Canadian study calling mammograms unnecessary is misleading and fatally flawed

Thank you to the American College of Radiology and Society of Breast Imaging for the following information, which is endorsed by the experts of Legacy Cancer Institute.

The recent breast cancer screening article (Miller et al) published in the *British Medical Journal* (BMJ) is an incredibly misleading analysis based on the deeply flawed and widely discredited Canadian National Breast Screening Study (CNBSS). The results of this BMJ study, and others resulting from the CNBSS trial, should not be used as a basis for breast cancer screening recommendations, as this would place a great many women at increased risk of dying unnecessarily from breast cancer.

Study flaws

This trial is not a valid assessment of modern screening technology and capability:

- The trial used out-of-date mammography equipment that is unacceptable by modern standards. Today the federal Mammography Quality Standard Act sets a much higher standard in the U.S. for mammography equipment, technicians and radiologists.
- Neither the technicians (who take the images) nor the radiologists (who interpret the images) were specifically trained in breast imaging. This, combined with the sub-par equipment likely resulted in a number of missed cancers.

Also, the study results are not valid because the patients were not randomized. Proper randomization is a fundamental requirement for obtaining valid data.

Mammography overall

Legacy Cancer Institute, along with every major American medical organization with expertise in breast cancer care, including the American Congress of Obstetricians and Gynecologists, American Cancer Society, American College of Radiology, National Accreditation Program for Breast Centers and Society of Breast Imaging, recommend *women get annual mammograms starting at age 40*.

Reputable studies show lifesaving benefit

Mammography can detect cancer early when it's most treatable and can be treated less invasively – which not only saves lives, but helps preserve quality of life.



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- By not getting a yearly mammogram after age 40, women increase their odds of dying from breast cancer, and that any treatment for advanced cancers ultimately found will be more extensive and more expensive.
- According to National Cancer Institute data: since mammography screening became widespread in the early 1990's, the U.S. breast cancer death rate (unchanged for the previous 50 years), dropped well over 30 percent.
- The largest (Hellquist et al) and longest running (Tabar et al) breast cancer screening studies in history, re-confirmed that regular mammography screening cut breast cancer deaths by roughly a third in all women age 40 and over.
- A recent study (Otto et al) published in Cancer Epidemiology, Biomarkers & Prevention shows mammography screening cut the risk of dying from breast cancer nearly in half.
- A recent study published in Cancer showed that more than 70 percent of women who died from breast cancer in their 40s at major Harvard teaching hospitals were among the 20 percent of women who were not being screened. The most rigorous scientific studies have shown that the most lives are saved by screening beginning at age 40.

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