

Study challenges routine use of MRI scans to evaluate breast cancer

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Reviewing the records of 577 breast cancer patients, Fox Chase Cancer Center researchers found that women with newly diagnosed breast cancer who receive a breast MRI are more likely to receive a mastectomy after their diagnosis and may face delays in starting treatment. The study demonstrates that, despite the lack of evidence of their benefit, routine use of MRI scans in women newly diagnosed with breast cancer increased significantly between 2004 and 2005, and again in 2006.

The study is online now and will be appearing in the August edition of the [Journal of the American College of Surgeons](#).

"We have yet to see any evidence that MRI improves outcomes when used routinely to evaluate [breast cancer](#), and yet more and more women are getting these scans with almost no discernable pattern," said Richard J. Bleicher, M.D., F.A.C.S., a specialist in [breast cancer](#) surgery at Fox Chase. "For most women, a breast MRI prior to treatment is unnecessary. MRI can be of benefit because it's more sensitive, but with the high number of false positives and costs associated with the test, more studies are needed to determine whether MRI can improve outcomes in women who have already been diagnosed with breast cancer."

Bleicher and his colleagues reviewed the records of 577 breast cancer patients seen in a multidisciplinary breast clinic where they were evaluated by a radiologist, pathologist, and a surgical, radiation, and

medical oncologist. Of these patients, 130 had MRIs prior to treatment.

"Those who received an MRI had a three-week delay in the start of their treatment," said Bleicher. "But more strikingly, we're concerned that the well-documented false-positive rate with MRIs may be leading-or misleading-women into choosing mastectomies."

Bleicher said many of the women would have been candidates for a lesser procedure known as a [lumpectomy](#). "There are a few reasons why we may be seeing higher mastectomy rates when MRIs are performed. An [MRI scan](#) is very sensitive, leading to a high number of false-positive findings. Rather than having a biopsy to see if those findings are real, women and their doctors may choose mastectomy out of an abundance of caution. Other studies have demonstrated that this often represents over-treatment because many of the mastectomies are later proven by pathology to have been unnecessary."

The study also revealed that younger women were more likely to have an MRI. "In our analysis, that trend, surprisingly, didn't correspond with various breast cancer risk factors, such as a family history of breast or ovarian cancer, nor with the characteristics of their disease," explained Bleicher.

Another research conclusion included the failure of MRI's to help surgeons decrease positive margins during surgery, another hypothesized benefit of MRI.

"MRI is a valuable tool in some women, and these findings do not negate their value in screening women at high risk, such as those with genetic mutations. Without evidence, though, that routine pre-treatment MRI improves a woman's outcome, its disadvantages suggest that it should not be a routine part of patient evaluation after diagnosis," said Bleicher. "Greater efforts to define MRI's limitations and use are needed."

Source: Fox Chase Cancer Center ([news](#) : [web](#))

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