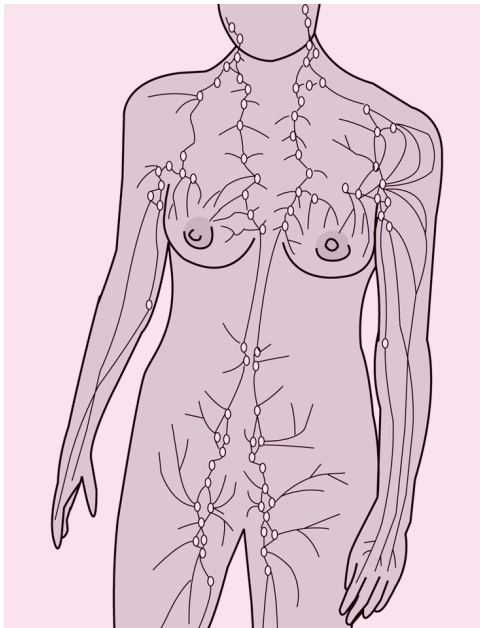


## Lymphatic system and axillary nodes

The lymphatic system runs all through the body. It carries lymph fluid and cells. Lymph nodes are small clumps of immune cells that act as filters for the lymphatic system. They also store white blood cells that help fight illness.

If breast cancer spreads, the lymph nodes in the underarm (called axillary lymph nodes) are the first place it's likely to go. During breast surgery, some axillary nodes may be removed to see if they contain cancer cells. This helps determine breast cancer stage and guide treatment.



*The lymphatic system runs throughout the body.*

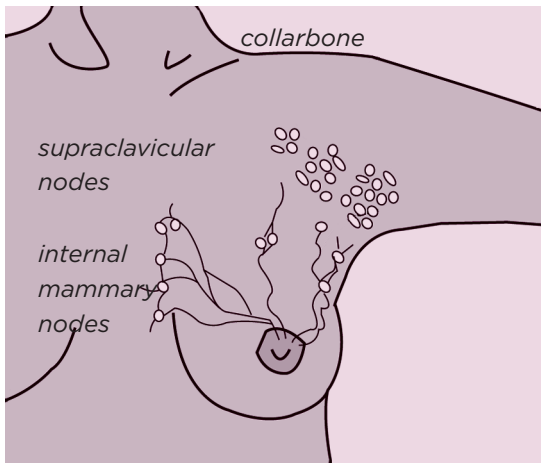
## Sentinel node biopsy and axillary dissection

Sentinel node biopsy is the most common way to check the axillary lymph nodes for cancer. Before or during the procedure, a radioactive substance (called a tracer) and/or a blue dye is injected into the breast. These substances help the surgeon find the nodes to remove. The first lymph node(s) to absorb the tracer or dye is called the sentinel node(s). This is also the first lymph node(s) where breast cancer is likely to spread.

The surgeon removes the sentinel node(s). The node is sent to the lab so a pathologist can check if the node(s) contain cancer cells. If cancer is not found, it's likely the other nodes do not contain cancer. So, no more surgery is needed. If the node(s) do contain cancer, more lymph nodes may be removed, which is called axillary dissection.

The goals of axillary dissection are to check how many lymph nodes have cancer and to reduce the chances of cancer coming back in the lymph nodes.

Axillary dissection removes more nodes and disrupts more of the normal tissue in the underarm area than a sentinel node biopsy. So, it's more likely to affect arm function and cause lymphedema. For this reason, sentinel node biopsy is the preferred first step to check the axillary lymph nodes.



*Lymph node levels and the internal mammary nodes*

For more information on lymphedema, please read Facts for Life: [Lymphedema](#) or see [Questions to Ask the Doctor](#) about lymphedema.



## Axillary lymph node status

A pathologist uses a microscope to look at the axillary lymph nodes removed during surgery to check if they contain cancer cells.

## Lymphedema

When lymph nodes are removed, some of the lymph vessels can become blocked and cause lymphedema. Lymphedema is a build-up of lymphatic fluid. It causes swelling in the arm or other areas such as the hand, fingers, breast, chest or back. This may keep fluid from leaving the arm or hand and cause swelling or tightness.

Lymphedema can happen weeks, months or years after treatment. It can also vary in severity.

Lymphedema isn't common when only a few lymph nodes are removed. The cases that do occur are less severe than when more nodes are removed. Today, sentinel node biopsy is the preferred way to remove lymph nodes (only a few nodes are removed). So, most people don't get lymphedema.

## Resources

American Cancer Society  
1-800-ACS-2345  
[www.cancer.org](http://www.cancer.org)

National Cancer Institute  
1-800-4-CANCER  
[www.cancer.gov](http://www.cancer.gov)

National Lymphedema Network  
1-800-541-3259  
[www.lymphnet.org](http://www.lymphnet.org)

### Related fact sheets in this series:

- Breast Cancer Prognosis
- Breast Cancer Surgery
- Lymphedema

The above list of resources is only a suggested resource and is not a complete listing of breast cancer materials or information. The information contained herein is not meant to be used for self-diagnosis or to replace the services of a medical professional. Komen does not endorse, recommend or make any warranties or representations regarding the accuracy, completeness, timeliness, quality or non-infringement of any of the materials, products or information provided by the organizations referenced herein.