Radioactive Seed Localization

If you need breast cancer surgery, Radioactive Seed Localization (RSL) can help your surgeon precisely locate and remove your breast tumor. This method helps prevent damage to healthy tissue in the area.

During the procedure, a radiologist will use mammography or ultrasound to place a very low-energy radioactive seed, the size of a grain of rice, into the tumor or abnormal tissue. When you have your surgery, the surgeon will use a handheld probe to find the radioactive seed to pinpoint the area that needs to be removed. The only way to remove the implanted seed is by having surgery.

What are the benefits of Radioactive Seed Localization?

Radioactive seed localization has several benefits including:

- The seed can be placed before your scheduled surgery date. This makes the scheduling process easier and reduces your wait time on the day of surgery.
- Surgery using RSL lets the surgeon know the exact location where the incision should be made on the breast. RSL also reduces the amount of time you are in surgery and the chance of an incomplete removal of the abnormal tissue.

How is Radioactive Seed Localization done?

RSL is very much like a needle biopsy procedure. The area of concern will be located using either mammography or ultrasound. Your breast will be cleaned and a medicine will be used to numb the area. A needle with the radioactive seed inside will be put into the breast and the seed will be placed. After it is placed, a mammogram will be done to check the placement of the seed.

This handout is for informational purposes only. Talk with your doctor or health care team if you have any questions about your care.

Is Radioactive Seed Localization safe?

The seed uses very low energy radiation and is not a hazard to you or others around you, so you can do your normal activities. As a precaution, we suggest that you do not let children be near your chest and do not breastfeed while the seed is in place.

If you are pregnant, the RSL procedure will not be done. The wire-localization procedure is used for pregnant women to prevent any radiation exposure to the fetus.

What should I do if the seed comes out?

If the seed comes out, follow these directions:

1. **Do not** pick up the seed with your fingers, use a spoon or tweezers.
2. Put the seed in a small glass jar with a lid or a plastic container with a lid.
3. Call the Ohio State University Radiation Safety phone number at (614) 561-7969 (available 24 hours a day, 7 days a week) for directions on what to do with the seed.