



Breast Health and Sarawak

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Importance of Breast Health

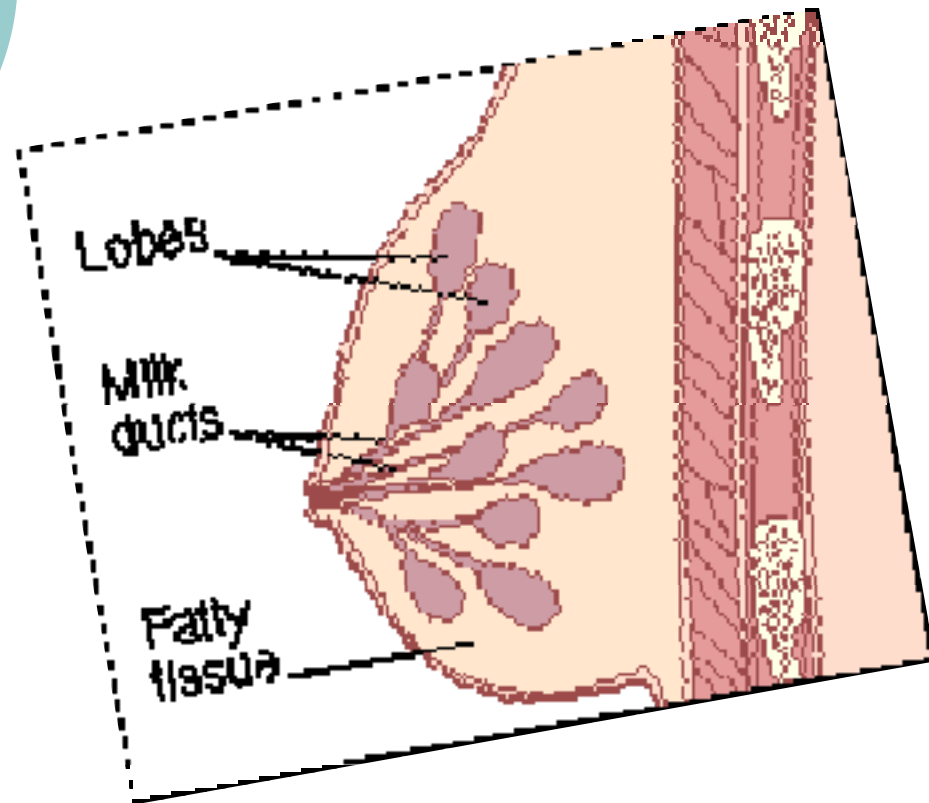
- **All** Women have Breast.
- Being a women and Having Breast **itself** is a independent risk factor for Breast cancer.
- **Every woman is at SOME risk for breast cancer .**



