

Locating a tumour using a radioactive seed

Soon you will be having surgery to remove a breast tumour. Since the tumour is non-palpable, a radioactive seed will be used to determine its location so that the surgeon can proceed with the surgery. The radioactive seed makes it possible to be more precise in removing the breast tumour.

How does locating a tumour with a radioactive seed work?

The radioactive seed is a titanium-covered seed the size of a grain of rice. It contains a small quantity of iodine-125. The dose of radiation is minimal, the equivalent of having two mammographies, when the seed is in place for about one week.

With the guidance of an ultrasound or mammography, a radiologist implants a seed in the tumour. Since the seed emits a small quantity of radiation, it can be located with a detector called a gamma probe.

The seed will be implanted in your breast a few days before surgery, and will be removed during the surgery. During surgery, your surgeon will locate the seed using the gamma probe, and be able to precisely locate the tumour and remove it.



Who will perform the procedure?

A radiologist will implant the seed in your breast. This physician is specialized in breast imaging. A specially trained radiology technologist will assist the physician during the procedure.

Do I have to prepare for the procedure?

Consult your physician if you are taking blood thinners (anticoagulants), such as Coumadin®, Aspirin®, or any other medication containing acetylsalicylic acid (ASA). It may be necessary to adjust your dose one week before the seed is implanted.

If you are not taking the above-mentioned medications, you do not need to do anything to prepare for the procedure. You do not need to fast before the seed is implanted. However, you do have to fast the day before your surgery.

What steps are involved in the procedure?

- You will be asked to put on a hospital gown.
- Then, you will be asked to lie on your back or on your stomach, or to sit, depending on the type of imaging the physician will be using.
- Your skin will be cleaned with an antiseptic solution and you will be given a local anaesthetic so that you do not feel anything during the procedure. The anaesthetic is similar to the one dentists use.
- The radiologist will implant the seed in your breast, guided by an ultrasound or a mammography. The physician may implant more than one seed in your breast, if there is more than one tumour or if the tumour is spread out.
- Once the seed or seeds have been implanted, the radiologist will obtain images of the tumour using a unilateral mammography.

The procedure takes 30 to 45 minutes. A bandage will then be placed on the site where the seed was implanted.

You will be given a bracelet indicating your name and that your body contains a radioactive seed. The bracelet will be taken off during surgery once the seed is removed.

Are there side effects?

Side effects are very unlikely. If you feel some mild discomfort, you can take acetaminophen (Tylenol®).

Are there any special guidelines after the procedure?

Avoid vigorous activities (such as lifting heavy objects, playing tennis or golf, aerobics) during the 48 hours following the procedure in order to prevent the seed from moving in your breast.

You can eat and drink normally.

The seed poses no danger to those around you. Do not avoid performing your daily activities or seeing other people.

The quantity of radiation contained in the seed remains for several weeks. If your surgery is postponed, you will be given a new date within this timeframe.

Your healthcare team is available to answer your questions. Do not hesitate to discuss details about the procedure, your health, or your return home.

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