or congestion
 - Exposure to chicken pox
 - Any other problem you're worried about
- **3 days before surgery**, start taking the bladder relaxing medication that you were prescribed.
- **2 days before surgery**, start the low-fiber diet based on your doctor's directions. Continue this until the night before surgery.
- **The day before surgery**, you will get a call to tell you what time to arrive at the hospital. If you haven't had a call by 3 PM, call the phone number below for your facility.
- **The evening before the surgery**, do not eat or drink anything after midnight.
- **The morning of the surgery**, give yourself a Fleet enema as soon as you wake up. (You can get these at any drug or grocery stores.)

What happens the day of surgery?

You'll be at the hospital for several hours. The surgery usually lasts about an hour.

Before the surgery, you will:

- Check in. Bring your insurance information and a photo ID. Pay any copays your insurance requires.
- Go to a surgery preparation area where a nurse will prepare you for the procedure. They may insert an IV (intravenous) line, take a urine sample, and draw blood for testing.
- Talk with your doctors. Your oncologist will answer any last-minute questions. The anesthesiologist will answer questions about anesthesia — medication that is used to make you sleep through the procedure.

During the surgery:

- You will have general anesthesia that will make you sleep through the surgery. You won't feel anything or remember anything afterward.
- The oncologist will use tiny needles to insert the seeds, in or near the cancer in your prostate.

After the surgery,

- You will wake up from surgery in a post-anesthesia care unit (PACU). You'll be in the PACU for about 30 to 45 minutes. A nurse will monitor you and manage your pain. Family members are not allowed in the PACU. When you're fully awake, you'll move to a post-surgery recovery area.
- You'll be in a recovery area for an hour or two. A nurse will monitor you and manage your pain. Your family will be able to visit you. You'll be able to eat or drink as soon as you feel ready.
- When you're in stable condition, you can go home. You'll need someone to drive you.

What should I do after I go home?

- Rest and take it easy. After 1 or 2 days, you can go back to most of your usual activities. You should avoid certain activities for 1 to 2 weeks. For example:
 - Avoid heavy lifting or intense exercise.
 - Avoid bike riding, horseback riding, or stationary exercise bikes.
- You can go back to your normal diet as soon as you are ready.
- Take pain medication or antibiotics as directed by your doctor. Don't take pain pills more often than prescribed, and don't mix pain pills and alcohol.
- Take radiation safety precautions as described on the next page.
- Expect some bruising and a feeling of fullness where the needles were placed. For comfort, use an ice pack on the area between your testicles and your anus. Apply the ice pack for 20 to 30 minutes at a time during the first 1 to 2 days after the surgery. The discomfort should go away after a few days.

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- Expect other effects from the procedure for a few days:
 - Pain, urgency, and burning when you urinate (pee)
 - Brown-red urine and small clots in your urine
 - Diarrhea, frequent stools, or constipation
 - Fatigue (extreme tiredness)

If you go more than 6 to 8 hours without being able to urinate, call the Radiation Therapy Department or your urologist, or go to the emergency department.

What side effects could I have from the radiation?

It may take about 2 weeks before you experience any side effects from the radiation. Side effects can include:

- **Urinary side effects.** Most men need to urinate more frequently after the surgery. Feelings of urgency are common. Incontinence (dripping or leaking of urine) is not common. Medications can help with these symptoms, and most men regain full bladder control within 2 years.
- **Bowel side effects.** You may have diarrhea or frequent stools, poor control of your bowels, or bleeding from your anus. If these effects happen, it may help to increase the fiber in your diet. Medications may also help — talk to your doctor about options. After a year, fewer than 10% of patients have these problems.
- **Erectile dysfunction.** Inability to get an erection is common after brachytherapy. Whether you have erectile dysfunction can depend on your age, weight, sexual health before treatment, and other factors. Talk to your doctor about your level of risk. If you do have erectile dysfunction, medications (pills or injections), mechanical devices, or surgically placed devices can help.

Radiation safety

For the first 2 months after the radioactive seeds are placed, your body will put off a small amount of radiation. This radiation can be a hazard to people who are within about 3 feet from you.

What is unsafe? During the first 2 months after your surgery, take these precautions:

- Avoid close, lengthy contact with women who are pregnant or could be pregnant. You can greet and hug them briefly, but after that keep about 3 feet away.
- Avoid close, lengthy contact with children. Do not allow children to sit on your lap for up to 2 months.

What is safe?

- Body fluids like blood, sweat, urine, saliva, or ejaculate (semen) are not radioactive and pose no danger.
- Pets can sit in your lap as long as they've been neutered or spayed.

When can I stop taking precautions?

After the first 2 months, the seeds lose most of their radioactivity, so you can return to normal contact.

Where can I learn more?

You can learn more about low-dose brachytherapy for prostate cancer from these resources:

- **National Cancer Institute:** [cancer.gov](https://www.cancer.gov)
- **American Cancer Society:** [cancer.org](https://www.cancer.org)
- **Prostate Cancer Foundation:** [pcf.org](https://www.pcf.org)

What follow-up will I have?

Your medical team will continue to follow your care after brachytherapy.

- A month after the surgery, you'll have a follow-up appointment with your radiation oncologist. You'll have a CT scan to check the placement of the seeds. The oncologist will talk with you about your treatment and side effects. Be sure to ask any questions you have, and ask for a referral to help you manage any lingering side effects. The oncologist will decide on a long-term plan for follow-up.
- You'll get a treatment summary. Your radiation nurse can give you a copy of your radiation report for your records. The report should include the type of radiation, dosage, duration, and any complications or side effects.

- You'll have ongoing follow-up care. The follow-up plan for your care will describe when to return to your primary care doctor, and how often you'll have the following:
 - Appointments with your urologist and radiation oncologist
 - PSA testing (a blood test to measure a protein put off by your prostate)
 - Digital rectal exams (where the provider uses a finger to assess any changes in the size or shape of your prostate)

My follow-up appointment

Date/Time: _____

Place: _____

Doctor: _____

Notes

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