

# Breast cancer



FUNDASHON **M**ARIADAL



# 1. General observations

Breast cancer develops in the breast tissue. Breast cancer is classified according to where it originates:

- ductal: the cancer began in a milk duct
- lobular: the cancer began in a milk-producing gland

In addition, breast cancer is also classified as:

- a precancerous stage of breast cancer: in situ carcinoma
- breast cancer: invasive carcinoma

Different types of breast cancer can also occur in one breast at the same time, so both a ductal and a lobular carcinoma.

Breast cancer is further classified as:

- hormone sensitive or hormone insensitive
- HER2 positive or HER2 negative
- triple negative

### **Hormone sensitive or hormone insensitive**

Hormone sensitive means that hormones can stimulate the tumour to grow and divide. The hormones then bind to receptors on the cancer cell. If the cancer cells do not have hormone receptors, you have hormone-insensitive breast cancer. The tumour's growth is not affected by hormones.

### **HER2 positive or HER2 negative**

Breast cancer can be HER2 positive or HER2 negative. HER2 is a protein that stimulates tumour growth. A HER2 positive tumour means that there is an excessive amount of HER2 protein on the tumour.

### **Triple negative breast cancer**

In triple negative breast cancer, the protein HER2 is missing. In addition, the receptors for estrogen and progesterone are also absent. Because all three are missing, it is called triple negative breast cancer: three times negative.

### **Metastases**

Cancer can spread. If cancer cells end up in a lymph vessel, they can develop into a metastasis in the lymph nodes. In breast cancer, the first metastasis usually occurs in the sentinel lymph node: this lymph node is the first to absorb lymph fluid from the area where the tumour is located. Sentinel lymph nodes can be located in several areas around the breast: usually in the armpit, but sometimes also under the collarbone, next to the sternum, between the ribs and in the actual breast. Cancer cells can also spread through the blood and develop into tumours in the bones, lungs or liver for example. Another word for these types of metastases is distant metastases.

## 2. Symptoms

Certain changes in the breast may indicate breast cancer. The most common change is a lump. A lump is a thickening in the breast that feels different from the lumps you can normally feel.

Other changes may include:

- dimpling in the breast
- a change in the nipple area such as redness or flaky skin
- a recent pulling in of the nipple
- a strand leading to the nipple
- nipple discharge (bloody, watery, green in colour or milky)
- a breast that feels hot with the skin colouring red
- an area that won't heal properly
- a painful area in the breast that feels different
- a swelling in the armpit

The symptoms listed above do not mean that you actually have breast cancer. 75% of lumps or other changes in the breast are not cancer. As soon as you recognise any of the above symptoms, it is important to contact your doctor so that they can determine whether a referral to hospital is necessary.

## 3. Examination before diagnosis

There are several ways in which breast cancer or precancerous breast cancer can be detected and diagnosed. Only a doctor can determine whether or not a suspicion or symptom is

breast cancer after an examination.

You might have the following tests:

- physical examination (again)
- mammography
- ultrasound
- MRI scan
- puncture
- biopsy

If the tests indicate a benign tumour then you will discuss what to do with your doctor. Often nothing more needs to be done. Sometimes you have to remain under observation or it may be a good idea to have the abnormality surgically removed. If the doctor finds a malignant tumour, further examination is necessary.

## 4. Examination after diagnosis

If the doctor finds a malignant tumour, further examination is often necessary. He/she will determine how far the tumour has spread and/or whether there are metastases. This way he/she can determine which treatment is most suitable.

You might have the following tests:

- lung X-ray
- CT chest scan
- liver ultrasound
- MRI scan
- PET scan
- PET-CT scan
- bone scan
- sentinel node procedure



# 5. Treatment

The following treatments are possible:

- operation
- radiation
- chemotherapy
- hormonal therapy
- targeted therapy

Sometimes you will receive a combination of these treatments. Your doctor will discuss the treatments and possible side effects with you.

## Purpose of the treatment

Treatment can be aimed at a cure, but also at inhibiting the disease. The doctor will discuss the options for your situation with you.

If the goal is curing, this is called curative treatment. This may involve an additional treatment: this is called an adjuvant treatment. The adjuvant treatment is meant to achieve a better end result.

An example of adjuvant treatment is radiation after surgery. Neo-adjuvant treatment is comparable to adjuvant treatment. It is also aimed at a better end result. Neo-adjuvant means that you receive the additional treatment before the other treatment. For example, chemotherapy before surgery to shrink the tumour so that breast-conserving surgery is possible.

If the cancer cannot or can no longer be cured then you may receive palliative treatment. This treatment is aimed at inhibiting the disease and/or reducing or preventing symptoms.

## 6. Surgery

Surgery is usually an important part of breast cancer treatment. During surgery, the surgeon generously removes the tumour. This means that the surgeon removes the tumour and healthy tissue around it.

