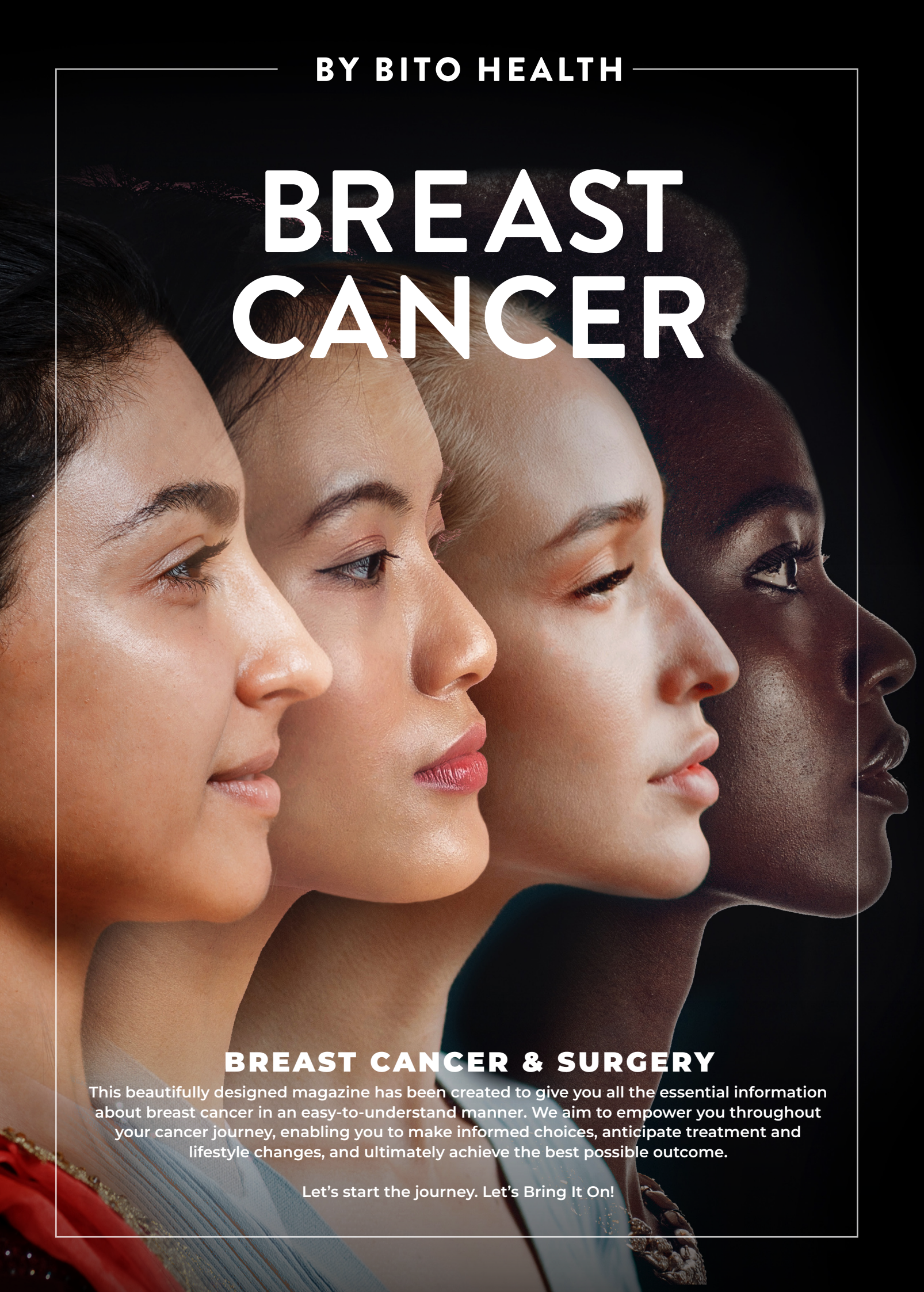
BY BITO HEALTH

BREAST CANCER



BREAST CANCER & SURGERY

This beautifully designed magazine has been created to give you all the essential information about breast cancer in an easy-to-understand manner. We aim to empower you throughout your cancer journey, enabling you to make informed choices, anticipate treatment and lifestyle changes, and ultimately achieve the best possible outcome.

Let's start the journey. Let's Bring It On!

BITO HEALTH

BREAST CANCER

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Breast Cancer

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BITO Health, LLC

BITO HEALTH PREVIEW

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INTRODUCTION

Breast cancer makes up 30% of all cancer cases in women. The lifetime risk of breast cancer is 14% for White women, 12% for Black and Asian-Pacific Islander women, and 11% for Hispanic women. The risk of breast cancer increases with age, with a 70-year-old woman having more than double the risk of a 40-year-old. Rates of breast cancer are on the rise among non-Hispanic Asian or Pacific Islander women and those aged 20–39. Young women need to talk to their healthcare providers about breast cancer risks and prevention. While screening efforts usually focus on women aged 40 to 74, participation varies, showing the need for increased awareness and educational initiatives to improve screening rates across all demographics.

