

UNDERSTANDING EARLY BREAST CANCER AND THE RISK OF RECURRENCE

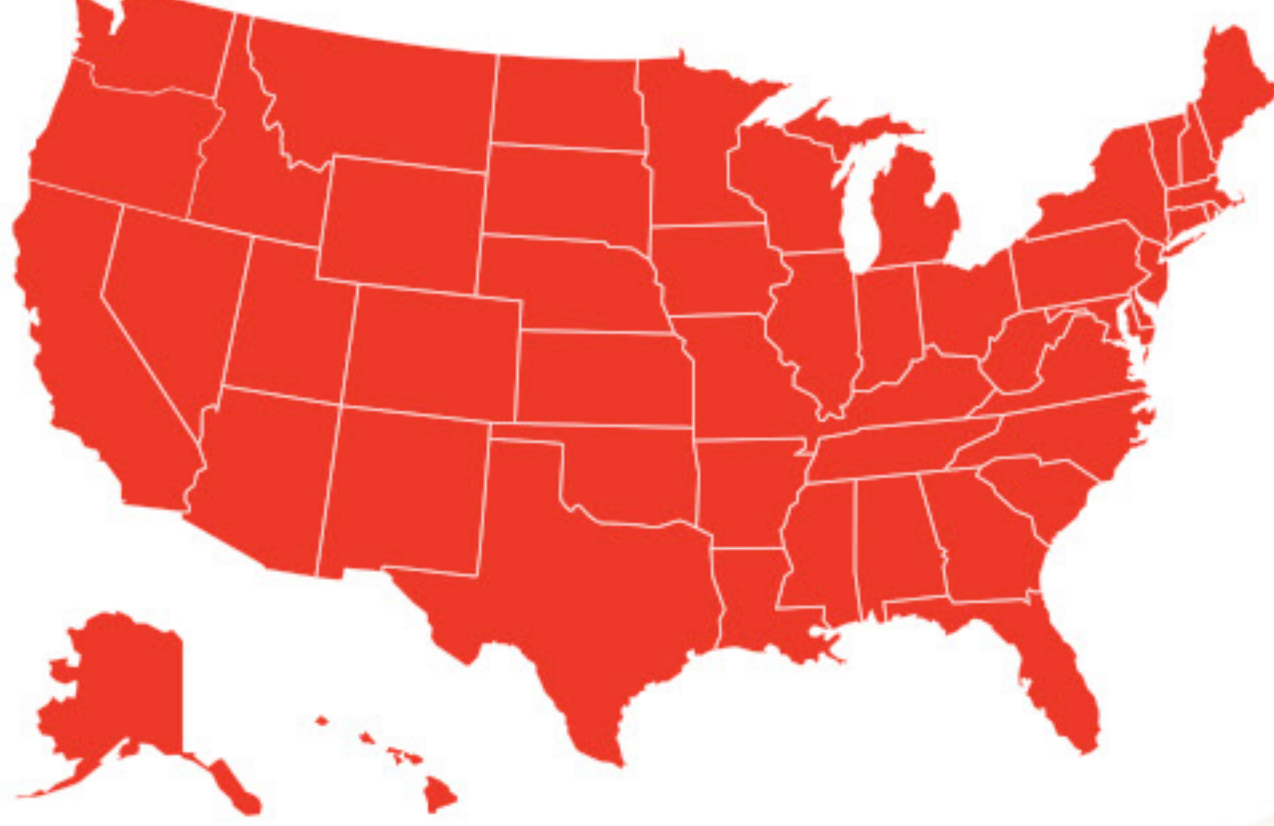
ABOUT BREAST CANCER



Breast cancer is the **most common cancer among women** worldwide, **surpassing lung cancer** as the most commonly diagnosed cancer with **~2.3 million** new cases in 2020.¹

In the United States:

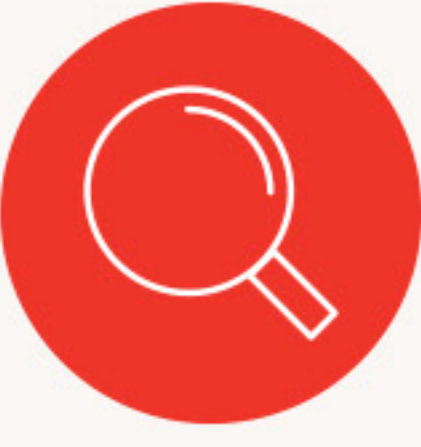
- Breast cancer was the most commonly diagnosed cancer in 2020.²
- **~1%** of breast cancers occur in men.³
- **~41%** higher mortality rate among Black women compared with white women.⁴



NOT ALL TYPES OF BREAST CANCER ARE THE SAME

How breast cancer is treated depends upon many different factors, including⁵:

