Ductal carcinoma in situ (DCIS) is a non-invasive breast cancer. In situ means “in place.” With DCIS the abnormal cells are contained in the ducts of the breast. They haven’t spread to nearby breast tissue (invasive breast cancer). The ducts carry milk from the lobules (where it’s made) to the nipple during breastfeeding. DCIS is also called intraductal carcinoma.

With treatment, chances for survival are excellent.

Without treatment, DCIS may progress into invasive breast cancer. Doctors don’t know which cases of DCIS might become invasive, so almost all cases of DCIS are treated.

**Treatment for DCIS**

**Treatment** involves surgery, with or without radiation therapy. Some people will also take hormone therapy.

**Surgery**

*Surgery* (lumpectomy or mastectomy) removes the abnormal breast tissue. Surgery options depend on how far the DCIS has spread in the ducts.

If there’s little spread of DCIS in the ducts, a lumpectomy can be done. This means the surgeon removes only the abnormal tissue. The rest of the breast is left intact. In most cases, lymph nodes aren’t removed.

If DCIS affects a large part of the breast, a mastectomy is needed. This means the surgeon will remove the whole breast. Some people will have a sentinel node biopsy to remove a few lymph nodes in the underarm area. This avoids a larger lymph node surgery if surgery shows invasive breast cancer.

**Breast reconstruction** (surgery to recreate the breast) may be done at the same time or later.

**Radiation therapy**

*Radiation therapy* uses high-energy X-rays to kill cancer cells. Lumpectomy for DCIS is often followed by radiation. This lowers the risk of DCIS coming back. It also reduces the risk of invasive breast cancer.

Some women may have a lumpectomy without radiation. This is an option if they have smaller, lower grade DCIS and clean surgical margins.

Radiation is rarely given after a mastectomy for DCIS.

Survival is the same for women with DCIS who have a mastectomy and for those who have a lumpectomy (with or without radiation).

**Hormone therapy**

Hormone receptor-positive tumors express (have a lot of) hormone receptors. **Hormone therapy** drugs slow or stop the growth of hormone receptor-positive cells by preventing the cancer cells from getting the hormones they need to grow. Hormone therapy (with tamoxifen or an aromatase inhibitor) is recommended for women with hormone receptor-positive DCIS who have a lumpectomy.

Hormone therapy isn’t given to women who have a mastectomy for DCIS.
Risk of developing invasive breast cancer after DCIS

After treatment for DCIS, there’s a small risk of:

- DCIS recurrence (return of DCIS).
- Invasive breast cancer (when abnormal cells from inside the milk ducts invade nearby breast tissue).

These risks are higher with lumpectomy plus radiation than with mastectomy.

Emerging areas in the treatment of DCIS

Researchers are studying new ways to treat DCIS including:

- Ways to predict which cases of DCIS will progress to invasive breast cancer (to target treatment to those who are at higher risk).
- Which women may not need radiation after lumpectomy for DCIS.

After discussing the benefits and risks with your doctor, we encourage you to join a clinical trial if there is one right for you. If you or a loved one needs information or resources about clinical trials, call the Komen Breast Care Helpline at 1-877 GO KOMEN (1-877-465-6636) or email clinicaltrialinfo@komen.org. Se habla español.

Also BreastCancerTrials.org in collaboration with Susan G. Komen®, offers a custom matching service to help find clinical trials that fit your needs.

Questions for your doctor

- Which treatments do you recommend for me and why?
- Is the DCIS estrogen receptor-positive or estrogen receptor-negative? Will I need to take hormone therapy (tamoxifen or an aromatase inhibitor)?
- How long do I have to decide about my treatment?
- What are my chances for DCIS recurrence? What about developing invasive breast cancer?
- Were my tumor margins negative (also called uninvolved, clean or clear)? If not, what more will be done?
- How often will I have check-ups and follow-up tests after treatment ends?
- Which health care provider is in charge of my follow-up care? Will a follow-up care plan be prepared for me?
- Are there clinical trials enrolling people with DCIS? If so, how can I learn more?

Learn more about DCIS on komen.org.