

РЕЖИМТ CANCER



OCTOBER IS
*Breast
Cancer*
AWARENESS MONTH



UNDERSTANDING BREAST CANCER RISK

Editorial

Dear Doctor,
Super Surgical Hospital is starting "Rethink Cancer", a three monthly newsletter. It will cover various topics in oncology. October is Breast Cancer Awareness Month. Therefore, our first newsletter is on understanding breast cancer risks. Our aim is to initiate understanding cancer in basic ways. This will create a much-needed awareness amongst all.

Festive season is ahead, we wish you
Happy Diwali and prosperous Vikram Samvat 2074

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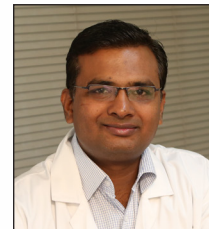
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Breast Cancer Awareness Month: October

The official color of 'October' is '**PINK**' as this month dedicates to Breast Cancer Awareness


HISTORY:

NBCAM was founded in 1985 in October as a partnership between the American Cancer Society and the pharmaceutical division of Imperial Chemical Industries (now part of AstraZaneca). The aim of the NBCAM from the start has been to promote mammography as the most effective weapon in the fight against breast cancer.

A variety of events around the world are organized in October, including walks and runs, and the pink illumination of landmark buildings. In the United States, the National Football League promotes breast cancer awareness by incorporating pink on and off the field, and comic strip artists use pink on one day in October.

In India Breast Cancer Awareness site is managed by the NGO - "The Pink Initiative".



Breast cancer is diagnosed every
29 seconds
around the world,
and in the U.S.
it's every
2 minutes. 

Breast cancer is a global disease. There are over 1.3 million cases are diagnosed annually and 0.5 million deaths. Though the majority of underlying causes and other features are usually uniform around the world, every region has its own uniqueness for that cancer.

Alarming Trends: India

Increasing incidence of Breast Cancer in younger age groups- below 40 years of age.

Rising numbers of cases of Breast Cancer in India.

Late presentation:

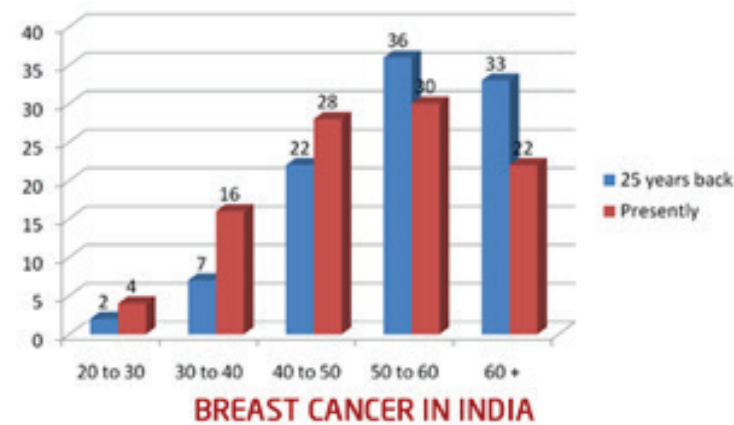
This directly decreases long-term survival of the patient

Lack of awareness and Screening:

Breast Awareness (Being aware about symptoms of BC, looking out for them regularly, and reporting them on time to a doctor) is the single most important factor responsible for better survival of patients in the west

Aggressive cancers in young:

Generally, many cancers in the younger age group tend to be aggressive



Mantra: Detection & Knowledge

Cancer is a difficult journey, both for the patient and caretaker. In our practice in India, we have noticed that this is all the more compounded by incorrect notions and incorrect ideas in the minds of people related to treatment of cancer.

We firmly believe that having a correct knowledge of cancer and its treatment is half the war won already and helps those undergoing treatment and their care givers cope up with it better.

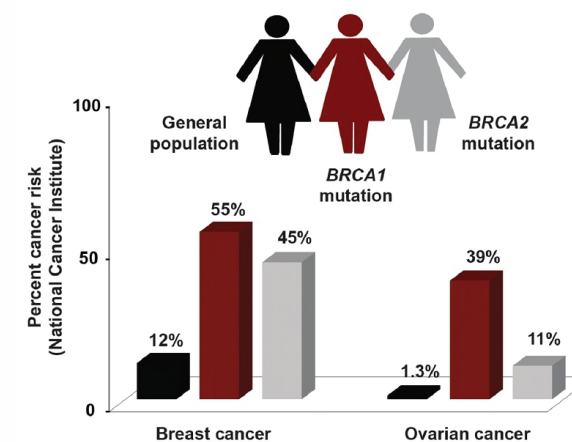


So as a physician our roll is important for 'Breast Awareness'. Since the number of cases are rising, more younger women are getting affected, most are presenting only after symptoms develop (usually stage 2B and beyond, rarely earlier stage). We cannot prevent this cancer, all we can do is to detect this cancer early. **BREAST AWARENESS** is the way to go. Our

endeavor is to provide right guidance and correct knowledge on everything related to Breast Cancer.