RISK FACTORS FOR BREAST CANCER

All women and some men are at risk of developing breast cancer!

Breast cancer is a complex disease with multiple risk factors, some of which are unavoidable, such as age, genetic mutations, and family history. It's important to note that having one or more risk factors does not mean a person will develop breast cancer, just as the absence of risk factors does not guarantee protection from the disease.

> "OBSTACLES ARE THOSE FRIGHTFUL THINGS YOU SEE WHEN YOU TAKE YOUR EYES OFF YOUR GOAL."
>
> *– HENRY FORD*

GENETIC RISK FACTOR

1. Mutation of ***BRCA1*** and ***BRCA2 genes***:

   The most common gene mutations that increase the risk of breast cancer are ***BRCA1*** and ***BRCA2***. These genes can greatly increase your risk of breast cancer and other cancers, but they don't make cancer inevitable.

2. Mutation of ***PALB2*** *(Partner And Localizer of BRCA2)* ***gene***:

   This mutation also increases the risk of developing breast cancer five to ten-fold compared to the general population.

ACQUIRED RISK FACTOR

1. Older age, white female, obese, and drinks alcohol.
2. Family or personal history of breast cancer (i.e., mother and sister).
3. Long intrinsic estrogen exposure:
   a. Early menstruation (< 12 years old).
   b. Older age at first birth (>35 years old)
   c. Late menopause
4. Long extrinsic estrogen exposure:
   a. Oral contraceptive pill
   b. Hormonal replacement therapy.
5. Treatment with radiation to the breast/chest.
6. Physical inactivity and postmenopausal obesity

SYMPTOMS OF BREAST CANCER?

Many patients with breast cancer do not experience any symptoms in the early stages of the disease. When symptoms do appear, they are likely to vary depending on the size and location of the tumor. Breast cancer symptoms may include:

1. A lump or thickening in the breast or armpit.
2. Inverted nipple or new dimple on the breast.
3. Change in breast shape or size.
4. Bloody nipple discharge.
5. Red, swollen, scaly skin on the breast or nipple.

WHAT IS BREAST CANCER ??

There are two forms of breast cancer.

1. Non-invasive (pre-malignant) breast cancer
   a. Ductal Carcinoma In Situ (DCIS): A non-invasive cancer that starts in the milk ducts and hasn't spread beyond them.
   b. Lobular Carcinoma In Situ (LCIS): A non-invasive cancer that starts in the milk gland and hasn't spread beyond them.
2. Invasive (malignant) breast cancer
   a. Invasive Ductal Carcinoma: An invasive cancer that starts in the milk ducts
   b. Invasive Lobular Carcinoma: An invasive cancer that starts in the milk gland
   c. Others

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BREAST CANCER SCREENING

SIX THINGS YOU NEED TO KNOW ABOUT BREAST CANCER SCREENING

1. Why do we need to screen for breast cancer?
Screening mammography helps detect breast cancer early, allowing for earlier treatment and reducing the number of deaths, particularly among women aged 40 to 70.

2. Who to screen?
Screening for breast cancer is highly recommended for women starting at age 40 and continuing as long as they are in good health. Screening should begin at a younger age if a woman has a personal history of breast cancer, breast disease, a first-degree relative with breast cancer, genetic predisposition to develop breast cancer, or prior chest radiation therapy. Different regions of the world provide their respective recommendations based on their populations:

Group (date)	Frequency of screening (years)	Initiation of screening for women at average risk		
		40 to 49 years of age	50 to 69 years of age	>70 years of age
Government-sponsored groups				
US Preventive Services Task Force (2024)	2	Yes, start age 40	Yes	Yes, to age 74
Canadian Task Force on Preventive Health Care (2018)	2 to 3	Recommend against	Yes	Yes, to age 74
National Health Service, United Kingdom (2018)	3	Yes, start age 47	Yes	Yes, to age 73
Royal Australian College of General Practitioners (2018)	2	No	Yes	Yes, to age 74

3. What is the best way, and how often do we need to screen?
Perform mammography every 1-2 years. Women should conduct self-breast exams and report any changes. Based on age and risk factors, clinical breast exams should be done as recommended. Some women may need MRI in addition to mammograms based on family history and other risk factors, but this is rare.

4. What is the next step for you?
If a lump or suspicious area is seen on the mammogram, it will be biopsied. An abnormal result will prompt a referral to a surgeon for further evaluation.

5. Who is paying for the screening mammography?
Medicare covers annual mammograms for women aged 40 or older and one baseline mammogram for women aged 35-39 with no deductible. However, MRI is not covered for high-risk individuals. If further investigation is needed after a screening mammogram, there may be costs for a diagnostic mammogram and biopsy.

6. What is the potential harm to you?
Keep in mind that a screening mammogram may result in false-positive findings, leading to additional tests and potentially invasive procedures to confirm whether an abnormality is cancer. Out of 1000 women, five may be diagnosed with breast cancer, while between 7% and 15% may be called back for further tests despite not having breast cancer (false positive).

