

Regular and Increasing Number of Breast Cancer Screenings Improves Survival, New Study Finds

The American Cancer Society led research to be presented at the 2023 ASCO annual meeting

CHICAGO, June 4, 2023 — New research led by an international team supported by the [American Cancer Society](#) (ACS) shows women with an increasing number of regular mammography screening exams prior to diagnosis of breast cancer considerably improved their probability of survival. The findings will be presented at this year's annual meeting of the American Society of Clinical Oncology (ASCO) in Chicago, June 2-6.

In this study, researchers, including presenting author [Dr. Robert Smith](#), Senior Vice President, Early Cancer Detection Science at the American Cancer Society, analyzed incidence and survival data on 37,079 women ages 40-69 from nine Swedish counties who had between one and five invitations to screening and were diagnosed with breast cancer between 1992 and 2016. Of these, 4,564 subsequently died of breast cancer. For each breast cancer diagnosed, scientists obtained data on previous screening history, and subsequent death (or not) from breast cancer. Comparisons of survival with respect to numbers of screening exams attended prior to a diagnosis of breast cancer were carried out using Cox proportional hazards regression with time-varying covariates, ie, cumulative numbers of screens, yielding hazard ratios, and 95% confidence intervals (CI). Study results were also corrected for potential self-selection bias, which gave a corrected estimate based on the proportion of participants, the uncorrected estimate, and the relative risk of breast cancer death for non-participants compared to an uninvited population.

The results showed, for a woman who participated in all five previous screening exams, the hazard of breast cancer death was 0.28 (95% CI 0.25-0.33, $p<0.0001$) [0.34 (95% CI 0.26-0.43, $p<0.0001$) after adjustment for self-selection], compared to a woman who had participated in none of the screening rounds. For each number of invitations, the difference in survival by number of screening exams attended was progressively more favorable, and statistically significant ($p<0.0001$) in all cases compared to women participating in no screens.

Researchers noted the importance of regular participation in mammography screening should be clearly articulated in breast cancer screening messaging and decision aids.

Other study authors include: Stephen Duffy, Dr. Amy Ming-Fang Yen, Dr. Laszlo Tabar, Dr. Abbie Ting-Yu, Dr. Sam Li-Sheng Chen, Dr. Chen-Yang Hsu, Dr. Peter Dean and Dr. Tony Hsiu-His Chen.

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About the American Cancer Society

The American Cancer Society is a leading cancer-fighting organization with a vision to end cancer as we know it, for everyone. For more than 100 years, we have been improving the lives of people with cancer and their families as the only organization combating cancer through advocacy, research, and patient support. We are committed to ensuring everyone has an opportunity to prevent, detect, treat, and survive cancer. To learn more, visit [cancer.org](#) or call our 24/7 helpline at 1-800-227-2345. Connect with us on [Facebook](#), [Twitter](#), and [Instagram](#).

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