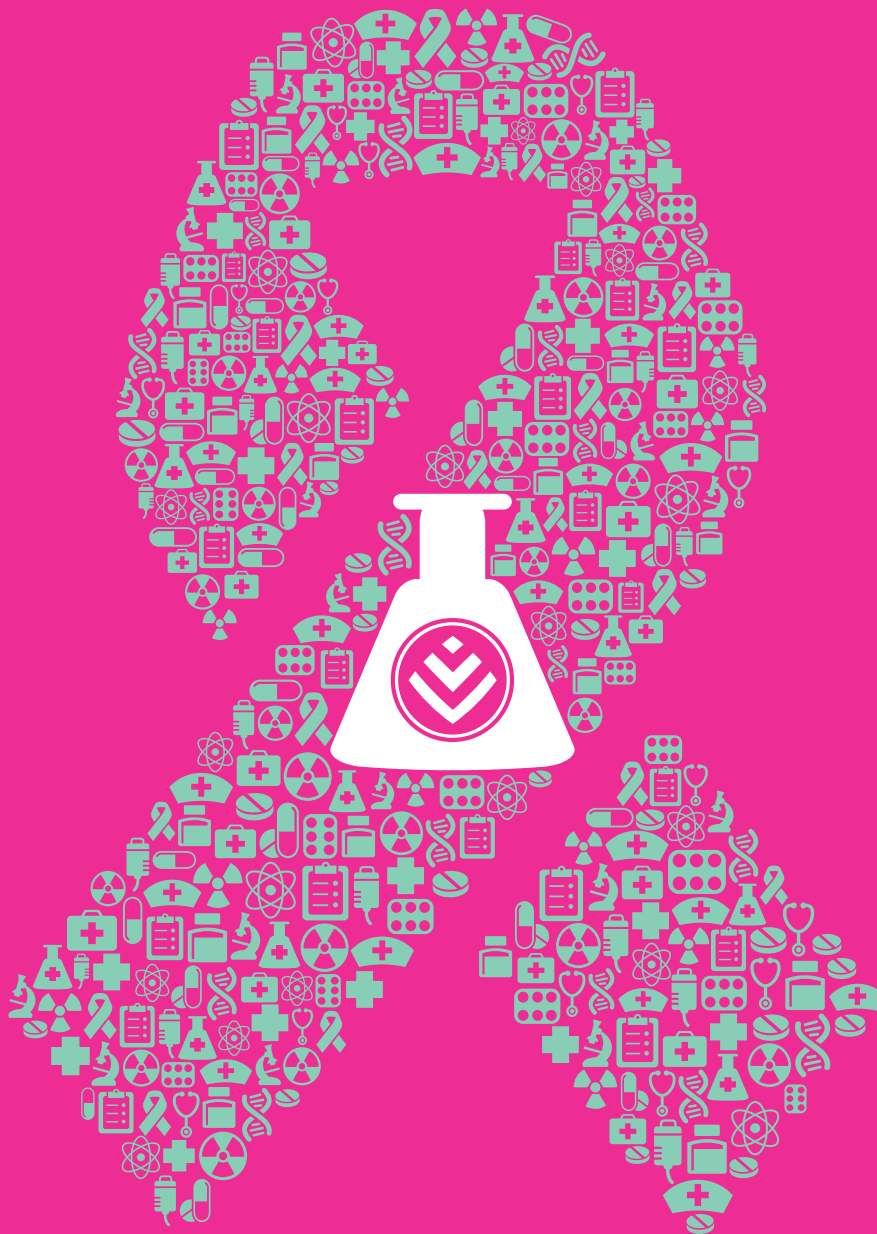


# + DISCOVERY HEALTH MATTERS

**Breast cancer  
– the facts**





# Discovery Health Matters

Discovery Health Matters is a layman's guide to important, but often misunderstood topics in healthcare. The information contained in this document is for informational purposes only, and should not be used to replace professional medical advice, or be used to diagnose or treat a medical condition.