Estimating Breast Cancer Risk :

To estimate your risk of breast cancer, your health care provider looks at:



- How many risk factors do you have?
- How much these factor increase the risk?
- Few factors increase Breast Cancer risk a lot (like having BRCA1 gene mutation)

Exactly which risk factors should be considered to estimate risk is still under study.

Breast Cancer: Risk

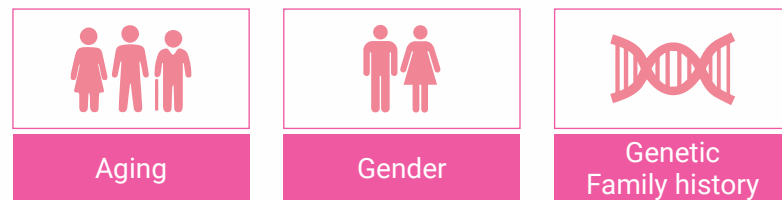
Risk Assessment Of Breast Cancer

Understanding Breast Cancer is not all about the disease and its presentation forms but most important is knowing the life time risk in women. Breast cancer may not be preventable but early detection by strict surveillance, risk reducing treatments can go along way normal healthy life.

What do you understand by risk?

It means the probability of getting Breast Cancer due to specific factors affecting and individual.

Three greatest risk factors for Breast Cancer are:



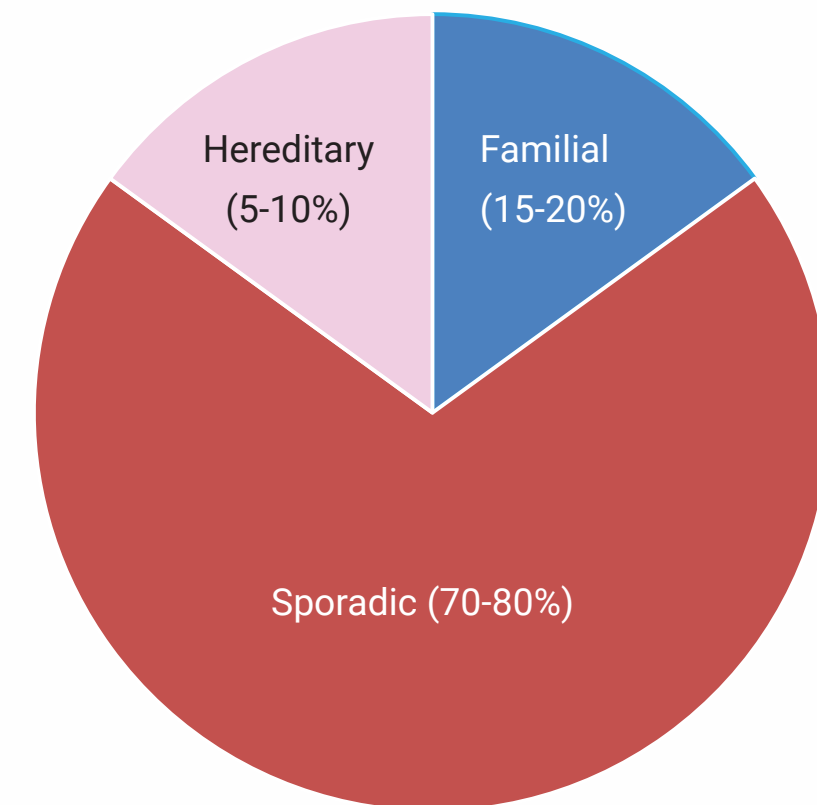
There are other life style and environment factors also:



There are special Breast Cancer screening guidelines for some women at higher risk.

Breast Cancer: Hereditary

Breast cancer may also be caused by inherited gene mutations. **Hereditary Breast Cancers account for approximately 5% to 10% of all Breast Cancers.** Specific hereditary predispositions for breast cancer, such as inheriting a mutation in either BRCA1 or BRCA2 gene, are not taken into account in risk estimates with the Breast Cancer Risk Assessment Tool. Although the tool performs well in clinics where women have a strong family history of breast cancer, more specific methods for projecting risk are appropriate if a woman is known to carry a breast cancer-producing mutation in BRCA1 or BRCA2.



