Radioactive Seed Localisation (RSL) for Breast Tumours

Information for patients

This leaflet can be made available in other formats including large print, CD and Braille and in languages other than English, upon request.
As the technology behind screening mammograms becomes more refined, we are able to detect a greater number of breast cancers before they are able to be felt by physical examination. It also makes it more challenging to precisely locate and remove the cancer.

**Wire localisation**

The standard method is the ‘wire localisation’. During this procedure, a radiologist places a guide-wire into the cancer using mammography or ultrasound. The surgeon then removes the tissue surrounding the guide-wire and sends it to the laboratory.

**Radioactive Seed Localisation (RSL)**

RSL offers a new alternative. Radioactive seeds are tiny metal seeds, about the size of a sesame seed or the point of a pencil. The seed can be placed several days or weeks prior to surgery. It will not move out of place.

Having this placed in advance will decrease the time spent at the hospital on the day of surgery. Like wire localisation, the radioactive seed is placed by a Radiologist. This is done in the Breast Unit at the University Hospital of North Tees.

With this procedure, a Radiologist places a very low-energy radioactive seed into the cancer to mark its location. During the surgery, the Surgeon uses a handheld probe to precisely identify the location of the cancer.

**Advantages of RSL**

- RSL offers increased accuracy of cancer localisation.
- The need for further surgery can be reduced from approximately 17 women in every 100 to around 5 - 9 women in every 100.¹²³
• The Radiologist can implant the seed up to a few weeks before the surgery, reducing the waiting time for patients.

• There is also evidence to suggest that patients prefer RSL to wire localisation and have reduced anxiety on the day of surgery and higher overall satisfaction.\textsuperscript{4,5}

What will happen during seed localisation?

The radioactive seed is inserted by a Radiologist. The seed placement procedure is very similar to the needle biopsy procedure you underwent to obtain your diagnosis.

You will begin by having an ultrasound or mammogram of your breast to locate the cancer.

The Doctor will inject a local anaesthetic (numbing medicine) into your breast which will sting for a few seconds but will numb your breast quickly.

The Doctor will then place the seed, using a small needle, into the cancer in your breast. You may feel pressure during the procedure but if you feel pain, please let the staff know so more anaesthetic can be given. You will not be able to feel the seed.

After the procedure, 2 or more mammograms will be taken to confirm the correct position of the seed placement. Your Surgeon will refer to these during the surgery.

A small dressing will be placed over the puncture site.

Your seed localisation procedure will take about 30 minutes.

What happens after the seed localisation?

You can remove the dressing the next day. You may return to work and most activities the next day.
You should avoid vigorous arm movements and heavy lifting (more than 10 pounds) for the next 24 hours.

You may apply ice to the insertion site (do not place ice directly on the skin). This may help to reduce swelling and pain.

You may shower the next day and allow water to run over the insertion site. Pat this area dry. Do not soak in a tub or pool for 48 hours.

It is recommended you wear a comfortable supportive bra to minimize breast movement. A ‘sports’ bra works best.

You may have some mild discomfort and bruising. If you need something for discomfort try over the counter pain medicines (such as paracetamol and/or ibuprofen).

**When to seek help**

It is normal to have a small amount of blood (about size of a twenty pence piece) show through on the dressing. Call your Breast Care Nurse (see contact numbers) if you are having heavy bleeding from the insertion site (bleeding which soaks the dressing or is flowing from the site). Apply firm pressure to the site if this occurs.

Contact the Breast Care Nurse if you find any signs of infection such as high temperature, significant swelling, firmness or warmth, increased redness or seepage around the site that is pus-like.

**Will I or those around me be exposed to harmful radiation if I have radioactive seed localisation?**

We are all exposed to background radiation during our lives. The seed gives off only enough radiation to act as a marker for the Surgeon and is not harmful to the rest of your body.
It also does not cause harm to those who are in close contact with you. For example, you cannot harm anyone by shaking hands, hugging or kissing, and you can sleep with a spouse or partner in the same bed.

Once you have the operation and the seed is removed, the radiation is gone. The seed is disposed of according to strict guidelines.

Contact numbers

In case you cannot attend your scheduled surgery date, please contact your Breast Care Nurse or your Consultant Surgeon’s Secretary to inform us.

If you have any further question about the radioactive seed localisation, please speak to your Consultant Surgeon or a member of his Team. You can also contact your Breast Care Nurse or the Nuclear Medicine Department.

University Hospital of North Tees

Breast Care Nurses
telephone: 01642 624371
Monday – Friday, 9.00am – 5.00pm

University Hospital of Hartlepool

Breast Care Nurses
telephone: 01642 622387
Monday – Thursday, 9.00am – 3.00pm

Nuclear Medicine Department
telephone: 01429 522681
Monday - Friday, 8.00am – 8.00pm
References


This leaflet has been produced in partnership with patients and carers. All patient leaflets are regularly reviewed, and any suggestions you have as to how it may be improved are extremely valuable. Please write to the Quality Assurance Team, University Hospital of North Tees or email: patientinformation@nth.nhs.uk

Comments, Concerns, Compliments or Complaints

We are continually trying to improve the services we provide.

We want to know what we’re doing well or if there’s anything which we can improve, that’s why the Patient Experience Team is here to help.

Our Patient Experience Team is here to try to resolve your concerns as quickly as possible. If you would like to contact or request a copy of our PET leaflet, please contact:

    telephone: 01642 624719
    Monday – Friday, 9.00am – 4.00pm
    Messages can be left on the answering machine and will be picked up throughout the day.

    freephone: 0800 092 0084

    Email: patientexperience@nth.nhs.uk

Out of hours if you wish to speak to a senior member of Trust staff, please contact the hospital switchboard who will bleep the appropriate person.

    telephone: 01642 617617
    24 hours a day, 7 days a week

The Patient Experience Team is available to discuss your concerns in person Monday – Friday, 1.30pm – 4.30pm. The office is based on the ground floor at the University Hospital of North Tees.

Data Protection and use of patient information

The Trust has developed a Data Protection, Caldicott and Disclosure Policy (IG5) in accordance with the Data Protection Legislation (General Data Protection Regulations and Data Protection Act 2018) and the Freedom of Information Act 2000. All of our staff respect this policy and confidentiality is adhered to at all times. If you require further information please contact the Information Governance Team.

    telephone: 01642 383551 or email: information.governance@nth.nhs.uk