
RSNA Press Release

City-Dwelling Women at Greater Risk for Breast Cancer

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At A Glance

- Women who live in cities have denser breast tissue than women who live in suburban or rural areas.
- Women with dense breasts are at an increased risk of developing breast cancer.
- In the study, the risk of increased density was twice as great in women 45 to 54 years old.

CHICAGO — Women who live in urban areas have denser breasts, making them more likely to develop breast cancer, according to a study presented today at the annual meeting of the Radiological Society of North America (RSNA).

"Women living in cities need to pay more attention to having regular breast screening," said Nicholas M. Perry, M.B.B.S., F.R.C.S., F.R.C.R., director of The London Breast Institute at The Princess Grace Hospital in London, U.K. "Currently, women who live in urban areas are known to have lower attendance for breast screening programs than women in outlying areas."

Breast tissue in women may be fatty or glandular or a mixture of both. Women with more glandular breasts show denser tissue on a mammogram and are known to have nearly four times the risk of developing breast cancer than women with fatty breasts. Dr. Perry and colleagues set out to determine if there was a relationship between breast density and area of residence.

The researchers analyzed digital mammograms of 972 women from urban, suburban and rural areas. They discovered that women who lived in London had significantly denser breasts than those living outside the city. The risk of increased density was twice as great in the 45- to 54-year-old group. Age-specific analyses suggested that overall differences by area were more pronounced in women under age 50.

Dr. Perry cautioned that more research is needed to determine the precise reason for this phenomenon, taking into account lifestyle factors, stress, workplace and other possible contributors, but he advised that all women maintain a recommended breast screening regimen, and that women with dense breasts be screened with digital mammography, which is more effective at detecting cancer in dense breast tissue.

"Regular breast screening with mammography saves lives," Dr. Perry said. "Access to

breast screening for women living in cities must be prioritized."

Co-authors are P.C. Allgood, Ph.D., S.W. Duffy, M.D., S.E. Milner, B.Sc., and K. Mokbel, M.D.

Another study presented on Monday (Nov. 26) at RSNA 2007 looked at the influence of the Western lifestyle on breast composition. Miriam Sklair-Levy, M.D., and colleagues from Hadassah Medical Center in Jerusalem compared breast densities of Israeli women and Ethiopian women who immigrated to Israel. The study found that Ethiopian-born women who have immigrated to Israel had significantly lower breast density than did Israeli-born women. In addition, past Ethiopian immigrants who had begun to adopt a Western lifestyle (decreased number of children, change in diet or increased hormone use) had significantly higher breast density than recent immigrants.

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RSNA is an association of more than 41,000 radiologists, radiation oncologists, medical physicists and related scientists committed to excellence in patient care through education and research. The Society is based in Oak Brook, Ill. (RSNA.org)

Editor's note: The data in these releases may differ from those in the printed abstract and those actually presented at the meeting, as researchers continue to update their data right up until the meeting. To ensure you are using the most up-to-date information, please call the RSNA Newsroom at 1-312-949-3233.