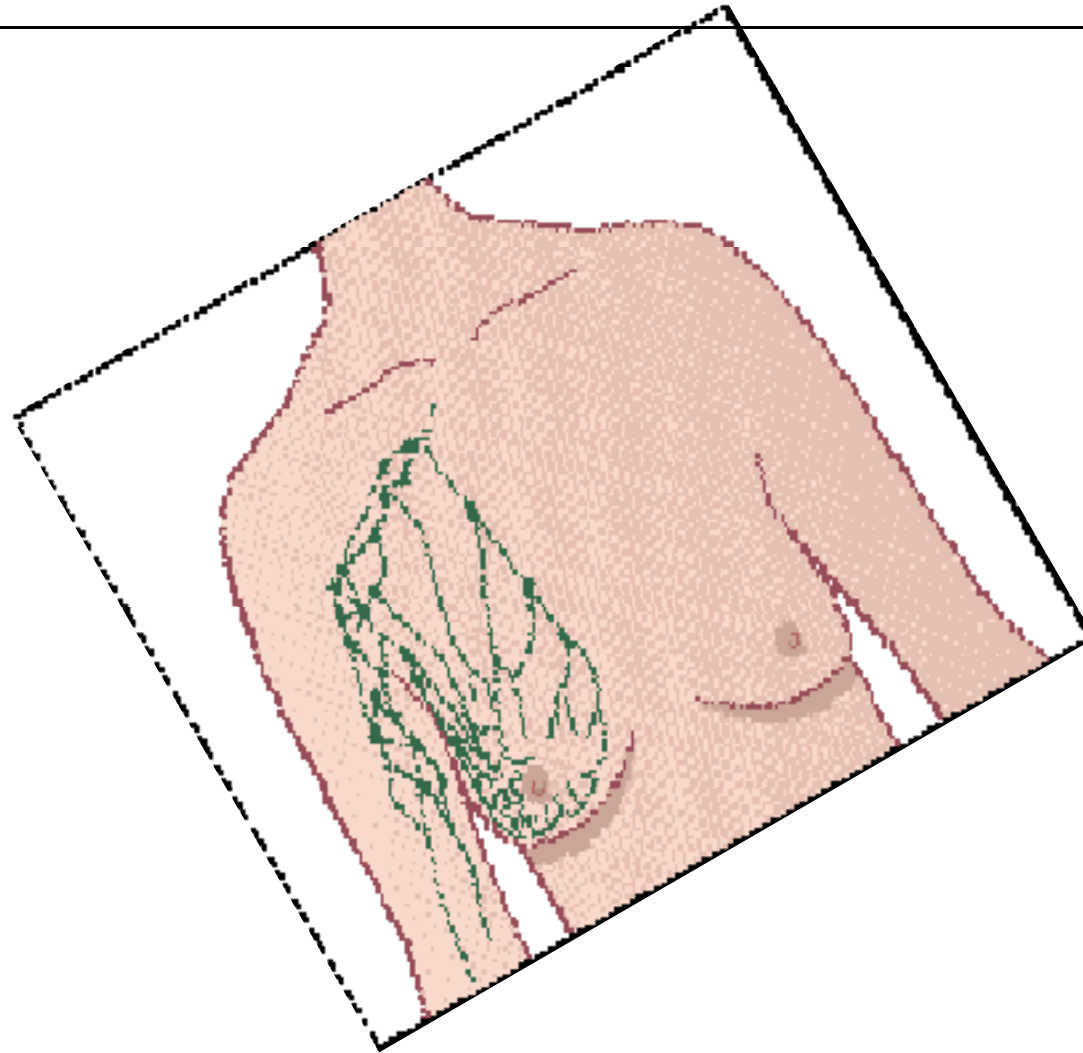
Breast health

- **The breast is a gland designed to make milk.**
- **Breast is Made up of Lobules, Ducts and Fat.**
- They **grow** along with the growth of the women.
- They show **various changes** along the way of our life.
- The **rapidly grow and regress** under certain special conditions. .i.e., Puberty and Menarche. Pregnancy, Termination of Pregnancy.

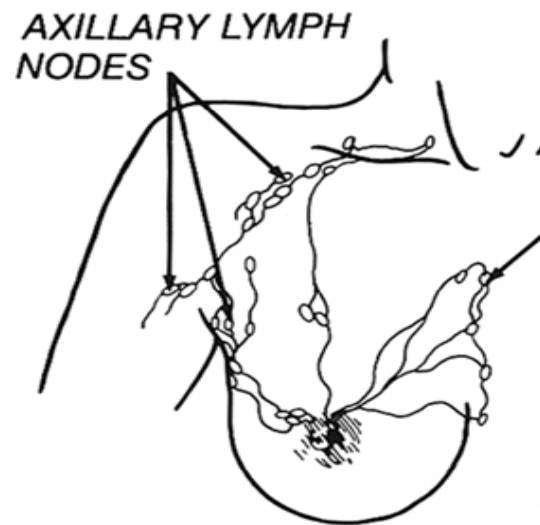
Breast System



Breast and Lymphatics



Axillary Lymph Nodes.





