

# Early detection: **Options** and **recommendations**

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Detecting breast cancer cases early by mammographic screening has resulted in a rapid decline of breast cancer mortality in the Western World.

In most first world countries, screening, together with improved treatment, results in only one in five women diagnosed with the disease dying of it. In developing countries however, it is estimated that four out of five women will die of it.

Breast cancer is a chronic disease and therefore early detection is of utmost importance. In fact, once a lump can be felt in the breast, the disease has already been present for about five years. At three years, in the majority of cases, the malignancy could have been picked up with mammography.

The initially slow growth of breast cancer coupled with its detectability on mammography makes it an ideal disease to be screened for. Physical examination by a doctor or a specially trained nurse cannot, on its own, decrease the rate of breast cancer mortality.

Regular self-breast examinations, thermography, and other alternative methods do not have the capability of detecting breast cancer in the early, crucial stages, as a mammogram does.

## EARLY DETECTION

Early detection of breast cancer is crucial to improve long term survival. Practicing good breast health and keeping up on the latest technological advances can help women detect abnormalities in their breasts before they become life-threatening and should breast cancer be diagnosed, there are many technological and biological developments in treatment.

**In addition to regular mammography check ups, women also now have the option of going for genetic testing for detection of the mutated BRCA gene. In SA,** the test for the BRCA1 and BRCA2 genes has been commercially available to the general public since 2005. A blood sample is required for these tests, and genetic counselling is recommended before and after the tests.

Everyone has BRCA1 and BRCA2 genes. The function of the BRCA genes is to repair cell damage and keep breast cells growing normally, but when these genes contain abnormalities or mutations that are passed from generation to generation, the genes

don't function normally and breast cancer risk increases, as they no longer assist in preventing uncontrolled growth of tumours.

Women carrying mutations of the BRCA genes are about five times more likely to develop breast cancer than those without. This is because normal BRCA genes help suppress tumours, but when they're mutated they don't assist in preventing uncontrolled growth. A study suggests that women with a faulty BRCA1 gene typically have a 45%-90% risk of getting breast cancer during their life, compared to a 12% risk for the average woman.

If the results are positive the person can be continuously monitored to ensure early detection of breast cancer if it arises, or they could undergo a mastectomy, which will reduce the risk of breast cancer by up to 90%.

Women with an abnormal BRCA1 or BRCA2 gene also have an increased risk of developing ovarian, colon, pancreatic, and thyroid cancers, as well as melanoma. However, mutations in BRCA1 and BRCA2 only cause about one in twenty of breast cancers so just because you don't have the gene mutation doesn't mean you're immune. In fact 70%-80% of women who have breast cancer, have no family history of the disease.

## A LIFE-LONG BREAST-CARE PROGRAMM SHOULD INCLUDE:

In addition to regular check-ups and the genetic testing option, we also recommend a three-step approach to breast health.

- 1 Breast self-exam:** Encourage patients to examine their breasts one week after periods ends. It is easy to do and only takes a few minutes. Breast changes will be detected easily.
- 2 Clinical breast exam:** Check your patient's breast and demonstrate the proper technique.
- 3 Mammography:** A mammogram can detect many breast changes that are too small or too deep to feel. Good mammograms are safe, quick and painless.

We all need to be aware of the importance of early detection and good breast health management in general. We need to protect the women of our country from this disease and the best way to ensure their protection, is through education and awareness. **SF**

Multiple choice questions

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- 1 In most first world countries, screening, together with improved treatment, results in only one in \_\_\_ women diagnosed with the disease dying of it.
  - a. Five
  - b. Six
  - c. Seven
- 2 In developing countries however, it is estimated that \_\_\_ out of five women will die of it.
  - a. Three
  - b. Four
  - c. Five
- 3 Once a lump can be felt in the breast, the disease has already been present for how many years?
  - a. About three years.
  - b. About four years.
  - c. About five years.
- 4 At three years, in the majority of cases, the malignancy could have been picked up with mammography.
  - a. True
  - b. False
- 5 In SA, the test for the BRCA1 and BRCA2 genes has been commercially available to the general public since 2008.
  - a. True
  - b. False
- 6 A mastectomy will reduce the risk of breast cancer by up to \_\_%.
  - a. 90%
  - b. 80%
  - c. 70%
- 7 A study suggests that women with a faulty BRCA1 gene typically have a \_\_%-\_\_% risk of getting breast cancer during their life, compared to a 12% risk for the average woman.
  - a. 45%-90%
  - b. 45%-89%
  - c. 45%-92%
- 8 Women with an abnormal BRCA1 or BRCA2 gene also have an increased risk of developing:
  - a. Ovarian and colon cancer.
  - b. Pancreatic, thyroid cancer as well as melanoma.
  - c. All of the above.
- 9 \_\_%-\_\_% of women who have breast cancer, have no family history of the disease.
  - a. 70%-80%
  - b. 70%-85%
  - c. 70%-70%
- 10 A life-long breast-care programme should include:
  - a. Breast self- and clinical exam.
  - b. Mammography.
  - c. Both.

This is to state that I have participated in the CPD-approved programme and that these are my own answers.

Signature

Date

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