

## **Cancer Return a Concern for Men with Breast Cancer**

Men who have breast cancer have a significantly increased risk of a second cancer, according to a report in the journal *Breast Cancer Research*.



"We looked at the risk not only of a second breast cancer but also of other cancers," says lead researcher Hoda Anton-Culver, Ph.D., director of epidemiology at the University of California at Irvine.

"We found the risk of other cancers increased as well," Dr. Anton-Culver says.

Breast cancer remains rare among men. Only about 1 percent of breast cancers are diagnosed in men, but some 1,400 new cases are reported in the United States each year, according to the American Cancer Society (ACS).

### **Study Size Larger, Offers Evidence**

Because of the relatively small incidence of male breast cancer, "not one study until now has looked at large numbers," Dr. Anton-Culver says.

However, "Our study looks at a very large number of men," she says, "so there can be validity to large numbers of a rare cancer like this one."

The researchers analyzed data from the California Cancer Registry on 1,926 men who developed breast cancer from 1988 to 2003.

Of these, 221, or 11.5 percent, went on to develop a second cancer at least two months after their breast cancer diagnosis.

One significant second cancer in the group was malignant melanoma, with an incidence that was 50 percent higher than normal, she says. There was also an elevated risk of stomach cancer.

There are several possible explanations for the increased risk, notes Dr. Anton-Culver. It might be due to the side effects of treatment of the primary breast cancer, for example.

But the most probable cause is genetics, she says, with the men being at "higher risk of developing cancer in general."

And studies by the group have shown a high incidence of a breast cancer-related gene, BRCA2, in the men, says Dr. Anton-Culver.

### **Carriers of Cancer-Related Gene Possible**

The findings could have a very practical application in terms of screening, she explains. Her group has been collecting family histories of men with breast cancer, in collaboration with British researchers.

"We definitely do see an association between breast cancer in men and an increased risk of being a carrier of a cancer-related gene," says Dr. Anton-Culver.

That relationship indicates that a screening program looking at close relatives of men with breast cancer could help with the early detection of malignancies.

"Once you have a man with breast cancer, you have a great target for screening," says Dr. Anton-Culver.

Always consult your physician for more information.

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### **Online Resources**

(Our Organization is not responsible for the content of Internet sites.)

[American Cancer Society \(ACS\)](#)

[Breast Cancer Research](#)

[CDC on Men's Health](#)

[Centers for Disease Control and Prevention \(CDC\)](#)

[National Cancer Institute \(NCI\)](#)

[National Institutes of Health \(NIH\)](#)

[NIH 4Women.Gov on Men's Health](#)

[National Library of Medicine](#)

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## **Breast Cancer in Men**

Breast cancer in men is rare - less than 1 percent of all breast carcinomas occur in men.

According to the American Cancer Society (ACS), only about 2,030 cases of breast cancer in men are expected in 2007 in the US. An estimated 450 men will die of the disease this year.

The ACS states that 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. Even when a patient has a risk factor, there is no way to prove that it actually causes the cancer.

According to the ACS, a risk factor is anything that increases your chance of getting a disease such as cancer.

Different cancers have different risk factors. For example, exposing skin to strong sunlight is a risk factor for skin cancer. Smoking is a risk factor for cancers of the lung, mouth, larynx, bladder, kidney, and several other organs.

Known risk factors include:

**Aging:** Aging is an important risk factor for the development of breast cancer in men. Men with breast cancer average about 67 years old at the time of their diagnosis.

**Family history of breast cancer:** Breast cancer risk is increased if other members of the family ("blood relatives") have had breast cancer. About 20 percent of men with breast cancer have close male or female relatives with the disease.

**Inherited gene mutations:** The gene mutation (change) BRCA2, which is responsible for some breast cancers in women, probably accounts for about 15 percent of breast cancers in men. BRCA1 mutations can also increase the risk of breast cancer in men but seems to be responsible for fewer cases than the BRCA2 gene.

**Klinefelter syndrome:** This is a congenital (present at birth) condition that affects about 1 of 1000 men. Normally men have a single X chromosome along with their Y chromosome, while women have two X chromosomes. Men with this condition have more than one X chromosome (sometimes as many as 4). This causes their testicles to be smaller than usual and not produce functioning sperm cells, making them infertile.

**Radiation exposure:** A man whose chest area has been exposed to radiation (usually for treatment of a cancer inside the chest, such as Hodgkin or non-Hodgkin lymphoma) has an increased risk of developing breast cancer.

**Alcohol:** Heavy alcohol intake increases the risk of breast cancer in men.

**Liver disease:** The liver plays an important role in sex hormone metabolism by producing binding proteins that carry the hormones in the blood. These binding proteins affect the hormones' activity. Therefore, men with liver disease may have an increased risk of developing gynecomastia (benign breast growth in men) and breast cancer.

Estrogen treatment: Estrogen-related medications are sometimes used in hormonal therapy for men with prostate cancer. This treatment may slightly increase their breast cancer risk.

Physical inactivity and obesity: Recent studies have shown that physical activity reduces women's breast cancer risk and that breast cancer risk is increased by obesity during adult life. Obesity is probably a risk factor for male breast cancer.

Occupation: Some reports have suggested an increased risk in men who work in hot environments such as steel mills. Also, men heavily exposed to gasoline fumes may have a higher risk. Finally, in a study of Florida firefighters, there was an excess of breast cancer cases.

Always consult your physician for more information.