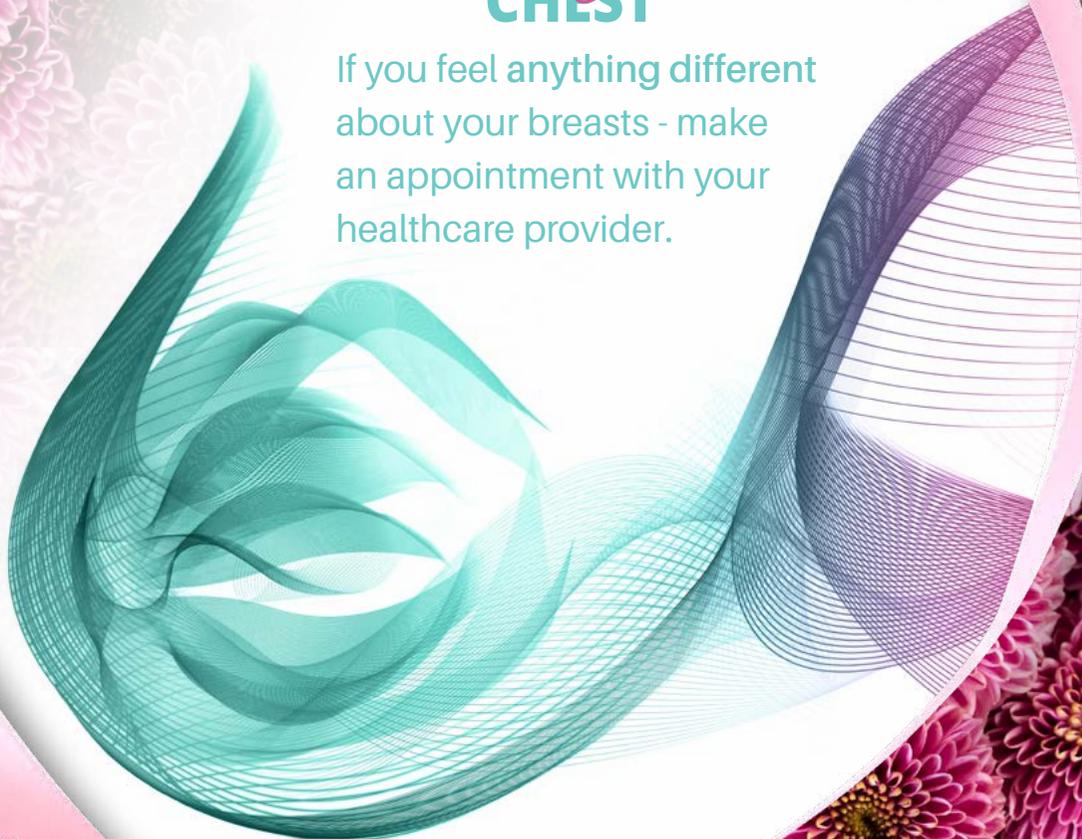


This booklet has been prepared to help answer some of the questions you may have about breast cancer. It is not meant as medical advice regarding diagnosis or treatment. If you have noticed any changes to your breasts, or have any questions, please speak to your healthcare professional.



**STAY  
ABREAST**  
*Check your*  
**CHEST**

If you feel anything different about your breasts - make an appointment with your healthcare provider.