BIOTHEMATIC PREVIEW
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SELF-BREAST EXAMINATION

FOUR THINGS YOU SHOULD KNOW ABOUT SELF-BREAST EXAMINATION

1. Should I do my "Self-breast examination"?
Self-breast examination may make some women uncomfortable, but it's important to remember that you know your body best. The goal is not to self-diagnose breast cancer but to identify any changes in your breast. If you notice any changes, it's important to inform your primary care physician.

2. How should I do my "Self-breast examination"?
Self-breast examination involves three steps: Look, Feel, and Gently Press.

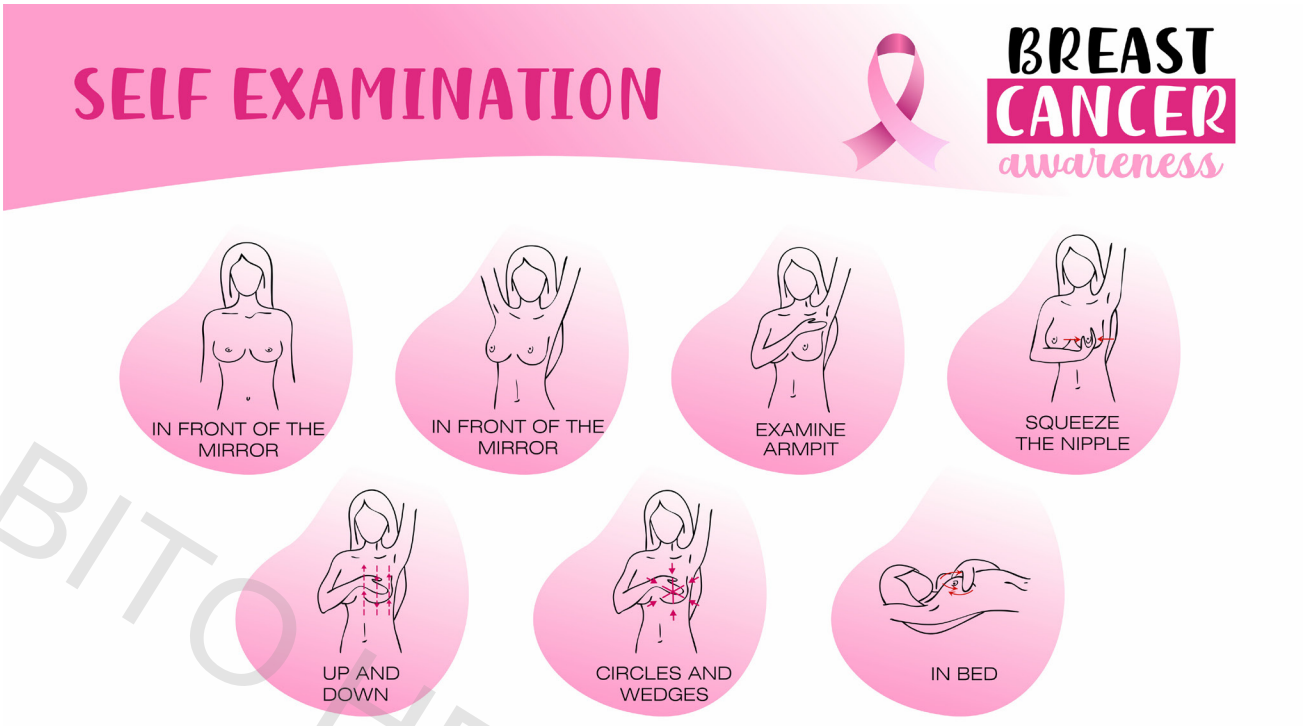
a. Look: Stand in front of a mirror and check for nipple changes, skin changes, or breast lumps.

b. Feel: While standing in front of the mirror, use your right hand to feel your left breast in a circular motion from the nipple towards the edge, applying slight pressure. Repeat with the left hand on the right breast.

c. Gently Press: While standing in front of a mirror, gently press and squeeze your breast in a circular motion to check for any lumps or discharge. Some prefer to lie down while performing this step.

3. How often should I do the "Self-breast Examination"?
At least once a month.

4. What should I do when I discover something abnormal?
If you notice any unusual changes in your breasts, it's important to inform your primary care physician and schedule a breast examination.



RISK STRATIFICATION FOR BREAST CANCER

Breast cancer risk stratification categorize a patient potential risk of developing breast cancer. Despite of limitations, it does provide some insight. The common use tool is Breast Cancer Risk Assessment tool (BCRAT) also known as Gail model. Online calculator:
https://bcrisktool.cancer.gov Breast Cancer Risk Assessment Tool: Online Calculator - NCI

Gail Model calculates a woman's risk of developing breast cancer over the next five years and within her lifetime (up to age 90). It uses seven key risk factors in its calculation.

1. Age
2. Age at first menstrual period
3. Age at the time of the birth of a first child (or has not given birth)
4. Family history of breast cancer (mother, sister, or daughter)
5. Number of past breast biopsies
6. Number of breast biopsies showing atypical hyperplasia
7. Race or Ethnicity

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