

Information on Breast Awareness

Key messages

The National Screening Unit (NSU), the Cancer Society of New Zealand and The New Zealand Breast Cancer Foundation recommend all women to be 'breast aware'. If a woman notices a change in her breast, she should see her family doctor without delay.

Health professionals should advise women to be 'breast aware' and inform them about changes that may indicate cancer. In being 'breast aware', women should:

- Know what is normal for them
- Know what changes to look and feel for
- Report changes without delay to their family doctor
- Attend mammography screening if appropriate for their age group and lifetime risk
- Know their family history of cancer.

The NSU, the Cancer Society of New Zealand and The New Zealand Breast Cancer Foundation do not recommend the practice of regular breast self-examination (BSE), a formal and structured technique for feeling for breast changes. There is no evidence of the effectiveness of BSE in reducing mortality, and BSE may increase the chance of having an unnecessary breast biopsy.

Background

In New Zealand women, breast cancer is the most common cancer, and the second leading cause of cancer related death. Each year in New Zealand, around 2500 women develop breast cancer and around 640 die from it [1]. A woman's chance of developing breast cancer increases with age. Approximately 70 percent of women who are diagnosed with breast cancer are 50 years of age or over. Breast cancer is uncommon in women under the age of 40 (approximately 6 percent of diagnoses). Of those who die from breast cancer, over 80 percent are 50 years of age or over [1]. Other risk factors for breast cancer include a strong family history of breast cancer, dense breast tissue on mammography, high alcohol intake, obesity, reproductive history (this means things like how many children a woman has had and when she started having her periods), previous radiation exposure and some genetic mutations.

Age appropriate mammography is the only screening test that has been shown in randomised controlled trials to reduce breast cancer mortality [2, 3]. Mammography is thought to be effective because early detection can allow treatment prior to regional and/or systemic metastatic disease developing. However, as well as the potential life-saving benefit, there are disadvantages to mammography. Women need to be aware that mammography will not detect every breast cancer. Some

cancers may be found in-between screening mammograms. These are known as interval cancers. Women should see their family doctor, without delay, if they notice any breast symptoms or changes to their breasts, even if this is after a normal screening mammogram. Women also need to be aware that some breast cancers diagnosed by mammography screening may not have caused any harm during a woman's lifetime. This is called over-diagnosis. This is an issue that is currently being researched.

Breast Awareness

Even in countries with mammographic screening programmes, many breast cancers are found by women themselves. Most of these changes are discovered by chance, for example, when women are dressing or showering.

It is important that women are able to recognise any possible symptoms and seek medical advice as soon as possible.

In the absence of evidence that routine, systematic BSE reduces deaths from breast cancer, a number of international health organisations now recommend that women look and feel for breast changes as part of general body awareness and health care. This could be done while dressing or showering, and done regularly so women become familiar with their breasts and how they change at different times of the month as well as with age. This means that women will be more aware of any changes from what is normal for them. This concept is known as 'breast awareness' [4].

In being 'breast aware', women should:

- Know what is normal for them
- Know what changes to look and feel for
- Report changes without delay to their family doctor
- Attend mammography screening if appropriate for their age group
- Know their family history of cancer.

Changes in the breast that may indicate cancer:

- A new lump or thickening
- A change in breast shape or size
- Pain in the breast that is unusual
- Puckering or dimpling of the skin
- Any change in one nipple, such as:
 - a turned-in nipple
 - a discharge that occurs without squeezing
- A rash or reddening of the skin that appears only on the breast.

If a woman notices any change in one breast that is unusual for her, she should see her family doctor without delay.

Health professionals should advise women to be 'breast aware' and inform them about the breast changes that may indicate cancer.

Women at higher risk

Women who may be at higher risk of developing breast cancer should discuss with their doctor whether more active surveillance is appropriate. High risk women include women with a strong family history of breast cancer; women who have high density breast tissue, or who have been identified as carrying genetic variations that place them at higher risk.

