Breast cancer: early

It can be frightening to be told that you have breast cancer. But early breast cancer can usually be cured. Good treatments are available and many women recover to live a long and healthy life.

What happens in breast cancer?

When your body's cells are healthy, they divide, grow, and are replaced in an orderly way. But when you get cancer, your cells grow too fast and don't develop properly. Abnormal cells form a lump, called a tumour. This slowly gets bigger.

Breast cancer usually starts in thin tubes in the breast, called ducts. When women breastfeed, the ducts carry breast milk from the milk-producing glands to the nipple.

If you have invasive breast cancer, it means cancer cells have spread beyond the ducts into the fatty tissue of your breast. From there, it can spread around your body.

Early breast cancer is invasive cancer that is still within your breast. It might also be in glands under your arms, called lymph nodes. Early breast cancer can usually be removed by an operation.

The first question many women ask is, "Why me?" A few women get breast cancer because they have inherited a gene that makes it much more likely. But for most people, there is no obvious cause.

You are more likely to get breast cancer when you are older. There are some other things that are linked to getting breast cancer, such as not having children (or having them after the age of 30), not breastfeeding, drinking alcohol, and being very overweight (obese). But many women who get breast cancer don't have any of these risk factors.

What are the symptoms?

Many women learn that they have breast cancer before they get any symptoms. They usually find out after they have a mammogram. A mammogram is an x-ray of the breast. Mammograms can reveal lumps that are too small to feel.
Symptoms of breast cancer include:

- A lump or thickening in your breast
- A change in how your breast feels or looks. For example, it may feel heavy, warm, or uneven, or the skin may look pitted
- Changes in your nipple. For example, the nipple might be pulled back into the breast (known as an inverted nipple)
- Discharge from your nipple, such as blood.

Before you are diagnosed with breast cancer, you may have an ultrasound scan of your breast. Your doctor will also remove some tissue from your breast lump, using a needle. The laboratory will examine the tissue for cancer cells.

What treatments work?

Most women with early breast cancer have an operation to remove the cancer, then have radiotherapy on the breast afterwards. Sometimes they also take a course of drugs to reduce the chance of breast cancer coming back.

Surgery

If you have early breast cancer, surgery can remove your cancer, stop it spreading, and help you live longer.

There are two main types of surgery for early breast cancer.

- **Lumpectomy** lets you keep your breast. Your surgeon will remove only the part of your breast that has cancer.

- **Mastectomy** removes the whole breast from the side of the chest that has cancer. You will be left with a flat scar that goes across your chest.

Up to 8 in 10 women with early breast cancer can have a lumpectomy. Lumpectomy may be suitable if you have just one small tumour in your breast. If you have more than one tumour, it’s hard to remove all the cancer cells without changing the way your breast looks. Talk to your surgeon to decide which type of operation is right for you. You should be given plenty of time to think about and discuss this.

A lumpectomy with radiotherapy (see below) works just as well as having your whole breast removed. This is true for women of all ages. You are just as likely to be alive 20 years after a lumpectomy as after a mastectomy.

You’ll need a general anaesthetic, so you will be asleep during the operation. You will need pain relief afterwards. Be sure to ask for more pain relief if you need it.
If you have a lumpectomy, your surgeon will remove the tumour through a small cut in your breast. You will have a small scar afterwards, and your breast may look different.

The main risk with a lumpectomy is that your surgeon might miss some of the cancer cells. So you might need another operation to remove more breast tissue, or the whole breast, at a later stage. This can happen to about 1 in 5 women who have lumpectomy.

If you have surgery to remove your whole breast, you might have more peace of mind that all the cancer has been removed. But many women find it difficult to come to terms with losing a breast. Reconstruction surgery to replace your breast tissue with an implant may help. You may be able to have your breast removed and reconstructed during the same operation.

With any type of operation, there are risks. These include getting an infection in the wound, or having an allergic reaction to the anaesthetic.

During surgery, you may need to have some, or all, of the lymph nodes in your armpit removed. These will be tested to see if the cancer has spread. If there are cancer cells in the lymph nodes, you may need further types of treatment.

There are three ways of checking the lymph nodes:

- Axillary clearance, where all the lymph nodes (about 20) in your armpit are removed
- Axillary sampling, where between four and 10 nodes are removed
- Sentinel node biopsy, where doctors inject a dye to see which nodes are most likely to have cancer cells, and remove just those nodes.

To decide which method to use, your doctor will first check your lymph nodes for signs of cancer with an ultrasound. If there are no signs of cancer in the nodes, a sentinel node biopsy is the preferred treatment, as it is less likely to cause pain and swelling in your shoulder and arm.

If there are signs of cancer on the ultrasound, your doctors will remove a small amount of tissue from the node, using a needle. If the tissue doesn't have cancer cells, then a sentinel node biopsy is still the preferred treatment. If cancer cells are in the node, then your doctor may recommend having them all removed (axillary clearance).

