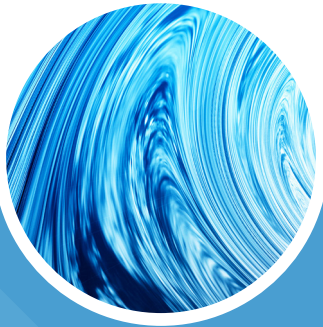


# Prostate Seed Implant Therapy



Allina Health



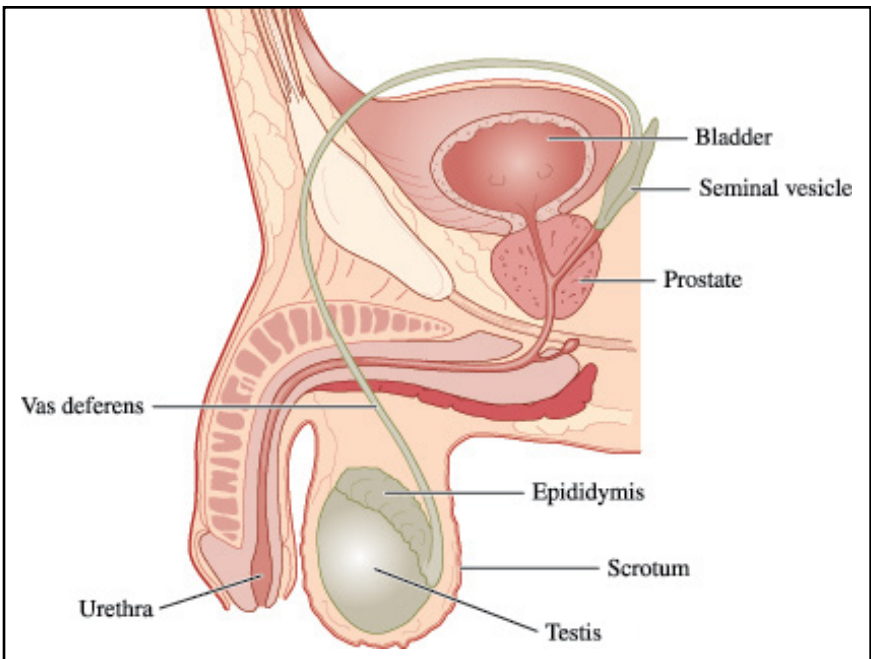
## General Information

There are currently many different ways to treat prostate cancer. Radioactive seed implant therapy is one way to help treat early-stage prostate cancer.

The following information describes how to prepare for this procedure, what happens during the procedure, possible side effects and precautions, and your follow-up care.

## Your Prostate

Your prostate gland is located at the base of your penis, just below the bladder and in front of the rectum. It produces a fluid that carries semen during ejaculation. The size and shape of the prostate gland varies, but it is usually about 2 inches in diameter.



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**The prostate gland is located just below the bladder and in front of the rectum.**

## Side Effects

### ■ Urinary:

- It is common to urinate a lot (especially during the night) and have a burning feeling during urination. These symptoms should go away within 2 to 3 weeks after the implant. If they do not, please call your urologist.
- It is rare to have ongoing urination problems. If you do, call the radiation oncologist to schedule a follow-up visit. You may need to see your urologist. The urologist may recommend a urinary procedure to help with your symptoms (such as a TURP).

**Remember: no procedure should be done without first telling your radiation oncologist.**

### ■ Bowel:

- It is common to go without a bowel movement for the first day or two after the implant. You do not need to use a laxative. Your bowel function will return on its own.
- It is rare to have more bowel movements than normal or to have looser stools. Medicines can be used to help this symptom.
- It is rare to have ongoing problems with bowel irritation. If you do, call the radiation oncologist to schedule a follow-up visit. You may need to see another doctor who will look inside your rectum or colon. That doctor may recommend you take certain medicines to help reduce bowel irritation.

**Remember: no biopsies of your rectum or colon should be done without first telling your radiation oncologist.**

## Precautions

### ■ Radiation:

The radioactive source for the implant will give out very low-energy X-rays. The Nuclear Regulatory Commission requires no special precautions for patients who receive radiation seed implants after they leave the hospital.

However, your health care team does recommend the following precautions for two months to reduce exposures to babies and young children:

- If a young child or pregnant woman is in the room with you for more than an hour, try to stay at least 6 feet away.
- Children should not sit on your lap for any extended period of time. Giving brief hugs or kisses is not a problem.

Do not sleep in the same bed with a small child or pregnant woman.

