Canadian Cancer Society | Société canadienne du cancer

Breast Cancer

What you need to know

Even though we hear about cancer almost every day, when *you* are diagnosed with cancer you may feel alone and afraid. You may also feel overwhelmed by all the information you are given and by the need to make so many decisions.

This publication will give you and your family introductory information you need when you first learn that you have breast cancer. It will help you gain a sense of control and help you work with your healthcare team to choose the best treatments for you.

What is cancer?

Cancer is a disease that starts in our *cells*. Our bodies are made up of millions of cells, grouped together to form organs or tissues such as the lungs, the liver, muscles and bones. *Genes* inside each cell order it to grow, work, reproduce and die. Normally these orders are clear, our cells obey and we remain healthy.

Sometimes a cell's instructions get muddled and it grows abnormally. After a while groups of abnormal cells form lumps or *tumours*. If the abnormal cells stay in one place in the body, the tumour is *benign*. Benign tumours are not usually life-threatening.

Sometimes abnormal cells invade the tissues around them and spread to other parts of the body. When this happens, the tumour is *malignant* and the person has cancer. Tumour cells that spread to other parts of the body are called *metastases*. The first sign that a malignant tumour has spread is often swelling of nearby lymph nodes, but cancer can metastasize to almost any part of the body. Malignant tumours can be dangerous and it is important to find them and treat them quickly, before they spread.

Cancers are named after the part of the body where they start. For example, cancer that starts in the colon but spreads to the liver is called colon cancer with liver metastases.

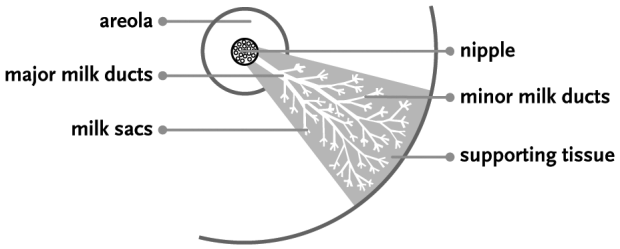
What is breast cancer?

Breast cancer is a cancer that starts in breast tissue. Breast tissue covers a larger area than just the breast. It extends up to the collarbone and from the armpit to the breastbone. Behind the breast tissue are the muscles of the chest and the upper arm. The main function of the breast is to produce and secrete milk and it is made up of milk glands, milk tubes (ducts) and fatty tissue. The glands where the milk is made are grouped into lobules and the ducts carry the milk to the nipple. The circle of darker skin around the nipple is called the areola. Within the breast, the glands and ducts are surrounded and protected by fatty tissue. Breast tissue changes with age, from mostly milk ducts during adolescence to mostly fatty tissue in older women.

Almost all breast cancers start in the glandular tissue of the breast and are known as adenocarcinomas. Breast cancers are often classified according to the type of breast tissue in which they first develop — lobular carcinoma if they started in the lobules and ductal carcinoma if they started in the ducts. Ductal carcinoma is the most common type of breast cancer. Other types of breast cancer start in other tissues of the breast. These develop differently and may require different treatment. Ask your doctor for details if you have one of these.

When breast cancer is diagnosed early, the breast cancer may be very small and limited to the few ducts or lobules where it has started. This is the earliest stage of breast cancer and the cancers are called *in situ* cancers.

Breast cancer is the most common cancer in Canadian women. It can be found in men but is very rare.



What causes breast cancer?

There is no single cause of breast cancer but there are a number of factors that appear to increase or decrease a woman's risk. It is much less common in some developing countries. Factors that seem to increase risk include age (breast cancer can occur in young women but most cases occur in women over 50 years of age), a family history of breast cancer (especially in a mother, sister or daughter and if the cancer was diagnosed before menopause or if the genes BRCA1 or BRCA2 are present), a family history of some other cancers, some previous breast disorders, having had no pregnancies or having a first pregnancy later than average, beginning to menstruate at an early age, and later than average menopause. The effects of diet, obesity, alcohol, hormone replacement therapy and smoking are under study. Some women get breast cancer without any of these risk factors.

How is breast cancer diagnosed?

Breast cancer is usually found in one of three ways: when your doctor examines your breast; through routine mammography; or when you tell your doctor about a change in the appearance of your breast or an unusual lump. A number of special tests are usually necessary to confirm a cancer diagnosis. They include:

Imaging studies such as X-rays, ultrasound, CT (computerized axial tomography) scans and MRIs (magnetic resonance imaging). They allow organs and tissues to be examined in more detail. They may be uncomfortable but are usually painless. In the case of breast cancer, a diagnostic *mammogram* (a special X-ray of breast tissue) will usually be done.

A biopsy is usually necessary to make a definite diagnosis of cancer. Cells or tissues are removed from the body and checked under a microscope. If the cells are cancerous, they may be studied further to see how fast they are growing. There are many ways to do a biopsy. For breast cancer it is common for a biopsy to be obtained using a special needle, under a local anesthetic. Sometimes this procedure is done with the help of ultrasound or mammography. If cancerous cells are found, they may be tested for *hormone* (estrogen or progesterone) *receptors*. This information will be used to decide which treatment would be most effective for you.

