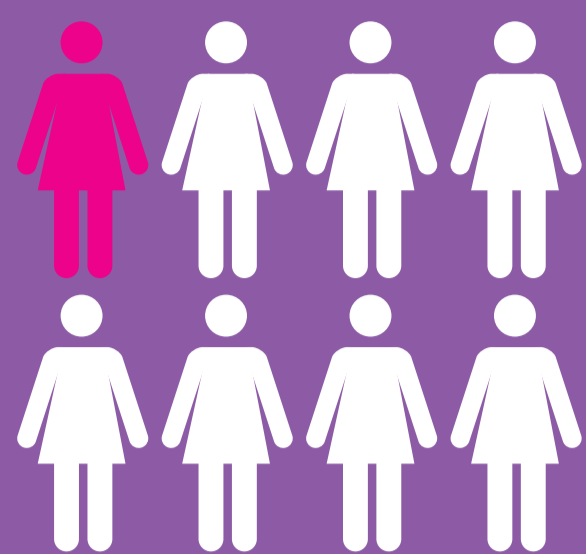


# WHAT EVERY WOMAN SHOULD KNOW ABOUT BREAST CANCER

Breast cancer is the most common non-skin cancer among American women. Advances in breast cancer treatment mean many women today can expect to beat the disease and maintain their physical appearance.



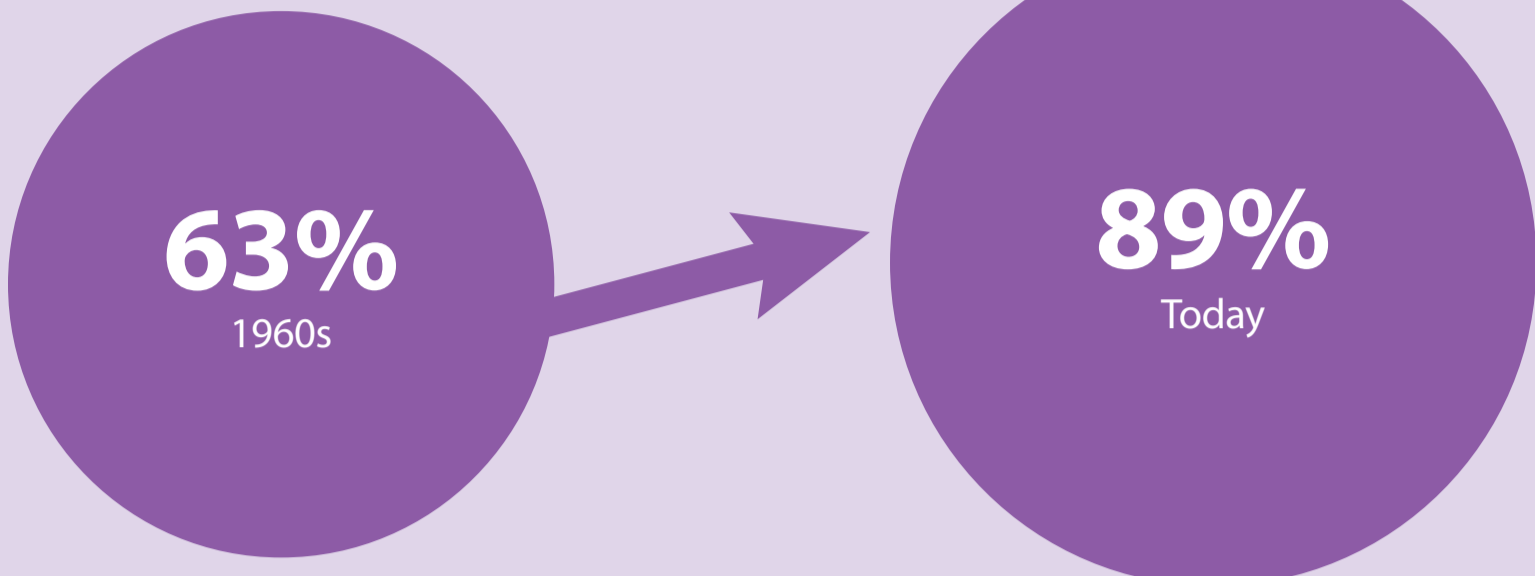
**1 in 8 women** will develop invasive breast cancer during her lifetime.



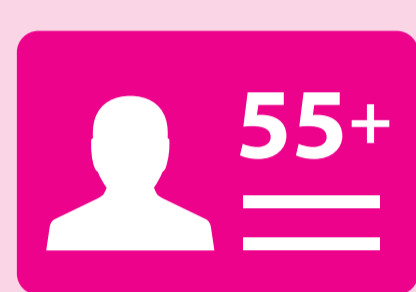
About **63,410** new cases of non-invasive carcinoma in situ, the earliest form of breast cancer, will be diagnosed in 2017.

About **252,710** new cases of invasive breast cancer will be diagnosed in 2017.

