

THE LATEST IN BREAST CANCER RESEARCH



New technologies are constantly changing the medical landscape. This is how they are helping to diagnose and treat breast cancer.

One in four South Africans is affected by cancer in some way, with more than 10,000 being diagnosed every year. According to the most recent statistics available from the [National Cancer Registry](#), breast cancer accounts for 21.79% of all cancers diagnosed in females in South Africa.

What is breast cancer?

According to the American Cancer Society, [breast cancer](#) is when a tumour is malignant – that is it ‘can grow into surrounding tissues or spread to distant areas of the body’. The most common type begins in the ducts that carry milk to the nipple. Lumps in the breast can be a sign of cancer, but not all lumps are life-threatening, so it’s important to consult your doctor if you feel a lump or suspect you have cancer. In addition to lumps, [Cansa](#) identifies the following signs: puckering of the skin of the breast, nipple discharge or a change in the skin around the breast, dimpling of the nipple or nipple retraction, an annual increase in the size of one breast, one breast being unusually lower than the other and/or nipples at

different heights, an unusual swelling in the armpit, or enlargements of the gland.

How is breast cancer diagnosed?

It’s very difficult to predict whether abnormal cells will spread, so researchers are always looking for new ways to diagnose the disease. The earlier the diagnosis can be made, the sooner the type of treatment can be agreed upon and started.

While the most common diagnostic checks remain an annual mammogram (an X-ray of the breast) and monthly breast self-exams, [modern technology](#) is making the diagnostic process much easier and more accurate.

Scintimammography and tests for circulating tumour cells (CTCs) are two methods now being used to diagnose breast cancer.

During scintimammography, a drug called a tracer is injected into the body and attaches to the breast cancer cells. A camera monitors the path of the drug to find any irregular cells.

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A circulating tumour cell is a cell that has broken away from the tumour and has entered the bloodstream, where they are transported to other cells. Lab tests can find these cells, but they can't determine whether the cancer will recur.

Two-in-one breast cancer scan

In 2015, an exciting piece of medical equipment was revealed at Groote Schuur Hospital in Cape Town. The [Aceso machine](#) is the world's first imaging system to combine digital mammography and ultrasound technology to diagnose breast cancer more accurately and quickly. Ultrasound technology is particularly effective in detecting cancer in dense breast tissue.

Designed and developed by Cape Ray, a Cape Town-based medical technology company, the R30 million unit has been proven effective and safe in screening for breast cancer after it was tested on more than 50 volunteers and 20 patients with confirmed breast cancer.

Treatment technology

Breast cancer treatment is now focused on changing the genes in cancer cells. These so-called [targeted therapies](#) include PARP inhibitors (drugs that can target certain types of cell mutations) and anti-angiogenesis drugs (used to prevent nourishment to the cancer cells). patients who are prone to scarring.

The information is shared on condition that readers will make their own determination, including seeking advice from a healthcare professional. E&OE.

References:

1. Cancer.org.za, (2017). [Statistics](#) [online]. Available at: <http://www.cansa.org.za/south-african-cancer-statistics/> [Accessed 9 June 2017].
2. Cancer.org.za, (2012). [Summary Statistics of Cancer Diagnosed Histologically in 2012](#) [online]. Available at: <http://www.cansa.org.za/files/2017/03/SA-National-Cancer-Registry-2012-web-Feb-2017.pdf> [Accessed 9 June 2017].
3. Cancer.org, (2016). [What's New in Breast Cancer Research?](#) [online]. Available at: <https://www.cancer.org/cancer/breast-cancer/about/whats-new-in-breast-cancer-research.html> [Accessed 9 June 2017].
4. Caperay.com, (2017). [CapeRay](#) [online]. Available at: <http://www.caperay.com/> [Accessed 9 June 2017].
5. Cancer.org.za, (2017). [Breast Cancer Warning Signs, Myths & Facts](#) [online]. Available at: <http://www.cansa.org.za/breast-cancer-warning-signs-myths-facts/> [Accessed 13 June 2017].

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