

# MRI finds tumors in second breast of women diagnosed with cancer in one breast, researchers say

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Postmenopausal women, including those over 70 years old, who have been newly diagnosed with cancer in one breast have higher cancer detection rates when the other breast is scanned for tumors with MRI, compared to premenopausal women, say researchers at the Mayo Clinic campus in Florida.

They found that 3.8 percent of 425 women had [breast](#) cancer in the undiagnosed breast that had not been found with a clinical or mammographic examination; all were postmenopausal. In these women, detecting and treating cancer in both breasts at the same time may save costs, patient stress, and the potential [toxicity](#) that may come from having to treat cancer later in the second breast once it is discovered, the researchers say in the March/April issue of *The Breast Journal*.

Of particular interest to the researchers is their finding that patients 70 and older had a higher prevalence of cancer detected in the second breast by MRI than did younger patients in the study. MRI detected a cancer in the second breast in 5.4 percent of 129 [elderly women](#) included in the study.

"Our findings are not really surprising because we know that the risk of breast cancer increases as age increases," says the study's lead investigator, Johnny Ray Bernard Jr., M.D., a Radiation Oncologist at Mayo Clinic in Jacksonville. "Elderly women in good health potentially benefit from earlier detection, and we believe that screening of the undiagnosed breast with MRI should be considered in all [postmenopausal women](#) diagnosed with a breast cancer."

Since 2003, Mayo Clinic in Jacksonville has offered MRI imaging of both breasts in women with newly diagnosed breast cancer. In this study, Mayo

researchers retrospectively reviewed the records of 425 women who underwent bilateral breast MRI between 2003 and 2007. The goal was to determine the prevalence of "contralateral" cancer detected by MRI, but not found by mammogram or clinical breast exams. Contralateral refers to the opposite breast where cancer was not diagnosed.

They concluded that postmenopausal status was the only statistically significant predictor of contralateral cancer detected by MRI. In 72 of the 425 women, MRI detected a suspicious lesion. A follow-up biopsy showed that 16 (22 percent) of the 72 women had contralateral breast cancer (stage 0-1) that had not been detected with typical screening methods. Of the 16 women diagnosed with a contralateral cancer, seven were 70 or older.

The researchers undertook the study, they say, because to their knowledge, no published studies in the medical literature that have examined the use of MRI to screen contralateral breasts in women diagnosed with breast cancer have included an analysis of women 70 and older.

It makes sense to look at women of this age, they say. Studies have shown that MRI of the breast has a higher cancer detection rate than clinical breast examination and mammography alone in women at high risk for developing breast cancer, according to Dr. Bernard. He added that women who have been diagnosed with breast cancer are at 2-to-6 times increased risk for developing a secondary, contralateral breast cancer, compared to women at average risk. "So the combination of older age and a personal breast cancer history possibly makes women aged 70 years or older with newly diagnosed breast cancer at even higher risk for developing a contralateral breast cancer," he says.

Dr. Bernard acknowledges that the routine use of

breast MRI in all patients with a history of breast cancer at initial diagnosis is controversial, as is its use in elderly patients. But he says the findings from this study may help clarify the debate because it suggests that postmenopausal patients have the highest prevalence of contralateral breast cancer identified only by MRI, and not by mammogram or physical examination. "This could impact health care costs by limiting screening MRI to those groups likely to have higher detection rates, such as postmenopausal [women](#) in our study, and also could reduce costs by having both cancers treated at the same time instead of undergoing potentially toxic and expensive treatments twice — that is, once the contralateral cancer is finally detected by mammogram or physical exam," Dr. Bernard says.

The researchers also say there should be no age cutoff in use of MRI in these [breast cancer](#) patients. "We do feel that life span is underestimated in this older age group," he says.

Provided by Mayo Clinic

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