What is normal breast development?

- Breast development is a vital part of **reproduction** in the human female.
- The development and kinds of breast changes that take place are **directly related to age**.
- ages of 10 and 25; **glandular development**, which is under the influence of menstrual hormones.
- Ages above 45, **involution, or shrinkage** of the milk ducts, which begins from about age 35 on.




What breast changes happen at puberty?

- The ovaries start to secrete estrogen.
- **Fat in the connective** tissue begins to accumulate causing the **breasts to enlarge**.
- The duct system also begins to grow
Once ovulation and menstruation begin, the maturing of the breasts begins with the **formation of secretory glands** at the end of the milk ducts.



What cyclical changes occur to the breasts during menstruation?

- During menstruation, many women also experience **changes in breast texture**.
- The glands in the **breast are enlarging** to **prepare** for a possible pregnancy.
- If pregnancy does not occur, the breasts return to normal size



What happens to the breasts during pregnancy and lactation?

- Many physicians believe the breasts are not fully mature until a woman has given birth and produced milk.
- By the **fifth or sixth month** of pregnancy, the breasts are fully **capable of producing milk** .
- **Estrogen controls** the growth of the **ducts** and **Progesterone controls** the growth of the **glandular buds**.



What happens to the breasts at menopause?

- The levels of estrogen and progesterone begin to fluctuate.
- Without estrogen, the connective tissue of the breast becomes **dehydrated** and **inelastic**.
- With out progesterone the **nipple areola complex** loses its texture.

The Conclusion

- Such an organ subjected to **continuous harassment/ Weather beaten damage**.
- Rapid Progression and Regression .
- High wear and tear organ due to various **Phases of womanhood**.
- Prone for mutation if risk factors are in place.





It is not possible to say what exactly causes a woman's breast cancer.

However, research has shown that **some factors** might **increase** a woman's risk or chance of developing breast cancer. These factors are called **risk factors**.



Breast Cancer Risk Factors

- **Risk Factors You Cannot Change – Non Modifiable.**
- **Lifestyle-Related Factors and Breast Cancer Risk- Modifiable.**
- **Factors With Uncertain, Controversial, or Unproven Effect on Breast Cancer Risk**



Non Modifiable.

- Gender
- Age
- Genetic
- **Family history of breast cancer**
- **Personal history of breast cancer**
- **Race**
- **Abnormal breast biopsy**
- **Previous chest radiation**
- **Menstrual periods**
- **Diethylstilbestrol (DES):**



Non Modifiable- Age

- **Growing older** is the biggest risk for breast cancer. The longer you live, the higher your risk:
- From birth to age 39, 1 woman in 231 will get breast cancer (**<0.5%** risk).
- From ages 40–59, the chance is 1 in 25 (**4%** risk).
- From ages 60–79, the chance is 1 in 15 (nearly **7%**).



Non Modifiable- **Genetic**

- BRCA1 and BRCA2 Mutated Genes.
- **5% to 10%** of breast cancer cases are hereditary as a result of gene changes (called mutations)
- BRCA testing is not an established service in Malaysia



Non Modifiable- **Family History**

Your risk increases if you have...

- The more blood relatives on the **same side of the family** who have had breast cancer
- The **younger these relatives** were when they were first diagnosed
- The **more closely related** these relatives are to you



Degree of Risk- Family History

- **1 first-degree relative** (mother, sister, or daughter) with breast cancer approximately **doubles** a woman's risk.
- Having **2, first-degree relatives** increases her risk 5-fold.
- Women with a family history of breast cancer in a **father or brother** also have an increased risk of breast cancer.
- Altogether, about **20% to 30%** of women with breast cancer have a family member with this disease.



Non Modifiable- **Personal history of breast cancer**

- A woman with cancer in one breast has a **3- to 4-fold** increased risk of developing a new cancer in the other breast or in **another part of the same breast** .
- This is different from a **recurrence** (return) of the first cancer.



