

## Screening for Breast Cancer

The U.S. Preventive Services Task Force (Task Force) has issued a **final recommendation statement** on *Screening for Breast Cancer*.

These final recommendations apply to women ages 40 and older who have no signs or symptoms of breast cancer and do not already have breast cancer or a high-risk breast lesion. These recommendations were not designed to guide women who are at high risk of developing breast cancer because of a known genetic mutation (such as BRCA) or a history of receiving chest radiation at a young age. These women should consult their doctors for individualized recommendations about breast cancer screening.

The Task Force reviewed research studies on screening mammography. The final recommendations summarize what the Task Force learned about the potential benefits and harms of breast cancer screening: (1) The value of mammograms increases

with age, with women ages 50 to 74 benefitting the most. The best balance of benefits and harms happens when screening is done every 2 years. (2) The decision to start breast cancer screening before age 50 is an individual one, and women in their 40s should talk with their doctors about the benefits and harms to determine whether screening is right for them. (3) There is not enough evidence to determine the effectiveness of screening in women ages 75 and older. (4) There is not enough evidence to determine the effectiveness of screening with 3D mammography. (5) There is not enough evidence to determine the effectiveness of additional screening with other methods for women with dense breasts who have had a negative mammogram.

Women can and should continue to talk to their doctor regularly about breast cancer screening, as their preferences, values, and health histories are likely to evolve after their initial decision to be screened.

What is breast cancer?

**Breast cancer is cancer that occurs in the cells of the breast. Breast cancer is the second most common cancer diagnosed in women in the United States, after skin cancer. Breast cancer occurs in both men and women, although male breast cancer is rare.**

### Facts about Breast Cancer

Breast cancer is one of the most common cancers in women. In 2015, about 232,000 women were newly diagnosed with breast cancer, and 40,000 women died from it.

The risk of developing breast cancer increases with age. Women between the ages of 55 and 64 are most frequently diagnosed with breast cancer. The most common age of death from breast cancer is 68.

Breast cancer is often detected by screening mammography and earlier detection of invasive breast cancer (cancer that spreads beyond the breast) may make it easier to treat.

Treatments for breast cancer include surgery, radiation, chemotherapy, or hormonal treatment.

## Screening for Breast Cancer

The goal of screening is to reduce cancer deaths. Evidence shows that mammograms, which are an X-ray picture of the breast, can help reduce the risk of dying from breast cancer. Evidence also shows that the benefits of mammography increase with age.

The Task Force reviewed studies that looked at the effectiveness of screening mammography in women ages 40 and older. It also examined the effectiveness of a newer mammography technology that takes 3D images of the breast.

Finally, the Task Force reviewed studies on screening mammography in women with dense breasts. A woman has high breast density when she has more breast and connective tissue than fatty tissue. Almost half of all women between the ages of 40 to 74 (about 25 million women) are classified as having dense breasts. This makes abnormal areas of breast tissue more difficult to “see” on a mammogram, which makes it harder to find and accurately identify breast cancers. Having dense breasts also increases the risk of developing (but not dying from) breast cancer, though this risk decreases with age. The Task Force looked at whether getting additional screening tests, such as ultrasound, MRI, or a 3-D mammogram, would help in detecting breast cancer in women with dense breasts.

A draft recommendation statement for this topic was available for public comment from April 21 to May 18, 2015. The Task Force carefully reviewed all of the public and stakeholder comments it received.

## Potential Benefits and Harms of Screening Mammography

Mammograms are an important tool in detecting breast cancer. The main potential benefit of mammograms is that they help reduce the chance that a woman will die from breast cancer.

Mammograms also have potential harms. The most serious potential harm is overdiagnosis. This occurs when a woman is diagnosed with a breast cancer that would not have become a threat to her health during her lifetime. Currently, it is not possible for a woman to know whether or not her cancer will progress. As a result, almost all women diagnosed with breast cancer are treated. This can lead to overtreatment, including surgery, chemotherapy, and radiation, that can have significant harms.

The most common potential harm of mammography is a false-positive test result, which occurs when the mammogram suggests that breast cancer may be present when there is no cancer. False-positive results can lead to follow-up tests and procedures that aren't needed. False-positive results also cause anxiety. While some women don't mind the anxiety that often accompanies a false-positive mammogram, others consider this to be a harm.

