

# Is breast self-examination still necessary?

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## Résumé

ON N'À PAS ENCORE DÉMONTRÉ EN TOUTE CERTITUDE que l'auto-examen des seins réduit efficacement le taux de mortalité attribuable au cancer du sein. Le Dr Bart J. Harvey et des collègues font rapport dans ce numéro (page 1205) des résultats d'une étude de cas-témoins nichés. Les données de l'Étude nationale sur le dépistage du cancer du sein au Canada ont servi à déterminer les répercussions de l'auto-examen des seins sur la mortalité attribuable au cancer du sein. Ils ont constaté un lien entre des éléments de la technique d'auto-examen évalués objectivement et la baisse du risque de décès attribuable au cancer du sein et de métastases distantes, mais n'en ont constaté aucun entre ces aspects et la fréquence d'auto-examen déclarée. Ces constatations révèlent le besoin d'information appropriée sur la technique d'auto-examen des seins.

**B**efore the introduction of organized breast screening programs, most breast cancer was detected by women themselves. Breast self-examination was encouraged in the hope that early detection would reduce deaths from breast cancer and, along with clinical breast examination, is still considered an important adjunct to screening mammography.<sup>1</sup> A review of 466 cases of breast cancer diagnosed subsequent to a negative screening mammography result revealed that most of the cancers were first detected by the women themselves, regardless of age, at an early stage, and with no evidence of lymph-node involvement.<sup>2</sup> In a sizeable proportion of these cases the cancer was detected within the recommended screening interval and thus would have been discovered late by regular screening mammography alone.

Organized screening programs offering mammography through dedicated centres began to be established in Canada in the late 1980s and are currently running in 8 provinces and 1 territory.<sup>3</sup> Some of these programs offer clinical breast examination as part of the screening visit; others recommend that this be done by the women's regular health care provider. Instruction in breast self-examination is commonly incorporated into the screening visit.

Over the same period, a moderate increase in breast cancer incidence among Canadian women has coincided with rising screening rates. Interestingly, in Canada and several other countries the rate of death from breast cancer has declined slightly, especially since 1990.<sup>4</sup> In this country, the lowest mortality rates have been found in the 2 provinces with the most extensive breast screening programs.<sup>3</sup>

Definitive studies of the efficacy of breast self-examination are still lacking. Over the last 20 years descriptive, case-control and cohort studies have yielded contradictory results, but randomized controlled trials now under way in China<sup>5</sup> and Russia<sup>6</sup> should help to settle the question. The Canadian Task Force on the Periodic Health Examination currently recommends screening for breast cancer by clinical examination and mammography for women aged 50 to 69; the evidence is not considered to be strong enough to make a clear recommendation for or against the teaching and practice of breast self-examination.<sup>7</sup>

Within this context, Dr. Bart J. Harvey and colleagues (page 1205) conducted a nested case-control study to measure the effect of self-examination on breast cancer mortality, using data from the Canadian National Breast Screening Study (NBSS). The study sample included as cases 163 women who had died from breast cancer and 57 women diagnosed with distant metastatic disease; for each case, 10 controls



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‡ See related articles pages 1205 and 1235



were randomly selected and matched by age, screening centre, year of enrolment and randomization group. This study is unique in its prospective, objective assessment of breast self-examination practice. All participants in the NBSS received instruction in breast self-examination by specially trained screen-examiners; this instruction was repeated yearly throughout the trial. Data was collected annually by means of a self-administered questionnaire that inquired about breast self-examination practice in the preceding year. Most participants also demonstrated their technique to the screen-examiner. No association was found between self-reported frequency of self-examination and breast cancer mortality, whereas specific aspects of technique were found to be associated with a reduced risk of death from breast cancer and of distant metastatic disease. Interestingly, this association was observed only for self-examination practice in the 2 years before a diagnosis of breast cancer — presumably, when the tumour was detectable but still curable. Other investigators have reported similar findings. Self-reported monthly practice of breast self-examination did not reduce the rate of death from breast cancer in a cohort of 450 000 women<sup>8</sup>; however, a thorough and careful technique was associated with the detection of tumours at a less advanced stage.<sup>9,10</sup>

These results are not definitive. Although Harvey and

colleagues eliminated recall bias by including prospective, objective evaluation of self-examination practice, there was no randomization of participants to receive instruction in breast self-examination. Moreover, there may be an inherent difference in the risk of breast cancer between women who practise breast self-examination proficiently and those who do not. Conclusive evidence of the efficacy of breast self-examination awaits the results of randomized controlled trials. In the meantime, Harvey and colleagues' findings point to the need for proper education in breast self-examination. Such education should stress the development of competence in technique, not simply the frequency and regularity of self-examination.

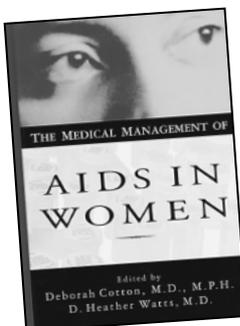
### References

1. Aitken S, McDermott R. Adjuncts to screening mammography. Proceedings of the National Workshop on Organized Breast Cancer Screening Programs; 1997 Apr 25-27; Ottawa. p. 4-8.
2. Hislop TG, Worth AJ, Kan L, Rousseau E. Post screen-detected breast cancer within the Screening Mammography Program of British Columbia. *Breast Cancer Res Treat* 1997;42:235-42.
3. Gaudette LA, Altmayer CA, Nobrega MP, Lee J. Trends in mammography utilization, 1981 to 1994. *Health Rep* 1996;8:17-27.
4. National Cancer Institute of Canada. *Canadian cancer statistics 1997*. Toronto: The Institute; 1997.
5. Thomas DB, Gao DL, Self SG, Allison CJ, Tao Y, Mahloch J, et al. Randomized trial of breast self-examination in Shanghai: methodology and preliminary results. *J Natl Cancer Inst* 1997;89:355-65.
6. Semiglazov VF, Sagaidak VN, Moiseyenko VM, Mikhailov EA. Study of the role of breast self-examination in the reduction of mortality from breast cancer: the Russian Federation/World Health Organization Study. *Eur J Cancer* 1993;29A:2039-46.
7. Morrison BJ. Screening for breast cancer. In: Canadian Task Force on the Periodic Health Examination. *The Canadian guide to clinical preventive health care*. Ottawa: Health Canada; 1994. p. 788-95. Cat no H212-117/1994E.
8. Holmberg L, Ekblom A, Calle E, Mokdad A, Byers T. Breast cancer mortality in relation to self-reported use of breast self-examination: a cohort study of 450 000 women. *Breast Cancer Res Treat* 1997;43:137-40.
9. Hislop TG, Coldman AJ, Skippen DH. Breast self-examination: importance of technique in early diagnosis. *Can Med Assoc J* 1984;131:1349-52.
10. Newcomb PA, Weiss NS, Storer BE, Scholes D, Young BE, Voigt LF. Breast self-examination in relation to the occurrence of advanced breast cancer. *J Natl Cancer Inst* 1991;83:260-5.

Resources to assist health care providers in giving instruction are available from the Canadian Cancer Society and the Canadian Breast Cancer Foundation. Breast cancer support groups and nursing groups at cancer centres also provide instruction in breast self-examination; the regional Breast Cancer Information pilot projects funded by Health Canada maintain a listing of such services. Further information can be obtained from the national Cancer Information Service at 888 939-3333.

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