Non Modifiable- **Race**

- **White women** are slightly more likely to develop breast cancer than are African-American women .
- Asian, Hispanic, and Native-American women have a lower risk of developing and dying from breast cancer.
- Among Malaysian the risk is higher in **Chinese**, Indian followed by Malay.



Non Modifiable- **Some types of benign breast conditions** are more closely linked to breast cancer risk than others



Abnormal breast biopsy – **Non Proliferative**

Do not seem to affect breast cancer risk, or if they do at all it is to a very small extent

- fibrosis
- cysts
- mild hyperplasia
- adenosis (non-sclerosing)
- simple fibroadenoma
- phyllodes tumor (benign)
- a single papilloma
- fat necrosis
- mastitis
- duct ectasia
- benign tumors (lipoma, hamartoma, hemangioma, neurofibroma)



Abnormal breast biopsy- **Proliferative with out Atypia**

Raise a woman's risk of breast cancer slightly (1 ½ to 2 times normal).

- Usual ductal hyperplasia (without atypia)
- Complex fibroadenoma
- Sclerosing adenosis
- Several papillomas or papillomatosis
- Radial scar



Abnormal breast biopsy- **Proliferative with Atypia**

Stronger effect on breast cancer risk, raising it 4 to 5 times higher than normal.

- Atypical ductal hyperplasia (ADH)
- Atypical lobular hyperplasia (ALH)



Non Modifiable- **Previous chest Radiation**

- The risk of developing breast cancer appears to be highest if the **breast was still in development** (during adolescence) when the radiation was given.



Non Modifiable-**Menstrual periods**

- Started menstruating at an early age (before age 12)
- Menopause at a late age (after age 55)



Non Modifiable- **Diethylstilbestrol (DES):**

- Women whose mothers took DES during pregnancy may have a **higher risk** for breast cancer than women not exposed to the drug in utero



Lifestyle-Related Factors and Breast Cancer Risk- Modifiable



Modifiable Risk

- **Not having children**
- **Oral contraceptive use**
- **Postmenopausal hormone therapy (also known as hormone replacement therapy, or HRT)**
- **Breast-feeding and pregnancy**
- **Alcohol**
- **Obesity and high-fat diets**
- **Physical activity**



Oral contraceptive use

- women now using **oral contraceptives** have a slightly greater risk of breast cancer than women who have **never used them**.
- Women who **stopped** using oral contraceptives more than **10 years** ago do not appear to have any increased breast cancer risk



Not having children

- Women who have had no children or who had their first **child after age 30** have a slightly higher breast cancer risk .
- Having **multiple pregnancies** and becoming pregnant at an early age reduces breast cancer risk.



Postmenopausal hormone therapy (also known as hormone replacement therapy, or HRT)

Women's Health Initiative (WHI) Study.

- **Increased** risk of breast cancer related to the use of combined PHT.
- **Increased** the likelihood that the cancer would be found at a **more advanced stage**.
- **Reduce** the effectiveness of mammograms/abnormal findings on mammograms were noted.
- **Estrogen alone (ERT)** does not appear to increase the risk of developing breast cancer. But when used long term (**for more than 10 years**), ERT has been found to **increase the risk of ovarian and breast cancer**.
- **Estrogen can increase the risk of developing cancer of the uterus. Progesterone is added to help prevent this.**



Breast-feeding and pregnancy

- Studies suggest that breast-feeding may **slightly lower** breast cancer risk
- Breast-feeding is continued for **1.5 to 2 years.**
- Pregnancy and Breast-feeding reduce a woman's total number of **lifetime menstrual cycles.**



Alcohol

- 1 alcoholic drink a day have a very small increase in risk.
- 2 to 5 drinks daily have about 1½ times the risk of women who drink no alcohol



Obesity and high-fat diets

- **Obesity** (being overweight) has been found to be a breast cancer risk in all studies, especially after **menopause** .
- Connection between weight and breast cancer risk is **complex**.
- **Excess fat** in the **waist area** may affect risk more than the same amount of **fat in the hips and thighs**.
- **Calories** do count and fat is a major source of these.



