

Lobular Carcinoma in Situ of Breast

Lobular carcinoma in situ of the breast (LCIS) is a noninvasive malignancy of the breast tissue. Notably, microcalcifications are absent. Histologically, these cells have decreased E-cadherin expression but the basement membrane is intact. LCIS is often asymptomatic. Patients with this disease should have lifelong surveillance as LCIS of one breast increases the risk of malignancy in both. Treatment includes chemotherapy and/or prophylactic surgery.



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Characteristics

Noninvasive Malignancy

[Nun-invasive with Malignant-man](#)

Lobular carcinoma in situ (LCIS) is a noninvasive carcinoma that involves clusters of cells proliferating in the lobules. If there is invasion of the ducts or basement membrane, LCIS has progressed to invasive lobular carcinoma (ILC).

Absent Microcalcifications

[No-sign Micro-Calcified-cow](#)

LCIS does not involve basement membrane infiltration and as such is rarely associated with microcalcifications or stromal reactions, which produce densities visible on mammography.

Decreased E-Cadherin

[Down-arrow E-CAD-Heron](#)

LCIS involves a loss of E-cadherin, a cellular adhesion transmembrane protein that aids in the adhesion of epithelial cells of the breasts. It is thought that E-cadherin functions as a tumor suppressor protein and is lost as a result of a gene mutation in CDH1. These cancerous cells have no attachment to adjacent cells (i.e. loosely cohesive). Mucin-positive signet ring cells can also be present in LCIS.

Often Asymptomatic

[Thumbs-up](#)

As LCIS does not invade the surrounding tissue (i.e. basement membrane), it is therefore not associated with the classic symptoms of breast cancer. Namely, there are no palpable masses and it is often discovered as an incidental finding while examining another lesion (e.g. fibroadenoma).

Considerations

Surveillance

[Surveillance-camera](#)

Patients with LCIS will require life-long surveillance due to the increased risk of breast cancer being present in both breasts. This is different from DCIS, which has an increased risk only in the affected breast.

Chemotherapy

[Chemo-head-wrap](#)

LCIS involves life-long surveillance along with the consideration of chemotherapy in order to act as a preventative measure.

Prophylactic Surgery

[Purple-axe with Surgeon](#)

Treatment of LCIS can also involve prophylactic bilateral mastectomy. This is especially relevant for those with a family history of breast cancer, BRCA mutations, and/or those patients who choose to forgo chemotherapy.