

Essential Self Breast Examination for Both Men and Women

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Abstract

Breast self-examination stands as a crucial and foundational technique for the early detection of irregularities within the breast tissue, including both the breast itself and the nipple. This method is accessible and relevant to individuals of all genders, involving fundamental principles of observation and palpation. Those well-versed in breast self-examination possess the knowledge to guide others in this practice, which can lead to early intervention and, ultimately, the prevention of issues and complications related to the mammary glands. In many developing nations, the principles of breast self-examination offer an excellent approach for individuals to proactively monitor their breast health. This review aims to provide a concise yet comprehensive guide for both men and women, empowering them with the necessary knowledge and skills to perform effective breast self-examinations. By doing so, individuals can take proactive steps in safeguarding their breast health, emphasizing the significance of early detection and intervention in the prevention of breast-related concerns and complications.

Keywords: Breast self-examination, breast tissue, mammary gland, concerns and complications, detection and intervention.

INTRODUCTION

Breast are the parenchyma tissues covering second to third ribs, transversely from the sternum to the mid axilla lines and inferiorly to the infra-mammary folds. The tail of the Spence projects in to axilla is known as peninsula of breast tissue. The breast is enclosed with superficial layer below dermis (skin) and deep layer pectoralis major muscle fascia. The functional breasts constitute lobes and lobules of tubule alveolar epithelial glands, supported by adipose tissue. The lobe connects into ducts and sinuses which terminate as nipple areolar complex. The suspensory ligaments of Cooper are band of connective tissues which anchor the breast tissue overlying dermis.

The breast development begins in puberty, due to hormonal changes causing breast enlargement by epithelial proliferation and increase in adipose deposition. During pregnancy, breast lactates, after weaning, the breast returns to pre-gestational size. Menopause leads to breast atrophy, reduced breast

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volume, and loosening of Cooper's ligaments, which in turn causes a loss of support and breast sagging. The understanding of breast anatomical variability among individuals, age groups like adolescents, menstruating, and gestational mothers signifies the importance of breast examination. Breast examination can be done by two forms: Clinical breast examination (Breast examined by medical personnel); and Breast self-examination (Examining breast by oneself).

Breast self-examination is simple, non costly, non-interventional and universally approachable

means of rightly identifying early stage breast abnormalities. Breast self-examination benefits low resource countries in early screening of breast.

Breast self-examination is a self-screening method used to detect early breast abnormalities for lumps, distortions or swelling and some types of breast cancers, however it is not substitute for screening method such as mammogram and magnetic resonating image.

Milestones in Breast Self-examination

- In 1930, breast self-examination was done for suspicious lumps of breast so that treatment can be started at earliest [1].
- American women by the American Cancer Society and the National Cancer Institute in 1950 and 1960 demonstrated millions of American women breast-self-examination film.
- In 1970, women were instructed to do breast self-examination as routine test even in absence of lumps or breast tenderness [2].

Purpose of Breast Self-assessment

- Breast self-examination assists in identifying and distinguishing between normal and abnormal breast parenchymal tissues.
- Breast self-examination helps in indication for surgical intervention.
- Breast self-examination helps in reexamination of breast at different times of menstrual period.
- Breast self-examination helps to early identify the need of mammogram or ultrasound or magnetic resonating image.

Contraindication of Breast Self-examination

- There are no definite reasons to completely prohibit or avoid structural and formal breast self-examination.
- Absence of mortality benefits.
- Occurrence of unfavorable outcomes of regular routine breast self-examination practice.

Complications of Breast Self-examination

- Benign lesion identification.
- False positive findings.
- Less significant diagnosis and imaging.
- Tissue excision for test, needle aspiration, biopsy procedures.
- Depression, stress, anxiety, panic attacks.

Limitation of Breast Self-examination

The meta-analysis study conducted by Kusters *et al.* stated that no benefits were screened by breast self-examination instead the increase in number of benign lesions identified and biopsies performed and recommended no to breast self-examination [3].

Breast self-examination does not reduce the mortality from breast cancer. A study was conducted by Thomas *et al.* on education of Chinese factory working women in two groups, one group taught breast self-examination and told to practice monthly examination and other group no education on breast self-examination. The educated women group detected more benign and early stage of breast cancer [4]. There were death of women in both the groups due to breast cancer.