Physical activity

- Women's Health Initiative (WHI) recommends, as little as 1.25 to 2.5 hours per week of brisk walking reduced a woman's risk by 18%.
- American Cancer Society Guidelines on Nutrition and Physical Activity for Cancer Prevention recommend that you engage in **45 to 60 minutes of intentional physical activity 5 or more days a week.**



**Factors With Uncertain,
Controversial, or Unproven Effect on
Breast Cancer Risk**

Unproven Effect on Breast Cancer Risk



- Antiperspirants
- Under wire bras
- Induced abortion
- Breast implants
- Environmental pollution
- Tobacco smoke
- Night work



Induced abortion

- Conference on **abortion and breast cancer** by the **National Cancer Institute** (February 2003) concluded that there was no relationship.
- **1997 Danish study:** A recent, massive, cohort study was completed in Denmark and published in a peer-reviewed journal: the ***New England Journal of Medicine*** for **1997-JAN-9**. .



Breast Implants

- Breast implants **do not increase** breast cancer risk.
- Implants make it **harder to see** breast tissue on standard mammograms.
- **Implant displacement views** can be used to more completely examine the breast tissue.



- **Environmental Pollution**

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- Research does not show a clear link between breast cancer risk and exposure to environmental pollutants

- **Tobacco smoke**

- Chemicals in tobacco smoke reach breast tissue and are found in breast milk.
- Evidence regarding secondhand smoke and breast cancer is "**consistent with a causal association**" in **younger, mainly pre menopausal women**



Breast Health

- Some women with breast cancer had the risk factor
- **Some women with one or more risk factors might never develop breast cancer.**
- Most women with breast cancer have **no** obvious risk factors (aside from getting older).



Facts and Figure



A Woman's Chances of Breast Cancer Increases With Age	
By age 30	1 out of 2,212
By age 40	1 out of 235
By age 50	1 out of 54
By age 60	1 out of 23
By age 70	1 out of 14
By age 80	1 out of 10
Ever	1 out of 8

Source: Feuer EJ, Wun LM. DEVCAN: Probability of Developing or Dying of Cancer. Version 4.0. Bethesda MD: [National Cancer Institute](#). 1999.



