

# **RADIOACTIVE SEED LOCALIZATION (RSL)**

A Radioactive Seed Localization (RSL) is a procedure where a tiny metal seed, about the size of a small sesame seed, is placed into abnormal breast tissue to mark its location. It may be done if the abnormal tissue is too small to be seen or felt by hand. The seed(s) is carefully placed inside the area of interest within the breast by ultrasound or mammographic guidance. The seed contains a small amount of radiation. The seed(s) is positioned in a manner that will aid the surgeon in locating the area most efficiently.

During your surgery, your surgeon will use a special tool to find the breast seed and the surrounding abnormal tissue. They will then take the seed and tissue out. Your doctor will explain the procedure to you more in depth and answer your questions.

## **How to prepare:**

The surgeon's office will call our Women's Imaging Center to set up a time for your radioactive seed localization. We will schedule your seed placement for the day before your surgery if possible. These seeds can be placed up to 5 days prior to surgery.

The radiology Nurse and radiologist will review your medications with you prior to scheduling for the seed localization. The nurse will go over your entire health history so she can provide you with the correct information for your procedure.

If you take any anti-coagulants, you will need to hold: aspirin for 7 days and Plavix for 5 days. If you take Coumadin, you will need to hold for 3 days- PT/INR is required within 24 hours prior to the procedure. If you were put on Lovenox/Fragmin- you will hold your AM dose the day of the procedure.

If you wear any of the following devices on your skin, to remove it before your scan or procedure:

- Continuous glucose monitor (CGM)
- Insulin pump

Make sure you have an extra device with you to put on after your scan or procedure. If you are not sure how to manage your glucose while your device is off, talk with your healthcare provider who manages your diabetes care before your appointment.

- Do not wear anything on your breast, nipples, or under your arms. This includes talcum powder, deodorant, perfumes, colognes, and creams.
- Wear a shirt that you can remove easily.
- Tell the nurse and/or doctor performing your procedure if you're allergic to any medications.

## **WHAT TO EXPECT DURING THE PROCEDURE:**

The nurse will check your vital signs and review all of your medications and medical history to be sure it is safe to proceed with the procedure.

The radiologist will review your images to see what the best way to perform your seed localization. It will either be performed on the mammography unit while your breast is slightly compressed or during and ultrasound depending on which way this seen the best.

The radiologist will obtain an informed consent to be sure you understand the procedure. The technologist will take a picture of your breast using mammography or ultrasound. Once they see the abnormal tissue, the radiologist will give you an injection of local anesthetic to numb the area. When

the tissue is numb, the radiologist will insert a needle with the seed inside of it into your breast at the area of concern. The technologist will take some more pictures of your breast to be sure the tip of the needle is in the correct location. When the tip of the needle is in the right place, the seed will be placed into the tissue and the needle will be removed. The seed will stay in your breast until the day of your surgery. You will have another set of pictures taken to show the exact location of the seed. These pictures will help the surgeon guide him to the location of the seed and tissue that needs to be removed. The technologist will clean your breast and place a bandage over the puncture site. The nurse will review post-procedure instructions and verify your surgery date before you leave.

**Procedure time: 30 minutes**

**What to expect after the procedure:**

- You may have a little bit of bruising if you tend to bruise easily.
- Don't hold a baby, child, or young animal against your chest for any longer than 30 minutes per day for the next month (30 days) or until the seed is removed during surgery.
- The items you touch and clothes that you wear won't become radioactive. People who are in close physical contact with you may be exposed to very small amounts of radiation. There isn't any evidence that this exposure is harmful.
- Your surgeon will give you the information on what will happen during your surgery.
- On your surgery day- the surgeon will remove the seed with the amount of abnormal tissue that is needed.
- The breast tissue and seed that was removed from the breast will be x-rayed and reviewed by the radiologist while comparing to your prior images to confirm with the surgeon that all the abnormal tissue and seed was removed that needed to be.