### ■ Urinary:

For the first week after the implant, you may lose a seed while urinating. You do **not** need to take any precautions while you urinate. You may flush the seed down the toilet.

- If you have problems urinating after the implant and cannot urinate on your own, please call your urologist.
- Your urologist may place a urinary catheter in your penis. You will receive instructions on how to use the catheter at home. Please follow these instructions.

## ■ Sexual intercourse:

- To keep your partner from receiving radiation exposure, it is recommended that you make other sleeping arrangements for one week after the implant.
- You may resume sexual intercourse (using a condom) one week after the implant. After one month, you no longer need to use a condom (unless that is your usual method of birth control).

## **Prostate Cancer**

Prostate cancer, like other cancers, is a disease of the cells. All cells reproduce by dividing. Normal cell death and repair of tissue takes place in an orderly manner. Cancer is a kind of abnormal cell growth which may invade and destroy nearby tissues and organs, or spread to other parts of your body.

Cancer may start in any part of the prostate gland, but it is usually found in the outer portions. It is more common in older males.

The cause of prostate cancer is unknown.

## **Radiation Therapy for Prostate Cancer**

Radiation therapy damages the cancer cells so they cannot reproduce. There are 2 types of radiation: external beam and seed implant.

- External beam treatment uses a radiation beam of high-energy X-rays that damages cells in its path.
- Seed implant therapy uses a tighter distribution of radiation to a smaller area. It also uses a lower energy than the external beam therapy. The two types of seeds, palladium-103 and iodine-125, give up about 90 percent of their radioactivity within several months. By one year, the radioactivity can be considered gone.

Your radiation oncologist may recommend both external beam and seed radiation treatment for you.

## **Pre-implant Planning**

After the radiation oncologist approves you for prostate seed implant therapy, you will be scheduled for a pre-implant ultrasound. (An ultrasound uses low-energy sound waves to get images of your prostate gland on a computer.)

The ultrasound will help your radiation oncologist and medical physicist plan where to implant the seeds.

A CT (computed tomography) scan may also be needed to help determine the most appropriate way to position you during treatment.

The size of your prostate and the location of the tumor will help the oncologist and physicist tell how many seeds to implant, where to place them, how to place them and the dose or strength of the seeds to use.

A radiation oncologist, urologist, physicist and medical dosimetrist will plan your treatment. Your radiation oncologist and urologist will follow this plan during the procedure.

## **Before the Procedure**

- Stop taking aspirin, ibuprofen, ketoprofen, Naprosyn® or blood thinners for at least 2 weeks before the implant. This will prevent excess blood loss.
- About one week before the implant, you will have some tests to tell your ability to tolerate anesthesia during the procedure. Tests include a chest X-ray, blood tests and maybe an EKG (echocardiogram). Your doctors will decide which tests you need. These tests will help determine your ability to tolerate anesthesia.

- You will receive instructions about some diet changes you need to make. You will also receive information about giving yourself enemas to help remove fecal material from your large bowel and rectum. This will help the ultrasound images.
- You will receive instructions on when you need to arrive for the procedure.
- You will receive instructions for eating and drinking before the procedure.

## **During the Procedure**

- The procedure should take 2 to 3 hours.
- You will lie on your back on a table and your legs will be put in stirrups.
- You will receive either a general or spinal anesthesia so you have no discomfort. A general anesthesia will put you to sleep while the spinal anesthesia will numb your body from the waist down.
- A urinary catheter will be placed in your penis.
- An intravenous (IV) line may be inserted into your hand or arm. You may receive medicine through the IV to make you sleepy.
- An ultrasound will be done when you are in the treatment position. A special computer in the operating room will be used to change the pre-planned seed template based on the position of the prostate.
- Usually 40 to 120 radioactive seeds (palladium-103 or iodine-125) will be permanently placed into your prostate gland. Your radiation oncologist and urologist will have already chosen which seeds will be used before the procedure.



- The seeds are about the size of a grain of rice. The radiation oncologist and urologist will place these in your prostate gland using fluoroscopy and a rectal ultrasound probe.
- The seeds will be passed through needles that go through the skin between your scrotum and rectum (the perineum). After the seeds are in place, the needles are removed.

## **After the Procedure**

- You will be taken to a recovery area.
- An ice bag will be placed between your legs to help reduce any swelling. There is little discomfort after the implant. (You can expect mild soreness between your legs for 1 to 2 days. If you do feel discomfort, pain medicine will be available.)
- You will return home when your condition is stable.







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