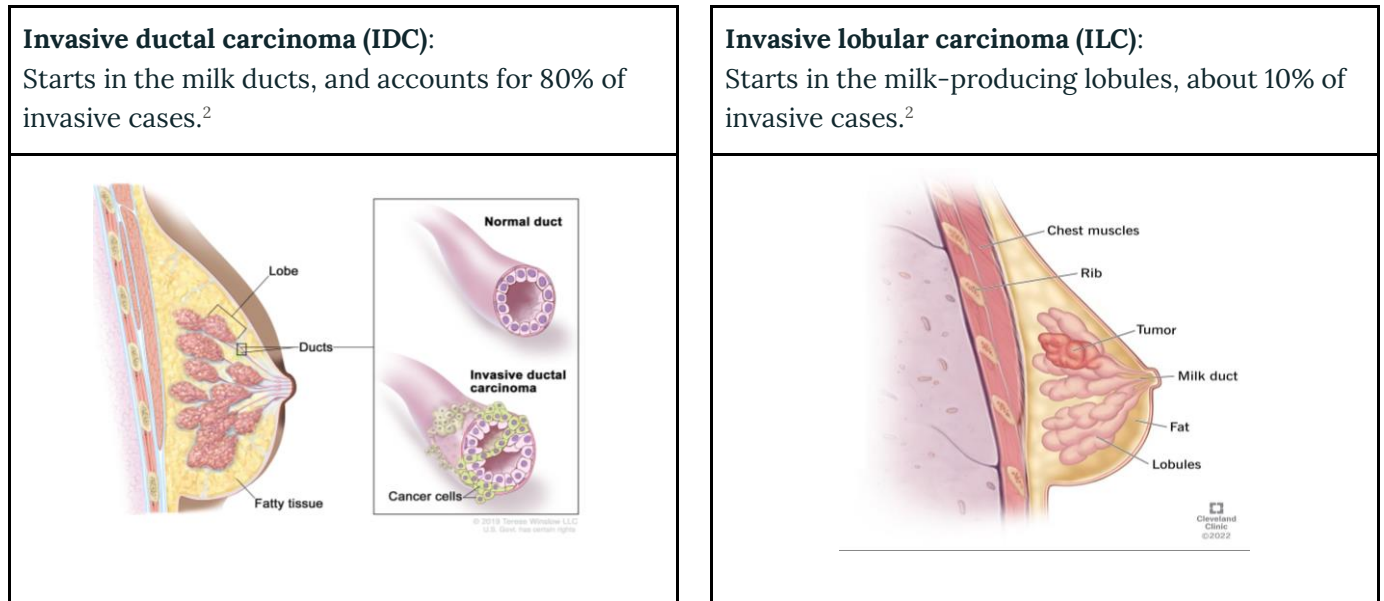


Invasive Breast Cancer vs. Non-Invasive Breast Cancer

Invasive Breast Cancer

Invasive breast cancer means the cancer cells have broken through the lining of the milk ducts or lobules and grown into the surrounding breast tissue. It has the potential to metastasize (spread) to other parts of the body through the bloodstream or lymphatic system.¹²³



Inflammatory Breast Cancer (IBC): A rare but aggressive form of breast cancer that blocks lymph vessels in the skin of the breast, causing the breast to appear red, swollen, and inflamed.

Triple-Negative Breast Cancer (TNBC): This subtype does not have estrogen receptors, progesterone receptors, or excess HER2 protein. It tends to be more aggressive and difficult to treat.

HER2-Positive Breast Cancer: Cancer cells in this type have more HER2 receptors (a protein that promotes the growth of cancer cells) than normal. This subtype tends to grow faster but may respond well to targeted therapies.

Metaplastic Breast Cancer: A rare form of breast cancer where the cancer cells differ significantly from the normal cells and can be a mix of cell types.

Tubular Carcinoma of the Breast: A rare subtype of IDC that tends to have a better prognosis and less aggressive behavior compared to other forms of IDC.

Mucinous (Colloid) Carcinoma: A rare type of IDC where the cancer cells are surrounded by mucin (a component of mucus). It typically has a better prognosis.

Medullary Carcinoma: Another rare subtype of IDC, characterized by the presence of large, high-grade cancer cells and a distinct boundary between tumor tissue and normal tissue.

Papillary Carcinoma: A rare type of breast cancer that forms finger-like projections. It can be invasive or non-invasive.

