



# Radioactive Seed Implant

*After your treatment for prostate cancer*

Radioactive seed implant is one way to treat prostate cancer. This handout explains how the procedure is done and what to expect afterward.

## What happened during the implant procedure?

Your doctor used thin needles to insert 70 to 150 radioactive seeds into your prostate. The seeds are about the size of a grain of rice. The radioactive agent used in your procedure was:

- Iodine 125 (I-125)
- Palladium 103 (Pd-103)

Both I-125 and Pd-103 release about 90% of their radioactivity over a short time:

- I-125 releases 90% of its radioactivity within 6½ months. By 1 year, the radioactivity is essentially gone.
- Pd-103 releases 90% of its radioactivity within 2 months. By 4 months, its radioactivity is essentially gone.

## The Procedure

The seed implant does not require a surgical incision. Instead, the seeds were implanted using 20 to 25 thin needles. These were passed through your skin between your scrotum and rectum and into your prostate gland. The number of needles and seeds varies, depending on the size of your prostate gland.

Your doctor used ultrasound imaging to guide the needles into the correct position for implanting the seeds. The ultrasound probe was inside your rectum while the needles were being inserted, but no needles went through your rectum.

When each needle was in position, the individual seeds were injected as the needle was slowly taken out. The ultrasound probe and all the needles were removed when the procedure was done.

## **After the Implant**

Right after surgery, you will spend about 2 hours in the recovery room. You will stay here until you are awake and up on your feet.

Your prostate gland will be swollen after your implant, and this may make it hard to urinate. You will be checked for your ability to urinate before you are discharged from the hospital.

If you cannot urinate, you will have a thin, flexible tube called a *catheter* placed in your bladder to drain urine. This catheter will be removed in the Urology Clinic the day after your implant. Your ability to urinate without the catheter will be checked at that time.

An ice bag may be placed between your legs to help reduce the swelling. Most men have mild pain after their implant, and you should expect this for 1 to 2 days. You will be given a prescription for pain medicine when you are discharged. You will also receive medicine to help you urinate, and you will need to take this medicine for several weeks to 6 months.

## **Going Home**

After you have recovered from the anesthesia, you can go home.

- You must have a responsible adult drive you home from the hospital, or ride with you in a bus or taxi. You cannot travel alone.
- You cannot drive for at least 24 hours after your surgery.
- Once you are home, you may eat and drink as usual and have visitors.
- Put your feet up for the afternoon, and place an ice bag against the implant site. Wrap the ice bag in a clean cloth or towel to protect your skin.
- You will probably feel some burning when you urinate.
- For the next 24 hours, you may see some blood in your urine. This is normal.
- Drink lots of water to help pass any blood clots. This will also help flush the anesthesia out of your body.
- If you start to pass large blood clots (large clumps of blood), call your urologist at 206-598-4294. You may need to have a catheter inserted. This occurs in 10% to 30% of patients (10 to 30 out of 100), depending on their prostate size and urinary symptoms before the implant.

- Avoid heavy lifting or strenuous activity for the first 5 days. After that, you can return to your normal activity level. But, avoid activities that put pressure on your prostate, such as riding a bicycle, motorcycle, or horse.
- Bruising in the area of the implant is common. It usually appears within a few days of the procedure and goes away slowly.

## Radiation Safety

Many patients are concerned about exposing their family and friends to radiation after receiving the seed implant. I-125 and Pd-103 emit very low-level radiation that does not travel far. And, most of the radiation stays in the prostate gland.

But, very small amounts of radiation can reach other people, either from a seed being passed in your urine or by a tiny amount of radiation that your prostate may emit into the air. The amount that escapes is so small that it is not considered a risk for most people.

Small children and pregnant women may be more sensitive to radiation. Because of this, we advise extra precautions if you are around them during the first 4 months after your implant.

### *Safety Precautions Around Other People*

After your seed implant:

- You may have normal physical contact with other adults, and you may travel as usual.
- If a child or pregnant woman is in the room with you, **you should stay at least 6 feet away from them.**
- **Do not allow a child or a pregnant woman to sit on your lap for the first 4 months after your seed implant.**
- There are no restrictions on how close you can be with your sexual partner, and no restrictions on intimacy.

### *Passing a Seed in Urine*

Very rarely, you may pass a seed when you urinate. If this happens, it is usually in the first week after the implant. If a seed passes in this way, you will need to retrieve it and return it to Radiation Oncology for safe disposal.

