How common is breast cancer in men?

The American Cancer Society estimates for breast cancer in men in the United States for 2024 are:

- About 2,790 new cases of invasive breast cancer will be diagnosed
- About 530 men will die from breast cancer

Breast cancer is about 100 times less common among White men than among White women. It is about 70 times less common among Black men than Black women. As in Black women, Black men with breast cancer tend to have a worse prognosis (outlook).

Risk Factors for Breast Cancer in Men

A risk factor is anything that affects your chance of getting a disease, such as breast cancer.

But having a risk factor, or even many, does not mean that you are sure to get the disease. Some men with one or more breast cancer risk factors never develop the disease, while most men with breast cancer have no apparent risk factors.

We don't yet completely understand the causes of breast cancer in men, but researchers have found several factors that may increase the risk of getting it. As with female breast cancer, many of these factors are related to your body's sex hormone levels.

Aging

Aging is an important risk factor for the development of breast cancer in men. The risk of breast cancer goes up as a man ages. On average, men with breast cancer are about 72 years old when they are diagnosed.

Family history of breast cancer

Breast cancer risk is increased if other members of the family (blood relatives) have had breast cancer. About 1 out of 5 men with breast cancer have a close relative, male or female, with the disease.

Inherited gene mutations

Men with a mutation (defect) in the *BRCA2* gene have an increased risk of breast cancer, with a lifetime risk of about 6 in 100. *BRCA1* mutations can also cause breast cancer in men, but the risk is lower, about 1 in 100.

Although mutations in these genes most often are found in members of families with many cases of breast and/or <u>ovarian cancer</u>, they have also been found in men with breast cancer who did not have a strong family history.

Mutations in *CHEK2, PTEN* and PALB2 genes might also be responsible for some breast cancers in men.

Klinefelter syndrome

Klinefelter syndrome is a congenital (present at birth) condition that affects about 1 in 1,000 men. Normally the cells in men's bodies have a single X chromosome along with a Y chromosome, while women's cells have two X chromosomes. Men with Klinefelter syndrome have cells with a Y chromosome plus at least two X chromosomes (but sometimes more).

Men with Klinefelter syndrome also have small testicles and are often infertile because they are unable to produce functioning sperm cells. Compared with other men, they have lower levels of androgens (male hormones) and more estrogens (female hormones). For this reason, they often develop gynecomastia (benign male breast growth).

Men with Klinefelter syndrome are more likely to get breast cancer than other men. Having this condition can increase the risk anywhere between 20 - 60 times the risk of a man in the general population.

Radiation exposure

A man whose chest area has been treated with <u>radiation</u> (such as for the treatment of a cancer in the chest, like <u>lymphoma</u>) has an increased risk of developing breast cancer.

Alcohol

<u>Heavy drinking</u> (of alcoholic beverages) increases the risk of breast cancer in men. This may be because of its effects on the liver (see next paragraph).

Liver disease

The liver plays an important role in balancing the levels of sex hormones. In cases of severe liver disease, such as cirrhosis, the liver is not working well and the hormone levels are uneven, causing lower levels of androgens and higher levels of estrogen. Men with liver disease can also have a higher chance of developing benign male breast growth (gynecomastia) and also have an higher risk of developing breast cancer.

Estrogen treatment

Estrogen-related drugs were once used in hormonal therapy for men with <u>prostate cancer</u>. This treatment may slightly increase breast cancer risk.

There is concern that transgender/transsexual individuals who take high doses of estrogen as part of gender-affirming hormonal treatment could also have a higher breast cancer risk. Still, research on breast cancer risk in transgender individuals is quite new, so it isn't clear what their breast cancer risk may be.