

Having a sentinel lymph node biopsy

The aim of this leaflet is to answer questions you may have about a sentinel lymph node (SLN) biopsy. The leaflet explains what the surgical procedure involves and the benefits and risks of having it. If you have any further questions or concerns, please feel free to speak to a member of your hospital team who would be happy to help.

What is a sentinel lymph node biopsy?

A biopsy is when a sample of tissue is taken and looked at under a microscope. An SLN biopsy is a surgical procedure to remove one or more of the nodes (glands) from under your arm (axilla) into which the lymph fluid from the breast first drains. These are then examined under a microscope to see if there are any breast cancer cells present.

What is the lymphatic system?

The lymphatic system is a system of channels in your body, which drains fluid from your body tissues. It plays an important part in keeping your blood clean and fighting infection.

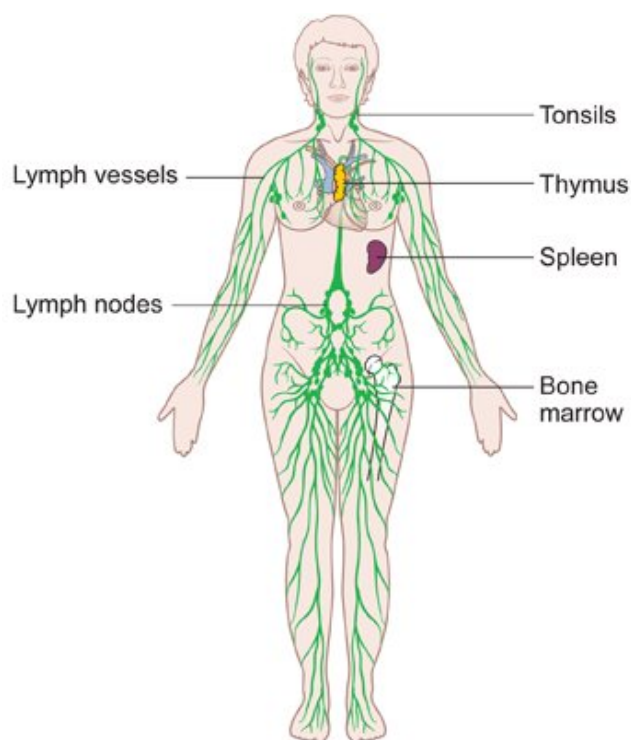


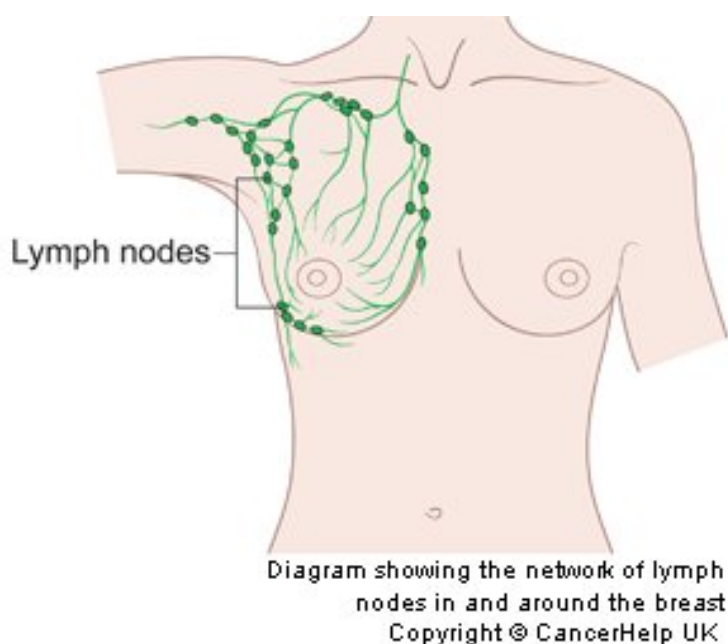
Diagram of the lymphatic system
Copyright © CancerHelp UK

Taken from CancerHelp UK, the patient information website of Cancer Research UK: www.cancerhelp.org.uk

Breast cancer cells can spread through these channels. Lymph is a milky fluid and is rich in the white cells, which help us fight infections. It circulates around your body by passing through tiny, then larger vessels and lymph nodes (glands).