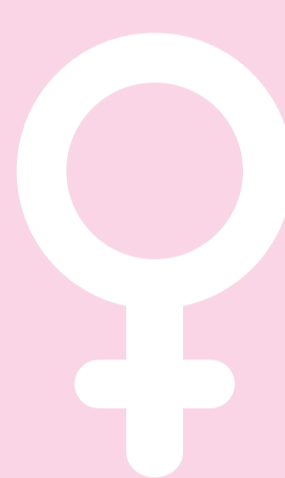
## 5-YEAR SURVIVAL RATE FOR WOMEN WITH BREAST CANCER



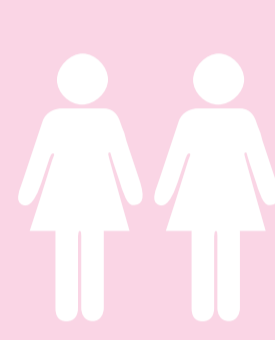
## RISK FACTORS



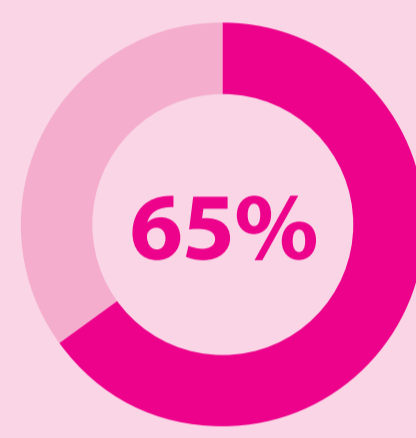
**AGE**  
Most invasive breast cancers are found in women ages **55 or older.**



**GENDER**  
Breast cancer is **100 times** more common in women than men. About 2,470 men will be diagnosed with invasive breast cancer in 2017.



**FAMILY HISTORY**  
Women with an **immediate blood relative**, such as a mother or sister, who has had breast cancer are **twice as likely** to develop the disease.



**GENETICS**  
Women with a mutated BRCA1 gene have about a **55-65 percent** lifetime risk of developing breast cancer. **The average woman's lifetime risk is 12%.**



**HIGH BREAST DENSITY**  
Women with less fatty tissue and more glandular and fibrous tissue may be at **higher risk for developing breast cancer.**



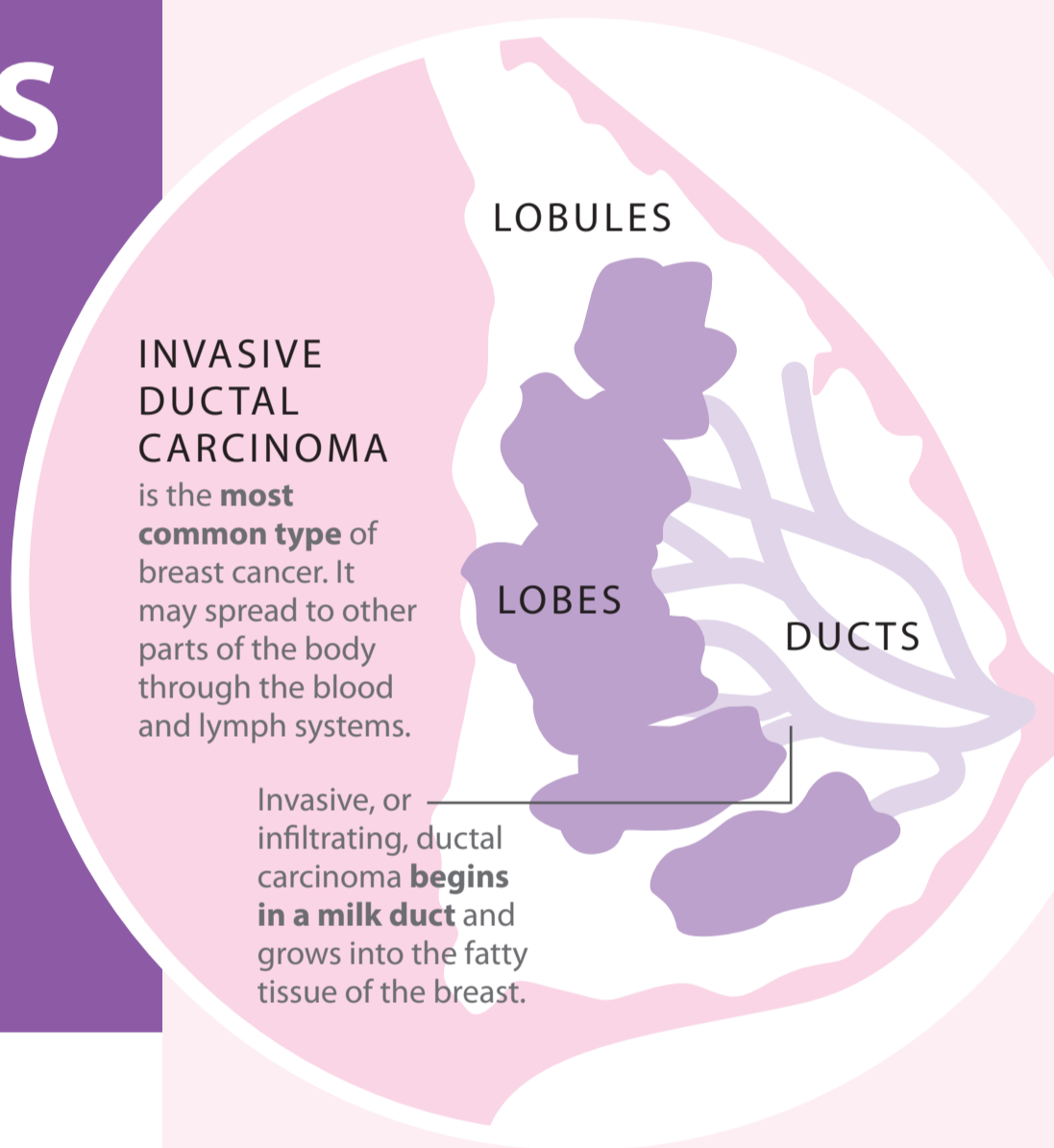
**OBESITY**  
**Fat tissue may contribute** to increases in estrogen levels, and high levels of estrogen may increase the risk of breast cancer.



