

Sentinel Lymph Node Biopsy of the Axilla

What is Sentinel Lymph Node Biopsy?

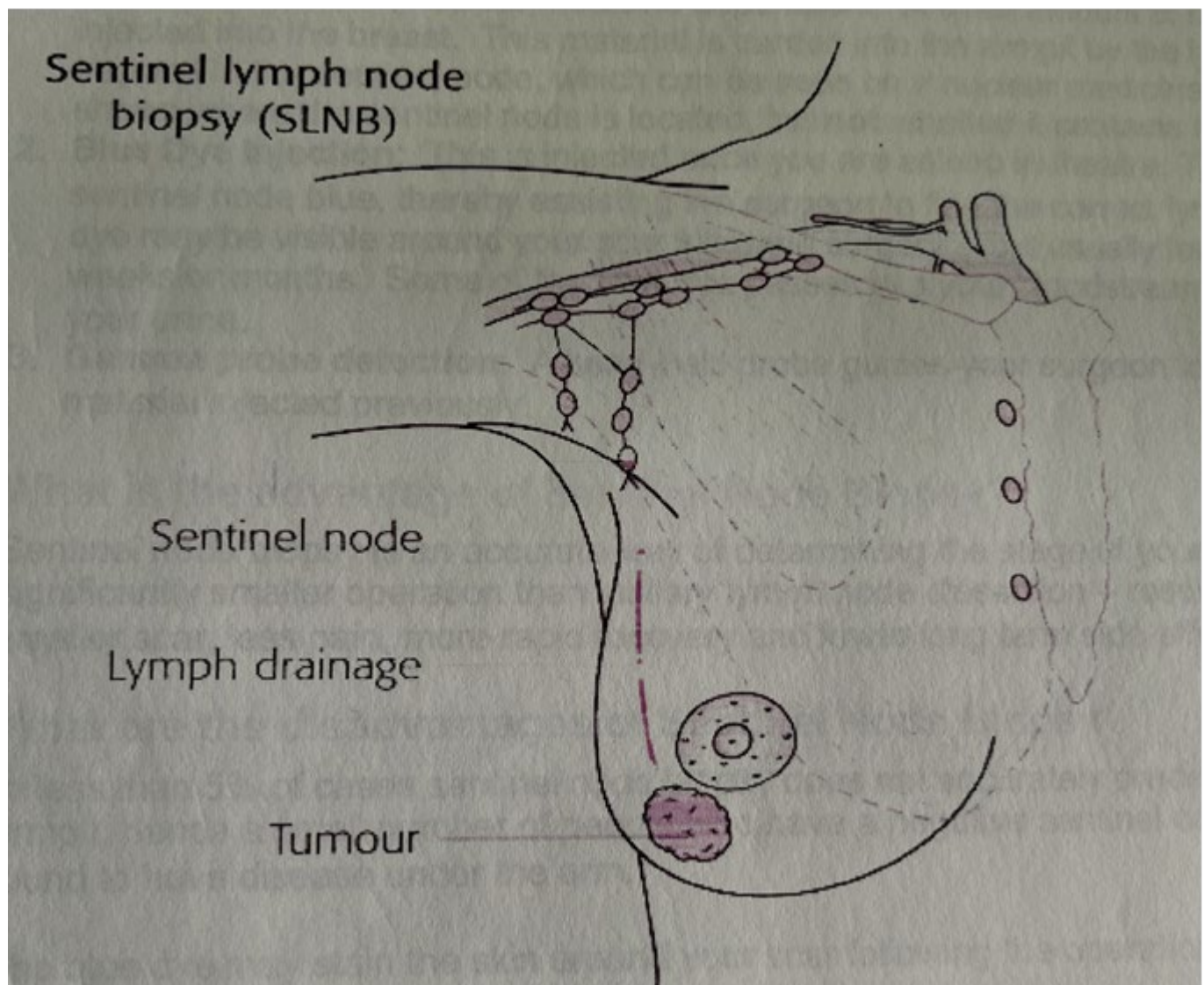
Sentinel lymph node biopsy is an operation to remove the first lymph gland (s) from under the armpit (axilla) which are responsible for draining the area of the breast involved by a tumour. This gland (s) is then analysed by a pathologist to determine whether there are tumour cells present. Sentinel node biopsy has now become standard practice which enables us to stage the axilla during surgical treatment of breast cancer.

Will I have an anaesthetic?

This procedure is carried out under a general anaesthetic.

What are Lymph Glands/Nodes?

The lymphatic system is a system of lymph vessels and lymph glands throughout the body which play an important role in your body's mechanism of fighting infections and tumours. The lymph glands responsible for the breast lie mainly within the armpit, but occasionally may be within the chest or neck.



Why is it so important to know whether tumour cells are present in the glands under the arm?

The presence of tumour cells in the glands under the arm is an indicator of the risk of spread of the disease elsewhere (metastases).

Hence important decisions regarding overall treatment of your breast cancer are made, based on whether the lymph glands contain tumour cells. This treatment may involve further surgery, radiotherapy, hormone treatment, chemotherapy or a combination of these treatments.

