

BREAST  
CANCER  
HUB<sup>SM</sup>

Team Blue Cobras

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# Male Breast Cancer

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# Abstract - Male Breast Cancer (MBC)

- **Men also get Breast Cancer, many men do.** Because of the lack of resources and the stigma surrounding it, not many people are even aware that male breast cancer exists.
- Since very little information is known about male breast cancer (MBC), our team wants to **raise awareness** to help men understand the dangers of getting breast cancer.
- We have researched many trustworthy resources and **held live interviews with MBC survivors** and the leading researcher. Our team **analyzed many sources of data** and were able to gain more knowledge and perspective on MBC.
- **Lack of information and research** leads to **lack of knowledge** of the disease. **Due to the stigma** many men **do not seek early treatment**. Hence it is very **critical to raise awareness** about Male Breast Cancer.

# Mike Singer

Mr. Singer met with us via conference call late May 2019 the following is his story through his words.

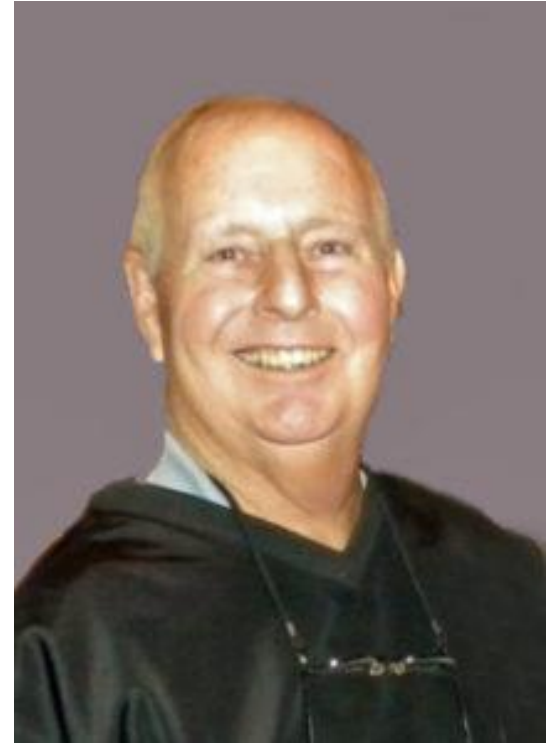
- Mr. Mike Singer was diagnosed with male breast cancer at the age of 50.
- The Breast Cancer was not genetic in his case
- He went through endocrine therapy
- He was treated with Tamoxifen which is a “womans drug”
- He called it chest cancer to cover up the fact that he had breast cancer
- Seeing another man with breast cancer encouraged him to advocate for men’s breast cancer awareness
- Mr Singer was instrumental in our team learning about the logistics and statistics of male breast cancer from a real survivor



