Radioactive Seed Localization

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

During the procedure, a special doctor (radiologist) will use mammography or ultrasound to guide placement of a very low-energy radioactive seed, the size of a grain of rice, into your 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 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 your surgeon know the exact location where the incision should be made on your breast. RSL also reduces surgery time and the chance of an incomplete removal of your abnormal tissue.

**How is Radioactive Seed Localization done?**

RSL is much like a needle biopsy procedure. The area of your tumor or abnormal tissue 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 your breast and the seed will be placed. After it is placed and the needle is removed, a mammogram will be done to check the placement of the seed.
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, it is best to not let children be close to your chest and do not breastfeed while the seed is in place.

If you are pregnant, the RSL procedure will not be done. Instead, a wire-localization procedure can be 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.