

## Screening for Breast Cancer: U.S. Preventive Services Task Force Recommendations

*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 for Breast Cancer: U.S. Preventive Services Task Force Recommendation Statement,” “Screening for Breast Cancer: An Update for the U.S. Preventive Services Task Force,” and “Effects of Mammography Screening Under Different Screening Schedules: Model Estimates of Potential Benefits and Harms.” They are in the 17 November 2009 issue of *Annals of Internal Medicine* (volume 151, pages 716-726, pages 727-737, and pages 738-747). The author of the first report is the U.S. Preventive Services Task Force; the authors of the second report are H.D. Nelson, K. Tyne, A. Naik, C. Bougatsos, B.K. Chan, and L. Humphrey; and the authors of the third report are J.S. Mandelblatt, K.A. Cronin, S. Bailey, D.A. Berry, H.J. de Koning, G. Draisma, H. Huang, S.J. Lee, M. Munsell, S.K. Plevritis, P. Ravdin, C.B. Schechter, B. Sigal, M.A. Stoto, N.K. Stout, N.T. van Ravesteyn, J. Venier, M. Zelen, and E.J. Feuer, for the Breast Cancer Working Group of the Cancer Intervention and Surveillance Modeling Network (CISNET).

### Who developed these guidelines?

The U.S. Preventive Services Task Force (USPSTF) is a group of health experts that reviews published research and makes recommendations about preventive health care.

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

The goal of screening for breast cancer is to find breast cancer at early, more treatable stages. Ways to screen for breast cancer include breast self-examination, clinical breast examination, and mammography. Mammography is an x-ray of the breast that often shows breast tumors before they are large enough to feel. Several types of screening exist: traditional film mammography, digital mammography, and magnetic resonance imaging (MRI). The USPSTF has updated their recommendations from 2002.

### How did the USPSTF develop these recommendations?

The USPSTF evaluated published research about the 3 types of breast cancer screening published since the last recommendations. They also commissioned a group of researchers to use computer-simulation models to compare the expected health outcomes and resources required under policies that used different ages of starting and stopping mammography, as well as different frequencies (every year or every 2 years).

### What did the authors find?

The USPSTF found fair evidence that women who have screening mammography die of breast cancer less frequently than women who do not have it, but the benefits minus harms are small for women aged 40 to 49 years. Benefits increase as women age and their risk for breast cancer increases. However, there are relatively few studies of mammography for women aged 75 years or older. The potential harms of mammography include anxiety, procedures, and costs due to false-positive results and receiving a diagnosis and treatment of cancer that never would have surfaced on its own within a woman's natural life time. They found that the benefit of mammography every 2 years is nearly the same as that of doing it every year, but the harms are likely to be half as common. They found no evidence that self- or clinical examination reduces breast cancer death rates.

### What does the USPSTF suggest that patients do?

Screening mammography should not be done routinely for all women age 40 to 49 years. Women and their doctors should base the decision to start mammography before age 50 years on the risk for breast cancer and preferences about the benefits and harms. Women aged 50 to 74 years should have mammography every 2 years. More evidence is needed for the USPSTF to recommend for or against screening mammography after age 74 years. The USPSTF recommends against teaching patients breast self-examination. Available studies do not provide enough information to know whether breast examination by a trained medical professional adds benefit beyond mammography. There is not enough information to know whether newer types of mammography (digital mammography) or magnetic resonance imaging are any better than regular film mammography results.

### What are the cautions related to these recommendations?

As new studies become available, these recommendations may change.

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