

Ready to start planning your care? Call us at [800-525-2225](tel:800-525-2225) to make an appointment.

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Memorial Sloan Kettering  
Cancer Center

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## Age

The risk of breast cancer increases with age.

Women in their 30s have a one in 227 (0.44 percent) chance of developing breast cancer, according to the National Cancer Institute.

In comparison, the risk for women in their 60s is one in 28 (3.6 percent).

The lifetime breast cancer risk for women by the time they reach their 90s is about one in eight (12.4 percent).

Although the National Cancer Institute statistic of one in eight for women in their 90s is often cited, the actual risk of breast cancer for most women in any given year of their life is much lower than 12.4 percent.

## Personal history of breast cancer

If you've had cancer in one breast, you're more likely than the average woman to develop a new cancer in the other breast. In recent years the risk of a second breast cancer has decreased, however. This is because many drugs — especially the various [anti-estrogen drugs](#) — used for breast cancer treatment also reduce the risk of developing new breast cancers.

## Family history of breast cancer

A significant number of women with breast cancer have some family history of the disease. But only 5 to 10 percent of all cases of breast cancer are due to heredity.

You may be two to three times more likely than the average woman to develop breast cancer if a first-degree relative (your mother, sister, or daughter) has had the disease. Many, but not all, cases of hereditary breast cancer are linked to [mutations in the genes \*BRCA1\* and \*BRCA2\*](#). Our understanding of their role and affect on risk continues to evolve.

## BRCA and *PALB2* gene mutations

Some cases of hereditary breast cancer are linked to mutations in the genes *BRCA1*, *BRCA2*, and *PALB2*. Mutations are changes in the molecular sequence of DNA. Having certain mutations in these genes raises the risk of breast cancer. A woman can inherit an abnormal gene from either her father or her mother.

The BRCA genes and the *PALB2* gene normally function as caretakers. They help cells repair their DNA when it becomes damaged as a normal consequence of living. Women without a mutation have two normal copies of these genes, so they are at a lower risk of developing breast cancer than those with a mutation.

In most cases, a single normal gene is sufficient for good health. If that healthy gene is lost, only the mutated copy is left. This compromises a cell's ability to repair its DNA. That's when cancer can develop.

In addition to breast cancer, women with a BRCA mutation have an increased risk of developing [ovarian cancer](#). Men with BRCA mutations may be at an increased risk of developing [male breast cancer](#) and [prostate cancer](#). *PALB2* mutations are also associated with [pancreatic cancer](#).

You and your relatives might benefit from genetic counseling and testing if:

- several members of your family in multiple generations have had breast cancer or other forms of cancer — ovarian cancer or male breast cancer in particular
- your breast cancer occurred at a fairly young age (under age 50)
- your breast cancer occurred in both breasts
- your breast cancer is triple negative, meaning it lacks the estrogen receptor, progesterone receptor, and HER2 receptor

Memorial Sloan Kettering's Clinical Genetics Service offers hereditary cancer risk assessment, genetic counseling, and genetic testing by specially trained [genetic counselors and doctors](#). If you are concerned about your personal or family history of cancer, our team of experts can help you make decisions about how to manage your risk.

[Learn more about genetic testing and counseling at MSK.](#)

## Early menstruation or late menopause

If you began having menstrual periods before age 12 or went through menopause after age 50, your risk of breast cancer is slightly higher than average. This may be because of the amount of the female hormone estrogen that your breasts have been exposed to throughout your lifetime. But the precise cause is not known.

## Age at first pregnancy

If you had your first child after the age of 30 or have never had children, you're at a slightly higher risk of breast cancer. This may be due to the protective changes in breast tissue that occur with full-term pregnancies.

## Benign breast disease

Some noncancerous breast conditions may increase your risk of breast cancer. These include atypical hyperplasia and lobular carcinoma in situ. Having had breast cysts, fibrocystic changes (which cause the breasts to feel lumpy), or small growths in the milk ducts called intraductal papillomas does not increase your risk of breast cancer.

[Learn more about the different types of breast tumors.](#)

## Hormone replacement therapy

Using certain hormone replacement therapies after the beginning of menopause slightly raises your risk of breast cancer. This added risk disappears about three to five years after you stop taking the hormones. The risk is greatest for combination hormone replacement therapy. It uses both estrogen and progesterin, as opposed to therapy using estrogen alone.

## Oral birth control

Birth control pills raise your risk of breast cancer very slightly. The increased risk disappears about a decade after you stop taking them. Oral birth control is thought to reduce the risk of ovarian cancer.

## Being overweight or obese

Excess weight increases your risk of breast cancer. It also increases the possibility that breast cancer will return after treatment, particularly after menopause. The likely reason is that being overweight increases the level of estrogen in the body.

Being overweight is defined as having a body mass index (BMI) of 25 or higher. Obesity is defined as having a BMI of 30 or higher.

[Learn more about the link between obesity and cancer.](#)

## Radiation exposure

The link to breast cancer is particularly strong for women who were exposed to [radiation](#) during the first two to three decades of their lives. This includes radiation to the chest for the treatment of cancers, such as [lymphoma](#), as well as radiation to treat acne or an enlarged thymus gland. The amount of radiation from a [mammogram](#), however, is very small and does not increase your risk by a significant degree.

### Request an Appointment

Call [646-497-9064](tel:646-497-9064)

Available Monday through Friday, 8 a.m. to 6 p.m. (Eastern time)

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