Radiotherapy

Your doctor will probably recommend that you have radiotherapy after surgery, to kill any cancer cells left behind.

Radiotherapy uses x-rays to destroy cancer cells in your breast. You'll need to have radiotherapy five days a week for between four weeks and six weeks. Each session takes only a few minutes. Radiotherapy doesn't hurt, but it has side effects.
Having radiotherapy after lumpectomy reduces the chance of cancer coming back in your breast and reduces the chance that you'll need to have your breast removed because your cancer has spread.

Radiotherapy can help stop your cancer coming back in the same place as it started. In one study:

- 81 in 100 women who had radiotherapy were still free of cancer after 10 years
- 65 in 100 women who didn't have radiotherapy were still free of cancer after 10 years.

It can also increase your chances of living longer.

Your skin may itch or change colour after radiotherapy, and your breast may feel tender. Some women feel more tired than usual. These problems are usually mild and go away after a few weeks.

A few people get nerve damage or inflammation in their lungs some time after radiotherapy. These problems sound serious, but they are rare and can be treated.

If you have had the whole of your breast removed (a mastectomy), you probably won’t need radiotherapy as well. All of the cancer cells should have been removed. But radiotherapy of the chest wall is sometimes recommended for women who have a high chance that the cancer will come back.

Some women have radiotherapy to their lymph nodes, instead of having lymph nodes removed. If you have early breast cancer, treating the lymph nodes in your armpit with radiotherapy works about as well as removing the lymph nodes affected by cancer.

Some women also have radiotherapy to the remaining nodes in the armpit, after others have been removed. Doctors usually recommend this only if there were lots of cancer cells in the lymph nodes removed.

Treating the armpit with radiotherapy can reduce the risk that your cancer will come back. But it doesn’t reduce your risk more than having all your lymph nodes removed with surgery.

Some women also have radiotherapy to lymph nodes under the breast bone, or above the collarbone. But we don’t know enough to be sure that these treatments work to stop cancer coming back, or to help you live longer.

**Drug treatments**

If you have early breast cancer, having chemotherapy after surgery to remove your tumour reduces the chance that your cancer will come back. It can also help you live longer.

Not every woman with early breast cancer needs chemotherapy. It’s recommended if there’s a high risk that your cancer has spread outside of your breast and the lymph
nodes in your armpit. Your risk is higher if you have a large tumour, if the cancer cells look like they are growing very fast under a microscope, or if you have cancer cells in lots of the armpit nodes.

Chemotherapy drugs kill cancer cells, but they also affect other cells in the body. This can cause important side effects.

Chemotherapy drugs can be given as tablets or as a drip. You may get treatment at a clinic or hospital as an outpatient. You’ll have a combination of drugs. They may include:

- Doxorubicin and cyclophosphamide for three months
- 5-fluorouracil, epirubicin, and cyclophosphamide for three to four months
- Cyclophosphamide, methotrexate, and 5-fluorouracil (also known as CMF) for six months
- Docetaxel and paclitaxel after you’ve had doxorubicin.

Studies show that chemotherapy after surgery reduces the chances that your cancer will come back. It also increases the chances that you will live for at least 10 years after being diagnosed with breast cancer.

The side effects of chemotherapy drugs happen mainly because they kill some normal cells along with the cancer cells. You may feel sick and vomit during or after your treatment. You may also lose your hair, put on weight, and get symptoms of the menopause.

A lot of women feel very tired during chemotherapy. This tiredness may be overwhelming, and it can continue after you stop treatment. About two-thirds of women say their tiredness is moderate or severe. It’s a good idea to arrange help from friends and family while you’re having chemotherapy, to help with everyday tasks like shopping and cooking.

Some women have chemotherapy before surgery, to shrink the tumour. They are less likely to need surgery that removes their whole breast (a mastectomy). But it doesn’t help them to live longer. If you have chemotherapy before surgery, your doctor may call it neoadjuvant chemotherapy.

Some types of treatment are suitable only for people who have certain types of breast cancer. The first type is drugs that block the effects of the female hormone oestrogen. Some types of cancer cells grow more quickly when they come into contact with oestrogen. They are called oestrogen-receptor positive. Your doctor will test your cancer cells to find out if you have this type.

If you have oestrogen-receptor positive breast cancer, you might be offered tamoxifen, or one of a group of drugs called aromatase inhibitors.
If you have early breast cancer that is oestrogen-receptor positive, taking tamoxifen for up to five years after surgery halves the chance that your cancer will come back. It also reduces the chance that you will die from breast cancer.

Tamoxifen works around the whole body, not just in the breast. It may not work as well if you take it for less than five years. Some research suggests that taking tamoxifen for 10 years rather than five may further reduce the chance that your cancer will come back or that you will die of breast cancer. But taking tamoxifen for longer can also increase the risk of side effects.