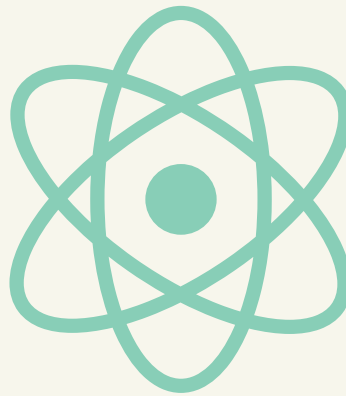
## Facts and stats

- Breast cancer is the most common cancer among South African women.
- One in 33 women will get breast cancer.
- 90% of breast lumps are not cancerous.
- Nine out of 10 women with early (stage 1) breast cancer will be alive after five years; those who survive five years will most likely live out their normal lifespan.
- When breast cancer is detected early the survival rate is as high as 95%.
- Over 60% of all women presenting with breast cancer do not have any risks for breast cancer development.
- 90% of breast lumps are detected by the woman herself (rather than a doctor), so monthly self-examinations are vital.
- In South Africa however, over 60% of women present with lumps bigger than 5cm, which means that self-examinations are not being done.



## Breast cancer basics

In breast cancer, abnormal cells in the breast become malignant (cancerous) and may invade and destroy nearby tissue.



# Signs and symptoms of breast cancer

**General pain** in or on any part of the breast (although most breast cancers present as lumps without pain)

Irritated or **itchy breasts**

**Presence of a lump** in or near the breast or in the under-arm area

**Thickening** in or near the breast or in the under-arm area

**A change in the size** or shape of the breast

**A dimple or puckering** in the skin of the breast making it look like the skin of an orange

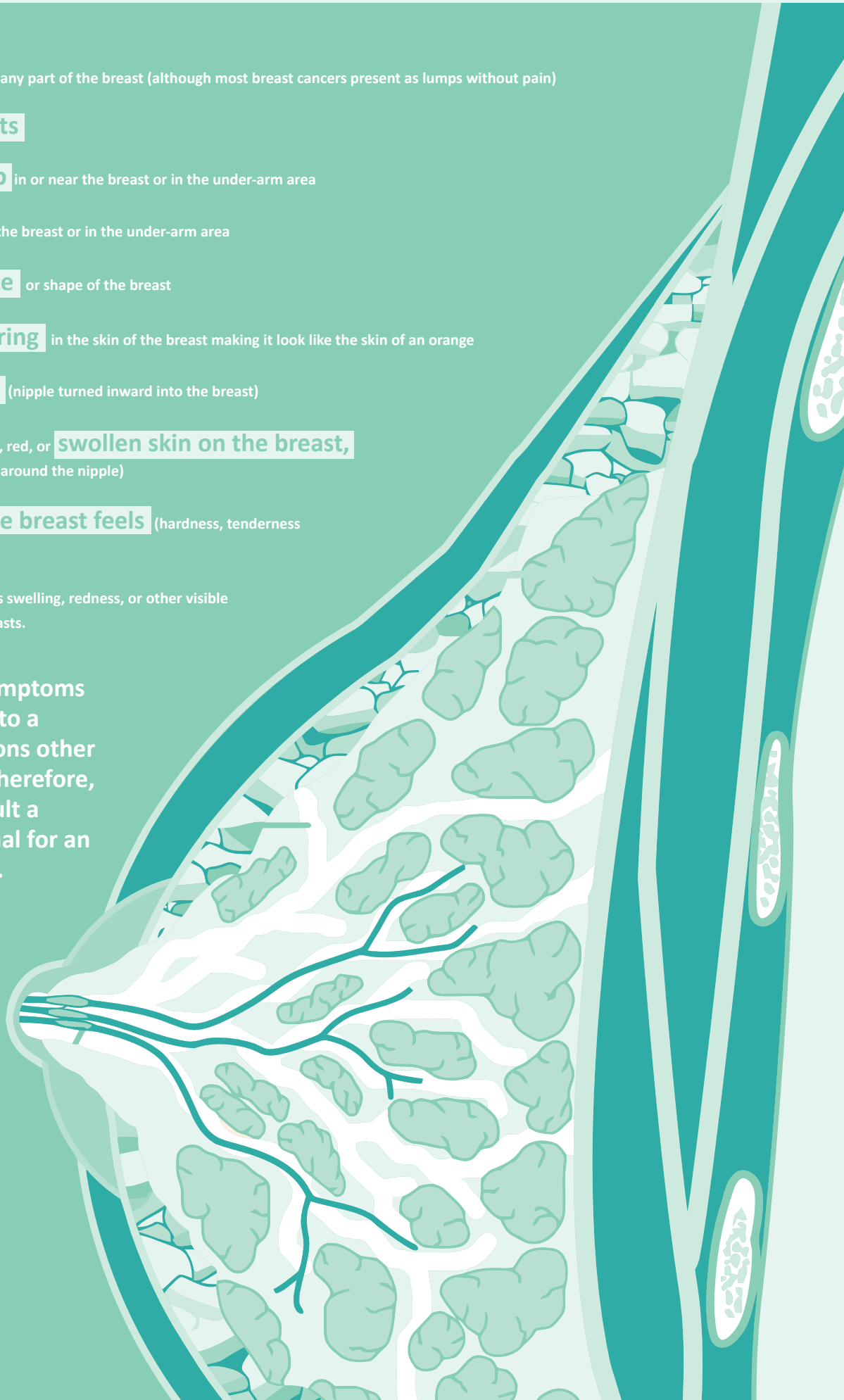
**An inverted nipple** (nipple turned inward into the breast)