Most women who get breast cancer have no close relatives that have had it. Specific genetic abnormalities are rare and are usually associated with a strong family history of breast cancer [5].

Why not do routine Breast Self-Examination?

In the past, many health professionals recommended that women practise breast self-examination (BSE) on a regular basis, usually every month. BSE is a formal, structured technique by which women feel for breast lumps and/or changes. BSE was especially promoted among younger women, in whom alternative screening methods (e.g. mammography) are relatively ineffective and as a way of empowering women to take responsibility for their own health.

Recent evidence [2, 6, 7], shows that BSE does not result in either a reduction in the size or stage of tumours at diagnosis, or a decrease in mortality from breast cancer. Another study [6], also concluded that BSE is ineffective in saving lives, even as a method of screening used in between mammographic examinations.

Results of the two randomised controlled trials with breast cancer mortality as the end point, undertaken in Shanghai [8] and Russia [9] also showed that BSE is likely to result in a considerable increase in the number of women without breast cancer who have a biopsy, with its associated anxiety, but no

benefit [6]. It was therefore recommended that women who choose to practise BSE should be informed that its efficacy is unproven and it may increase their chances of having an unnecessary, benign breast biopsy [8].

Retrospective research from a New Zealand Breast Clinic [10] found that although the majority of women practised BSE, 65% of significant changes were not detected during BSE, but were found by chance.

Breast self-examination (BSE) is no longer recommended as a method of screening for the early detection breast cancer. The reasons are:

- *There is no evidence that doing BSE will reduce a woman's chance of dying from breast cancer*
- *BSE can lead to anxiety and unnecessary breast biopsies, particularly among younger women.*

Conclusion

The NSU, the Cancer Society of New Zealand and The New Zealand Breast Cancer Foundation recommend that all women are advised to look and feel for breast changes as part of general body awareness and health care. This is known as being 'breast aware'.

Women should be advised that age appropriate mammography is the only screening test that has been proven to reduce breast cancer deaths.

Health professionals should advise women to be 'breast aware' and inform them what changes may indicate cancer and how to seek appropriate advice.

References:

1. Ministry of Health, *Cancer: New Registrations and Deaths 2010*. 2013, Ministry of Health: Wellington.
2. Kusters, J.P. and P.C. Gotzsche, *Regular self-examination or clinical examination for early detection of breast cancer (Review)*. Cochrane Library, 2008(4).
3. Gotzsche, P.C. and K. Jorgensen, *Screening for breast cancer with mammography (Review)*. Cochrane Library, 2013(6).
4. Austoker, J., *Breast self examination: Does not prevent deaths due to breast cancer, but breast awareness is still important*. BMJ: British Medical Journal, 2003. **326**(7379): p. 1.
5. Ghossaini, M., P.D.P. Pharoah, and D.F. Easton, *Inherited Genetic Susceptibility to Breast Cancer: The Beginning of the End or the End of the Beginning?* The American Journal of Pathology, (0).
6. Hackshaw, A. and E. Paul, *Breast self-examination and death from breast cancer: a meta-analysis*. British journal of cancer, 2003. **88**(7): p. 1047-1053.
7. Nelson, H.D., et al., *Screening for Breast Cancer: An Update for the U.S. Preventive Services Task Force*. Annals of Internal Medicine, 2009. **151**(10): p. 727-737.
8. Thomas, D.B., et al., *Randomized trial of breast self-examination in Shanghai: final results*. Journal of the National Cancer Institute, 2002. **94**(19): p. 1445-1457.
9. Semiglazov, V., et al., *Results of a prospective randomized investigation [Russia (St. Petersburg)/WHO] to evaluate the significance of self-examination for the early detection of breast cancer*. Voprosy onkologii, 2003. **49**(4): p. 434.
10. Meechan, G., J. Collins, and K.J. Petrie, *The relationship of symptoms and psychological factors to delay in seeking medical care for breast symptoms*. Preventive Medicine, 2003. **36**(3): p. 374-378.