Follow these instructions for the first week after surgery:

- Strain your urine so that if you pass a seed, you can easily retrieve it.
- Pick up the seed with tweezers and place it in the packet that was given to you.

It is very rare for a seed to pass after 1 week. If you do see a seed, retrieve and return it.

### ***Passing a Seed in Ejaculate***

Very rarely, a radioactive seed is passed with the ejaculate during intercourse. To avoid any problems:

- Use a condom for the first 1 to 2 weeks after surgery.
- If you pass a seed, retrieve it and return it to Radiation Oncology in the packet that was given to you.

Remember that it is normal for your ejaculate to be dark brown or black for up to several weeks after your procedure. This is caused by bleeding from the implant procedure.

### ***Other Concerns***

Although there are precautions you need to follow, the amount of radiation exposure to others is very low. Objects that you touch or use will not become radioactive. Your body wastes, such as urine and feces, will not be radioactive. Ask your doctor if you have any other concerns about radiation exposure.

**If you are planning air travel shortly after your implant:** You may set off radiation detectors when you go through airport security. Ask one of the doctors who did your implant for a letter that explains the implant, and have this letter available to show airport security.

### **Other Side Effects**

Side effects from the radiation will slowly lessen as the seeds lose their strength, but you may have these symptoms for 4 to 8 months after your implant:

- Needing to urinate more often than usual
- Burning when you urinate
- An urgent need to urinate
- A decrease in the force of your urine stream

You may also have more frequent and urgent bowel movements, but this is less common. This occurs because the implanted seeds in your prostate are close to your rectum. This can irritate your rectum and affect your bowel movements.

Some beverages can irritate your prostate and bladder and cause more frequent, urgent, and burning urination. To help ease these symptoms, avoid:

- Caffeine
- Alcohol
- Very acidic beverages such as grapefruit and tomato juice

If your symptoms bother you, talk with your doctor about medicines that can help, in addition to the medicines you are already taking.

As with all medical procedures, there is a small chance of longer-term or even permanent side effects. Your urologist or radiation oncologist will talk with you about these risks.

## **Follow-up**

You will need to stay in the Seattle area for 1 to 2 days after your seed implant, depending on your ability to urinate after the procedure.

You will return to the Urology Clinic the day after your procedure. At this visit:

- Your ability to urinate will be checked.
- You may have a CT scan and X-rays. If these tests are not done at this visit, they will be done about 3 weeks after your procedure.

The CT scan allows your doctors to see the exact position of each seed in your prostate. This helps determine if your prostate gland is receiving the right amount of radiation across the whole gland, and whether any more radiation may be needed.

You will be given a follow-up schedule for regular checkups that may include physical exams, blood tests, and rectal ultrasound tests. You will be seen about every 3 months for the first 18 months after your seed implant. After that, you will likely be seen less often. See the follow-up schedule on the next page.

Rarely, an extra dose of radiation may be needed to treat the prostate cancer. If needed, this treatment is done either through external radiation or with a supplementary implant to deliver treatment to areas that need an additional dose.

## Questions?

Your questions are important. Please contact the UWMC Urology and Prostate Clinic with any questions.

Weekdays 8 a.m. to 5 p.m., call the Urology and Prostate Clinic at 206-598-4294.

After hours and on weekends and holidays, call 206-598-6190 and ask for the Urology doctor on call to be paged.

## Follow-up Schedule

Time After Implant	Checkup Location	Tests
1 day	Urology	Check ability to urinate, CT scan*, X-ray*
3 weeks	Urology	CT scan*, X-ray* (if not done the day after your procedure)
3 months	Urology	First PSA test after implant
6 months	Radiation Oncology	PSA test
9 months	Urology	PSA test
12 months	Radiation Oncology	PSA test
15 months	Urology	PSA test
18 months	Radiation Oncology	PSA test
24 months	Urology	PSA test

\* *The CT scan and X-ray exams are usually done 3 weeks after the implant for patients who live in or near Seattle. These tests are done 1 day after the implant procedure for patients who live farther away.*

After 24 months, you will continue to alternate your follow-up visits between Radiation Oncology and Urology. Usually, your appointments will be every 6 months until 3 years after your implant, and then once a year until 5 years after your implant.

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