Bloody discharge from, or scaly, red, or **swollen skin on the breast,** nipple, or areola (the dark skin around the nipple)

**Changes in how the breast feels** (hardness, tenderness or unusual warmth)

**Skin changes,** such as swelling, redness, or other visible differences in one or both breasts.

These signs and symptoms may be attributed to a number of conditions other than cancer. It is, therefore, important to consult a medical professional for an accurate diagnosis.





## Causes

The causes of breast cancer are not fully understood, although a number of risk factors have been identified. It's important to note that more than 60% of all women presenting with breast cancer do not have any of the risks for breast cancer development.



## Risk factors for breast cancer

**Age:** The risk for developing breast cancer increases as women get older. Most advanced breast cancer cases occur in women older than 50.

**Family history of breast cancer:** There is a higher risk for breast cancer if there is a history of a close relative who has had breast, uterine, skin, prostate, ovarian, or colon cancer. If a mother or sister has or had breast cancer at a young age (30-40) then the woman's risk doubles. About 20-30% of women with breast cancer have a family history of the disease.

**Genetic predisposition:** Some people have genes that make them more likely to develop breast cancer. The most common are mutations within the BRCA1 and BRCA2 genes. These genes normally produce proteins that protect against cancer, but when they mutate the risk of getting breast cancer shoots up to 80%.

**Having babies later:** Women who have never had children or who had them only after the age of 30 have an increased risk for breast cancer. This is thought to be due to the long-term exposure to oestrogen. (Being pregnant more than once or becoming pregnant at an early age reduces the risk of breast cancer.)

**Oestrogen exposure:** Abnormally long exposure to oestrogen increases risk as it seems to be a breast cancer 'promoter'. Early menstruation (around age 10 or 11) and late menopause (around 55) exposes women to prolonged oestrogen risk and at least doubles the incidence of breast cancer.

**Dense breast tissue:** Dense breast tissue means there is more gland tissue and less fatty tissue. Women with denser breast tissue have a higher risk of breast cancer, and it can be harder for doctors to spot problems on mammograms.

