



***EON Inspirasi***

*Mohammad Nasrul*

***Breast Cancer***

*Are Men at Risk?*

***Men vs Women***

*A Genetic Perspective*

***Outdoor***

***Recreation***

*Trends among Youth*

***From Jogging***

*to Ka-Ching!*

ISSN 2773-5869



9 772773 586005



# Makalah Akademia



## Breast Cancer: Are Men at Risk?

By

TS. FAKAH BINTI AWANG @ ISMAIL<sup>1</sup> AND TS.  
MOHAMAD SHAHRIMI BIN HASHIM<sup>2</sup>

<sup>1</sup>Pusat Pengajian Biologi, UiTM Cawangan Negeri Sembilan, Kampus Kuala Pilah, Pekan Parit Tinggi, 72000 Kuala Pilah, Negeri Sembilan

<sup>2</sup>Pusat Pengajian Teknologi Industri, UiTM Cawangan Negeri Sembilan, Kampus Kuala Pilah, Pekan Parit Tinggi, 72000 Kuala Pilah, Negeri Sembilan  
[faikah7450@uitm.edu.my](mailto:faikah7450@uitm.edu.my)

EDITOR: DR NURHAMIMAH ZAINAL ABIDIN

**Breast cancer** is an abnormal growth of breast cells. It can occur in both benign and malignant forms like any other cancer. Women are usually associated with this cancer and due to this reason, the national screening program is targeting women for early detection. Yet, men also face a lifetime risk of acquiring breast cancer. Approximately 1 in 100 men in the United States are at risk with breast cancer. This malignancy is infrequently reported not just in Malaysia but also in other Asian nations. This may be owing to the fact that cancer in males typically associated with lungs or prostate. The diagnosis and prognosis for males with breast cancer are typically unfavourable due to the cancer's advanced stage and metastases to other organs at the time of detection.

Individuals may wonder why men are at risk for breast cancer that is often diagnosed in women. The majority of us were unaware that men also had breast tissue, as depicted in Figure 1.

Men do not lactate, yet their breasts have a comparable structure to that of a woman's, including fatty tissue, ducts, and breast cells. Male breast tissue is comparable to juvenile female breast tissue before the onset of puberty. These cells can proliferate uncontrollably and develop into cancer.

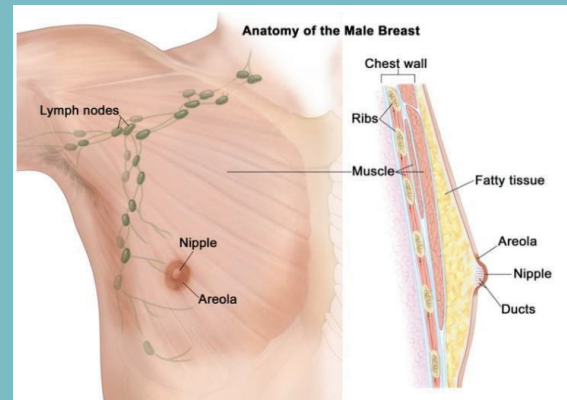


Figure 1. Anatomy of the Male Breast

(Source: Centers of Disease Control and Prevention)

*Male breast ducts are the most prevalent tissue to get cancer.*

Although men have milk-producing ducts and glands, this structure does not operate like its female counterpart. Typically, men are diagnosed with invasive ductal carcinoma, a form of breast cancer that begins in the breast duct and spreads to other areas of the breast. The cancer cells can metastasize to other areas of the body. An invasive lobular carcinoma where cancer begins in the lobules or glands that used to produce milk in women, ductal carcinoma in situ where the cancer cells grow in the lining of the breast duct (this cancer was uncommon in men and did not metastasize to other areas of the body), inflammatory breast cancer where the breast tissue is swollen and red (this cancer was uncommon in men and did not metastasize to other areas of Figure 2 depicts the six-month progression of inflammatory breast cancer.