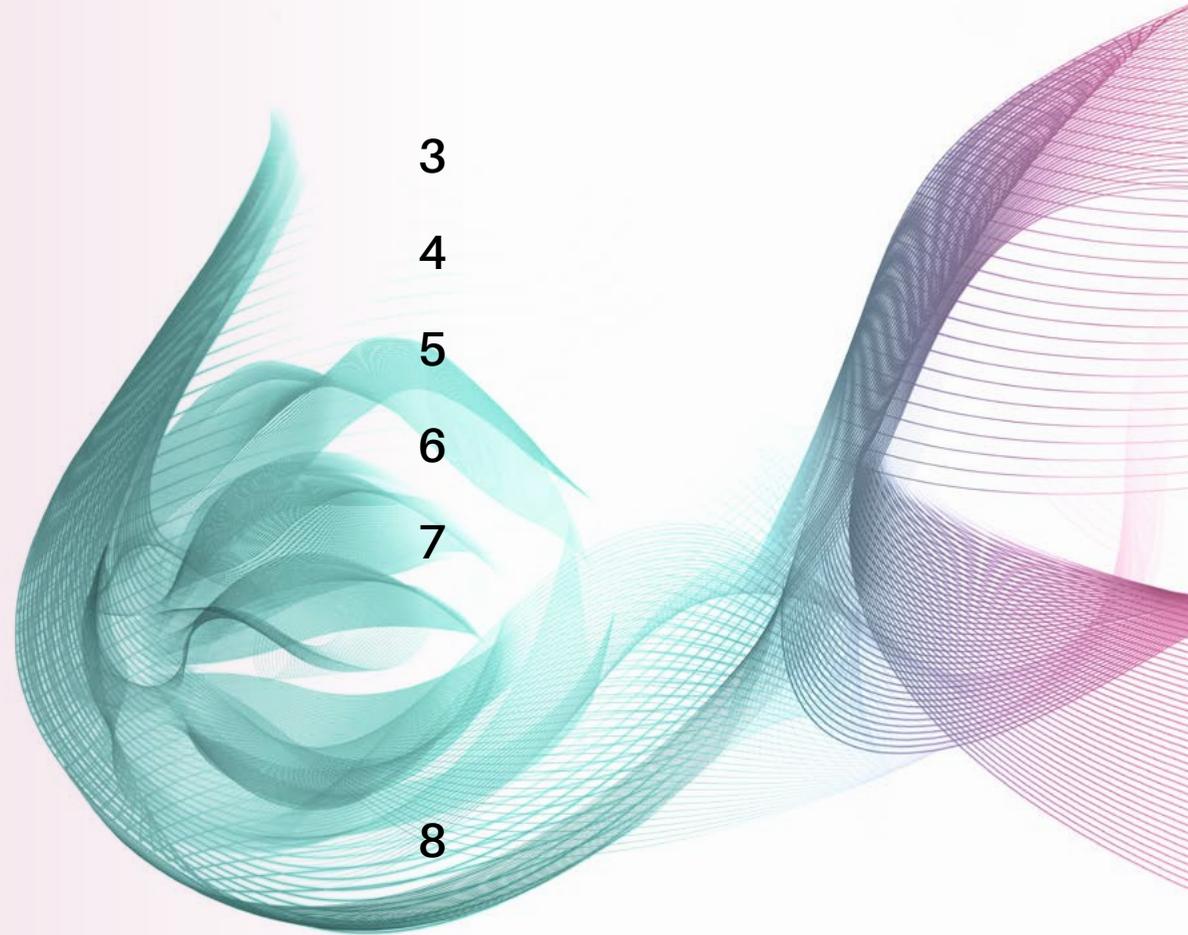
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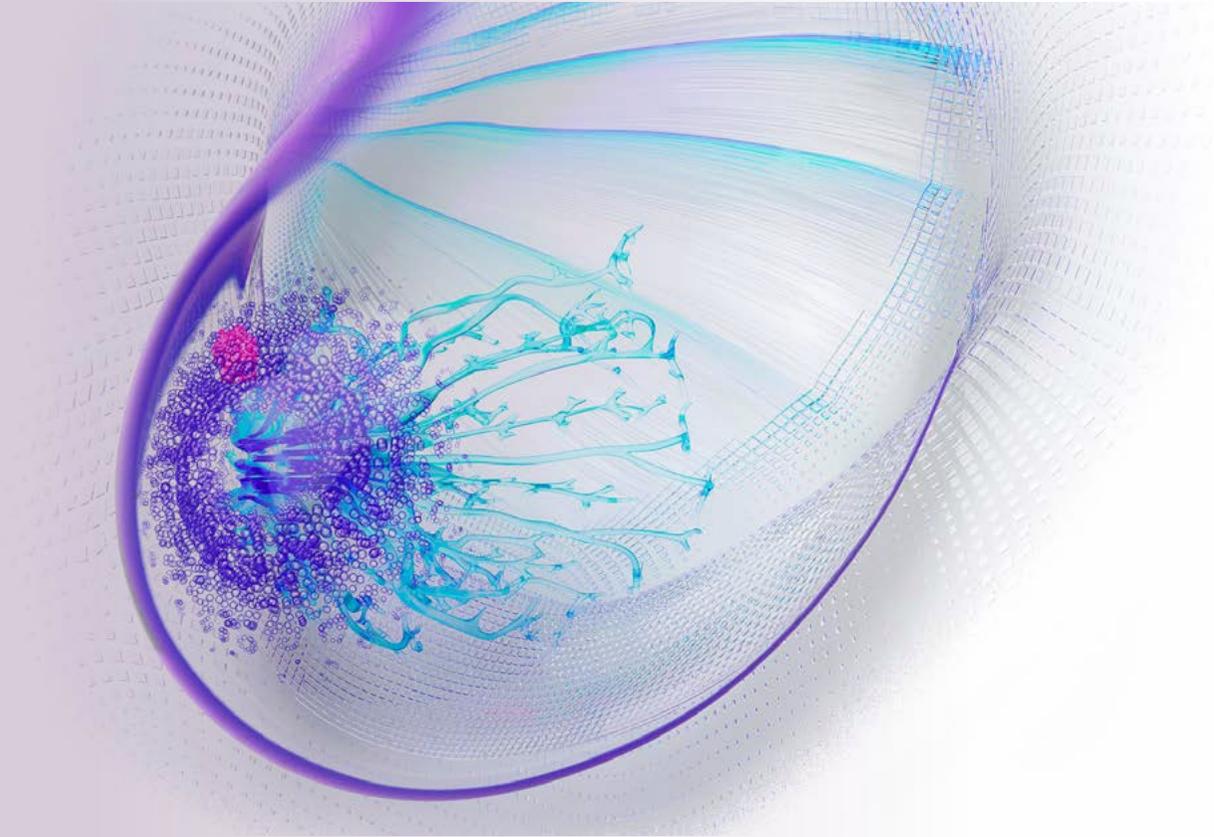
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# What is breast cancer?