Each area of the body will drain lymph fluid into certain nodes, usually to the group of nodes which is closest. In the breast this group is usually in the armpit. The first node the fluid drains in to is called the sentinel lymph node. Lymph nodes act like filters within the lymphatic system, checking what is passing through the body.

The number of lymph nodes in your armpit can vary; the average number is 18 to 20. Out of these there are between one to four lymph glands in to which all the lymph leaving the breast will first drain.



What happens before the SLN biopsy?

On the morning of your surgery you will be asked to attend the nuclear medicine department in the hospital one to three hours before your surgery. Here you will have a small injection of a radioactive substance called a tracer into the skin of your breast. This substance helps to highlight the sentinel lymph node. Although the word radioactive may sound alarming, it is completely safe.

What happens during the SLN biopsy?

The biopsy is performed under general anaesthetic, so you will be asleep and will not feel any pain. There can be risks involved with having a general anaesthetic, but they are small. An anaesthetist will see you before the biopsy to make sure you are fit enough for a general anaesthetic. You should receive a copy of the leaflet **Having an anaesthetic**. If you do not, please ask your doctor or nurse for a copy.

The operation

When you are asleep, the surgeon will inject a blue dye under the skin around your nipple. A small cut is then made in your armpit. The dye and the radioactive tracer both travel along your lymphatic channels to the sentinel nodes. The surgeon uses a special instrument called a gamma probe that identifies radioactivity within the breast and armpit. This probe guides the surgeon to the radioactive nodes and if they also appear blue in colour, the surgeon will remove them.

What are the benefits of SLN biopsy?

Knowing whether the cancer has spread to the lymph glands is very important for your team to understand the extent of the breast cancer. It provides important information which is used to guide decisions about your treatment. Previously, we would have to remove all the lymph glands from your armpit to obtain the same information. This is called an axillary node clearance. However, there are more side-effects from this operation such as:

- lymphoedema (swelling)
- sensory changes in the arm
- reduced shoulder movements.

More than half the women who have an axillary node clearance do not have cancerous cells in any of the lymph glands. These women would have had all their lymph glands removed needlessly. The sentinel lymph node biopsy:

- is a guided sampling technique of the axillary lymph glands
- is much less invasive
- gives the same information as a full axillary clearance.

Are there any risks with an SLN biopsy?

- **Infection.** As with all operations, there can be a risk of infection. If you notice signs of infection, such as redness, or your wound becomes very painful and hot, or you have a temperature, please contact your doctor or breast care nurse. You may need antibiotics.
- **Seroma.** Sometimes a pocket of fluid will collect at the site of your biopsy – this is called a seroma. Signs of a seroma can be swelling, a feeling of fluid moving in the area and discomfort. This usually settles down by itself after about four to six weeks. In some cases you may need to come back to the clinic to have it drained with a needle.
- **Stiffness or limited movement in the affected arm.** It is common to feel this afterwards and it will improve as the wound heals. Your medical team will tell you how and when to move your arm. You will be seen by a physiotherapist who will give you exercises to do.
- **Discomfort.** You may experience some discomfort afterwards. This will improve as your wounds heal. Your doctor will prescribe painkillers to help ease any pain.
- **Numbness or tingling around the wound.** This should return to normal as your body heals. If you become worried, please contact your breast team.
- **Blue/green urine.** As the dye is flushed from your body, you may notice a bluish discolouration of your urine. This will last for 24 to 48 hours before returning to normal.
- **Allergy.** There is a small risk of an allergic reaction to the blue dye. Your surgeon will look for signs of allergy during your operation. If you do have a reaction, you will be given medication and you will be closely monitored.

- **Lymphoedema.** Rarely, the affected arm can become swollen. This is called lymphoedema and is diagnosed by a doctor or specialist nurse. There are lymphoedema specialist nurses available at Guy's and St Thomas' who can help you manage and improve symptoms of lymphoedema. Please ask your breast team to refer you to the lymphoedema specialist nurse, if needed. The current rate of lymphoedema associated with the SLN biopsy procedure is 6% compared with 25% after a full axillary node clearance.
- **Staining of the skin.** The colour from the blue dye may stay in the breast area for several months, but it is not dangerous and will gradually fade.
- **Radioactivity.** There should be no risks or side-effects from the tracer dose. It contains less radioactivity that you would experience in everyday life over three months.