## Potential Benefits and Harms of Screening at Different Ages

Because the risk of developing invasive breast cancer increases with age, the value of mammograms also increases with age. The Task Force found that the balance of benefits and harms is different at different ages:

- Women ages 50 to 74 benefit the most from screening mammograms. The best balance of benefits and harms occurs when screening is done every 2 years.
- Mammograms also reduce breast cancer deaths in women ages 40 to 49 years. As such, women in their 40s can also benefit from screening mammograms, but the benefits are lower than for older women because their risk of developing breast cancer is lower. The risk of potential harms is also higher for women in their 40s because they are more likely to have false-positive results and follow-up procedures, such as breast biopsies that do not result in a diagnosis of breast cancer.

The balance of benefits and harms is likely to improve as women move from their early to late 40s.

Women in this age group who have a mother, sister, or daughter with breast cancer are at increased risk of developing breast cancer. These women may benefit more from beginning screening in their 40s than women who have no close relatives with breast cancer.

- For women ages 75 and older, the evidence on the potential benefits and harms of screening mammograms is limited. As a result, the Task Force was unable to make a recommendation for or against screening for this group of women.

### Potential Benefits and Harms of Screening with 3D Mammography

The Task Force found that 3D mammography is a promising new technology for detecting breast cancer. However, it is not clear whether this technology will result in improved health, quality of life, or fewer deaths among women screened. As a result, the Task Force could not make a recommendation for or against the use of 3D mammography, but strongly encourages additional research in this area.

### Potential Benefits and Harms of Using Additional Screening Methods to Screen Women with Dense Breasts

The Task Force also looked at whether breast cancer screening for women with dense breasts would be more effective if additional screening methods, such as ultrasound, 3D mammography, or magnetic resonance imaging (MRI), were used. Unfortunately, many important questions remain about how additional screening may help women with dense breasts. For example, whether a woman is classified as having dense breasts can change from time to time. This can be due to actual changes in breast tissue, but is often a result of a change in how the mammogram is read. More evidence is needed to better understand the role of breast density in determining the best screening approaches for these women. Therefore, the Task Force was not able to make a recommendation for or against additional screening, and strongly encourages more research in this area.

## The Final Recommendations on Screening for Breast Cancer: What Do they Mean?

Here are the Task Force's final recommendations on screening for breast cancer. Recommendations have letter grades. The grades are based on the quality and strength of the evidence about the potential benefits and harms of screening for this purpose. They are also based on the size of the potential benefits and harms. Task Force recommendation grades are explained in the box at the end of this fact sheet.

When the Task Force recommends screening (**Grade B**), it is because it has more potential benefits than potential harms. When the evidence shows that a screening test may have benefit for some individuals, the Task Force gives it a **Grade C**. When there is not enough evidence to judge benefits and harms, the Task Force does not make a recommendation for or against—it issues an **I Statement**. The Notes explain key ideas.

Visit the Task Force Web site to read the full [final recommendation statement](#). The statement explains the evidence the Task Force reviewed and how it decided on the recommendation grades. [Multiple evidence documents](#) provide more detail about the studies the Task Force reviewed.

- 1 The Task Force recommends **biennial screening mammography** for women aged 50 to 74. **B Grade**
- 2 The decision to start screening mammography in women prior to age 50 years should be an individual one. Women who place a **higher value** on the potential benefit than the potential harms **may choose to begin biennial screening** between the ages of 40 and 49 years. **C Grade**
- 3 The Task Force concludes that the **current evidence is insufficient** to assess the balance of benefits and harms of screening mammography in women 75 years of age and older. **I Statement**
- 4 The Task Force concludes that the current evidence is insufficient to assess the benefits and harms of **3D mammography** as a **primary screening method** for breast cancer. **I Statement**
- 5 The Task Force concludes that the current evidence is insufficient to assess the balance of benefits and harms of **adjunctive screening** for breast cancer using breast **ultrasonography, magnetic resonance imaging (MRI), 3D mammography,** or other methods in women identified to have dense breasts on an otherwise **negative screening mammogram**. **I Statement**