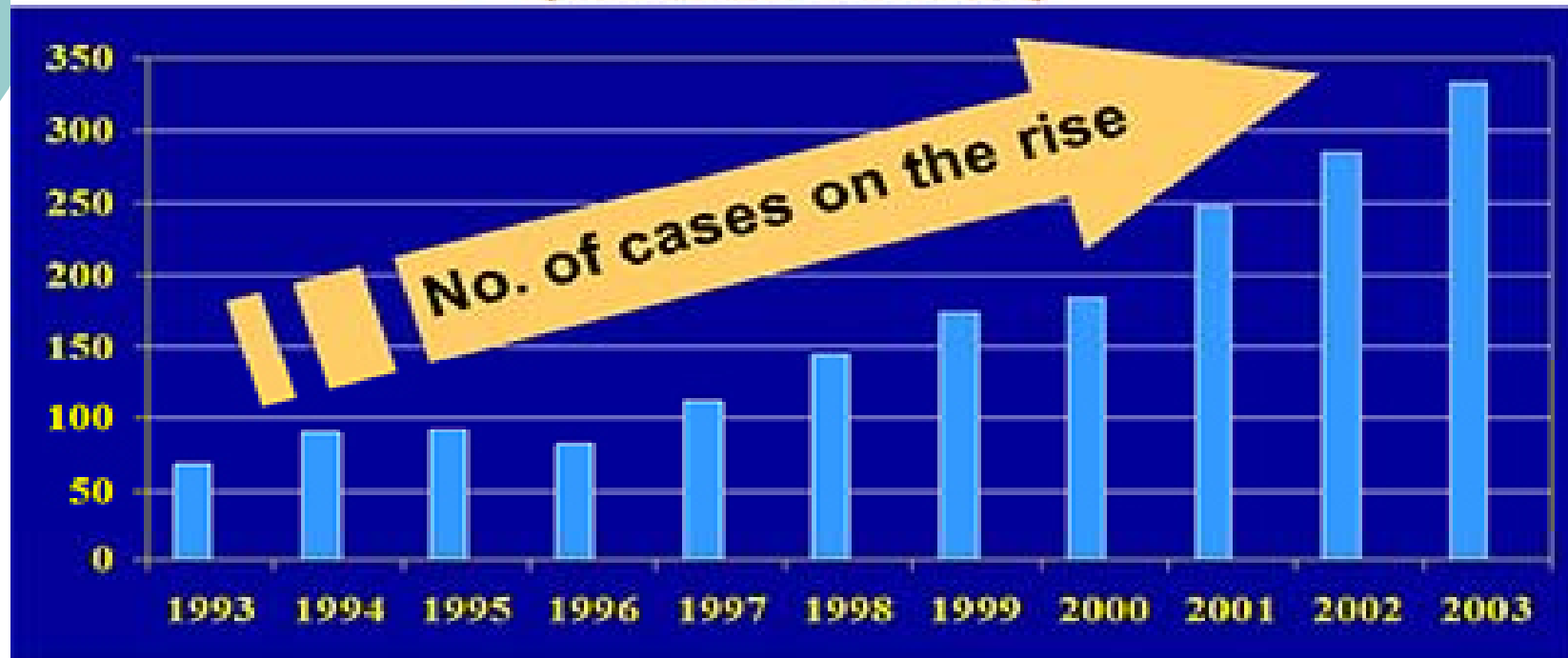
Breast Cancer in Malaysia

- **Breast cancer was the** commonest overall cancer as well as the commonest cancer in women amongst all races from the age of 20 years in Malaysia.
- Breast cancer is **most common in the Chinese**, followed by the **Indians and then, Malays**.
- Breast cancer formed 31% of newly diagnosed cancer cases in women in 2003.

Breast Cancer in Malaysia

Breast cancer in University Malaya Medical Centre, Kuala Lumpur 1993-2003

(Total number – 1818 cases)



Data Courtesy of Prof Dr Yip CH, UMMC, Kuala Lumpur



Sarawak

- Number of breast cancer **on the rise (192 to 240)**
- 30% of all the women cancer registered with us.

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- 40% present in the early stages
 - 60% with advanced stages.

Any concern about Healthiness of the breast?





Many women are concerned that a **breast change might be breast cancer**. Even though this **will not be true in most cases**, it is very important that all breast changes are **carefully investigated when ever and where ever possible**.

If it is cancer, finding it early will mean a much **better chance of effective treatment**



Breast changes/concerns:

- A lump or lumpiness.
- Any change in the shape or appearance of the breast such as dimpling or redness.
- An area that feels different to the rest.
- A discharge from the nipple.
- Any change in the shape or appearance of the nipple such as pulling in or scaliness (nipple inversion or retraction).
- Pain.



Investigating breast changes

The **triple test** includes:

- Clinical breast examination and taking a personal history
- Imaging tests i.e. mammography and ultrasound
- Non-surgical biopsy; i.e. a fine needle aspiration and core biopsy. This is when a sample of cells or tissue is extracted from the lump



CA153

- CA153 tumour marker for breast cancer that is commonly included in the “package” for **screening blood tests**. However, this marker is **elevated in only 7% of early breast** cancer, therefore making this rather useless as a test for screening
- In **stage 4** (late stage) cancer, CA153 is **elevated in 90%** of the patients tested



Question Time

Thank you