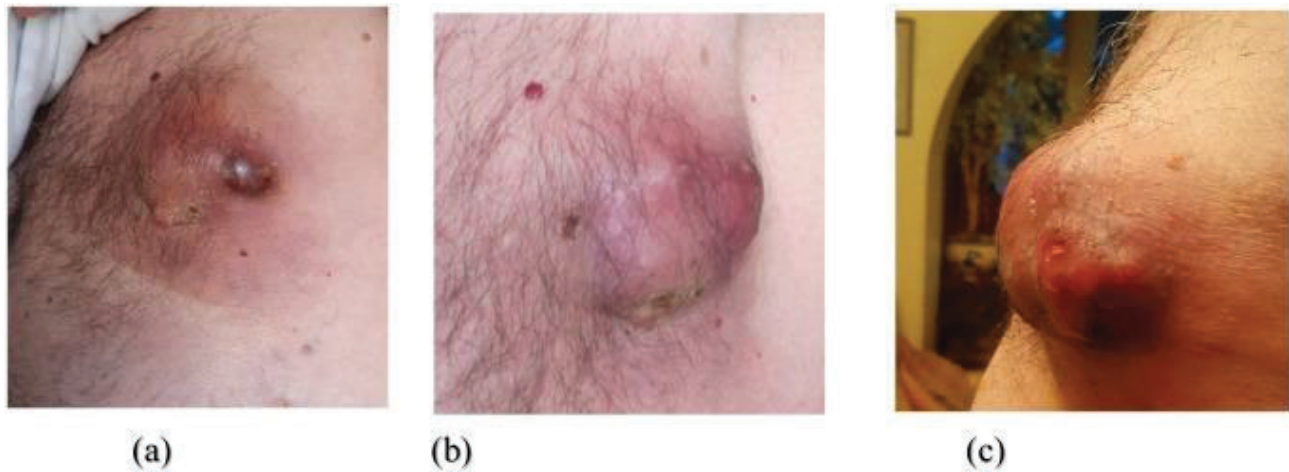


Figure 2. Progress of breast cancer in men from (a) March 2020, (b) June 2020 and (c) August 2020, shows the cancer progress aggressively within 6 months

(Source: Tanhuece.A and Youssef M.M.G, 2021)

Percentage of men developing breast cancer are unknown as there is no major screening was done in the human population unlike in women. Thus, in Malaysia, only 1 percent of breast cancer in men was reported and majority of it is in the late stage.

There are several risk factors that contributing to men developing breast cancer in their life time. Some of the factors are related to sex hormone levels. The usual factors are:

- Aging as the drop of sex hormone in men, it can expose men in developing breast cancer as they age. In US, average age for men being diagnosed of having breast cancer is at 72 years old meanwhile in Malaysia is 68 years old.
- Hormones imbalance -high in estrogen level due to obesity or being overweight or taking hormonal replacement therapy for sexual transition can stimulate the breast tissue to grow uncontrollably and lead to formation of cancer cells.
- Alcoholic – Heavy alcohol drinker can limit the liver's ability to regulate blood estrogen level thus, making men expose to the estrogen without their knowledge.
- Family history of breast cancer- It contribute about 30% of male breast cancer. Some men inherit the BRCA2 where it can increase about 100% chance of those who have it to develop breast cancer.
- Klinefelter syndrome- This occurs about 1 in 1000 men where men with this syndrome have XXY chromosome instead of XY. Due to additional X chromosome, these men likely to develop breast cancer about 20-60 times higher compare to normal men.
- Radiation exposure- A man who undergoes radiation therapy around the chest area are likely to develop breast cancer.

- Testicular conditions- The conditions such as undescended testicles or men to have vasectomy can increase the risk of having breast cancer as estrogen become dominance without the testosterone.

The percentage or prevalence of men developing breast cancer in their lifetime can be minimized by:

- ✓ Managing the weight as being overweight or obese increase not only the risk of breast cancer but also other cancers. Certain food such as processed food and red meat intake can lead to formation of fat in the body especially around the breast area. This condition can stimulate the formation of cell outgrowth at breast area. The outgrowth of cell can be cancerous.
- ✓ Avoid or limit the alcohol intake as even low intake of alcohol can increase breast cancer risk as the alcohol will alter the function of the liver which is an important organ that helps to regulate blood estrogen level.
- ✓ Be physically active as many studies showed that having moderate to vigorous physical activity for at least 150 minutes to 300 minutes per week can help reducing the risk of breast cancer.
- ✓ Do regular health check and physical examination. Breast self-examination had being proven to help an early detection of breast cancer both in men and women.

