



# Patient education: Ductal carcinoma in situ (DCIS) (The Basics)

Written by the doctors and editors at UpToDate

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## What is ductal carcinoma in situ?

Ductal carcinoma in situ (or "DCIS") is the earliest form of breast cancer. It forms inside the ducts that carry milk to the nipple during breastfeeding.

When a cancer is "in situ," it means that it has not spread beyond the place where it first formed. For DCIS, it means that the cancer is only in the duct and has not spread into the tissues around it. DCIS is curable in most cases.

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## What are the symptoms of DCIS?

DCIS does not usually cause symptoms. But in some cases, people feel a lump in their breast, or have blood coming from the nipple.

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## How is DCIS found?


Most cases of DCIS are found during a mammogram, a special kind of X-ray used to find breast cancers. DCIS usually shows up on a mammogram as tiny spots, which doctors call "calcifications," or as a shadow, which doctors call a "density." If your mammogram shows either of these, you will usually get more detailed mammograms called "magnification views." These give the doctor a close-up view of the suspicious area and the rest of the breast tissue.

If your mammogram shows a suspicious area, you will need a "biopsy." That means that a doctor will take samples of breast tissue and send them to the lab to be checked for cancer. This is usually done using a needle, but some people must have a type of biopsy that involves surgery. Surgical biopsy, also called "excisional biopsy," is done if the needle biopsy can't be done safely or accurately.

To do a needle biopsy, the doctor will:

- Use X-rays to find the exact spot on the breast that looks suspicious
  - Insert a needle to take samples
  - Put a tiny metal clip into that spot, so a surgeon can easily find the same spot later
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## How is DCIS treated?

The first treatment for DCIS is surgery. The type of surgery will depend on the size and location of the cancer. If the DCIS is contained within a small area of the breast, you might have the option of getting "breast-conserving surgery." If the DCIS is in a large area, the surgeon will probably have to remove the whole breast with a "mastectomy" ( figure 1).

- **Breast-conserving surgery**, also called "lumpectomy," is surgery to remove the cancer and a section of healthy tissue around it. If you get this type of surgery, you will keep your breast. But you will likely also need radiation therapy after surgery to help keep the cancer from coming back. People who have breast-conserving surgery and radiation live just as long as those who have mastectomy. Still, people who have breast-conserving surgery have a slightly higher chance than those who have mastectomy of having their cancer come back in the breast.
- **Mastectomy** is surgery to remove the whole breast. People who choose this can also choose to have surgery to reconstruct the breast.

Chemotherapy is not used to treat DCIS.

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## Is other treatment needed after surgery?

Your doctor might recommend other treatments after surgery, too. The goal is to lower the chances that the cancer will come back (either as DCIS or invasive breast cancer). These treatments do not reduce the chances of dying from cancer any more than surgery alone. But they do lower the risk of getting breast cancer again.

Options include:

- **Radiation therapy ("RT")** – This is usually offered after breast-conserving surgery, although some people whose cancer is not likely to come back might not need it. People who get a mastectomy for DCIS do not need RT.
- **Hormone therapy** – This involves taking medicines to block certain hormones, estrogen and/or progesterone, from acting on breast cells. It is often given after breast-conserving therapy if the cancer tests positive for something called "estrogen receptors" ("ER"), "progesterone receptors" ("PR"), or both. Hormone therapy is less

often given after mastectomy, but might be an option to lower the risk of getting cancer in the opposite breast in the future.

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## What happens after treatment?

After treatment, you will need to be checked regularly to see if the cancer comes back. You will most likely have mammograms and physical exams at least once a year. You should also watch for symptoms that could mean that the cancer has come back, such as a new breast lump or pain. If you notice any new symptoms, tell your doctor.

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## What happens if the cancer comes back?

If DCIS comes back, it will be the same DCIS half of the time and more serious invasive cancer half of the time. Either way, if your cancer comes back, you will likely need more surgery. If you previously had breast-conserving surgery and radiation, you will need a mastectomy, because you can't get radiation more than once in the same area of the body. If the cancer comes back as an invasive cancer, you will need more intensive treatment.

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## What will my life be like?

Most people with DCIS do very well after treatment. If you are on hormone therapy, it is very important to take your medicines as directed. Talk to your doctor if you have any side effects from the medicines. It's also important to follow all of your doctors' instructions about follow-up exams and tests.