What is staging?

Once a definite diagnosis of cancer has been made, it is important to know the *stage* of your cancer. The stage helps determine which treatment will work best for you. The stage of a cancer depends on its size and the extent to which it has spread to other parts of the body. Complete staging may only be possible after surgery or additional tests and it may be necessary to remove some lymph nodes near the cancer.

Sometimes the stage of a cancer is described as a number — Stage 0, 1, 2, 3 or 4. The higher numbers are used for cancers that have spread. Sometimes the stage is described using the "TNM system" which is a combination of letters and numbers that are a bit like a postal code (e.g. T2N1M0). The T, N and M stand for Tumour, Nodes and Metastases. The number following the "T" indicates the size of the tumour, and the numbers following the "N" and the "M" indicate the extent to which lymph nodes or other parts of the body are involved. Sometimes other staging systems are used. Ask your doctor to tell you the stage of your cancer and to explain what the numbers and letters mean in your case.

What treatments will I have?

No two cancers are the same. Your doctors will consider the type and stage of your cancer, the scientific evidence that the treatment works for your type of cancer, and any other health issues you have. You will be encouraged to help make the final treatment choices.

Your treatment will be provided by a *healthcare team* of doctors, nurses and other specialists. Ask any one of them for help when you need it.

Cancer patients often have a combination of treatments. Your treatment may include:

Surgery is an operation to remove part or all of the tumour and some surrounding tissue. A decision to have surgery depends on where the tumour is and how close it is to vital organs. For breast cancer, surgery is usually recommended and is often very successful. A *lumpectomy* is the surgical removal of a breast tumour along with some surrounding healthy tissue. It is usually combined with radiotherapy. Or you may have a *mastectomy*, which is the surgical removal of the whole breast. In either case lymph nodes from the armpit will also be removed to check for spreading of the cancer. In some centres, a new procedure called sentinel node biopsy may be offered.

Radiotherapy (also called radiation therapy) is the use of high energy X-rays to destroy cancer cells. Side effects may occur as a result of some damage to tissues near the tumour, but these can usually be controlled. In external radiotherapy, the rays are carefully aimed at the tumour avoiding surrounding healthy tissue. In internal radiotherapy or *brachytherapy*, radioactive material is placed directly into a tumour.

Chemotherapy is the use of drugs or medications that interfere with the cancer cell's ability to grow and spread. Healthy cells can be affected during treatment, so you may experience side effects like nausea, vomiting, loss of appetite, fatigue, hair loss and an increased risk of infection. Most people handle chemotherapy fairly well, and the side effects can usually be reduced or controlled. Breast cancer often responds well to chemotherapy.

Hormone therapy, given by tablet or injection, may be used to shrink the tumour. There may be side effects but they can usually be reduced or controlled.

Supportive care is offered to all cancer patients. It will help you cope with the side effects of treatment as well as emotional, spiritual and practical concerns, such as help at home and transportation to treatment. For patients whose cancer is treatable but not curable, special palliative care programs may be offered.

Some people choose to use **complementary therapies** *together with* their conventional treatments. These have not been shown to be effective by scientific methods but many people say they have been helped by therapies like acupuncture and Traditional Chinese Medicine. More research is needed to understand how these therapies might work and if they are effective. Tell your doctor if you are using these therapies as they might affect tests or treatments. **Alternative therapies** are used *instead of* conventional treatments. They have not been shown to be safe or effective against cancer by scientific methods. Before deciding to use alternative therapies, find out as much as you can and discuss it with your healthcare team.

What are clinical trials?

At any time in your treatment you may be asked if you would like to take part in a clinical trial. You do not have to do this — the choice is up to you. Clinical trials are research studies to test ways of preventing and managing cancer. They must be done very carefully and are not available to all patients. Ask your doctor if there is a clinical trial that is suitable for you. You may benefit and so may future cancer patients.

What else do I need to know?

Either a lumpectomy or a mastectomy may change how you feel about your body and your sexuality. If this is a concern for you, talk to your doctor about breast prostheses, breast reconstruction or other options that may be helpful to you.

It is important to have regular follow-up visits with your doctor to monitor your progress even after your treatment is finished. You will be seen every three months or so at first, and then less often. Your doctor will recommend regular visits to check your general health, but will want you to make an appointment right away if you notice anything unusual or worrying. If your arm becomes swollen after surgery notify your doctor as special treatment might be needed.

You can encourage family members to reduce their risk of breast cancer. Tell them to ask about breast cancer screening — mammography, regular clinical breast examination and monthly breast self-examination.

How do I help myself?

Stay positive. The treatment of cancer has improved a great deal in the past twenty years and there is more hope for the future than ever before. New methods even help people with advanced disease and people whose cancer has come back.

Accept help. You will probably find that your friends and family will want to help you. Let them. Some people find that it helps to talk with a trained volunteer who has already lived the cancer experience. Ask about these services in your community.

Find out more. Be open with your healthcare team. Tell them your concerns and ask questions. They will help you get the care and information you need.

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