

Guideline 4. Removal of lymph nodes during breast cancer surgery

What are lymph nodes?

Lymph nodes (sometimes called “glands”) are part of the system that conducts a fluid called “lymph” around the body, just as arteries and veins conduct blood. The lymph nodes that are connected to the breast area are located in the armpit and near the collarbone. When breast cancer spreads, cancer cells will usually collect in the nearby lymph nodes.

Lymph nodes are frequently removed during breast cancer surgery. Since the medical term for the armpit is “axilla,” this procedure is called “axillary dissection.”

Why are the lymph nodes removed?

Removal of the lymph nodes for microscopic examination can give important information about how far the cancer has progressed. The recommended therapy after your surgery is different depending on whether the nodes are “positive” (contain cancer cells) or “negative” (do not contain cancer cells). Removal of lymph nodes also reduces the risk that the cancer will come back in the armpit area.

How does the doctor know if cancer has spread to the lymph nodes?

Before your surgery, your doctor will examine your armpit and collarbone areas for any suspicious swelling. However, since cancer in the lymph nodes often cannot be felt, surgical removal and microscopic examination are needed to know for sure whether they contain cancer or not.

Is it always necessary to remove lymph nodes?

Removal of lymph nodes is recommended as the standard procedure for women with most forms of early breast cancer. However, some types of cancer, such as ductal carcinoma in situ (DCIS), have a very low risk of spreading to the lymph nodes. (DCIS is discussed in guideline 5.) Also, in certain cases the recommended treatment is the same whether or not cancer cells are found in the nodes. In such instances it may sometimes be acceptable not to remove any nodes.

How many lymph nodes are removed?

The lymph nodes in the armpit region are found in 3 layers, or “levels”. When breast cancer spreads, it usually goes to the level 1 nodes first, then to levels 2 and 3. It is recommended that the surgeon remove all lymph nodes found at levels 1 and 2. In general, this will result in the removal of approximately 10 lymph nodes — enough to tell for sure whether the cancer has spread to the nodes or not. Removing 10 or more nodes also reduces the chance of the cancer returning to the nodes.

However, complications become more frequent and more severe as more nodes are removed. For this reason, removal of level 3 nodes is not usually recommended.

What kinds of complications can occur after the lymph nodes are removed?

Removal of nodes often affects nearby nerves, leading to the most common complication — numbness in the arm.

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In a few instances (less than 6%) there is also significant pain with this condition.

Another common problem is “lymphedema.” This is a pooling of lymph fluid in the arm, causing swelling, stiffness in the arm and shoulder, and sometimes infection and pain. The chance of lymphedema developing after surgery increases with the number of nodes removed. After a typical operation, between 2% and 7% of patients experience significant lymphedema. Mild lymphedema is more common and is experienced by about 1 out of every 5 patients.

Radiation treatment to the armpit area also increases the risk of lymphedema. For this reason, it should be avoided unless there is an especially high risk of the cancer coming back in this area.

What can I do if I have persistent pain after my surgery?

You do not have to live with pain, nor should you try. Guideline 10 in this series deals with chronic pain in detail, and describes recommended methods for dealing with it. ♦