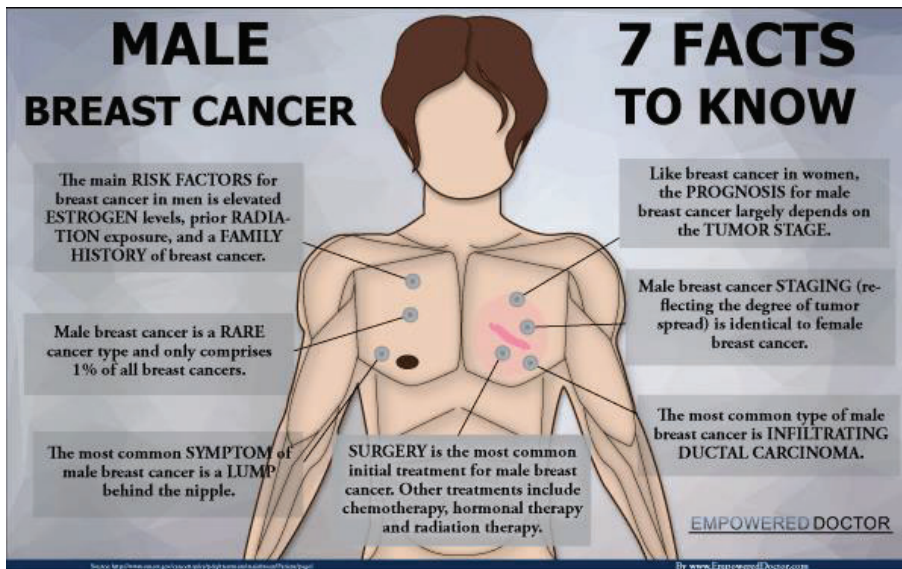


Figure 3. Facts about breast cancer in men

(Source: Philippines National Health Research System)

Since the breast cancer is uncommon in men thus it was unlikely for men to be included in the general screening for this cancer. However, an early detection such as routine breast self-examination and regular health check will help an early detection of breast cancer where the prognosis is better. Even though there are many similarities between breast cancer in men and women, however some factor may lead to the difference in terms of an early detection. The main issues is men and women have a difference breast size. As men's breast is smaller and had a very little breast tissue, thus it is easier for medical professionals to detect small masses under the men's skin. The breast cancer in men also did not grow far from the nipple thus it made the biopsy process easier. Despite that, lack of awareness become the main issues for an early detection of breast cancer in men. Some men ignore their breast lump as they thought it being caused by an infection and they only seek for medical attention after the mass had grown.

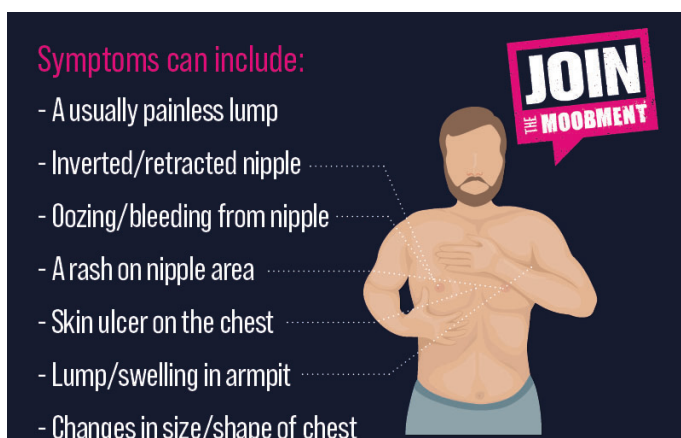


Figure 4. The sign & symptoms for breast cancer in men

(Source: Againts breast cancer UK)

Some men also embarrassed when they find a breast lump and worry that someone might question their masculinity and this will lead to delay in diagnosis and reduce the chance of survival. Most of medical professionals will advise men who had higher risk (those who have family history of breast cancer) to do genetic screening to ensure whether they had carried the BRCA gen and do the routine health examination to ensure they are free from breast cancer. The sign and symptoms of breast cancer in men is similar with their women's counterpart.

One must aware with the formation of lump or swelling around breast area even though they are painless, skin dimpling or puckering, nipple retraction, redness or scaling of the nipple or breast skin and discharge from the nipple.

Figure 4 shows the sign and symptoms of breast cancer in men. Breast self-examination can detect breast cancer in men, and if a suspicious tumour or lesion is seen, a medical practitioner will recommend a breast ultrasound. Due to the anatomical structure of men's breasts, which makes them difficult to visualise with mammography, breast ultrasound has replaced mammography as the main method for detecting breast cancer in males. Once imaging reveals a worrisome tumour with a high likelihood of being cancerous, a breast tissue sample will be obtained via biopsy for histological analysis. The optimal treatment for breast cancer depends on the disease's stage and subtype. Some cancers respond to radiation and treatment, while others require surgical removal.

*In conclusion, men are also at risk of developing breast cancer and an early detection lead to a better prognosis.*

Seeking helps from medical professionals is a new way of self-love and always remember those who love you will appreciate it later.