In women, breast cancer is the most commonly diagnosed cancer

Breast cancer occurs when abnormal cells in the breast grow uncontrollably, forming lumps or tumours. If not treated, these tumours can spread to other parts of the body and become life-threatening. <sup>2</sup>



Breast cancer usually starts in the milk ducts or milk-producing glands. In its earliest stage (called *in situ*), it isn't dangerous and can often be detected early. However, if cancer spreads into nearby breast tissue, it can form noticeable lumps or thickened areas. <sup>2</sup>

In some cases, the cancer spreads beyond the breast to lymph nodes or other organs. This process is called *metastasis* and can be harder to treat. <sup>2</sup>



# How common is breast cancer?

Breast cancer can affect women of all ages, no matter where they live<sup>2</sup>

- In 2022, there were **2,3 million** women in the world diagnosed with breast cancer.<sup>2</sup>
- Breast cancer rates in South Africa differ based on ethnicity:<sup>3</sup>
  - » 1 in 13 white women
  - » 1 in 81 Women of African descent

## Understanding Your Risk of Breast Cancer

Being female is the biggest risk factor for breast cancer, with about 99% of cases occurring in women and only 0.5-1% in men<sup>2</sup>

Other factors which can increase the risk of breast cancer include:<sup>2</sup>

- age (risk rises after 40)
- obesity
- alcohol consumption
- a family history of breast cancer
- exposure to radiation
- reproductive history (such as early menstruation or late first pregnancy)
- smoking
- postmenopausal hormone therapy
- Some inherited genetic mutations, such as BRCA1, BRCA2, and PALB-2, can significantly increase the likelihood of developing breast cancer<sup>2</sup>

However, about half of breast cancer cases occur in women with no known risk factors other than being female and over 40 years old<sup>2</sup>

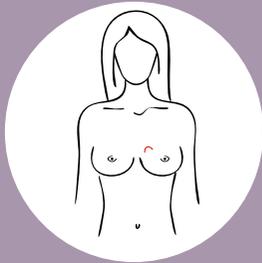


# Symptoms and Early Detection

Breast cancer is sometimes detected after symptoms appear, but many women with breast cancer have no symptoms <sup>4</sup>

Regular screening is recommended because there are often no symptoms

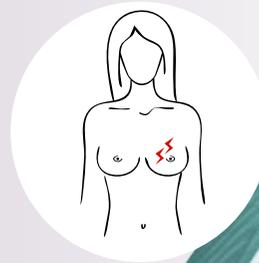
The most common sign of breast cancer is a new lump or mass, but most breast lumps are *not* cancer. <sup>4</sup>



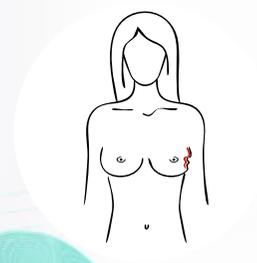
Lump or mass<sup>4</sup>

About 1 in 6 women with breast cancer presented without a breast lump, instead experiencing other symptoms. <sup>5</sup>

