

## Having a localisation procedure of the breast (seed or wire guided)

You have been referred to the breast unit because an abnormal area has been identified in one of your breasts that needs to be removed. This area can be seen on imaging but cannot be easily felt by the surgeon. This leaflet explains, how to prepare, what happens on the day, and what to expect afterwards. This leaflet will help you understand what a breast localisation procedure involves, why it is necessary and what to expect.

Breast localisation is used to accurately mark the area so that it can be removed safely during surgery.

There are two main types of localisation used in our breast units:

- Magnetic/ Radiofrequency seed localisation
- Wire guided localisation

Your clinical team will decide which method is most appropriate for you and will discuss this with you.

### What is a breast localisation procedure?

A breast localisation procedure uses imaging (mammography or ultrasound) to guide the placement of a marker into the breast. This marker helps the surgeon find the correct area during your surgery. The marker is either a small seed or a fine guidewire.

In some cases, an additional magnetic sentinel node injection may be requested by your surgeon, this is to further assess uptake in the lymph nodes, providing a clear guidance during surgery.

### Is there any preparation?

There is no special preparation required. You can eat and drink as normal.

Please bring a list of your current medications and take your regular medicines as usual.

Tell us if you have any allergies and inform us if you are taking any medication that thins the blood (for example warfarin, apixaban, aspirin or clopidogrel), as this may need to be reviewed in advance.

### When will the procedure take place?

- Seed localisation is usually carried out days or weeks before your surgery.
- Wire guided localisation is usually carried out on the morning of your surgery, or occasionally the afternoon before.

The procedure takes place in the breast unit using either mammography or ultrasound imaging.



## What happens when I come for the procedure?

You will be welcomed by the radiology staff, who will explain the procedure fully and answer any questions you may have.

You will be asked to remove clothing from the top half of your body and change into a hospital gown. The room lights may be dimmed to make the images easier to see. A member of staff will be with you at all times.

## How is the localisation done?

### Mammogram localisation

This involves a mammogram similar to one you may have had before.

You will be asked to sit or lie down. Your breast will be positioned in the mammogram machine, which has a computer-controlled positioning device. The radiologist or specialist radiographer will identify the target area using the images.

Local anaesthetic will be injected into the skin and breast tissue (this may sting briefly).

Once the area is numb:

- A needle is guided into the abnormal area of breast tissue.
- Either a seed or a fine guidewire is placed.
- The needle is removed, leaving the seed or wire in the correct position.

Your breast will be gently compressed during the procedure to prevent movement. This can be uncomfortable but is necessary for accuracy. Once the marker is in place, the compression will be released.

A final set of mammogram images may be taken to confirm correct positioning. If a wire is used, a dressing will be applied and removed later in the operating theatre.

### Ultrasound localisation

This is performed using an ultrasound scanner.

You will be asked to lie on a couch. The radiologist or specialist radiographer will locate the abnormal area using ultrasound images.

Local anaesthetic will be given to numb the area.

Once in position:

- A needle is guided into the abnormal tissue using ultrasound.
- Either a seed or a fine guidewire is placed.
- The needle is removed, leaving the seed or wire in the correct position.

Your surgeon may have also requested for a **magnetic sentinel node injection** alongside your ultrasound guided seed localisation, this involves a single injection to the already anaesthetised area. The tiny particles (iron oxide, sugar, salt, water) injected are optimised for uptake in the lymph nodes, providing a clear guidance during surgery. The injected particles remain in the sentinel lymph nodes for at least a month.

A mammogram may be taken afterwards to confirm placement. If a wire is used, a dressing will be applied and removed in theatre.



## What are the risks?

### Radiation

We may expose you to ionising radiation during this examination. We are all exposed to ionising radiation every day from natural sources such as cosmic rays, soil, rocks, and even food. Ionising radiation can cause cell damage which, after many years, may very rarely turn cancerous. The estimated risk from a mammogram is less than 0.01%, which is very small. The benefits of early detection far outweigh this risk.

Before your mammogram, we ensure that:

- The benefits of your examination outweigh the risks.
- The radiation dose is kept as low as reasonably achievable.
- The amount of radiation we use is tailored to you.
- Equipment is regularly tested and maintained to ensure safety and optimal performance.

### Will it hurt?

The local anaesthetic helps to minimise discomfort. You may feel pressure during the procedure, but it should not be painful. Please tell the staff straight away if you feel pain or discomfort.

### How long will it take?

The procedure usually takes between 30 and 45 minutes, depending on the imaging method used.

### What happens after the procedure?

Pressure will be applied to the area for a few minutes to reduce bleeding and bruising. A dressing may be applied. This should be kept dry and left in place for three days unless advised otherwise. The seed or guidewire will be removed during your surgery, such as a wide local excision (lumpectomy).

You can usually return to normal activities straight away.

### Are there any risks or side effects?

Most people experience few problems. Possible side effects include:

- **Bruising** – common and may make the breast feel lumpy for a short time.
- **Aching or tenderness** – usually relieved with paracetamol. Wearing a supportive, non-wired bra for a couple of days may help.
- **Bleeding** – very rarely a wound might begin to bleed a little after you have left the hospital. You should apply direct pressure to the wound for twenty minutes. The wound should then stop bleeding. If for any reason the wound continues to bleed, you need to contact the Royal Marsden hotline (details below) and/or attend your nearest A&E.

### Where can I get further information?

The staff in the Radiology department will be happy to answer any questions you may have. Please ask at the time of your appointment or telephone the department at any time

**Sutton:** 020 8661 3589 / 3588

**Chelsea:** 020 7811 8366



**Cavendish Square: 020 7811 8941**

If you feel unwell or have concerns about your health, please contact:

**The Royal Marsden Hotline 020 8915 6899**

You can ring the hotline 24 hours a day, 7 days a week. Call us straight away if you are feeling unwell or are worried about the side effects of cancer treatments. This service provides specialist advice and support to all Royal Marsden patients, as well as to their carers, and both hospital and community-based doctors and nurses caring for Royal Marsden patients.

