

Understanding Your Surgical Options For Breast Cancer



Simcoe Muskoka
Regional Cancer Program



Royal Victoria
Regional Health Centre

A Cancer Care Ontario Partner

In this booklet you will learn about:

- Role of surgery in breast cancer diagnosis and treatment
- Goals of surgery
- Types of breast surgery
- Surgery issues and risks
- Other therapies as part of your treatment plan

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What is breast cancer?

Cancer of the breast occurs when there are cells which grow in an uncontrolled way. This may be caused by:

- Mutations in the cell's DNA (which controls how cells behave)
- The **BRCA** gene (if you have it)

When cells grow in an uncontrolled fashion, they can invade or spread to other parts of the body (**metastasize**).

The cancerous cells most often grow in the breast **ducts** (see 1A in Figure 1), less commonly in the **lobules** (see 1B in Figure 1), and rarely in other breast tissue. At an early stage, the cancerous cells may not invade (**carcinoma in-situ**), but over time may become invasive and spread.

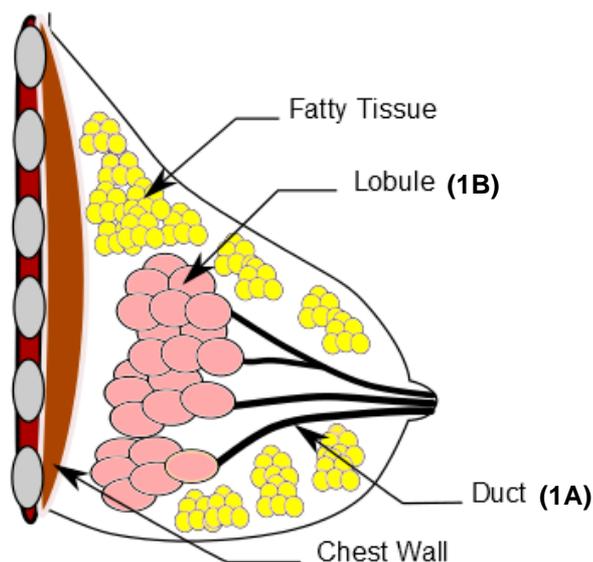


Figure 1:
Diagram of the breast.

What is the role of surgery?

Surgery is used to:

- confirm the breast cancer diagnosis
- gather more information about the tumour (**pathology**) and its tendency to spread (**staging**)
- remove as much of the tumour as possible to prevent local invasion and risk of spreading (**local control**).

Since breast cancer cells often travel to local lymph nodes (which act as a partial filter), some of the lymph nodes in the arm pit (**axilla**) may be removed (**biopsied**) during surgery.

Some patients may benefit from cosmetic reconstruction as part of their breast cancer treatment. Talk to your surgeon about this if you would like more information.

What are the goals of surgery?

In breast cancer, the goals of surgery are to remove the tumour with clear edges (**margins**) and to minimize any cosmetic deformity. When a lymph node biopsy is performed, we also wish to minimize side effects such as arm swelling (**lymphedema**), shoulder weakness or stiffness.

Types of breast surgery

Studies have shown that as long as clear margins can be obtained, removing the tumour and some surrounding breast tissue (a **partial mastectomy/lumpectomy**) is an acceptable treatment for a localized breast cancer. See Figure 2 for where a lumpectomy incision may be done on the breast. Often this is followed with radiation treatment to the breast to maximize the chances of local control.

If the tumour is large or placed in a location where a lumpectomy would cause significant deformity, sometimes a **complete mastectomy** (removal of breast) is more appropriate.

Also, if there are risk factors for hidden islands of cancer in the breast (based on genetic predisposition, pathology reports, or breast imaging), then mastectomy may also be recommended.

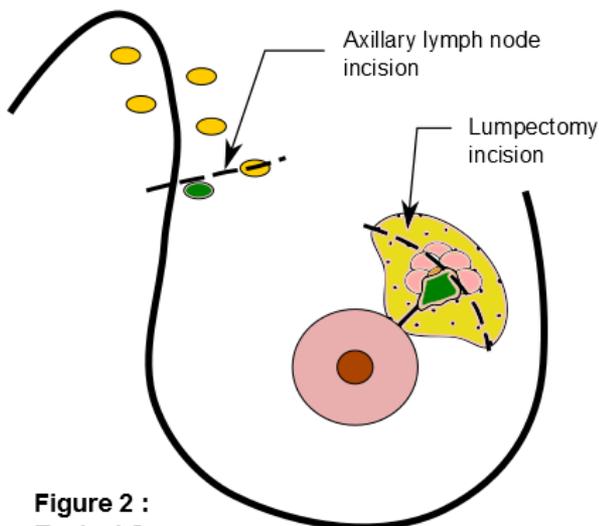


Figure 2 :
Typical Surgery

Types of lymph node biopsies

The main reason to biopsy the lymph nodes is to find out about the risk of spread. In the past, this was done by removing as many lymph nodes as one could find in the arm pit (**axillary lymph node dissection**). See Figure 2, page 5, for where the lymph nodes are located on the breast.

More recent studies show that removing only the lymph nodes which have the highest risk of filtering out cancer cells (the **sentinel nodes**), may be all that is needed to decide on the risk of spread and lower the chances of other problems that can occur after the surgery.

However, if we suspect multiple lymph nodes may be involved with cancer, it may be better to try to remove as many as possible.

Surgery issues

In some cases, a cancer may be diagnosed but cannot be felt (**palpated**). In these cases we often insert a wire into the breast by the imaging department (**wire-localization**) so that the surgeon can reliably remove the area at the tip of the wire.

If a sentinel lymph node procedure is planned, a radioactive dye will be injected into the breast the day before surgery. On the morning of surgery, the breast is scanned to estimate the number and location of possible sentinel

nodes. Usually, the surgeon also injects a special blue dye into the breast at surgery to also help find possible sentinel lymph nodes.

We generally try to avoid the use of **surgical drains** (a plastic tube that connects to a vacuum canister) but if there is a large **cavity** (space) in the arm pit or under the skin, using drains may decrease the chance of excess fluid collecting (**seroma**).

Most of the time a water resistant dressing is placed over the incision, to allow showering. Sometimes a larger dressing is placed over this to apply pressure and try to decrease fluid from accumulating.

After a lumpectomy, we usually suggest you wear a firm supporting bra for one to two weeks.

With any breast surgery there are some risks:

- Risk in using general anesthetic
- Wound infection
- Fluid collecting in surgical site (seroma)
- Cosmetic deformity
- May need to repeat surgery
- Repeat surgery based on final pathology reports
- Shoulder stiffness/discomfort
- Arm swelling

Other therapies to treat breast cancer

Sometimes we may give radiation and/or chemotherapy treatment before surgery to shrink the tumour and increase success of removing the tumour with clear margins.

Treatments before surgery are called **neo-adjuvant treatment**.

In some patients, surgery may be all that is needed to treat the cancer. However many studies have shown that adding **treatments after surgery (adjuvant treatment)** often increases the local control, and decrease risk of cancer reappearing.

Depending on the cancer's risk of spread (**stage**), patients may benefit from radiation, hormone-based and/or other chemotherapies after surgery to control or eliminate cancer cells before we can detect them.

Coping with breast cancer

Living with cancer can be difficult, not only physically but also emotionally and mentally. Social workers at the Cancer Centre are here to help you and your family cope with your illness and deal with financial, legal, sexual, and family concerns.



To book a social work appointment, contact:
Patient and Family Support
(705) 728-9090 ext. 43520

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