Tamoxifen stops oestrogen working in your body. This can give you symptoms of the menopause. This is more likely if you haven't been through the menopause already. About half the women taking tamoxifen get hot flushes, irregular periods, and vaginal dryness.

Tamoxifen may also cause indigestion or make you feel sick. Less common side effects of tamoxifen include cataracts and deep vein thrombosis.

Some women have tamoxifen instead of chemotherapy, and others have both tamoxifen and chemotherapy.

If you have gone through the menopause, taking an aromatase inhibitor can reduce the risk that your cancer will come back. It can also reduce the chance that you will get cancer in your other breast. But we don’t know if taking an aromatase inhibitor will help you live longer.

Aromatase inhibitors stop the body making oestrogen. They reduce the chance that your cancer will come back. They work differently from tamoxifen. Aromatase inhibitors only work in women who have been through the menopause.

You might start treatment with an aromatase inhibitor straight after surgery. You might switch to an aromatase inhibitor after you’ve been taking tamoxifen for a while if, for example, you get side effects from tamoxifen. Or you might start treatment with an aromatase inhibitor after you’ve been taking tamoxifen for five years.

Aromatase inhibitors cause fewer menopausal side effects than tamoxifen. But aching joints and weakened bones that can break more easily seem to be more common with aromatase inhibitors than with tamoxifen.

**Trastuzumab (Herceptin)** is used to treat another type of breast cancer. It attacks cancer cells that make too much of a protein called HER-2. About 1 in 5 breast cancers make too much HER-2. They are called HER-2 positive breast cancers. Your doctor can check to see if your cancer is HER-2 positive.

Trastuzumab can be given on its own or with chemotherapy. It’s given as a drip. Most women are treated with trastuzumab every three weeks for a year.

Some research has shown that women with early HER-2 positive breast cancer who take trastuzumab are less likely to have their cancer come back, and a little more likely
to live longer. But other research has found no difference in how long women who take trastuzumab live.

In one summary of the research, after two to three years, 74 in 100 of the women who had trastuzumab were alive and free of cancer, compared with 65 in 100 who didn't get trastuzumab.

You may get a fever and chills after treatment with trastuzumab. Other common side effects include pain, weakness, feeling sick, diarrhoea, headaches, breathing problems, and rashes. These side effects tend to be worst after the first treatment with trastuzumab.

Trastuzumab can also cause heart problems, especially when it's used with some types of chemotherapy. In one study, nearly 1 in 5 women had to stop taking it because of heart problems. Trastuzumab can also seriously affect the lungs. This can cause severe breathing problems.

Because of these problems, women who have HER-2 positive breast cancer are carefully checked to see if they are healthy enough to be treated with trastuzumab.

Other treatments

If you haven't been through the menopause, stopping your ovaries making oestrogen (ovarian ablation) may help you live longer.

Your doctor may suggest it if he or she thinks there's still a high risk that the cancer could come back after other treatments. It is usually only recommended for women who haven't reached the menopause and whose breast cancer is sensitive to oestrogen.

Ovarian ablation can be done in three ways:

• Surgically, by removing the ovaries under a general anaesthetic

• With medicine, such as hormones. One hormone used is goserelin (Zoladex). Goserelin is given as an injection. It works as well as removing your ovaries by surgery. And it’s reversible. You may need to be treated with it for two to five years. Once you stop, it may take six months for your ovaries to start working again

• With radiotherapy. This can take a few months to work and can cause diarrhoea, stomach pain, and vomiting. There is a small chance it won't work.

If you haven't yet gone through the menopause but have had surgery and radiotherapy, adding ovarian ablation to your treatment may mean you live longer, you have less risk of your breast cancer coming back, and you have less risk of cancer spreading to other parts of the body.

But ovarian ablation doesn't help women who have already gone through the menopause.
Side effects are caused by the lack of oestrogen in the body. These include symptoms of the menopause, such as hot flushes, vaginal dryness, loss of sex drive, and sleep problems.

Longer-term side effects may include bone loss (because oestrogen helps calcium make bones stronger) and also heart problems (because oestrogen protects women against heart disease until they go through the menopause).

What will happen to me?

In general, if your cancer is diagnosed at an earlier stage and is low grade (it's not aggressive), your cancer is less likely to come back and you’re likely to live longer. The good news is that more women are living longer after being diagnosed with breast cancer.

But breast cancer is a disease that can come back even 20 years after you have first been diagnosed. You will probably always need to be watchful for symptoms and have regular check-ups.

However, if breast cancer is going to come back, it's most likely to do so within the first two years.

Where to get more help

Breast Cancer Care is a UK charity that provides advice and practical support to women with breast cancer. You can call their helpline on 0808 800 6000 or see the website (http://www.breastcancercare.org.uk).

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