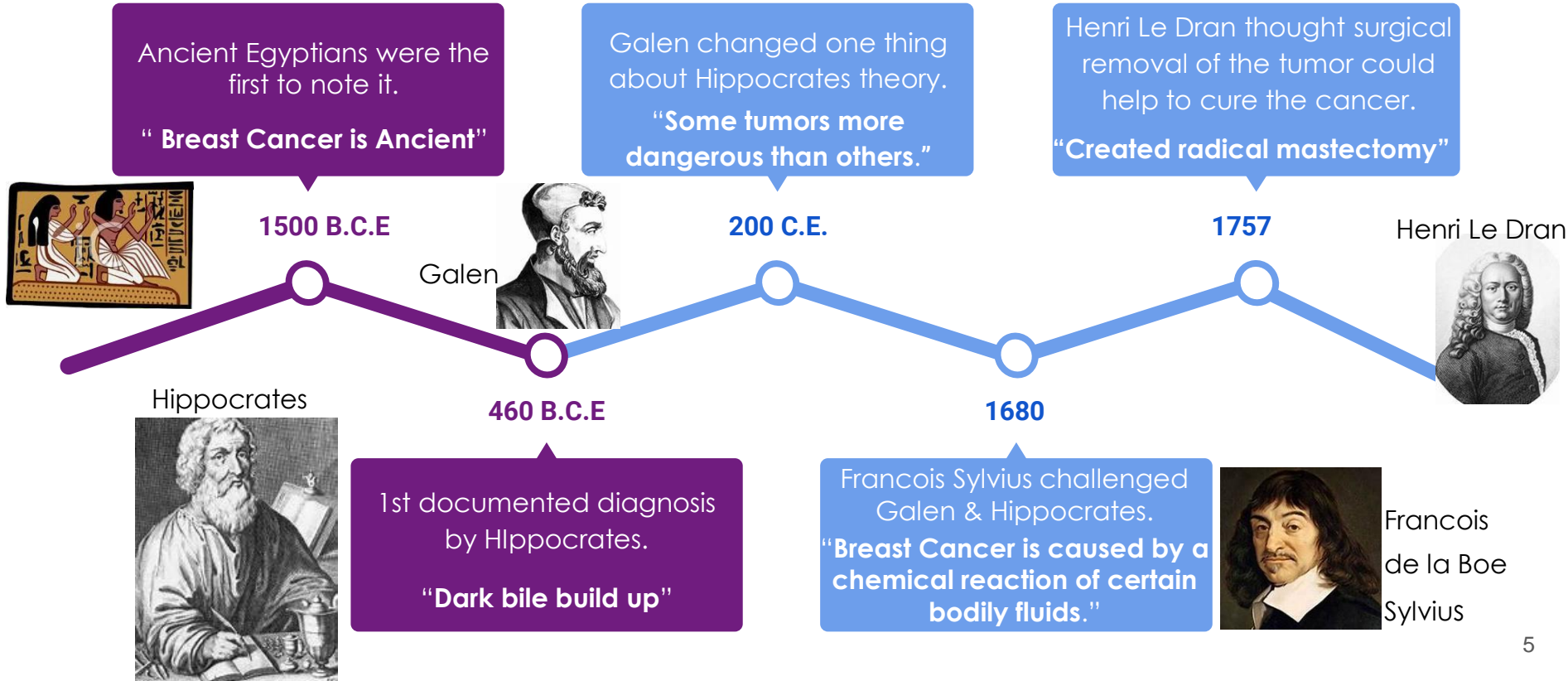
# Mr. Marlyn Washburn

Mr. Washburn tragically passed away on May 26, 2017, we spoke to Mrs. Pat Washburn via conference call in May 2019, the following are our key learnings from our discussion:

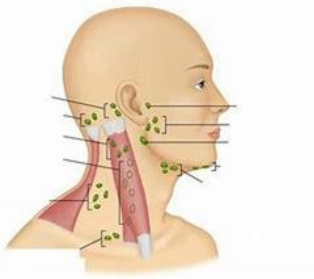
- Mr. Washburn was diagnosed with breast cancer during a diabetes blood screening
- He did not carry the BRCA mutation
- Mr. Washburn had two lipomas previously and thought the one that developed under his breast was another lipoma
- He had smoked since the age of 13, Mrs Washburn thought that could have been a factor
- His Cancer metastasized to his bones, lungs, brain, left nostril, liver, and Gallbladder
- Mrs Washburn travels around the country spreading awareness about male breast cancer



# Breast cancer through time & the evolution of medicine



# Breast cancer through time & the evolution of medicine contd.



A surgeon discovered removing estrogen producing glands/body parts such as the ovaries, adrenal gland, and pituitary gland.

1895

Millions of people's chances increase to survive certain procedures and are able to continue to fight off breast cancer.

Present



William Halstead

1900

William Halstead of New York made **radical breast surgery** the **gold standard** for the next 100 years.



# Ethnicity & Demographics

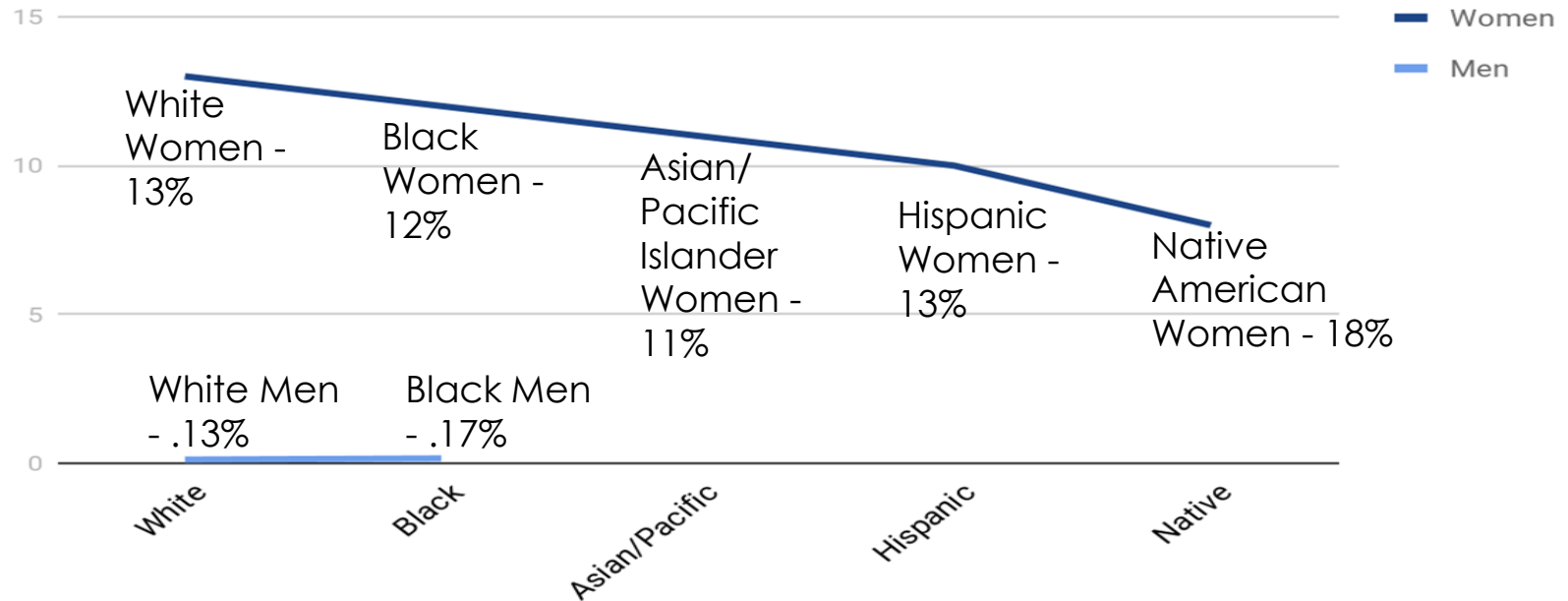
| Breast cancer risk in women by race |     |
|-------------------------------------|-----|
| White                               | 13% |
| Black                               | 12% |
| Asian/Pacific Islander              | 11% |
| Hispanic                            | 10% |
| Native American/<br>Alaskan Native  | 8%  |

