

ACS Advises MRIs for Some at High Risk of Breast Cancer Get Scans Along With Mammograms, Not Instead of Them

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Certain women with an especially high risk of developing breast cancer should get magnetic resonance imaging (MRI) scans along with their yearly mammogram, according to a new American Cancer Society guideline. The two tests together give doctors a better chance of finding breast cancer early in these women, when it is easier to treat and the chance of survival is greatest.



MRI scans are more sensitive than mammograms, but they are also more likely to show spots in the breast that may or may not be cancer. Often there is no way of knowing whether or not these spots are cancerous short of a follow-up biopsy or some other invasive procedure. That is why the test is not recommended for women with an average risk of breast cancer, the guideline says.

"As with other cancer screening tests, MRI is not perfect and in fact leads to many more false-positive results than mammography," explains Christy Russell, MD, chair of the ACS Breast Cancer Advisory Group and co-author of the new guideline. "Those false-positives, which can lead to a high number of avoidable biopsies, can create fear, anxiety, and adverse health effects, making it imperative to carefully select those women who should be screened using this technology."

For women at average risk, ACS recommends getting annual mammograms and breast exams by a physician, beginning at age 40. Most high-risk women should begin getting MRIs and mammograms at age 30, the new guideline says, unless they and their doctor think it's better to begin at a different age.

Better Evidence for Many Situations

The new guideline is published in the latest issue of the ACS journal *CA: A Cancer Journal for Clinicians*. It recommends MRI screening in addition to mammograms for women who meet at least one of the following conditions:

- they have a BRCA1 or BRCA2 mutation
- they have a first-degree relative (parent, sibling, child) with a BRCA1 or BRCA2 mutation, even if they have yet to be tested themselves
- their lifetime risk of breast cancer has been scored at 20%-25% or greater, based on one of several accepted risk assessment tools that look at family history and other factors
- they had radiation to the chest between the ages of 10 and 30
- they have Li-Fraumeni syndrome, Cowden syndrome, or Bannayan-Riley-Ruvalcaba syndrome, or may have one of these syndromes based on a history in a first-degree relative

The recommendations are based on studies that were published after the ACS last revised its breast cancer early detection guidelines in 2002-2003. At that time, the panel concluded there was not enough evidence to recommend for or against MRI in high-risk women, so the guideline advised these women to make the decision after talking with their doctor. Now there is more solid evidence that MRI is useful for certain women.

"These guidelines are a critical step to help define who should be screened using MRI in addition to mammography, a question of significant importance as we discover women at very high risk of breast cancer can be diagnosed much earlier when combining the two technologies rather than using mammography alone," says Russell, co-director of the University of Southern California/Norris Cancer Hospital Lee Breast Center.

More to Be Learned for Other High-Risk Situations

For some women, however, the jury is still out on whether MRI screening is beneficial, even though they have conditions that do give them a higher-than-average risk of breast cancer. The guideline says there still isn't enough evidence to recommend for or against MRI screening in women who:

- have a 15%-20% lifetime risk of breast cancer, based on one of several accepted risk assessment tools that look at family history and other factors
- have lobular carcinoma in situ (LCIS) or atypical lobular hyperplasia (ALH)
- have atypical ductal hyperplasia (ADH)
- have very dense breasts or unevenly dense breasts (when viewed on a mammogram)
- have already had breast cancer, including ductal carcinoma in situ (DCIS)

Screening MRIs are not recommended for women with a lifetime risk of breast cancer below 15%.

MRI Also Useful in Contralateral Diagnosis

Although the ACS guidelines find screening MRIs of uncertain value for breast cancer survivors, a newly published study shows the scans can be useful for finding tumors in the opposite (contralateral) breast of women newly diagnosed with the disease.

As many as 10% of women with breast cancer develop a new tumor in the opposite breast, even though nothing is found when they are checked with mammograms and physical exams at the time of their original diagnosis. Finding these cancers earlier could help women make treatment decisions (some women with cancer in just one breast opt to have both breasts removed as a precaution), and might spare them from extra rounds of surgery and chemotherapy later.

Researchers from the University of Washington Medical Center in Seattle studied 969 newly diagnosed breast cancer patients to see if MRIs could find contralateral cancers that mammograms and physical exams missed. The scans found 30 early-stage tumors the other tests could not detect, and missed only 3.

"This study gives us a clearer indication that if an MRI of the opposite breast is negative, women diagnosed with cancer in only one breast can more confidently opt against having a double (or bilateral) mastectomy," says John E. Niederhuber, MD, director of the National Cancer Institute, which sponsored the study.

The results appear in the *New England Journal of Medicine*. The study was released to coincide with the publication of the new ACS guidelines for MRI screening in high-risk women.

Citations: "American Cancer Society Guidelines for Breast Screening with MRI as an Adjunct to Mammography" Published in the March/April 2007 *CA: A Cancer Journal for Clinicians* (Vol. 57, No. 2: 75-89). First author: Debbie Saslow, PhD, American Cancer Society. 

"MRI Evaluation of the Contralateral Breast in Women with Recently Diagnosed Breast Cancer." Published in the March 29, 2007 *New England Journal of Medicine* (Vol. 356, No. 13: 1295-1303). First author: Constance D. Lehman, MD, PhD, University of Washington Medical Center, Seattle.

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