**Race:** Overall, white women are more likely to get breast cancer than black women.

**Inactivity:** Studies have shown that regular exercise reduces breast cancer risk.

**Hormone replacement therapy (HRT):** There is a higher risk of breast cancer in women who have had hormone replacement therapy with oestrogen for several years. Women on HRT should be monitored for breast cancer while on treatment.

**Obesity:** Being severely overweight has been shown to double the risk of breast cancer in postmenopausal women. Increased body fat appears to be associated with raised oestrogen levels.

**Diet:** There is a correlation between the intake of saturated fats and the incidence of breast cancer.

**Alcohol:** Drinking more than one unit of alcohol a day can increase risk, according to numerous studies. More than two units of alcohol a day increases risk by 24%.



# Breast cancer diagnosis and treatment

There are many techniques available to assess the breast, and choosing the best options often depends on the patient's age, degree of density of the breast tissue, types of lesions to be assessed and availability of the tests. Once a lump or other abnormality is seen or described by the patient, the doctor will confirm the existence of the lump through a scan. Only once the presence of the lump or other abnormality is confirmed, will a sample of the lump be taken for testing (called a fine needle or core needle biopsy). Depending on the results of the biopsy, a cancer diagnosis may be made.



## Treatment

Breast cancer is treated in several ways. It depends on the type of breast cancer and how far it has spread. Treatment usually includes surgery, chemotherapy or radiation, or a combination of all three.

**Surgery:** an operation is performed where doctors cut out and remove cancerous tissue. A patient could have just the lump and tissue around the lump removed, or the whole breast.

### 1. Breast conserving surgery

A lumpectomy aims to save as much of the breast as possible by removing only the tumour plus some of the surrounding normal tissue. This option depends on the size of the breast and the size and location of the tumour. It is usually followed by radiation therapy.


### 2. Mastectomy and reconstruction

This type of surgery, where the whole breast is removed, is done if the conservative options are not possible, for example if the size and position of the tumour mean the breast can't be preserved, or if the cancer is lobular (it began in the milk-producing glands, or lobules of the breast) and is likely to break out of the lobules where it began, to spread to other parts of the breast and body.

**Chemotherapy** uses medicines to shrink or kill the cancer cells. Sometimes both oral (tablets) and intravenous medicines (through a drip) are used in combination.

**Radiation therapy** uses high-energy x-rays to kill the cancer cells. The rays are aimed at the part of the body where the cancer is located.

It is common for doctors from different specialties to work together in treating breast cancer. Surgeons are doctors that perform operations. Medical oncologists are doctors who treat cancers with medicine. Radiation oncologists are doctors who treat cancers with radiation therapy.



## The following can help lower the risk of breast cancer:

- Doing regular monthly breast self-examinations
- Being screened regularly for breast cancer
- Knowing your family history of breast cancer
- Determining the risks and benefits of hormone replacement therapy

## When a strong family history on either mother or father's side puts women at high risk for breast cancer, there are a number of options for prevention:

- Yearly radiological assessments (mammography, ultrasound, or MRI scans are used).
- Twice yearly clinical examinations.
- Exercise and healthy eating. Exercise is protective: Cardiovascular exercise more than three times a week decreases the risk of cancer by 38%. Certain vegetables such as broccoli also have a protective effect.
- Genetic testing, which is best done only by family members of a woman with breast cancer who tests positive for genes such as BRAC1 and BRAC2.
- Preventive surgery: A preventive mastectomy can decrease a woman's chance of getting cancer by 95% or more. Considering the great cosmetic and emotional impact of the surgery, this is not an option to be taken lightly.

This is often indicated for the following high risk groups:

- Where there has already been cancer diagnosed in one breast and there is also a strong family history of breast cancer. The unaffected breast is removed to reduce the possibility of developing breast cancer in future.
- A very strong family history of breast cancer (mother, sister or daughter)
- Positive results from gene testing plus a strong family history of breast cancer (BRCA1 and BRCA2 genes are associated with an increased risk of breast and ovarian cancers.
- Preventive medicines (Chemoprevention) can also be used for women at high risk of developing breast cancer to reduce the risk.