Always let your doctors and nurses know how you feel about a treatment. Any time you are offered a treatment, ask:

- What are the benefits of this treatment? Is it likely to help me live longer? Will it reduce or prevent symptoms?
  - What are the downsides to this treatment?
  - Are there alternatives to this treatment?
  - What happens if I do not have this treatment?
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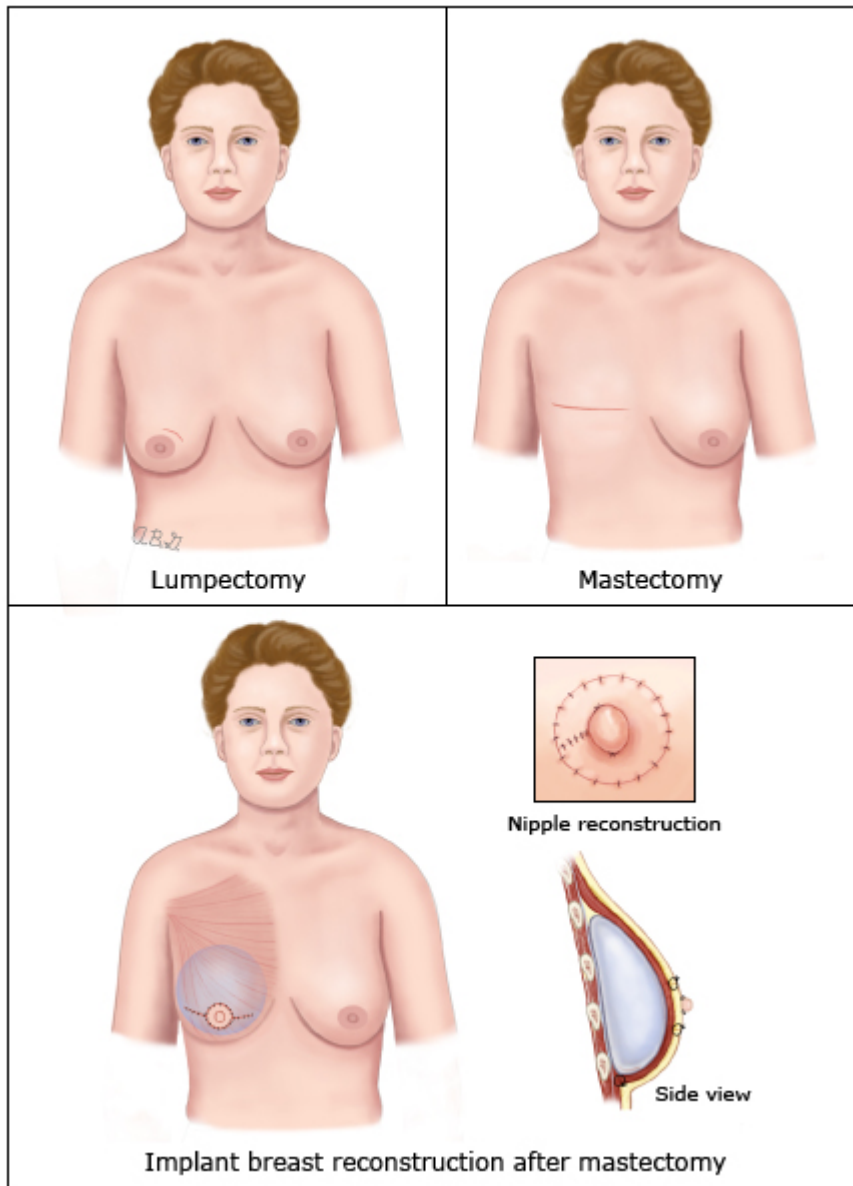
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**GRAPHICS****Lumpectomy and mastectomy to treat breast cancer**

People who have a mastectomy have the whole affected breast removed. People who have a lumpectomy have the tumor and a small part of the surrounding healthy tissue removed. In most cases, those who have a lumpectomy must also have radiation therapy after their surgery. Those who have a mastectomy can usually decide if and when to have their breast reconstructed. The type of reconstruction shown here is just one way surgeons can reconstruct a breast.

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