

## RSNA Statement on Screening for Breast Cancer Updated: 5/9/2024

*The Radiological Society of North America (RSNA) is committed to excellence in patient care through education and research.*

- It is widely acknowledged by major organizations, including the American Cancer Society, that screening mammography saves lives. The goal of breast cancer screening is to find cancer at a small size and early stage before it is large enough to cause symptoms or has spread elsewhere in the body. By finding cancers early, we reduce morbidity and mortality from this disease.
- Large, randomized controlled trials of mammography screening have demonstrated that the progression of breast cancer can be interrupted and that the death rate can be reduced using mammography. Since 1990, the breast cancer death rate in the U.S., which had been unchanged for the preceding 50 years, has decreased by 43%, primarily due to screening mammography, according to 2015 National Cancer Institute Surveillance, Epidemiology, and End Results (SEER) data.
- More recent observational studies that are clinically relevant to breast radiologists reveal a mortality reduction as high as 49% for patients undergoing routine screening with mammography. Recent modeling studies showed that annual screening for ages 40-79 years improved breast cancer mortality reduction compared with biennial screening ages 50-74 years and biennial screening ages 40-74 years. Annual screening ages 40-79 years averted the most breast cancer deaths and gained the most life-years compared with other screening scenarios.
- Cancers in younger patients tend to be more aggressive and faster growing than those diagnosed in older individuals. It is important to begin annual screening mammography at age 40 to detect cancers early and produce the best patient outcomes with the fewest long term side effects. Starting annual screening at age 40 saves the most lives.
- Recent American College of Radiology (ACR) [breast cancer screening guidelines](#) have recognized that Black and Ashkenazi Jewish women are at high risk for the disease and should be screened as such. It is recommended that all women — particularly Black and Ashkenazi Jewish women — have risk assessment by age 25 to determine if screening earlier than age 40 is needed. Annual screening starting at age 40 is recommended for women of average risk, but earlier and more intensive screening is recommended for high-risk patients.
- The United States Preventive Services Task Force (USPSTF) recommends biennial screening mammography for women ages 40 to 74 years. RSNA supports ACR and Society of Breast Imaging (SBI) [recommendations](#) of *annual* screening beginning at age 40.
- Other imaging tests such as ultrasound and MRI may not be routinely recommended for breast screening but may be indicated depending on various risk factors, including breast density. ACR and SBI recently added the recommendation that breast MRI should be added as a screening test for patients with a previous diagnosis of breast cancer.
- Mammography is not a perfect test. It has limitations, particularly in dense breast tissue. Not all cancers can be detected with mammography. Some patients will have additional imaging examinations or biopsies for findings detected on screening mammography that turn out not to be cancer. Despite the limitations, screening mammography is a very effective test and a valuable tool in the fight against breast cancer.

- Mammography uses low-dose protocols in accordance with the “As Low As Reasonably Achievable (ALARA)” principle.
- In conclusion, yearly screening mammography beginning at age 40 is a statistically proven and effective imaging method of reducing deaths from breast cancer. Patients should speak to their physicians about questions when they should initiate screening with mammography and also discuss risk factors that may predispose them to higher breast cancer risk. It is important to remember that most breast cancer occurs in patients with no known risk factors and that annual screening starting at age 40 saves the most lives.

*RSNA is a strong advocate for quality, safety, equity and strict adherence to appropriateness criteria in medical imaging and radiation oncology. Through its peer-reviewed journals and education programs, RSNA continually informs radiologists, medical physicists, radiation oncologists and other radiology professionals of the latest technologies and research developments designed to optimize dose and improve patient safety.*