Other possible symptoms of breast cancer are:



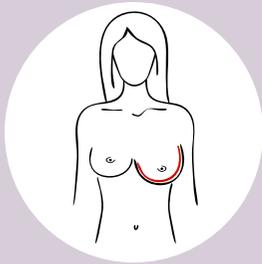
Nipple or breast pain <sup>4</sup>



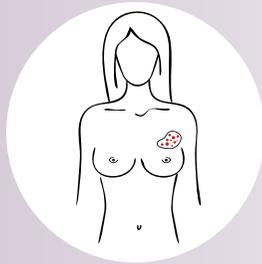
Skin dimpling <sup>4</sup>



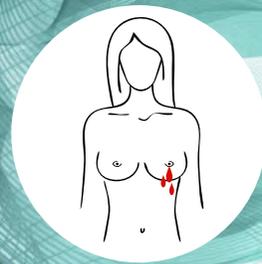
Armpit pain <sup>6</sup>



Swelling of all or a part of a breast <sup>4</sup>



Skin irritation <sup>4</sup>



Nipple discharge <sup>4</sup>



Enlarged lymph nodes in the armpit or near your collarbone <sup>4</sup>

It's important to have any breast change checked by a healthcare provider. <sup>4</sup>

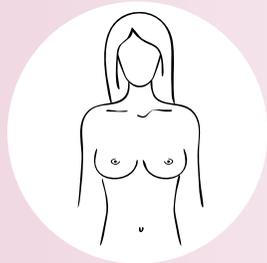


# Breast cancer screening

Breast cancer screening aims to find cancer early and before symptoms start.<sup>7</sup> Detecting breast cancer early improves treatment success.<sup>7</sup>

- Women should be familiar with how their breasts normally look and feel and should report any changes to a healthcare provider right away.<sup>4</sup>
- Screening is done on a regular basis when there are no symptoms.<sup>7</sup>
- A clinical breast exam (CBE) is a physical exam of the bare breast performed by a healthcare provider to check for lumps or other changes.<sup>7</sup>

The first part of a clinical breast exam is a visual check of the breasts while standing in different positions:



With your arms relaxed at your sides, and with your hands pressed firmly on your hips while leaning forward<sup>8</sup>

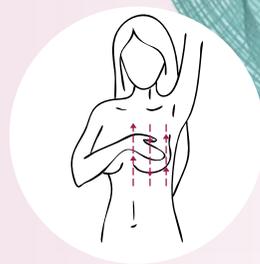


With your arms raised above your head<sup>8</sup>

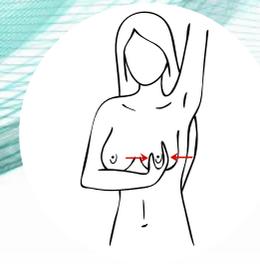
Using various levels of pressure, your health care provider will:<sup>8</sup>



Examine your armpit



Feel the breast tissue in up and down movements



Feel the breast tissue in circular movements



# Diagnosing breast cancer

Diagnostic tests are done when there are signs or symptoms such as a lump that can be felt in the breast, changes in the skin of the breast or nipple, or nipple discharge.<sup>7</sup>



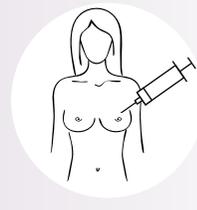
## Mammogram

- Mammograms are done with a machine designed to look only at breast tissue.<sup>4</sup>
- The mammogram machine has 2 plates that compress or flatten the breast to spread the tissue apart.<sup>4</sup>
  - » This gives a better quality picture and allows lower doses of radiation to be used than the x-rays done to look at other parts of the body, like the lungs or bones.<sup>4</sup>



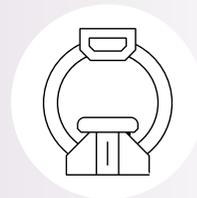
## Ultrasound

- Ultrasound uses sound waves and their echoes to make a computer picture of the inside of the breast.<sup>4</sup>
- Ultrasound can be especially helpful in women with dense breast tissue, which can make it hard to see abnormal areas on mammograms.<sup>4</sup>
- Ultrasound can often tell the difference between fluid-filled masses like cysts (which are very unlikely to be cancer) and solid masses (which might need further testing to be sure they're not cancer).<sup>4</sup>