Breast self-examination is no longer routinely recommended, it will be appropriate for high risk women, and if generally practiced as universal screening approach it leads to low risk, or no risk women harmed by unnecessary follow up and procedures.

Breast self-examination learning increases level of depression, anxiety, worrying about breast cancer. Women perform more breast self-examination with history of breast cancer and at high risk BRCA mutation [5].

Recommended Screening Test for Breast

- Perform a breast self-examination once a month for individuals aged 20 years and older.
- Clinical breast examination, age 20 to 40 years every 3 years and more than 40 years yearly.
- Mammogram and magnetic resonating image, age 40 to 69 yeras and older every 1 to 2 years.

THE SEVEN P'S PRINCIPLES OF BREAST SELF-EXAMINATION

1. *Position:* the breast examination is done by seeing breast image in mirror at front side positions, later placing and removing pillow under shoulder in sleeping position.
2. *Perimeter:* The full breast should be examined, including the parenchyma, areola, nipple, and armpit.
3. *Palpation:* using pads of fingers continuously without lifting all over breast.
4. *Pressure:* initially by light pressure, then moderate pressure and later deep pressure to notice pain, lumps and tenderness.
5. *Pattern:* vertical strip, pie wedge, circular patterns; any one or all can be used.
6. *Practice:* Practicing and familiarizing with breast tissues so that change can be identified.
7. *Plan:* Planning what to be done on finding changes in breast tissues, understanding the risk due to family incidence and planning for regular check-up, mammogram.

BREAST SELF-EXAMINATION IN MEN

In boys, during puberty, estrogen can develop breast on failure of testosterone. The breast enlargement can be noticed in some teenage boys and breast lump caused by gynecomastia.

Men with gynecomastia, characterized by breast enlargement due to hormonal imbalance, should undergo an annual mammogram either 10 years prior to the earliest male family member's breast cancer diagnosis or once they reach the age of 50 years [6, 7].

Technique of Breast Examination in Men

- Observe both nipples and squeeze for discharge.
- Look for puckering, dimpling change in skin texture, shape, size and counter of breast.
- Look for lump felt as hard knot in breast and arm pit.
- Redness, discharge, scar, puckering on skin and nipple.

TECHNIQUE OF BREAST SELF-EXAMINATION IN FEMALES

Preparation for Breast Self-examination

Breast self-examination practice demands optimal learning of procedure, which is correct, repeatable and relaxed. Fluctuations in breast anatomy are a natural part of the menstrual cycle, so, screening should be done monthly at the same time, preferably towards the end of a woman's menstruation [8].

In the case of amenorrhea, the examination should take place on the same predetermined day each month. It is essential to select a comfortable and familiar environment, free from distractions and interruptions, to ensure a relaxed and secure experience.

Performance of Breast Self-examination

The steps of breast self-examination are (Figure 1):

- Expose the top and stand in front of mirror.
- Place hand on hips.
- Observe in mirror for signs of dimpling, swelling, soreness, or redness in breast.
- Repeat the observation for dimple, swelling, soreness, redness with arms raised above head.

