

What is Sentinel Node?

The Sentinel Node (gland) is the first lymph node or nodes in your armpit (axilla) to which breast cancer can spread.

What is Sentinel Node Biopsy?

By removing the Sentinel Node, we can find out whether the breast cancer has or has not spread to the axillary nodes. Three results are *possible*, **clear** (*negative*), **low volume** (micrometastasis), and **high volume** (macrometastasis). This important information helps us to advise you about the stage of your cancer and the best type of cancer treatment.

Recent studies have shown that removal of the Sentinel Lymph Node is just as safe and accurate as traditional axilla surgery, which removes more nodes.

Side effects of Axilla Surgery

For some patients, axilla node removal can cause temporary shoulder stiffness, nerve pain and/or lymphoedema (swelling of the arm). The side effects of axilla surgery increase with the number of nodes removed.

This means if we remove only the Sentinel Node, side effects are less than traditional axilla surgery where more nodes are removed. Occasionally there is more than one Sentinel Node.

Finding the Sentinel Node

Before surgery, a small amount of radioactive fluid will be injected into your breast in the Nuclear Medicine Department. This fluid travels to the Sentinel Node. Following this, during surgery, a blue dye will be injected into the breast. This also travels to the Sentinel Node. The surgeon, using a special radiation detection probe, can then find the Sentinel Node which is also blue.

What if we cannot find the Sentinel Node?

Occasionally it is not possible to find the Sentinel Node. If this happens the surgeon will remove more nodes to make sure the node which is likely to be the Sentinel Node is removed.

This will be done in the same operation and only with your permission. This will involve an insertion of a drain. This is known as axillary node clearance.

During surgery

The pathologist examines the Sentinel Node using a process called One Step Nucleic acid Amplification (OSNA).

- In most cases (70%) the Sentinel Node is **clear** of cancer cells and you will not need further nodes removing or a wound drain.

- If a **low volume** of cancer cells are seen in the node axillary gland clearance will not be performed and your Oncologist may advise further treatment.
- If the Sentinel Node contains a **high volume** of cancer cells the surgeon will go on to do an axillary node clearance. This will involve removing more nodes and insertion of a drain in the axilla wound. This will better inform your Oncologist in planning treatment.

What are the benefits of Sentinel Node Surgery? (OSNA)

- Less discomfort and greater mobility of the shoulder
- Less risk of lymphoedema.
- Targeted lymph node excision
- Shorter hospital stay and quicker overall recovery

If the Lymph Node is positive (cancer cells are seen) further lymph nodes can be removed during this operation avoiding the need for a second operation. Your final results and subsequent treatment can also start sooner

What are the disadvantages of Sentinel Node Biopsy?

- Blue dye will discolour urine, stools, tears, contact lenses, (please remove before surgery) for a few days. The breast skin will be discoloured for up to a few months and very occasionally a year or so.
- Allergic reaction to the blue dye can rarely (1%) occur whilst under anaesthetic. This can be treated, but can (very rarely) be severe.
- Injection of radioactivity into the breast may give slight discomfort.
- There is a small risk (less than 5%) that the procedure doesn't identify the right lymph node. In this instance it is possible that a lymph node containing cancer cells could be left behind undetected. The surgeon can inform you how big the risk of a 'false negative' is in your own individual case.

Before the operation you will need to sign a consent form agreeing:

- To have Sentinel Node Biopsy using radioactive fluid and blue dye.

That if the surgeon cannot find the Sentinel Node or the glands look cancerous, we are able to remove more nodes, whilst under the same anaesthetic. If you do not want this to happen, you must tell us.

How accurate is this test?

Studies have shown that OSNA is a highly sensitive and specific tool for analysing lymph nodes at the time of operation and has proved to be more than 96% accurate.

For further information contact the Breast Care Unit on

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Sentinel

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**PATIENT
INFORMATION**

Sentinel Lymph Node Biopsy with Intra-operative OSNA test