

What Causes Breast Cancer in Men?

By Jonathan Sims, MD | RAPC

Did you know that men can develop breast cancer? Yes, it's true – in the United States, approximately one out of every 100 cases of breast cancer occur in a man.



Jonathan Sims, MD from RAPC
in Eugene, Oregon

Both men and women have breasts. Their anatomy is very similar. Men and women have nipples and areola, the darker pigmented area surrounding the nipples. Breast tissue in both sexes is primarily fatty tissue, not muscle. Breast tissue is positioned on top of the muscular tissue on the chest wall. Breast tissue in both sexes contains blood vessels and lymphatic vessels. Lymphatic vessels drain into the lymph nodes in the underarms. Lymph nodes are tiny organs located throughout the body that help fight infections.

The major difference in breasts between men and women is that

during puberty, male breast tissue only develops a few lobules, the glandular tissue that produces milk. Male breasts do contain ducts, although usually smaller and fewer than in female breasts. Men produce less estrogen than women – a reason that fewer men develop breast cancer.

Men can develop a benign (not cancerous) condition, called gynecomastia. An increased estrogen level causes gynecomastia. Men with gynecomastia experience swelling of the breast tissue or feel a small lump.

What are the risk factors for breast cancer in men?

Knowledge is power. Knowing your risk factor helps you be proactive in living a healthier lifestyle and watch for any changes in your breast tissue. We can't change some risk factors, like age and genetics. However, we can lower other risk factors.

Age. Male breast cancer is usually diagnosed between the ages of 60 and 70.

Elevated estrogen levels.

Some genetic syndromes, certain diseases, and some treatments increase the estrogen level in men. These include:

- Klinefelter's syndrome – a genetic condition where a man is born with an extra X chromosome
- Liver disease, like cirrhosis – causes higher estrogen levels and lower androgen (male hormone) levels
- Low-dose estrogen therapy – used in the treatment of prostate cancer

Family history of breast cancer

About 20% of male breast cancer patients have a family history of breast cancer. If your mother, sisters, or brothers had breast cancer, you are at increased risk. Men can inherit the BRCA1 or BRCA2 genes. These genes predispose males to breast cancer.

Lifestyle: Certain lifestyle choices increase a man's risk of breast cancer. They include:

- Obesity – men with higher BMI (Body Mass Index) numbers are at increased risk.
- Sedentary lifestyle – exercise helps lower hormone levels, increases metabolism, and enhances the immune system.
- Alcohol – men who imbibe higher amounts of alcohol are more at risk of developing breast cancer.

Race: Black men have a higher rate of breast cancer – 2.7 per 100,000 compared to 1.9 per 100,000 in white men.

Radiation therapy: Men who receive chest radiation, such as radiation for lymphoma, are at increased risk for male breast cancer.

Testicular situations: Situations, including men who developed mumps in adulthood, men who had one or both testicles surgically removed, and men with an undescended testicle, may put men at higher risk for male breast cancer.

Symptoms of Male Breast Cancer

A monthly shower exam is an ideal way to check for lumps and swelling. Why not include a quick check of your testicles too? It is best to err on the side of caution.

- Lump or knot in the breast or under the arm
- Swelling in the breast

- Discharge from the nipple
- Dimpling or puckering of the skin over the breast
- Inverted nipple (nipple pulling inward)
- Redness or scaly skin on the nipple or skin covering the breast

If you experience any of these symptoms, see your doctor.

Is there a way to see if I carry a BRCA mutation if there is a family history of breast cancer?

Experts advise men who have a strong family history of breast cancer to schedule an appointment with a genetic counselor. You may have inherited one of the BRCA mutations.

A strong family history means that one or more first-degree relatives (mother, father, sibling, or child) were diagnosed with early-onset breast cancer, breast cancer in both breasts, or ovarian cancer. If you've already been diagnosed with male breast cancer, experts recommend genetic testing to see if you carry a BRCA genetic mutation.

If you do carry BRCA, you should inform your daughters and sisters. Women with this mutation have a 55-65% of developing breast cancer. Men with this mutation have about a 5% chance of developing male breast cancer.

How can I reduce my risk of male breast cancer?

Whether you are a higher-risk or average risk for male breast cancer, you can help protect yourself from male breast cancer and several other cancers.

Physical activity. Increasing your physical activity is one of

the most important changes that anyone can make. A sedentary lifestyle leads to increased blood sugar levels, weight gain, higher cholesterol, and obesity. It is time to get more active.

150 minutes of moderate exercise or 75 minutes of vigorous exercise every week:

Moderate exercise examples:

- Brisk walking
- Playing golf without a cart
- Stationary bike, using moderate effort
- Tennis – Doubles
- Softball
- Snowmobiling
- Yardwork

Vigorous exercise examples:

- Power walking, 5 miles an hour
- Bicycling at over 10 miles an hour
- Swimming laps
- Tennis – Singles
- Competitive sports like football
- Downhill skiing
- Running
- Cutting firewood

Lower your percentage of body fat. Watch the foods you eat. Eat less fatty meat and more lean protein. Eat fewer processed-food snacks because they are high in empty calories. Drink water instead of sodas. Take your lunch to work to avoid fast-food restaurant lunches. Cut down on your consumption of beer and other alcohol. Remove the skin and fat from meat.

Environmental pollution. Little habits over a lifetime may contribute to the development of cancer. Stop smoking. Avoid

second-hand smoke. Swap out disposable water bottles for a glass-or-steel-lined water bottle. Only use microwave-safe plastic containers for cooking or reheating food.

Help lower your risk for male breast cancer and other cancers with a few simple lifestyle changes.