## Biopsy

- During a breast biopsy, small pieces of breast tissue are removed and checked for cancer under a microscope.<sup>4</sup>
- There are different types of breast biopsies, some of which are done using a small, hollow needle and some that are done through a cut in the skin.<sup>4</sup>
- The type you have depends on things like how suspicious the area looks, how big it is, where it is in the breast, other medical problems you might have, and your personal preferences.<sup>4</sup>



## Magnetic resonance imaging (MRI)

- MRI uses radio waves and strong magnets to make detailed pictures of the inside of the breast.<sup>4</sup>
- MRI might be done if the results of other imaging tests such as mammograms and breast ultrasound aren't clear.<sup>4</sup>
- If breast cancer has already been diagnosed, a breast MRI can help find the exact size and location of the tumour and check for any other tumour tissue in either breast.<sup>4</sup>



# Breast cancer subtypes

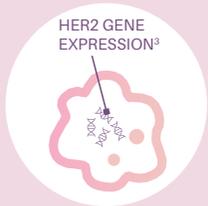
## Not all breast cancers are the same<sup>9</sup>

- Although breast cancer is often referred to as a single disease, it actually includes several different types, also known as subtypes.<sup>10</sup>
- Some normal and cancerous breast cells have special proteins called receptors that attach to the hormones oestrogen, or progesterone. These hormones can help the cancer grow.<sup>11</sup>
- Breast cancer is grouped into three main subtypes: hormone receptor positive (HR+), human epidermal growth factor receptor 2 positive (HER2+) and triple-negative breast cancer (TNBC).<sup>12</sup>



### Hormone receptor positive (HR+) breast cancer

- HR+ breast cancer means the cancer cells have oestrogen or progesterone receptors (or both).<sup>11</sup>
- These types of breast cancer can be treated with hormone therapy, which either lowers oestrogen levels or blocks it from helping the cancer grow. Hormone-positive cancers usually grow more slowly.<sup>11</sup>



### Human epidermal growth factor receptor 2 positive (HER2+) breast cancer

- HER2 is a protein that helps breast cancer cells grow quickly.<sup>11</sup>
- These cancers tend to grow and spread faster than breast cancers that are HER2-negative.<sup>11</sup>
- They are more likely to respond to treatments that target the HER2 protein.<sup>11</sup>



### Triple negative breast cancer (TNBC)

- Triple-negative breast cancer cells do not have oestrogen or progesterone receptors and also do not make any or too much HER2 protein.<sup>11</sup>
- This type of cancer often grows and spreads faster than other breast cancers.<sup>11</sup>
- Since it does not have hormone receptors or too much HER2, hormone therapy and HER2-targeted drugs do not work—but chemotherapy can still be an effective treatment.<sup>11</sup>



## More about TNBC

Triple-negative breast cancer (TNBC) is an aggressive type of invasive breast cancer. <sup>13</sup> TNBC differs from other types of invasive breast cancer in that it tends to grow and spread faster and has fewer treatment options. <sup>13</sup>

Triple-negative breast cancer accounts for about 10 % to 15 % of all breast cancers <sup>13</sup>

These cancers tend to be more common in: <sup>13</sup>

women younger than age 40 | who are of African decent | or | who have a *BRCA1* mutation



TNBC tends to grow faster, is often found after it has already spread, and has a higher chance of coming back after treatment <sup>13</sup>

The recurrence rate within 5 years after surgery is as high as 25 %. <sup>14</sup>

Because of this, survival rates for TNBC are usually not as high as they are for other types of breast cancer. <sup>13</sup>

### Treating TNBC

TNBC has fewer treatment options than other types as the cancer cells do not have hormone receptors or high levels of the HER2 protein.

» This means hormone therapy and HER2-targeted drugs will not work. <sup>13</sup>

Chemotherapy is the main treatment for TNBC. <sup>13</sup>

If the cancer hasn't spread far, surgery may also be an option. <sup>13</sup>

If the early-stage TNBC tumor is small enough, your doctor may recommend breast-conserving surgery or a mastectomy, along with checking the nearby lymph nodes <sup>15</sup>

» Sometimes chemotherapy is given first to shrink the tumour before surgery, and it is often given afterward to help prevent the cancer from coming back. <sup>13</sup>

Radiation may also be used, depending on the tumour and type of surgery. <sup>13</sup>

If the cancer has spread to other parts, the treatment may include special types of chemotherapy, targeted therapies, or a combination of immunotherapy and chemotherapy. <sup>13</sup>





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