



# Breast Cancer Research IDC

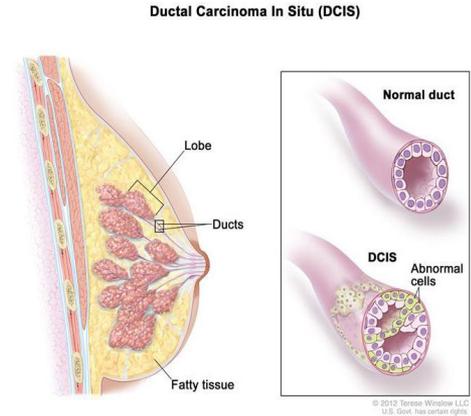
Dr. Kimberly Butt, Dr. Alyssa Hovey, Dr. Breanna Delagrange,

Dr. Kendall Hyde

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# Invasive Ductal Carcinoma (IDC)

- **Invasive** means that the cancer has spread to the breast tissues.
- **Ductal** means that the cancer begins in the milk ducts of the breast, which are the “pipes” that carry milk from the milk-producing lobules to the nipple.
- **Carcinoma** refers to any cancer that begins in the skin, or other tissues that cover internal organs, like breast tissue. All together, IDC is the cancer that has broken through the wall of the milk duct and begun to invade the tissues of the breast. It can eventually get into the bloodstream.



# Invasive Ductal Carcinoma (IDC)

- According to the American Cancer Society, more than 180,000 women in the United States find out they have invasive breast cancer, more specifically IDC.
- According to the American Cancer Society, about two-thirds of women who are 55 or older are diagnosed with an invasive breast cancer. IDC can also affect men.
- Sometimes called infiltrating ductal carcinoma, this is the most common type of breast cancer. About 80% of all breast cancers are invasive ductal carcinomas.

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# Cancer T-chart

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# — Mitosis

- The genetic outcome of most breast cancer remains unseen. A tumor suppressor gene helps with slowing down cell division as well as repairing DNA mistakes. A mutation in a tumor suppressor gene shows how the cell division of a mutation can get out of control, which is why cancer cells divide so much.
- HOW DOES TUMOR SUPPRESSOR GENES AFFECT THE CELL CYCLE?

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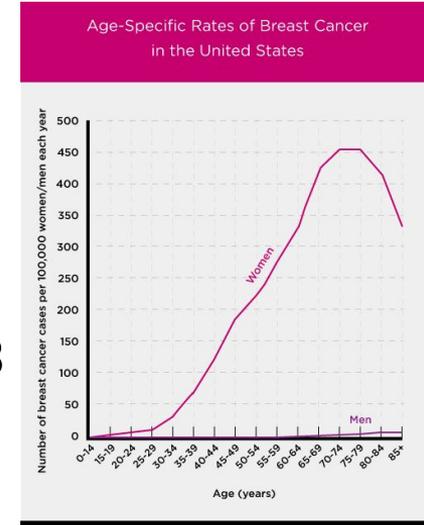
## Genetics

<https://www.mayoclinic.org/tests-procedures/brca-gene-test/about/pac-20384815>

- A positive test result means that you have a mutation in one of the breast cancer genes, BRCA1 or BRCA2, and therefore a much higher risk of developing breast cancer or ovarian cancer compared with someone who doesn't have the mutation. But a positive result doesn't mean that you'll ultimately develop cancer.

# Genetics

- Breast cancer is less common in men than it is in woman. Breast cancer is approximately 100 times less common in white men compared to white woman. It's also 70 times less common in black men compared to black woman. For men, the lifetime risk of getting breast cancer is about 1 out of 833 people.
- The older a man or a woman is, the higher chance of them having breast cancer. The amount of women that have breast cancer under the age of 40 are low, in the matter of fact, rates begin to increase after age 40 and are highest in women over age 70.



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## Target of treatment

- The two most common types of treatment for IDC are Surgery and Radiation Therapy, and Systematic treatments, which include Chemotherapy, Hormonal Therapy, and Targeted therapies.
- Surgery and Radiation Therapy focus specifically on certain parts of the body.
- Systematic treatments focus on the whole body.

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# Mechanism

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# Effectiveness

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## Side effects

- swelling of all or part of the breast.
- **skin irritation or dimpling.**
- **breast pain.**
- **nipple pain** or the nipple turning inward.
- **redness, scaliness,** or thickening of the nipple or breast skin.
- a **nipple discharge** other than breast milk.
- a **lump** in the **underarm area.**
- <https://www.breastcancer.org/symptoms/types/idc/symptoms>

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## Reference:

<https://www.breastcancer.org/symptoms/types/idc>

<https://www.breastcancer.org/symptoms/types/idc/treatment>