

Patient information from BMJ

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Breast cancer: DCIS (very early breast cancer) in women

It can be frightening to be told that you have cancer cells in your breast. But breast cancer at this very early stage can nearly always be cured. Good treatments are available.

This information is about a type of very early breast cancer called ductal carcinoma in situ (DCIS) in women.

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 the earliest form of breast cancer, called **ductal carcinoma in situ (DCIS for short)**, the cancer cells are still inside the ducts. They haven't yet spread into the fatty tissue of the breast.

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. Breast cancer is also much more common in older women than in younger women.

Other things that seem to make a woman more likely to get breast cancer include:

- Not having had children (or having them after the age of 30)
- Not having ever breastfed
- Drinking alcohol
- Being very overweight (obese).

But many women who get breast cancer don't have any of these risk factors. For most women there's no obvious reason why they get breast cancer.

What are the symptoms?

Unlike women with more-advanced breast cancer, if you have DCIS you won't usually have any symptoms. For example, you won't feel ill and you won't usually be able to feel a lump in your breast. This is because the cluster of cancer cells is too tiny to be able to feel or to cause any problems that you would be aware of.

Women who have DCIS usually find out after they have a mammogram. A mammogram is an x-ray of the breast.

As well as detecting clusters of cancer cells, mammograms can also detect small lumps of calcium in the breast, called microcalcifications. These are usually not linked to cancer. But they can sometimes be a sign that cancer is starting to develop.

What treatments work?

Different types of breast cancer need different treatment.

- Most women with DCIS have an operation to remove the cancer cells.
- You might also need to have radiotherapy after surgery.
- Depending on the type of cancer cells, you might also take a medicine called tamoxifen after surgery.

Surgery

Most women with DCIS can have an operation called **breast-conserving surgery**. You might also have heard this operation called a **lumpectomy**. This removes the cancer cells and a small amount of surrounding breast tissue, but it leaves the healthy breast tissue in place.

Your surgeon will try to leave your breast looking as much as possible like it did before. But you will have a small scar afterwards and your breast will probably look different. Talk to your surgeon about how you can expect your breast to look after surgery.

But if you have DCIS in more than one place, or if the amount of DCIS is very large compared with the size of your breast, you may need to have the whole breast removed. This is called **mastectomy**.

For either type of surgery you'll have a general anaesthetic, so you won't be awake during the operation and won't feel any pain. You will need pain relief afterwards. Be sure to ask the nurses for more pain relief if you are in discomfort.

If you have breast-conserving surgery your surgeon will remove the cancer cells through a small cut in your breast.

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 might be able to have your breast removed and reconstructed during the same operation.

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As with any type of operation, surgery for DCIS carries some risks. These include getting an infection in the wound, or having an allergic reaction to the anaesthetic.

Some women get fluid under the scar (a seroma) or bleeding under the cut, which causes a large bruise (a haematoma). A seroma can be drained with a needle. If you have a lot of bleeding you may need another operation to stop it. A mastectomy is a more serious operation than breast-conserving surgery and it may take you longer to recover.

If you are finding it hard to decide which operation to have, take your time and talk to your doctors and nurses about the options. You don't have to rush into a decision. Waiting a week or two won't make a difference.

Radiotherapy

Radiotherapy is usually only used for women with DCIS who have breast-conserving surgery. It's not usually necessary for women with DCIS who have a mastectomy.

Unless your doctor thinks it's highly unlikely that your DCIS will come back, he or she will probably recommend that you have **radiotherapy** after breast-conserving surgery, to reduce the chance of recurrence.

The chance of your DCIS returning is smaller if the area of DCIS in your breast is very small and the cells don't look like they are growing very fast under a microscope.

Radiotherapy uses x-rays to destroy cancer cells in your breast. If you have radiotherapy you'll need sessions several days a week for between four and six weeks. Each session takes only a few minutes.

Having radiotherapy after breast-conserving surgery 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 doesn't hurt, but it has side effects. Your skin may itch or change colour after treatment, and your breast may feel tender. Some women say that having radiotherapy makes them feel tired. 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. But newer techniques minimise the dose of radiation and reduce the chance of harm.

Tamoxifen

Some breast cancer cells grow when they come into contact with the female hormone oestrogen. They are called oestrogen receptor positive. Other cells, called progesterone receptor-positive cells, grow when they come into contact with the hormone progesterone. You might hear these two types of cancer cells called hormone receptor positive.

Your cancer cells will be tested to see if they are hormone receptor positive. If they are, your doctor may recommend you take a drug called tamoxifen. It blocks the effects of the hormones.

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If you have hormone receptor-positive cancer, taking tamoxifen after surgery and radiotherapy reduces your chance of your DCIS returning. It also reduces the chance that you'll get breast cancer that spreads into the breast tissue.

If you have had breast-conserving surgery or mastectomy that affected one breast, treatment with tamoxifen also reduces the chance of cancer developing in the other breast.

Because tamoxifen stops these hormones working in your body, it can cause symptoms of the menopause, such as hot flushes, irregular periods, and vaginal dryness.

Tamoxifen may also cause indigestion or make you feel sick. Tamoxifen can also cause side effects such as cataracts and deep vein thrombosis, but this is rare.

What will happen to me?

Women now live longer after being diagnosed with breast cancer than ever before, especially if the cancer is at an early stage. Women whose cancer has not spread outside the ducts (DCIS) are nearly always cured.

Where to get more help

There are many charities and support groups for women with breast cancer. For example, in the UK, Breast Cancer Care (www.breastcancercare.org.uk) is a charity that provides advice and practical support to women with breast cancer.

Talk to your doctor about charities, online support groups, or support groups in your area.

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