Intermountain® Healthcare

Brachytherapy: *High-Dose Therapy*

What is it?

Brachytherapy (brake-ee-THER-uh-pee) is a treatment for cancer. Your doctor places radioactive material in your body — inside or next to the cancer. The radioactive material, or "source," is attached to a wire. The source gives off radiation that can destroy the cancer cells. The source might be placed into a body opening using an applicator device or into tissue using a needle or a catheter (small tube).

Brachytherapy is a very precise way to use radiation. Because your doctor can place the radiation inside the cancer or right next to it, brachytherapy can limit radiation effects to the rest of your body.

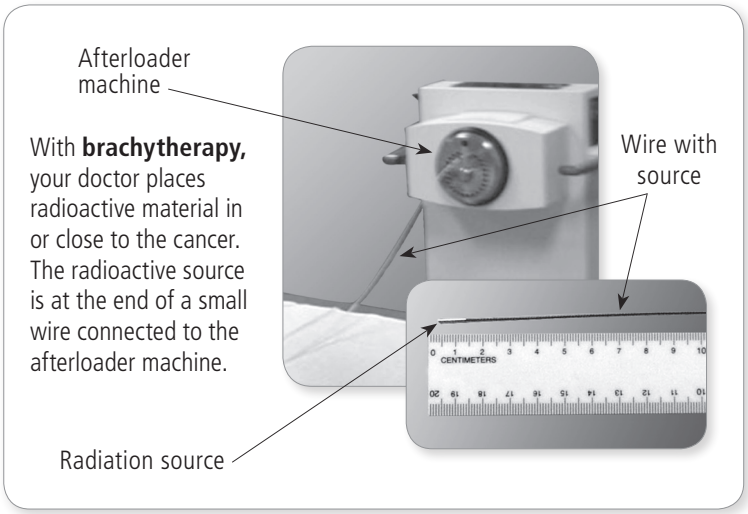
With **high-dose brachytherapy**, your doctor inserts the radioactive source for a short time (30 minutes or less). Depending on the cancer, you may receive multiple doses. Most people receive several doses over a couple of hours to a couple of weeks. A catheter or other applicator device may stay in place between sessions, or it may be placed each time.

Most people can have brachytherapy without staying in the hospital overnight, but you will need to stay in the hospital as long as the radioactive material is in place. In some cases, you'll need to stay overnight.

Why do I need it?

Brachytherapy is used to treat various types of cancers, including prostate, cervical, breast, head or neck, and skin cancer. It may be combined with surgery, other types of radiation, or other medical procedures.

The results of brachytherapy are not guaranteed, but your doctor has recommended this therapy because it's likely to help in your case.



What happens before treatment?

- You'll meet with the **radiation oncologist** (a doctor who treats cancer) to discuss options, process, side effects, and how the brachytherapy may help. Be sure to ask any questions you have. It can help to write down your questions in advance.
- You'll have a **physical exam**, along with tests to pinpoint the exact location of the cancer. This helps the oncologist place the seeds as close to the cancer as possible.
- Depending on the type and location of the cancer, a healthcare provider may place a **catheter** (narrow tube) or other applicator device in your body. (Or, this may happen during your first treatment session.)

What happens during treatment?

Depending on the type of cancer you have, you may need to make daily trips to the hospital for treatment, or you may stay in the hospital. The length of each visit varies, based on your cancer.

After each treatment, you can be around people. You are not radioactive.

In general, here's what you can expect:

- **Medication to relax you and prevent pain.** You may receive an IV (intravenous) line in your arm to give you medication, a painkiller (pill), or no medication, depending on your specific case.
- **Anesthesia.** You may also receive anesthesia — medicine so you sleep through the procedure.
- **Imaging tests.** Your doctor will use an imaging test (MRI, real-time x-ray, ultrasound, or CT scan) to place the delivery device and radioactive material.
- **Radioactive material.** A machine called an **afterloader** will place the radioactive material. You will be alone in a treatment room, but your healthcare providers will be able to see you, talk to you, and hear you through a speaker. You might hear some clicking or buzzing.

What happens after treatment?

After a treatment session (or the last session if you're having several on the same day), a healthcare provider may remove the delivery device. In other cases, your oncologist may decide to leave the delivery device in place until you finish treatment.

How can I learn more?

See the National Cancer Institute website to learn more: **www.cancer.gov/cancertopics/coping/radiation-therapy-and-you**

Talking with your doctor about high-dose brachytherapy

The table below lists the most common potential benefits, risks, and alternatives for high-dose brachytherapy. There may be other benefits or risks in your unique medical situation. Talking with your doctor is the most important part of learning about these risks and benefits. If you have questions, be sure to ask.

Potential benefits	Risks and potential complications	Alternatives
High-dose brachytherapy may: • Destroy or shrink a cancer tumor • Ease pain by shrinking the tumor • Prevent cancer from coming back • Help other cancer treatments work better The results are not guaranteed, but your doctor is recommending this treatment because it may help.	Brachytherapy generally has milder side effects than other types of radiation therapy. Side effects generally get worse as treatment progresses. Most go away one or two months after treatment. They include: • Fatigue. Most patients are able to work and pursue other activities, but with lower energy. • Soreness, swelling, or bruising in the treatment area. • Drop in blood counts. Your doctor may check your blood regularly. • Side effects that depend on the body area treated. These can include sexual changes, urinary or bladder problems, diarrhea, nausea, vomiting, trouble swallowing, or mouth problems. Your doctor will explain what to expect in your situation. • Side effects that can show up months or years later, depending on the body part treated. These can be temporary or permanent and include infertility, joint problems, scar tissue, swelling, and other cancers. **Radiation can harm an unborn child. Tell your doctor if you are pregnant or could be pregnant.**	• Low-dose brachytherapy (using radioactive seeds that put off a lower dose of radiation over a longer period) • Teletherapy or external beam therapy • Chemotherapy • Surgery • Immunotherapy • Medication that affects hormones • Watchful waiting Your doctor may combine several treatments.