How do we identify the sentinel lymph nodes?

We usually use either single technique or dual technique to identify the sentinel lymph nodes.

Pre-operative Radio-isotope injection and imaging with intra-operative Gamma probe detection (Single technique if used without blue dye).

The injection and imaging are usually done the day before or on the morning of your operation within the Nuclear Medicine area in the Radiology department.

A small amount of radioactive material is injected into the breast. This is a very safe treatment dose. This material is carried into the armpit by the lymph vessels and trapped in the sentinel node, which can be seen on a nuclear medicine scan. This scan only shows where the sentinel node is located, but **not** whether it contains tumour or not.

A hand-held Gamma probe guides your surgeon to the radioactive material during the operation, by detecting a radioactive signal that emits a distinctive sound that the surgeon can hear.

Blue Dye Injection (Dual technique) This is injected once you are asleep in theatre. This dye stains the sentinel node blue, thereby assisting the surgeon to find the correct lymph node. The blue dye may be visible around your scar following surgery- but usually fades over the following weeks or months, though faint staining of the skin of the breast can sometimes linger for years. Some of the blue dye passes into your bloodstream and is passed out in your urine and stool. The colour of your urine will change to a bluey-green colour but should only last for a few days. If you experience any post-operative nausea and vomiting, you may notice the vomit is stained bluey green. Your face may also show a bluey green tinge for the first 24 hours this will then resolve.

What are the potential risks and side-effects?

In less than 5% of cases sentinel node biopsy does not accurately predict disease within the armpit, hence a small number of people who have a negative sentinel node biopsy may later be found to have disease in the armpit. To lessen the chances of this happening the surgeon may remove additional non-sentinel nodes that appear suspicious at the time of surgery, as occasionally lymph nodes that are completely full of tumour may not pick up the dyes due to blockage of channels along which the dyes usually travel.

The blue dye stains the skin of the breast following the operation as detailed above.

There have been rare instances (1%) of allergy to the dyes used in sentinel node biopsy. You will be closely observed following this procedure.

What are the expected benefits of treatment?

Sentinel node biopsy is an accurate way of determining the stage of your disease. It is a significantly smaller operation than traditional axillary node dissection (where all lymph nodes are removed)- resulting usually in a smaller scar, less pain, less shoulder stiffness, more rapid recovery and a lower risk of long- term side- effects such as swelling or lymphoedema.

How will I feel afterwards?

Most patients feel well enough to go home on the same day. You may feel sore in the armpit, and you may experience numbness under your arm. You may also experience shooting pain or pins and needles down the affected arm. If you have any concerns after discharge from hospital, please contact your Enhanced Recovery Breast Nurse.

How long will I be in hospital?

Most patients are discharged home the same day. In some rare circumstances a patient may need an overnight stay if they have a reaction to the blue dye.

What should I do when I go home?

We advise no heavy lifting for 6 weeks, e.g. carrying heavy grocery bags or ironing or hoovering or upper body gym workouts. You may start your arm exercises gently the day after surgery. In specific instances you may be advised to start the arm exercises after 1 week, this may depend on the type of procedure performed on the breast at the time of the armpit procedure, your surgical team and Enhanced Recovery Breast Nurse will guide you. You may use your arm normally for day- to- day activities such as using cutlery, bathing and getting dressed, as soon as you wake up from the anaesthetic. You should not attempt to drive for at least 2 weeks. You should not swim until the skin suturing has completed healed, which may take a few weeks. You may discuss this further with your Enhanced Recovery Breast Nurse and surgical team.

How soon will I be able to resume normal activities?

After 6 weeks if you haven't experienced any complications.

Will I have to come back to hospital?

You will come back to hospital for your results approximately 4- 6 weeks following surgery.

When can I return to work?

It depends on what your current job is, you can discuss this further with your Enhanced Recovery Breast Nurse.

Consent

Although you consent for this treatment, you may at any time after that withdraw such consent, before the procedure takes place. Please discuss this with your medical team and Macmillan Clinical Nurse Specialist.

Sources of information

Macmillan Clinical Nurse Specialists, Enhanced Recovery Breast Nurse, ward nurses, breast surgical team, Breast Advanced Nurse Practitioners, self-help groups, patient forums, national bodies or approved website addresses.

Important information

The information in this leaflet is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the patient experience team on 0300 131 4784 or esh-tr.patientexperience@nhs.net.

Hand hygiene

We are committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

Other formats

If you require any of our leaflets in alternative formats, such as large print or alternative languages, please contact the Equality and Human Rights Department on 0300 131 4434 or esh-tr.AccessibleInformation@nhs.net

After reading this information are there any questions you would like to ask? Please list below and ask your nurse or doctor.

Reference

The following clinicians have been consulted and agreed this patient information:
Miss EF Shah, Consultant Breast Surgeon and Lead Clinician for Breast Surgery.

The directorate group that has agreed this patient information leaflet: Diagnostic, Anaesthetic and Surgery Division

Next review date:	September 2026
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