- **Molecular subtype** (based on gene expression in cancer)
- **The stage of disease** (i.e., 0, I, II, III, A-B-C and IV)
- **Increased levels of certain proteins** (e.g., estrogen or progesterone hormone receptor [HR], human epidermal growth factor receptor 2 [HER2]) or **mutations**
- **Other clinical** (e.g., physical exams, imaging) and/or **pathological** (e.g., found during biopsy) factors



WHAT TO KNOW ABOUT THE RISK OF HR+ HER2- BREAST CANCER RECURRENCE:

- The prognosis for **HR+, HER2-** early breast cancer is generally positive — however, approximately **20%** of patients diagnosed will experience recurrence.⁶
- Risk of recurrence is greatest within the initial years after diagnosis.⁷

GOALS OF TREATMENT



The ultimate goal of breast cancer treatment is to prevent the cancer from spreading or coming back and also to help patients live longer. Endocrine therapy, also known as hormonal therapy, is appropriate for many patients and some may need other treatment options to help prevent cancer from returning.⁸

RISK OF RECURRENCE IS THE LIKELIHOOD THAT THE CANCER WILL COME BACK. SCIENTISTS ARE LEARNING WHY SOME CANCERS ARE MORE LIKELY TO RECUR THAN OTHERS.



WHAT ARE RECURRENCE RISK FACTORS?

Identifying breast cancer that has a greater risk of coming back involves looking at a variety of factors that extend beyond assessment of estrogen receptor (ER), progesterone receptor (PR), and HER2 status and can include^{9,10}:



NUMBER OF POSITIVE LYMPH NODES

to which the breast cancer has spread (also known as nodal involvement)



TUMOR SIZE AND GROWTH WITHIN THE BREAST

to measure the tumor's width at the widest point in centimeters or millimeters



TUMOR GRADE

as an indicator of how fast a tumor is likely to grow and spread



MARKERS OF CANCER CELL PROLIFERATION

to help predict how fast cancer cells are dividing and growing



MULTIGENE ASSAYS

which look at expression levels of some selected genes and may help predict likelihood of recurrence or, in some cases, response to chemotherapy

Researchers are investigating ways to better understand the risk of breast cancer coming back and what can be done to prevent recurrence. Identifying these factors can help patients and health care providers have informed conversations about suitable treatment options.

REFERENCES

¹ Sung H, Ferlay J, Siegel RL, et al. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin.* 2021;71(3):209-249.
² National Cancer Institute. Cancer statistics. <https://www.cancer.gov/about-cancer/understanding/statistics>. Accessed July 15, 2021.
³ Centers for Disease Control and Prevention. United States Cancer Statistics (USCS). Male Breast Cancer Incidence and Mortality, United States – 2013–2017. <https://www.cdc.gov/cancer/uscs/about/data-briefs/no19-male-breast-cancer-incidence-mortality-UnitedStates-2013-2017.htm>. Accessed July 15, 2021.
⁴ Richardson LC, Henley J, Miller, JW, et al. Centers for Disease Control and Prevention. Morbidity and Mortality Weekly Report (MMWR). Patterns and Trends in Age-Specific Black-White Differences in Breast Cancer Incidence and Mortality – United States, 1999–2014. 2016;65(40):1093–1098.
⁵ Breastcancer.org. Breast Cancer Stages. <https://www.breastcancer.org/symptoms/diagnosis/staging>. Accessed July 15, 2021.
⁶ Early Breast Cancer Trialists' Collaborative Group (EBCTCG). Effects of chemotherapy and hormonal therapy for early breast cancer on recurrence and 15-year survival: an overview of the randomised trials. *Lancet.* 2005;365(9472):1687–1717. doi:10.1016/S0140-6736(05)66544-0. <p1687/col1/introduction/ln1-3/col2/ln1/p1692/fig2/p1693/fig3/p1704/fig8>.
⁷ Cheng L, Swartz MD, Zhao H, et al. Hazard of recurrence among women after primary breast cancer treatment—a 10-year follow-up using data from SEER-Medicare. *Cancer Epidemiol Biomarkers Prev.* 2012;21:800–809.
⁸ Johnston SRD, Harbeck N, Hegg R, et al. monarchE Committee Members and Investigators. Abemaciclib combined with endocrine therapy for the adjuvant treatment of HR+, HER2-, node positive, high-risk, early breast cancer (monarchE). *J Clin Oncol.* 2020;38(34):3987–3998.
⁹ Györfy B, Hatzis C, Sanft T, et al. Multigene prognostic tests in breast cancer: past, present, future. *Breast Cancer Res.* 2015;17(1):11.
¹⁰ Dang CM and Giuliano AE. Local recurrence risk factors in women treated with BCT for early-stage breast cancer. *Oncology.* 2011; 25(10):895–896.