**HEAVY DRINKING**  
**Alcohol use is linked** to an increased risk of developing breast cancer. The risk increases with the amount of alcohol consumed.

## TREATMENT OPTIONS

- Treating breast cancer has advanced significantly in the past 30 years.**  
Most women today do not need a mastectomy and can be treated just as effectively with a lumpectomy. Modern radiation techniques are better at avoiding damage to healthy tissue and chemotherapy has less serious side effects.
- Treatment has become more personalized thanks to recent discoveries.**  
Researchers have identified estrogen receptor-positive (ER+) breast cancer and the link between the human epidermal growth factor receptor 2 (HER2) protein and breast cancer growth. An understanding of the biological type of breast cancer informs treatment options today. Healthy breast cells contain receptors for the hormones estrogen and progesterone. They also contain receptors for a protein called HER2, which stimulates normal cell growth.



**2 in 3 women** with breast cancer have cells with receptors for estrogen and progesterone.

**1 in 5** of breast cancers have too many HER2 receptors.

**10-20%** of all breast cancers do not contain receptors for estrogen, progesterone, or HER2. This type of breast cancer is triple-negative.

## UNDERSTANDING THE DISEASE

Breast cancer forms in tissues of the breast. About 1 in 5 new breast cancer cases are ductal carcinoma in situ. This type of breast cancer begins in the milk ducts, the tubes that carry breast milk from the lobules to the nipple. Nearly all women treated at this early stage can expect to be cancer-free.

### Common breast cancer signs and symptoms:

- Skin changes, such as swelling and redness
- An increase in size or change in shape of the breast(s)
- Changes in the appearance of one or both nipples
- Nipple discharge other than breast milk
- General pain in/on any part of the breast
- Lumps or nodes felt on or inside of the breast

### Symptoms specific to invasive breast cancer

- Irritated or itchy breasts
- Change in breast color
- Increase in breast size or shape over a short period of time
- A breast lump or thickening
- Changes in touch (may feel hard, tender or warm)
- Peeling or flaking of the nipple skin
- Redness or pitting of the breast skin (like the skin of an orange)

## PREVENTION AND SCREENING GUIDELINES

In 2009, the U.S. Preventive Services Task Force recommended that women begin routine mammograms at age 50, and then get the test every two years.

The American Cancer Society and many physicians recommend that women begin annual mammograms at age 40.

Women at higher risk for breast cancer, such as those with a family history, should discuss the most appropriate screening plan with their doctor.



### Surgery

- The type of surgery you have depends on your individual case. Surgical options include:
- **Lumpectomy:** Only the tumor is removed. It's also known as breast conservation therapy.
  - **Mastectomy:** All breast tissue is removed. In many cases, breast skin and the nipple can be spared.
  - **Breast reconstruction:** The breast is rebuilt after a total mastectomy.
  - **Oncoplastic:** The tumor is removed and breast is reshaped to prevent contour deformities.



### Chemotherapy

- Typically used to treat patients with locally advanced or metastatic breast cancer. Women with early stage disease may have chemotherapy:
- **Before surgery (neo-adjuvant):** To reduce the size of large tumors and destroy cancer cells
  - **After surgery (adjuvant):** To destroy remaining cancer cells and prevent the disease from spreading



### Radiation therapy

- Used to **shrink a large tumor** before surgery or destroy cancer cells that remain after breast-sparing surgery.
- Advanced radiation therapy techniques and technologies** can target the tumor while sparing healthy tissue. These include: intensity modulated radiation therapy and high-dose rate (HDR) brachytherapy.



### Targeted therapy

**Prevents cancer cells from dividing or destroys cancer cells directly.** The drug Herceptin® is a targeted therapy for tumors that produce too much of the HER2 protein.



### Hormone therapy

- Adds, blocks or removes hormones from the body to slow or stop the growth of cancer cells. Two common types of hormone therapy are:
- **Selective estrogen receptor modulators:** Drugs that block estrogen from reaching cancer cells. Tamoxifen is a commonly used hormone therapy to prevent breast cancer recurrence.
  - **Aromatase inhibitors:** Drugs that block estrogen production to starve cancer cells of estrogen that fuels cell growth.