## Notes

- 1 **biennial**  
Every 2 years.  
**screening mammography**  
A type of mammogram that is done when a woman has no signs or symptoms of breast cancer.
- 2 **higher value**  
When a woman decides that the potential benefit is more important for her than the potential harms.  
**may choose to begin biennial screening**  
A C recommendation is not a recommendation against screening. Women in their 40s should talk with their doctors and decide together whether screening mammography is the right choice for them.
- 3 **current evidence is insufficient**  
The Task Force did not find enough information in the studies to determine the potential effectiveness of screening mammography in this age group.
- 4 **3D mammography**  
A method of screening that creates a 3-dimensional picture of the breast using x-rays.  
**primary screening method**  
The main method of screening used.
- 5 **adjunctive screening**  
Another type of screening that is used to confirm the primary screening.  
**ultrasonography**  
A test that uses high-frequency sound waves to create an image of structures inside of the body.  
**magnetic resonance imaging (MRI)**  
A test that uses a magnetic field and pulses of radio wave energy to create pictures of structures inside the body.  
**negative screening mammogram**  
A mammogram that shows no cancer is present.

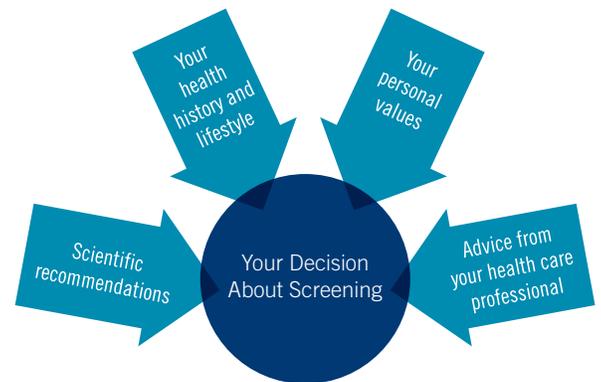
## When Should You Begin Screening for Breast Cancer?

Getting the best health care means making smart decisions about what screening tests, counseling services, and preventive medicines to get and when to get them. Many people don't get the tests or counseling they need. Others get tests or counseling they don't need or that may be harmful to them.

Task Force recommendations can help you learn about screening tests, counseling services, and preventive medicines. These services can keep you healthy and prevent disease.

### Deciding Whether to Get Screened for Breast Cancer

The Task Force's main goal is to empower women with the best scientific data about the potential benefits and harms of breast cancer screening. The Task Force found that regular screening every 2 years reduces breast cancer deaths for women ages 40 to 74 years and that women ages 50 to 74 years are most likely to benefit from regular screening. For women in their 40s, the Task Force found that mammography screening every two years can also be effective and recommends that the decision to start screening should be an individual one, taking into account a woman's health history, preferences, and how she values the potential benefits and harms.



The Task Force believes that the more women know about the benefits and harms of screening, the more likely they are to make informed choices about their health care. Talk with your health care professional about when you should begin breast cancer screening. Make sure your questions and concerns are answered. Consider your own health history and lifestyle. Think about your personal beliefs and preferences for health care. And consider scientific recommendations, like this one from the Task Force. Ultimately, this recommendation statement supports a range of choices for women on when to start screening—from beginning regular mammograms at age 40, at some point during their 40s, or waiting until age 50, when the likelihood of benefit is greater.

## What is the U.S. Preventive Services Task Force?

The Task Force is an independent, volunteer group of national experts in prevention and evidence-based medicine. The Task Force works to improve the health of all Americans by making evidence-based recommendations about clinical preventive services such as screenings, counseling services, and preventive medicines. The recommendations apply to people with no signs or symptoms of the disease.

To develop a recommendation statement, Task Force members consider the best available science and research on a topic. For each topic, the Task Force posts draft documents for public comment, including a draft recommendation statement. All comments are reviewed and considered in developing the [final recommendation statement](#). To learn more, visit the [Task Force Web site](#).

USPSTF Recommendation Grades	
Grade	Definition
A	Recommended.
B	Recommended.
C	Recommendation depends on the patient's situation.
D	Not recommended.
I statement	There is not enough evidence to make a recommendation.

### Click Here to Learn More About Breast Cancer and Breast Cancer Screening

-  **Breast Cancer** (National Cancer Institute, National Institutes of Health)
-  **Mammograms** (National Cancer Institute, National Institutes of Health)
-  **Breast Cancer Screening (PDQ®)** (National Cancer Institute, National Institutes of Health)

### Click Here to Learn About Other Task Force Recommendations on Breast Cancer

-  **BRCA-Related Cancer: Risk Assessment, Genetic Counseling, and Genetic Testing**
-  **Breast Cancer: Medications for Risk Reduction**