| Race  | Men | Women |
|-------|-----|-------|
| White | 1   | 100   |
| Black | 1   | 70    |

- For every white male to get breast cancer, 100 women get breast cancer.
- For every black male to get breast cancer, 70 women get breast cancer.

# Ethnicity & demographics (cont'd)

Chance of getting breast cancer in percentage by race & gender



Created by Blue Cobras' Analytics



# Developing versus developed countries

## Breast Cancer Survival Rates

|                      |               |
|----------------------|---------------|
| North America        | 80% or higher |
| Sweden/ Japan        | Around 60%    |
| Low Income countries | 40% or under  |

## Breast cancer cases caused by obesity, alcohol and physical inactivity

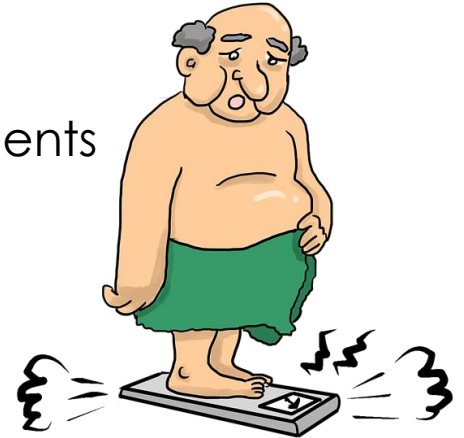
|                                |                                    |
|--------------------------------|------------------------------------|
| High Income countries          | 27% (Majority Obesity)             |
| Middle to low Income countries | 18% (Majority Physical Inactivity) |

- Low income countries have lower survival rates, caused by low early stage detection.
- underdeveloped countries don't have enough treatment facilities.
- Compared to global average, where less than 1% of all BC patients are Men, North Africa's less developed countries have about 2% of BC patients as Men

# Risk factors for male breast cancer



- Risk factors such as working in hazardous environments
  - where toxic chemicals are frequently present.
  - Where there is high exposure to Asbestos
- Obesity is known to cause breast cancer
- Family history & Genetics are the greatest factor for getting MBC
- Diet & food choices can also cause breast cancer. Use of alcohol and tobacco products can also cause breast cancer
- Stigma against breast cancer prevents men from getting screened / seek treatment for breast cancer, at many levels this contributes to the risk



# Risk factors: Family history & Genetics

- A strong background of breast cancer and/or genetic mutations can increase the risks substantially for men to develop breast cancer.
- Family history of breast cancer especially in other male family members can increase the risk.
  - The risk is also higher if there is a breast cancer gene abnormality in the family
  - Men can inherit abnormal BRCA1 or BRCA2 genes. BR stands for BREast, and CA stands for CANcer. The overall risk of developing breast cancer is about
    - 1% with the BRCA1 mutation
    - 6% with the BRCA2 mutation

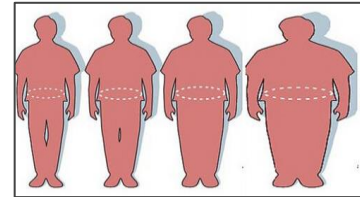
|   | Women with... | Men with... |
|---|---------------|-------------|
| <i>BRCA1</i> Mutation                     | 50 to 65%     | 1%-2%       |
| <i>BRCA2</i> Mutation                     | 40 to 57%     | 6%-7%       |
| No <i>BRCA1</i> or <i>BRCA2</i> mutations | 13%           | .1%         |

Percent of people who get breast cancer

# Risk factors: diet impacts the chances of getting male breast cancer

Diet can affect the probability of getting men's breast cancer in few ways.