# Prevention



# Healthy lifestyle

Choosing a healthy lifestyle can significantly reduce your risk of breast cancer. Make these strategies part of your life:

**Eat** a diet low in saturated fat, low salt, high fibre. Avoid foods high in saturated fats, including: pastries, cakes, meat, pies, butter, boerewors, cream, biscuits, and chocolate. These foods increase levels of LDL (“bad”) cholesterol, which causes the blockage of arteries and associated heart attacks and strokes.

Not all fats are equal and some are good for you: unsaturated fats are found in vegetable oils like sunflower, safflower, as well as olive oil, avocado and canola oil.

The best of all dietary oils are those found in oily fish: mackerel and salmon, high in omega 3 fatty acids. Soft tub margarines should replace butter and brick margarines.

Up your intake of fresh fruit and veggies, they are a great source of fibre and antioxidant vitamins, which are free radical scavengers, ‘mopping’ up toxic free radicals that may play a part in cancer development, heart disease, ageing and so on.

**Exercise regularly:** Activity is an important way to reduce the risk of many diseases: exercise lowers the cancer rate by 37%. It also elevates good cholesterol and lowers blood pressure and helps maintain a healthy weight. Exercise for at least 30 minutes at moderate intensity most days of the week.

**Don’t smoke** – smoking is a known carcinogen (an agent that causes cancer).

**Cut alcohol intake or eliminate completely:** Oestrogen is metabolised in the liver and it is well known that alcohol is a liver toxin – with liver damage from high daily alcohol intake, oestrogen is not properly broken down, causing raised oestrogen levels, which in turn predisposes some women to breast cancer.

**Manage stress:** Stress can’t be avoided altogether, but it’s important to find ways to deal with daily pressures. Stress raises levels of the hormones adrenalin and cortisol and this can affect your immune system and increase your risk of getting diseases like cancer. Try making time for exercise, a walk in nature, yoga, meditation or finding other ways to relax.



## Useful breast cancer resources

- Netcare Breast Care Centre of Excellence [www.breasthealth.co.za](http://www.breasthealth.co.za)
- Breast Health Foundation [www.mybreast.org.za](http://www.mybreast.org.za)
- The Cancer Association of South Africa (CANSA) [www.cansa.org.za](http://www.cansa.org.za)
- National Cancer Institute (US) [www.cancer.gov/cancertopics/types/breast](http://www.cancer.gov/cancertopics/types/breast)
- National Breast Cancer Foundation (US) [www.nationalbreastcancer.org](http://www.nationalbreastcancer.org)
- American Cancer Society [www.cancer.org/cancer/breastcancer/index](http://www.cancer.org/cancer/breastcancer/index)
- BreastCancer.org (US) [www.breastcancer.org](http://www.breastcancer.org)
- Breast Cancer Network Australia [www.bcna.org.au](http://www.bcna.org.au)
- Centers for Disease Control and Prevention (US) [www.cdc.gov/cancer/breast](http://www.cdc.gov/cancer/breast)
- Livestrong [www.livestrong.com](http://www.livestrong.com)





# Your guide to **breast cancer terms**

**Benign tumour:** Not cancerous; does not invade nearby tissue or spread to other parts of the body.

**Biopsy:** The removal of cells or tissues with a needle for examination under a microscope.

BRCA1 and BRCA2 are human genes that produce tumour suppressor proteins. These proteins help repair damaged DNA and, therefore, play a role in ensuring the stability of the cell's genetic material. When either of these genes is mutated, or altered, such that its protein product is not made or does not function correctly, DNA damage may not be repaired properly. As a result, cells are more likely to develop additional genetic alterations that can lead to cancer.

**Calcification:** Tiny calcium deposits within the breast, singly or in clusters, often found by mammograms.

**Carcinoma:** Cancer that begins in the skin or in the tissues that line or cover the internal organs. Carcinomas are the most common form of cancer, accounting for about 80%-90% of all cancers.