Breast Cancer: Gail Model

Researchers are, however, conducting additional studies to gather more data and to determine whether including information on other risk factors can strengthen the statistical model, called the Gail model, upon which the Breast Cancer Risk Assessment Tool is based. Nonetheless, the current model estimates breast cancer risk accurately on average.

The Breast Cancer Risk Assessment Tool is based on a statistical model known as the "Gail model," which is named after Dr. Mitchell Gail, Senior Investigator in the Biostatistics Branch of NCI's Division of Cancer Epidemiology and Genetics. The model uses a woman's own personal medical history, her own reproductive history, and the history of breast cancer among her first-degree relatives (mother, sisters, daughters) to estimate her risk of developing invasive breast cancer over specific periods of time. Data from the Breast Cancer Detection Demonstration Project (BCDDP), which was a joint NCI and American Cancer Society breast cancer screening study that involved 280,000 women aged 35 to 74 years, and from NCI's Surveillance, Epidemiology, and End Results (SEER) Program was used in developing the model.

The Gail model has been tested in large populations of white women and has been shown to provide accurate estimates of breast cancer risk.

Gail model

- Age of person
- Age at menarche
- Age at first live birth
- Breast biopsies(AH)
- Family history
- First degree relatives

Gail Model: Questionnaire

Q.1 What is the woman's age?

The risk of developing breast cancer increases with age. The great majority of breast cancer cases occur in women older than age 50. Most cancers develop slowly over time. For this reason, breast cancer is more common among older women.

50⁺

This tool only calculates risk for women 35years of age or older.

Q.2 What was the woman's age at the time of her first menstrual period?

Women who had their first menstrual period before age 12 have a slightly increased risk of breast cancer. The levels of the female hormone estrogen change with the menstrual cycle. Women who start menstruating at a very young age have a slight increase in breast cancer risk that may be linked to their longer lifetime exposure to estrogen.

Q. 3 What was the woman's age at the time of her first live birth of a child?

Risk depends on many factors, including age at first live birth and family history of breast cancer. The relationship of these two factors in white women is shown in the following table of relative risks

Relative Risk of Developing Breast Cancer*

Age at first live birth	# of affected relatives		
	0	1	2 or more
20 or younger	1	2.6	6.8
20-24	1.2	2.7	5.8
25-29 or no child	1.5	2.8	4.9
30 or older	1.9	2.8	4.2



For women with 0 or 1 affected relative, risks increase with age at first live birth. For women with 2 or more first degree relatives, risks decrease with age at first live birth

Gail Model : Questionnaire

Q.4 How many of the woman's first-degree relatives - mother, sisters, daughters - have had Breast Cancer?

Having one or more first-degree relatives (mother, sisters, daughters) who have had Breast Cancer increases a woman's chances of developing this disease.

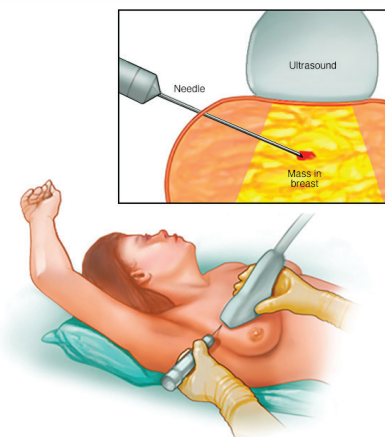


Q.5 Has the woman ever had a breast biopsy?

5a: how many previous breast biopsies (positive or negative) has the woman had?

5b: has the woman had at least one breast biopsy with atypical hyperplasia?

Women who have had breast biopsies have an increased risk of Breast Cancer, especially if their biopsy specimens showed atypical hyperplasia. Women who have a history of breast biopsies are at increased risk because of whatever breast changes prompted the biopsies. Breast biopsies themselves do not cause cancer.



Gail Model: Questionnaire

Q.6 What is the woman's race/ ethnicity?

The original Breast Cancer Risk Assessment Tool was based on data from white women. But race/ethnicity can influence the calculation of breast cancer risk. Over the years, as additional data became available, researchers at the NCI updated the tool to more accurately estimate risk for African American, and Asian and Pacific Islander women.



For Hispanic women, part of the model is derived from white women who participated in the Breast Cancer Detection Demonstration Project and from SEER data. The risk estimates for Hispanic women are therefore subject to greater uncertainty than those for white women.

