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## Your Breast Pathology Report: Lobular Carcinoma In Situ (LCIS)

When biopsy samples are collected from your breast, they are studied by a doctor with special training, called a **pathologist**. After testing the samples, the pathologist creates a report on what was found. Your doctors can use this report to help manage your care.

- [What is in-situ carcinoma \(or carcinoma in situ\) of the breast?](#)
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The information here is meant to help you understand some of the medical terms you might see in your pathology report after [abreast biopsy](#)<sup>1</sup>, which might be a needle biopsy or a surgical (open) biopsy.

In a **needle biopsy**, a hollow needle is used to remove samples from an abnormal area in your breast. In some situations, a surgical biopsy might be needed. This can be either an **incisional biopsy**, in which only part of an abnormal area is removed, or an **excisional biopsy**, which removes the entire abnormal area, often with some of the surrounding normal tissue. An excisional biopsy is much like a type of [breast-conserving surgery](#)<sup>2</sup> called a lumpectomy.

### What is in-situ carcinoma (or carcinoma in situ) of the breast?

A **carcinoma** is a cancer that begins in the lining layer (epithelial cells) of organs like

the breast. Nearly all breast cancers are carcinomas.

**In-situ carcinoma** (also known as **carcinoma in situ**, or **CIS**) is a term is used when cells that look like cancer cells are growing in the lining layer of cells but they don't invade through the wall.

The [normal breast](#)<sup>3</sup> is made of tiny tubes (ducts) that end in a group of sacs (lobules), which is where milk is made. Breast cancer typically starts in the cells lining the ducts or lobules, when a normal cell becomes a carcinoma cell. As long as the carcinoma cells are still confined to the breast ducts or lobules and do not grow into deeper layers, it is considered in-situ carcinoma (also known as carcinoma in situ, or CIS).

If the carcinoma cells have grown beyond the ducts or lobules, it is called **invasive or infiltrating carcinoma**. This is a true breast cancer, in which the tumor cells can spread (metastasize) to other parts of the body.

### **Lobular carcinoma in situ (LCIS), lobular neoplasia, or in-situ carcinoma with duct and lobular features**

The 2 main types of in-situ carcinoma of the breast are:

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prefer to use the term **lobular neoplasia** instead of lobular carcinoma in situ.

There are different types of LCIS:

- **Classic LCIS:** The cells lining the lobules of the breast are smaller and are about the same size.
  - **Pleomorphic LCIS:** The cells lining the lobules of the breast are larger and look more abnormal.
- Florid LCIS:** The cells lining the lobules have grown into a large enough group that they have formed a mass, typically with an area of dead cells in the middle (called



pathologist know which edge of the specimen they're looking at.

The pathologist looks at slides of the LCIS to see how close the LCIS cells are to the ink (the edges or margins of the specimen). If LCIS is touching the ink (called **positive margins**), it can mean that some LCIS cells were left behind. Sometimes, though, the surgeon has already removed more tissue (during surgery) to help make sure that this isn't needed.

Still, since LCIS doesn't usually turn into invasive cancer, having positive margins doesn't automatically mean that you will need more treatment. In fact, you may only need further surgery if the LCIS was described as pleomorphic or florid, or if the LCIS caused a lump that could be felt or seen as a tumor on a mammogram.

If your pathology report shows LCIS with positive margins, your doctor will talk to you about your options.

## E-cadherin

E-cadherin is a test that might be done to help determine if carcinoma in situ is ductal (DCIS) or lobular (LCIS). (The cells in LCIS are usually negative for E-cadherin.) If your report doesn't mention E-cadherin, it means that this test wasn't needed to make the distinction.

## Other lab tests that might be done

- High molecular weight cytokeratin (HMWCK)
- CK903
- CK5/6
- p63
- Muscle specific actin
- Smooth muscle myosin heavy chain
- Calponin
- Keratin

These are special tests that might be done to help diagnose LCIS (or DCIS). Not all biopsy samples need these tests. Whether or not your report mentions these tests has no bearing on the accuracy of your diagnosis.

## Hyperlinks

1. [www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/breast-biopsy.html](http://www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/breast-biopsy.html)
2. [www.cancer.org/cancer/types/breast-cancer/treatment/surgery-for-breast-cancer/breast-conserving-surgery-lumpectomy.html](http://www.cancer.org/cancer/types/breast-cancer/treatment/surgery-for-breast-cancer/breast-conserving-surgery-lumpectomy.html)
3. [www.cancer.org/cancer/types/breast-cancer/about/what-is-breast-cancer.html](http://www.cancer.org/cancer/types/breast-cancer/about/what-is-breast-cancer.html)
4. [www.cancer.org/cancer/diagnosis-staging/tests/biopsy-and-cytology-tests/understanding-your-pathology-report/breast-pathology/ductal-carcinoma-in-situ.html](http://www.cancer.org/cancer/diagnosis-staging/tests/biopsy-and-cytology-tests/understanding-your-pathology-report/breast-pathology/ductal-carcinoma-in-situ.html)
5. [www.cancer.org/cancer/types/breast-cancer/non-cancerous-breast-conditions/hyperplasia-of-the-breast-ductal-or-lobular.html](http://www.cancer.org/cancer/types/breast-cancer/non-cancerous-breast-conditions/hyperplasia-of-the-breast-ductal-or-lobular.html)
6. [www.cancer.org/cancer/types/breast-cancer/risk-and-prevention/deciding-whether-to-use-medicine-to-reduce-breast-cancer-risk.html](http://www.cancer.org/cancer/types/breast-cancer/risk-and-prevention/deciding-whether-to-use-medicine-to-reduce-breast-cancer-risk.html)  
[www.cancer.org/cancer/types/breast-cancer/non-cancerous-breast-conditions/hyperplasia-of-the-breast-ductal-or-lobular.html](http://www.cancer.org/cancer/types/breast-cancer/non-cancerous-breast-conditions/hyperplasia-of-the-breast-ductal-or-lobular.html)