This is done because during the operation the surgeon cannot see whether there are cancer cells in the tissue around the site of the tumour. A pathologist examines the removed tissue under a microscope and checks whether the cut surface is 'clean'. If so, it is (almost) certain that the tumour has been completely removed. If the cut surface is not 'clean', it is possible that cancer cells have been left behind.

Sometimes further surgery is necessary or extra radiation to destroy the remaining cancer cells.

### **Breast conserving surgery or a mastectomy**

You may have breast-conserving surgery or a mastectomy. The biggest advantage of breast conserving treatment is the preservation of your own breast. Discuss with your surgeon

whether you are a candidate for breast-conserving surgery. There are women who choose to have the entire breast removed even though breast-conserving treatment is possible. They believe that removal of the whole breast is safer and offers a better chance of survival. That is not the case. If breast-conserving surgery is carried out properly, the chance of survival is just as high as for removal of the entire breast. Factors that play a role in choosing whether or not to have breast-conserving surgery:

- The size of the tumour in relation to the breast.
- The expected cosmetic result.
- The area of the breast where the tumour is located.
- Previous breast irradiation.
- Whether breast irradiation is possible.
- The chance of a local recurrence of the breast cancer.
- The patient's age.
- A hereditary predisposition.
- The patient's wish.

### **Axillary node dissection**

During the operation, the doctor may examine the sentinel lymph nodes. If the sentinel node procedure (see section Examination after diagnosis) shows that lymph nodes have metastases larger than 2 mm then the doctor may advise having all armpit lymph nodes removed: an axillary node dissection. Doctors will investigate which is better: an axillary node dissection or irradiation of the armpit without removing the glands.

### **Breast-conserving surgery**

The surgeon removes the tumour with some of the surrounding tissue through an incision into the skin

(lumpectomy). The remaining part of the breast may change shape. After breast-conserving surgery, the chance that the tumour will return in the same area within 10 years is very small. But because it is always possible that cancer cells are still present in the rest of the breast, radiotherapy is always given after the operation.

### **Mastectomy**

Surgical removal of the entire breast is the best treatment for about a third of women. This is called a mastectomy or ablation. The doctor removes all mammary gland tissue, the nipple, and the areola. The pectoral muscle is spared.

The doctor recommends a mastectomy:

- For a large tumour where breast-conserving treatment is not safe enough.
- If there are two or more tumours in different areas in the breast that are not close to each other.



- Pre-breast cancer in a large area or spread throughout the entire breast.
- If the cut edges are not cancer-free in a breast-conserving operation and a second breast-conserving operation will not yield good results.
- If the breast has been previously irradiated.
- If a tumour returns and the first operation was breast conserving surgery with radiation.
- For young women because their age makes them more likely to have a recurring breast tumour.
- If there is a hereditary predisposition.

Sometimes a plastic surgeon performs breast reconstruction during or after surgery. If you are not (yet) undergoing breast reconstruction, you will be given a light, temporary prosthesis in hospital. You can continue to wear this prosthesis until the wound has healed completely. You can then choose a permanent prosthesis.

### **Side effects after breast surgery**

After surgery you may have side effects such as bleeding, infection or scarring. You may have pain, sometimes in the entire chest wall or a numb feeling: phantom pain. Fluid accumulation is also possible. If the drains that drain wound fluid have been removed after the operation and fluid is still accumulating then it may have to be suctioned out with an injection needle. This simple procedure is usually not painful. Sensory nerves are often cut during a breast removal or an axillary node dissection. This can lead to numbness of the inner arm, but also to unpleasant pain: nerve pain. This pain usually does not respond to regular painkillers, but it does respond to special medication and other treatments. The

wound may hurt and pull, especially in the first few weeks. The skin around the wound may be slightly discoloured and sometimes the scarred area is a bit swollen. These symptoms diminish as the wound heals.

## 7. Survival and consequences

It is difficult to tell when someone with breast cancer is really cured. There is also a risk that the disease will come back after treatment that is curative in nature. We therefore prefer to speak of survival rates rather than cure rates. Usually, a period of 10 years from diagnosis is used. Generally the following applies: the longer the period that the disease is not detected again, the smaller the chance is that it will return. The chance of surviving the first five years is over 85%. The average 10-year survival for breast cancer is over 75%.

## Check-ups

You will be monitored by your doctor for years after treatment. During the check-ups, the doctor mainly checks whether the disease has returned and whether there may be a new tumour in the breast. Because the risk of local recurrence is greatest in the first five years, you will be monitored more frequently during that period.

If the disease recurs locally with distant metastases, it can often be inhibited for a short or longer period with palliative treatment. Symptoms can often also be effectively dealt with.

## Questions

If you have any questions about the Breast Cancer brochure, you can contact the oncology nurse on working days during office hours on telephone number: 7800493.

For further detailed information about breast cancer see [www.kwf.nl](http://www.kwf.nl)



**F**UNDASHON **M**ARIADAL