

Ductal carcinoma in situ

The NSW Breast Cancer Institute



What is DCIS?

Ductal carcinoma in situ (DCIS) is a change in the cells that line the milk ducts of the breast. When DCIS develops, the cells that line the ducts grow in a manner that is not controlled; they heap up but do not move outside the duct (*Figure 1*). If left untreated, DCIS may develop into invasive breast cancer (ie. cancer that can spread to other parts of your body).

How will I know if I have DCIS?

Most women with DCIS have no symptoms. DCIS is usually diagnosed on a mammogram where it shows as specks of calcium (microcalcification). Some women with DCIS have a breast lump or nipple discharge.

How is DCIS treated?

There are a few different treatments available for DCIS. These are:

Wide excision (conservation) surgery

A surgeon removes the abnormal breast tissue and a small area of healthy tissue around it. This treatment is most effective for women with small areas of 'low grade' DCIS. It has the advantage of preserving most of the breast, usually with a good cosmetic result. The disadvantage is that DCIS can come back or invasive cancer can develop in the remaining breast tissue that has not been treated.

Wide excision (conservation) surgery and radiation therapy

Surgery (as above) is followed by a course of radiation therapy (radiotherapy). The advantages are that the breast is preserved, and the addition of radiation therapy lessens the risk of DCIS coming back or invasive cancer developing in the breast. The disadvantage

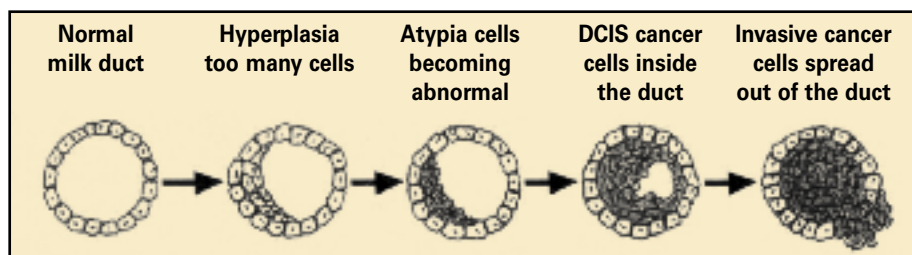


Figure 1. Progression from normal duct to DCIS (malignant cells contained within the duct) to invasive carcinoma (malignant cells invading through the wall of the duct into the parenchyma beyond)

is that radiation therapy is given daily over a period of 5–6 weeks, requiring regular trips to the hospital for treatment; radiation therapy can also cause side effects.

Total mastectomy

A surgeon removes the entire breast and nipple. This is sometimes the only treatment option for large areas of DCIS or cases where small clusters of DCIS are scattered through the breast. The advantages are that radiotherapy is not usually required and the chances of DCIS coming back or invasive cancer developing in the breast are very small. In addition, follow up is easier as mammograms are only needed on the remaining breast. The disadvantages are that the breast is removed and the operation is more extensive than just removal of the part of the breast affected by DCIS.

Total mastectomy and breast reconstruction

All women undergoing mastectomy should have the option of having the breast reconstructed. There are a number of ways that the breast can be reconstructed following mastectomy. Options include reconstruction with a breast implant, or a flap reconstruction using natural tissue from other areas of the body. Reconstruction can be done immediately, or later in another operation. Consultation with a plastic surgeon can be arranged to discuss

the options in detail.

Surgery to remove lymph nodes

Most women with invasive breast cancer have surgery to remove some of the lymph glands from their axilla (armpit). We know that if invasive cancer spreads, it is likely to spread to the lymph glands first, so these are removed for testing. In DCIS, the cancer cells are contained in the milk ducts and do not invade into the breast tissue nor spread to the lymph glands. It is therefore not usually necessary to remove the glands. Occasionally, if there is a large area of DCIS or lots of small clusters of DCIS, a surgeon may recommend sampling of the lymph glands with surgery known as an axillary sample or sentinel node biopsy.

Tamoxifen

Tamoxifen is a hormone treatment given in tablet form. It is often used in the treatment of invasive breast cancer. Its role in the treatment of DCIS is not resolved. Further research is being done to determine the role of tamoxifen in the treatment of DCIS.

Remember

DCIS is not an emergency. You have time to make a decision. Seek a second opinion if you are unsure about what to do.

Adapted from: 'Ductal carcinoma in situ (DCIS)' fact sheet. The NSW Breast Cancer Institute www.bci.org.au

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