



## Introduction

The sentinel lymph node is the first lymph node that receives lymphatic drainage from the breast. The sentinel node for patients with breast cancer is usually located in the axilla, but in some patients may be near the breast bone between the ribs. In addition, there may be more than one sentinel lymph node. Most patients do not have cancer in their sentinel lymph nodes.

## Why is it done

A sentinel lymph node excision is performed to spare patients an axillary lymph node dissection when possible. It is based upon the finding that if the sentinel node does not contain cancer cells, the likelihood that other lymph nodes in the axilla contain cancer cells is very small.

## Alternatives

One alternative is axillary clearance which involves removal of all the lymph nodes in the armpit however increases the risk of side effects such as pain, numbness of armpit and upper arm and lymphedema.

If only some lymph nodes are not removed there is a significant risk that the cancer has not have been completely removed and decisions about additional treatment may be difficult or not possible without the information about whether or not the lymph glands have been affected by the cancer.

## Preparation for the procedure

There are no specific preparations required for this procedure. Your surgeon will give you specific instructions on how to prepare for surgery, including guidelines on eating and drinking, smoking, and taking or avoiding vitamins, iron tablets and certain medications.

## During the procedure

At first the surgeon injects a radioactive liquid, a blue dye, or both into the area around the tumour. The doctor then watches to see where the dye travels and seems to concentrate. A special instrument is then used to track the radioactive liquid. This process shows the pathway by which the lymph travels when it drains away from the part of the breast that “housed” the tumour. It indicates which lymph node is the sentinel node for a particular tumour. Once located, the surgeon then removes the sentinel nodes. In most cases, there are two or three sentinel nodes, and all are removed. The sentinel nodes are sent to a pathologist to examine under a microscope for signs of cancer.

In some cases, sentinel node biopsy is done at the same time as surgery to remove the cancer. In other cases, sentinel node biopsy can be done before or after surgery to remove the cancer.

## After the procedure

After sentinel node excision, you’re moved to a recovery room where the health care team monitors you for complications from the procedure and anaesthesia. If you don’t undergo additional surgery, you’ll be able to go home the same day. How soon you can return to your regular activities will depend on your situation.

## Benefits

- Minimally invasive treatment option as compared to the axillary lymph node excision
- With sentinel node dissection only one lymph node or a small cluster of two to three nodes need to be removed
- It accurately identifies the node(s) that are at highest risk for involvement with breast cancer
- Desirable treatment option for women who have early-stage disease with a relatively low risk of lymph node involvement

## Risks

Sentinel node excision is generally a safe procedure. However, like the general risks associated with any surgery, sentinel node dissection also carries a risk of complications, including:

- Bleeding
- Pain or bruising at the biopsy site
- Infection
- Lymphedema: a condition in which your lymph vessels are unable to adequately drain lymph fluid from an area of your body, causing fluid build-up and swelling

## When to contact the doctor

You should contact your doctor immediately if you experience:

- Skin redness
- Bruising
- Fever