

Summaries for Patients are a service provided by *Annals* to help patients better understand the complicated and often mystifying language of modern medicine.

The full reports are titled “Screening Mammography in Women 40 to 49 Years of Age: A Clinical Practice Guideline from the American College of Physicians” and “Screening Mammography in Women 40 to 49 Years of Age: A Systematic Review for the American College of Physicians.” They are in the 3 April 2007 issue of *Annals of Internal Medicine* (volume 146, pages 511-515 and 516-526). The first report was written by A. Qaseem, V. Snow, K. Sherif, M. Aronson, K.B. Weiss, and D.K. Owens, for the Clinical Efficacy Assessment Subcommittee of the American College of Physicians; the second report was written by K. Armstrong, E. Moye, S. Williams, J.A. Berlin, and E.E. Reynolds.

Screening Mammography in Women Age 40 to 49 Years

Who developed these guidelines?

The American College of Physicians (ACP) developed these recommendations. Members of the ACP are internists, specialists in the care of adults.

What is the problem and what is known about it so far?

A mammogram is an x-ray test that screens for breast cancer. “Screen” means to look for cancer at early stages before a woman feels a lump or has other symptoms that might suggest breast cancer. Most health care organizations agree that women 50 years of age or older should get mammograms; however, they do not agree on whether the benefits outweigh the risks for women 40 to 49 years of age because most studies involved women older than 50.

How did the ACP develop these recommendations?

The authors reviewed studies about the benefits and harms of mammograms for women between 40 and 49 years of age. They also reviewed studies on estimating a woman’s chances of developing breast cancer, given her personal characteristics.

What did the authors find?

Screening mammograms for women 40 to 49 years of age decrease the risk for breast cancer deaths compared with women who do not get screened. However, the benefit for these women is smaller than it is for women 50 years of age or older.

The harmful effects of mammograms include false-positive results, radiation exposure, false reassurance, and pain during the mammogram. False-positive results are when the mammogram suggests breast cancer but further tests find no breast cancer. Mammograms frequently find a type of cancer called DCIS (ductal carcinoma in situ), and women end up getting treated for it. However, good information is lacking about how often DCIS would progress to more serious types of cancer without treatment.

For a woman in her 40s, the risk for breast cancer within the next 5 years can vary substantially, depending on whether she has any risk factors for the disease. Factors that increase the risk for breast cancer include older age, family history of breast cancer, older age at the time of first pregnancy, younger age of first period, history of a breast abnormality that required a biopsy (removal of a sample of breast tissue for laboratory examination), or a history of being exposed to chest radiation (such as in the treatment of another disease). Unfortunately, a mathematical model called the Gail model that predicts the risk for breast cancer among groups is imprecise in predicting an individual woman’s risk for the disease.

What does the ACP suggest that patients and doctors do?

A woman age 40 to 49 years and her doctor should periodically evaluate her personal risk for breast cancer to help guide decisions about screening mammography.

Doctors should inform women age 40 to 49 years of the potential benefits and harms of screening mammography.

Women age 40 to 49 years and their doctors should base decisions about screening mammography on benefits and harms of screening and on the woman’s personal risks for breast cancer.

If a woman age 40 to 49 years decides not to have a mammogram, she and her doctor should readdress the issue every 1 to 2 years.

We need more research on the benefits and harms of breast cancer screening for women in their 40s.

What are the cautions related to these recommendations?

Recommendations may change as new studies become available.

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