Calculations for American Indian and Alaskan Native women are based entirely on data for white women and may not be accurate. Recent immigrants from rural China and certain other parts of Asia probably have lower risk than predicted by the model. Researchers are conducting additional studies, including studies with minority populations, to gather more data and to increase the accuracy of the tool.

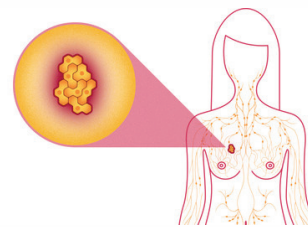
Breast Cancer: Other Tools

Other risk assessment tools are more appropriate for women who have a history of certain medical conditions. Below is a list of alternative resources for women with a medical history of:

- Breast cancer or lobular carcinoma in situ (LCIS) or ductal carcinoma in situ (DCIS).



Women with a history of breast cancer have risks of recurrence that depend on the type of breast cancer, its stage at diagnosis, and treatment. A cancer doctor can provide guidance on future risks for breast cancer survivors.



Women with a history of DCIS have risk of invasive breast cancer that depends on type of treatment for DCIS; a cancer doctor can provide information on this risk.

- Women who had radiation to the chest for the treatment of Hodgkin lymphoma have higher than average risk of breast cancer.
- Women with a known mutation in either the BRCA1 or BRCA2 gene can use the Breast and Ovarian Cancer Analysis of Disease Incidence and Carrier Estimation Algorithm (BOADICEA model) to estimate their breast cancer risk. This is computer analysis program.
- Other rare cancer-causing syndromes, such as the Li-Fraumeni syndrome
Women with a known or suspected inherited cancer-causing syndrome should consult a specialist in medical genetics.



Breast Cancer: Other Tools

EXPLAINING THE RESULTS

The Breast Cancer Risk Assessment Tool will estimate a woman's risk of developing invasive breast cancer during the next 5-year period and up to age 90 (lifetime risk) based on the woman's age and the risk factor information provided. For comparison, the tool will then calculate 5-year and lifetime risk estimates for a woman of the same age who is at average risk for developing breast cancer. **Lifetime risk estimates are higher than 5-year age interval estimates because breast cancer risk increases with years at risk.**

Risk estimates calculated by the tool are estimates of absolute breast cancer risk. Absolute breast cancer risk is the chance or probability of developing invasive breast cancer in a defined age interval. One way to evaluate the accuracy of the risk estimate is to determine whether it correctly predicts average risk in a group of women with the same risk factors and age. The Breast Cancer Risk Assessment Tool does predict such average risks well.

Risk estimates calculated by the tool are estimates of absolute breast cancer risk which is the chance or probability of developing invasive breast cancer in a defined age interval

Women with a 5 year risk of 1.67% or higher are classified as "High-Risk."

Breast Cancer: Other Tools

INDIVIDUAL RISK VERSUS GROUP RISK

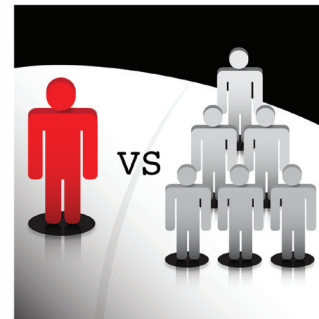
The Breast Cancer Assessment Tool cannot predict whether or not you will get breast cancer.

It does not calculate an individual woman's breast cancer risk.

Instead, it gives the average risk of a group of women with similar risk factors. So it's not clear risk means for any one women.

Say that tool gives you a 5 year risk of 1 %

This means that tool estimates 1 % of women who have risk factors similar to yours will develop breast cancer over the next 5 years. However, the tool cannot predict which of these women will get Breast Cancer.



The Breast Cancer Assessment Tool gives the average risk of a group of women with similar risk factors. It does not calculate an individual woman's breast cancer risk.

LOOKING AHEAD AT RISK ASSESSMENT

A research in risk assessment grows, tools like Breast Cancer Risk Assessment Tools will be better able to predict risk in large group of women.

RISK-LOWERING OPTIONS FOR WOMEN AT HIGHER RISK

BRCA1 and BARC2 positive women can have -

1 Bilateral skin sparing or nipple areola sparing mastectomy after child bearing is complete by age 35 years to 40 years. This can be with breast reconstruction options.

2 Bilateral salphingo oophorectomy by 35 years to 40 years of age to prevent ovary an cancer.



Super Surgical Hospital

Introducing....



Mammography facility from
28th October' 2017