Micropapillary Carcinoma: This subtype features small clusters of cells within clear spaces. It tends to be more aggressive and has a higher likelihood of spreading to lymph nodes.

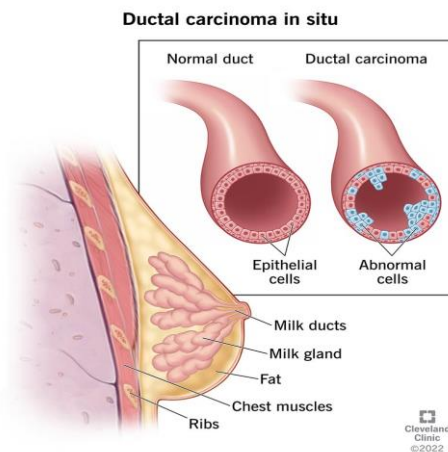
Mixed Carcinoma: A type that exhibits features of more than one kind of breast cancer, such as a combination of IDC and ILC.

Non-Invasive Breast Cancer

Non-invasive breast cancer, also called in situ, refers to abnormal cells that are still confined within the ducts (ductal carcinoma in situ or DCIS) or lobules (lobular carcinoma in situ or LCIS). The cancer cells have not spread into the surrounding breast tissue.¹²³

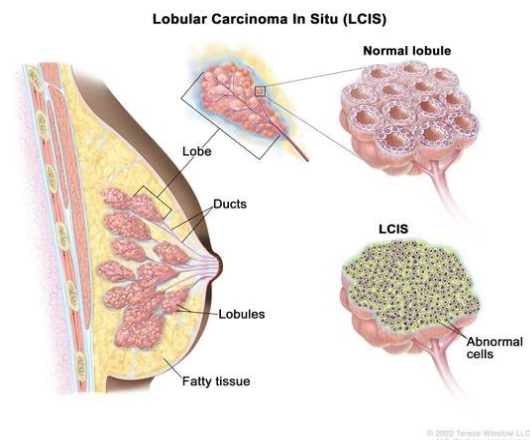
Ductal carcinoma in situ (DCIS):

Accounts for almost 20% of new breast cancer cases and is considered non-invasive, but can increase the risk of developing invasive cancer later.²



Lobular carcinoma in situ (LCIS):

Considered a precancerous condition rather than true cancer, but it increases the risk of developing invasive breast cancer in the future.²



The key difference is that invasive cancers have the ability to spread beyond the initial site, while non-invasive cancers are confined to the ducts or lobules and have not invaded the surrounding breast tissue.⁴ Invasive cancers tend to be more aggressive and fast-growing compared to non-invasive types.⁴

Ductal Carcinoma In Situ (DCIS): The most common type of non-invasive breast cancer. It starts in the milk ducts and remains confined there. If left untreated, DCIS can progress to invasive breast cancer.

Lobular Carcinoma In Situ (LCIS): Although called carcinoma, LCIS is not a true cancer but rather a marker indicating an increased risk of developing invasive breast cancer in either breast. It starts in the milk-producing lobules.

Paget's Disease of the Nipple: A rare form of breast cancer that begins in the ducts and spreads to the skin of the nipple and areola. Paget's disease is usually associated with underlying DCIS or, in some cases, invasive breast cancer.

Papillary Carcinoma In Situ: A rare form of non-invasive breast cancer that occurs within the ducts and is characterized by the presence of finger-like projections. This type is typically less aggressive.

Cribriform Carcinoma In Situ: Another rare type of non-invasive breast cancer where the cancer cells form patterns with open, sieve-like spaces (cribriform pattern) within the ducts. This type usually has a favorable prognosis.

Comedo Carcinoma In Situ: A subtype of DCIS characterized by high-grade cancer cells with areas of necrosis (dead cells) within the ducts. It often appears more aggressive and has a higher risk of becoming invasive.

Micropapillary DCIS: A form of DCIS where the cancer cells form small, tuft-like patterns. This type may have a higher risk of recurrence and progression to invasive cancer.

Sources:

1. <https://www.dignityhealth.org/arizona/services/cancer-care/cancer-types/breast-cancer/invasive-noninvasive>

2. <https://www.rockymountaincancercenters.com/blog/whats-the-difference-between-invasive-and-non-invasive-breast-cancers>
3. <https://www.cancerresearchuk.org/about-cancer/breast-cancer/types/invasive-breast-cancer>
4. <https://www.healthline.com/health/invasive-vs-metastatic-breast-cancer>