**Chemotherapy:** Treatment with drugs to destroy cancer cells. Often used in addition to surgery or radiation.

**Clinical breast examination:** A manual and visual examination of the breasts done by a health professional such as a doctor or nurse.

**Cyst:** A sac or capsule filled with fluid. Because a doctor cannot always tell if a lump in the breast is a cyst, fluid may be removed through a procedure called a needle aspiration.

**Fibrosis:** Formation of fibrous (scar-like) tissue.

**Inflammatory breast cancer:** An aggressive type of breast cancer, which occurs in sheets or nests rather than in a solid, confined tumour.

**Invasive breast cancer:** Cancer that has spread beyond the layer of tissues in which it developed into surrounding, healthy tissues. Also called infiltrating cancer.

**Lumpectomy:** Surgery to remove a breast tumour and a small amount of surrounding normal tissue. A lumpectomy is almost always followed by radiation to reduce the risk of recurrence.

**Malignant tumour:** A cancerous growth with a tendency to invade and destroy nearby tissue and spread (metastasis) to other parts of the body.

**Mammogram:** An x-ray examination of the breast. It uses low-energy x-rays to create a picture of the breast tissue, particularly when there is calcification or soft tissue masses. This enables the early diagnosis of breast cancer.

**Mastectomy:** Surgery to remove the breast and some lymph nodes. This is often offered in conjunction with reconstructive surgery.

**Needle aspiration:** A type of biopsy that removes fluid from a cyst, or cells from a tumour for examination under a microscope.

**Radiation therapy:** Treatment with high-energy rays (such as x-rays) to eliminate or shrink cancer cells before or after surgery, or in some cases, as the main treatment.

**Reconstructive surgery:** The use of plastic surgery techniques to create a new breast after a mastectomy or lumpectomy. Reconstruction of the breast can often be done at the same time.

**Tumour:** An abnormal lump or mass of tissue. Tumours can be benign (not cancerous) or malignant (cancerous).

**Ultrasound:** A procedure in which sound waves (called ultrasound) are bounced off tissues and a picture (sonogram) is formed. Often used to evaluate cysts, dense breasts or women with young breasts.





# How Discovery Health Medical Scheme covers breast cancer

Discovery Health Medical Scheme promotes the prevention and early detection of diseases like breast cancer.



## Prevention and early detection

### Mammograms

Women (and men) are covered by the Screening and Prevention Benefit for one mammogram each year. You have automatic access to this benefit; you don't have to apply. Discovery Health Medical Scheme will pay for this mammogram up to the Discovery Health Rate. (Your consultation will be paid from your day-to-day benefits.)

If your healthcare provider doesn't automatically submit claims you will need to submit your claim to Discovery Health yourself. Simple post to: Discovery Claims, PO Box 784262, Sandton, 2146 or email: [claims@discovery.co.za](mailto:claims@discovery.co.za)

### BRCA1 and BRCA2 Gene Testing

The BRCA gene test is a blood test that uses DNA analysis to identify harmful mutations in either one of the two genes: BRCA1 and BRCA2 (breast cancer susceptibility gene one and two). These tests are paid from your available day-to-day benefits.



## Treatment

If you are diagnosed with breast cancer, you will need to register on Discovery Health's Oncology Programme. This programme covers consultations, scans, biopsies, blood tests, chemotherapy and radiation up to a rolling limit over 12 months.

Everything you need for your treatment will be requested through your treatment plan, which is designed by your doctors, and sent to Discovery Health.

Lumpectomy/ mastectomy and reconstruction/ or preventative mastectomy before cancer are surgeries that are subject to preauthorisation, and a review process.

They are covered by your hospital plan, to an amount determined by your plan choice.

Register with Discovery Health by calling 0860 99 88 77.



Discovery | 155 West Street | Sandton | 0860 99 88 77 or 083 123 88 77 | [www.discovery.co.za](http://www.discovery.co.za)

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