In approximately 5% of cases this procedure may not detect the lymph gland containing breast cancer cells, and in a very small number of cases the surgeons are unable to find the sentinel lymph node because neither the tracer nor the dye have entered the lymph nodes. If this happens, then most of the glands in the armpit will be removed at the time of your original operation to ensure that no glands containing cancer remain.

If you are worried about any of these risks, please do not hesitate to talk to your breast team.

Giving my consent (permission)

We want to involve you in decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves.

If you would like more information about our consent process, please speak to a member of staff caring for you.

Are all patients suitable for an SLN biopsy?

We will have looked at the lymph nodes under the arm when you had your mammograms and ultrasound scans. If any of the lymph nodes showed signs of having cancerous cells within them, a biopsy using a fine needle would have been taken at this time. If the biopsy showed the presence of cancer cells, then you may require a full axillary lymph node clearance (the needle biopsy has already provided the information we would have got from carrying out the SLN biopsy procedure).

If the biopsy did not show any evidence of cancer cells in the lymph node, then you can proceed to having an SLN biopsy.

What happens if I decide not to have an SLN biopsy?

An SLN biopsy is not a treatment for breast cancer and is done to gain more information. If you would prefer not to have this done, you do not have to. The alternative would be to remove all the lymph glands from under your arm to gain the same information.

What happens after the procedure?

We usually carry out the procedure as day surgery and you can expect to be discharged on the same day. The wound will be closed using dissolvable stitches and be covered by a dressing. You will be advised how to care for your wound before leaving the hospital. The nursing staff will arrange your outpatient appointments for you to see your breast care nurse and surgeon within five and 10 days after leaving hospital. You will be given a letter with this information.

What happens to the SLNs when they have been removed?

The SLNs are sent to our laboratory to be examined under a microscope. The results take between five and 10 days. The results will be discussed with you during your next clinic appointment.

What happens if the SLN contains breast cancer cells?

If the SLN contains breast cancer cells, a second operation may be necessary to remove all the remaining lymph glands from under your arm. This is called an axillary node clearance. Your doctor will discuss your treatment options with you. This will help you to make an informed decision about what treatment to have.

What if the SLN biopsy is negative?

If the SLN does not contain any breast cancer cells, you will not need any further surgery under your arm.

Breast cancer support group

This drop-in group for breast cancer patients is held every month at Guy's hospital. For more information contact your breast cancer nurses t: 020 7188 0869

Information and support

Breast Cancer Care

t: 0808 800 6000 w: www.breastcancercare.org.uk

Macmillan Cancer Support

t: 0808 808 0000 w: www.macmillan.org.uk

Cancer Research UK

t: 0808 800 4040 (freephone) w: www.cancerhelp.org.uk

Department for work & pensions benefits enquiry line

t: 0800 882200 w: www.dwp.gov.uk

Useful contact numbers

Please do not hesitate to contact a member of the team if you need more advice.

Breast cancer clinical nurse specialists (CNS)

Guy's Hospital t: 020 7188 0869.

Monday to Friday between 9pm and 4pm.

Lewisham Hospital t: 020 8333 3000 ext 8508

Out-of-hours contact details

If you have an urgent query after your surgery, please call **020 7188 5992** (Sarah Ward) and the nurse there will advise you appropriately.

Guy's and St Thomas' hospitals offer a range of cancer-related information leaflets for patients and carers, available at www.guysandstthomas.nhs.uk/cancer-leaflets. For information leaflets on other conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets



Dimbleby Cancer Care provides cancer support services for Guy's and St Thomas'. We have a drop-in information area staffed by specialist nurses and offer complementary therapies, psychological support and benefits advice for patients and carers.

Dimbleby Cancer Care is located in the Welcome Village of the Cancer Centre at Guy's. **t:** 020 7188 5918 **e:** DimblebyCancerCare@gstt.nhs.uk

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the clinical nurse specialist or other member of staff caring for you or call our helpline.

t: 020 7188 8748 9am to 5pm, Monday to Friday

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk

t: 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

Language Support and Accessible Services

If you need an interpreter or information about your care in a different language or format, please get in touch:

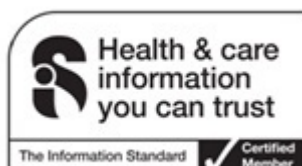
t: 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

Leaflet number: 2370/VER3

Date published: September 2016

Review date: September 2019

© 2016 Guy's and St Thomas' NHS Foundation Trust



Guy's and St Thomas' NHS
NHS Foundation Trust