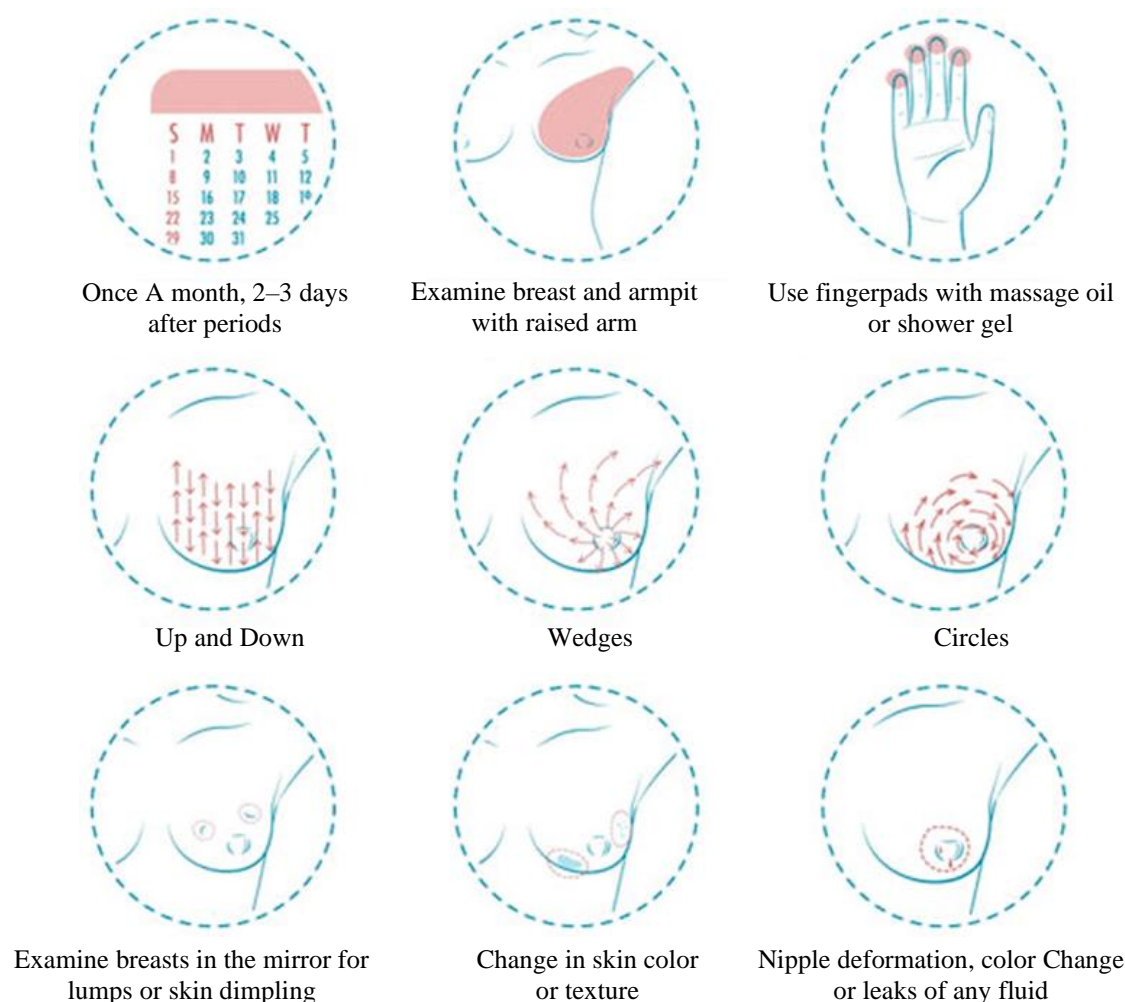


Figure 1. Breast self-examination steps [9].

- Palpate breast with finger tips entirely.
- Palpate breast part by part in to small squares.
- Repeat entire palpation while lying down.
- Examine nipples and the area below nipples. Squeeze nipple gently for any discharge.

Breast self-examination of premenopausal women to be performed on the same day of every month to reduce any changes due to menstruation or the breast self-exam can be performed at end of menses. The older women should perform breast self-examination every month once on same day. Along with breast self-examination, annual physical examination by medical personnel is the best method to detect lump, or tumors at early stage [10–12].

DISCUSSION AND CONCLUSION

The practice of breast self-examination as a means of identifying breast tumors has been a topic of varying recommendations among different healthcare authorities. Notably, the Canadian Task Force on Prevention Health Care and the Royal Australian College of General Practitioners have refrained from recommending routine breast self-examination as a primary method for early tumor detection.

In contrast, the American College of Obstetrics and Gynecology, along with the American Medical Association, has advocated for the regular performance of breast self-examination on a monthly basis. Their stance underscores the potential value of this practice in contributing to early detection.

It is worth noting that several reputable organizations, such as the American Cancer Society, the National Cancer Institute, the United States Preventive Services Task Force, and the National Comprehensive Cancer Network, have neither strongly recommended nor discouraged breast self-examination. These organizations seem to acknowledge that while breast self-examination can be a valuable tool, it should not replace other critical methods of breast screening, such as mammography.

In conclusion, the role of breast self-examination in breast health is a matter of diverse recommendations from various healthcare authorities. While some organizations endorse regular self-examination as a proactive measure, others remain cautious about its exclusive reliance. It is essential for individuals to consult with their healthcare providers to determine the most appropriate approach to breast health and screening, which often involves a combination of methods, including mammography, clinical breast exams, and self-examination.

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