- Food containing high Estrogen such as Soy or its byproducts like tofu can increase the chances of getting mbc.
- Alcohol can increase the chance of getting breast cancer and so can smoking.
- Obesity can increase the chances of getting breast cancer.
- Leaving plastic water bottles in the sun can release estrogen from the soy plastics as many companies are trying to go greener.



# Risk factor: types and stages of breast cancer

There are 5 stages of Breast Cancer:

**Stage 0**- is a noninvasive ductal carcinoma in situ, meaning that the tumor is confined to the site of origin.

**Stages I**- through IV or 1 through 4 are used for types of invasive cancer.

**Stage 4**- being the the most critical and 1 being the least critical.

When cancer is as invasive as Stage 4 it can also be referred to as metastatic because it has travelled to the distant organs.

\*Stages 0-3 are curable if properly treated



# Risk factors: stigma against breast cancer in men

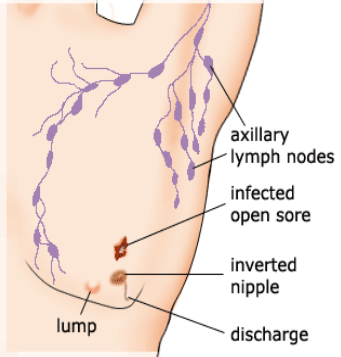
*“But I am reminded every October, when I see only pink and everybody only talks about breast cancer in women, how unaware people are that it also happens in men. I am stunned when I hear a leading doctor in Cincinnati at a fundraiser only talk about women getting breast cancer.” ‘*

*-Steve Del Gato, Breast cancer Survivor. Taken from Platform Q Health interview*

Excerpts from Cancer Research UK's “A study of experiences and attitudes of men with breast cancer.”

- 8 out of 10 reported symptoms early but were shocked when they learned they had breast cancer as the **men did not think they have breasts**.
- They were embarrassed to tell their families because **“Men can't have breast cancer”** and having to go to **“women's care centers”**.
- 50% felt that **not enough information was available** on Male Breast Cancer.
- Very few men used support groups and other formal help services.

# Signs & symptoms of breast cancer

| Symptoms & Signs common to <b>both genders</b>  | More common in <b>men</b>  | More common in <b>women</b>   |
|---|--|---|
| Changes to the skin in covering your breast, such as dimpling, wrinkling, redness, or scaling | Most men find their lump under the nipple.   | Swelling of all or part of the breast (even if no distinct lump is felt)                            |
| Discharge from nipple   |  | Breast or nipple pain   |
| Changes to nipple, such as redness or scaling, or a nipple that begins to turn inward.        | <p>Symptoms of Male Breast Cancer</p>  <p>The diagram shows a male torso with labels for: axillary lymph nodes (purple clusters in the armpit), infected open sore (red sore on the chest), inverted nipple (nipple pointing inward), lump (brownish mass on the chest), and discharge (orange fluid from the nipple).</p> | The lump can be found anywhere, like under the nipple, behind the nipple, or even under the armpit. |
| A painless lump or thickening in breast tissue.   |  |   |

# Current treatment options

Some of the treatment modules for BC include:

- Radiation
- Chemotherapy (There are 3 main Chemo drugs: Herceptin, Perjeta, and Taxotere)
- Estrogen therapy: Tamoxifen is one of the most common drugs used by male BC patients it is an Anti-Estrogen and is commonly used in Estrogen therapy



There are three common BC receptors: Estrogen, Progesterone and Her2

- There are not many treatments for progesterone
- Men can also go for Mastectomies and Lumpectomies which are removals of the breast tissues



# Citations

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<https://www.cancer.net/cancer-types/breast-cancer/stages> (10)

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[https://docs.google.com/document/d/1OEPXqN\\_Wemld8S44-AGa6c1Fh7zNh3Ej9zQqBqSYqTRg/edit?usp=sharing\(2-14\)](https://docs.google.com/document/d/1OEPXqN_Wemld8S44-AGa6c1Fh7zNh3Ej9zQqBqSYqTRg/edit?usp=sharing(2-14)) Our notes

<https://www.mbcalliance.org/project/male-breast-cancer-coalition> (Image, Slide:4)

<https://www.sciencedirect.com/science/article/pii/S0959804914002718> (7)

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[https://en.wikipedia.org/wiki/Cancer\\_staging](https://en.wikipedia.org/wiki/Cancer_staging) (Image, Slide 11)

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