

## 3D technology takes next step beyond traditional mammography

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MILWAUKEE - After already having been through breast cancer treatment, Michelle Luckiesh did not think twice when doctors at Waukesha Memorial Hospital told her they had a new mammography device that may be able to detect tumors earlier than with conventional mammography.

"I'm all for it even if I have to pay extra," said Luckiesh, 43, of Hartland, Wis. "Just give me the best stuff."

In her case and probably for many more women down the road, "the best stuff" is the new 3D [mammography](#) that was approved by the Food and Drug Administration in February 2011 and is finding its way into more and more hospitals.

Waukesha Memorial began offering the technology, also known as Tomosynthesis, last month, and others such as the University of Wisconsin Hospital and Clinics have the equipment and expect to start using it in a couple months.

Froedtert Hospital also is evaluating 3D mammography, along with similar technology, contrast-enhanced spectral mammography, which was approved by the FDA in October, according to a representative.

In conventional 2D mammography, one image of the breast is made. While in most cases that is all that is needed, sometimes normal [breast tissue](#) known as fibroglandular tissue can overlap in a traditional

mammogram image, making it difficult to distinguish from a tumor. Both appear white in the image.

In about 10 percent of cases, that means the woman may have to come back later for another 2D mammogram.

With 3D mammography, images of the breast are taken from multiple angles and computer software allows those to be built into a [3D image](#) than can be moved around by the radiologist to get different views.

In addition to false positives, 2D mammography may miss up to 20 percent of cancers.

"3D improves both of these flaws," said Jennifer Bergin, medical director of Waukesha Memorial's Center for Breast Care.

Bergin said the technology will be most beneficial for women who have a lot of fibroglandular tissue, so-called dense breasts, as well as women who have had breast cancer or who are at higher risk for it.

Just how many additional cancers will be detected still remains to be seen, said Alice Rim, head of the section of breast imaging at the Cleveland Clinic. And how much, if any, improvement in mortality also has to be studied, she said.

But, she added, "I think it is going to be an improvement in [breast cancer](#) detection."

Cleveland Clinic does not offer the technology now, but plans to eventually, Rim said.

Under the approval granted by the FDA, women undergoing 3D mammography also will receive a traditional 2D mammogram at the

same time.

That means they will be getting about twice the dose of radiation as a conventional mammogram.

But the amount of additional radiation is small and is far outweighed by the benefit of earlier detection, said Elizabeth Burnside, an associate professor of radiology at UW.

In addition, if having one 2D/3D mammogram can eliminate the need to come back for a second conventional mammogram several months later, then the radiation issue is largely irrelevant, she said.

Beyond that, it will save women a lot of unnecessary worry that comes with a false positive finding or an uncertain finding that requires an additional mammogram, she said.

That's why Luckiesh did not hesitate when she was offered the chance to have a 3D mammogram.

She said she had a traditional mammogram that did not show anything in January 2010.

About a year later, another mammogram found a suspicious spot in the left breast that was confirmed as cancer after a biopsy. An MRI scan done a few days later also found a second spot in the same breast.

That led to a chemo, a mastectomy and radiation.

"I want to make sure I don't have cancer again," she said.

Another issue with 3D mammography is cost.

Waukesha Memorial charges \$236 for a conventional mammogram and an additional \$100 for a 3D mammogram, said Sandra Peterson, a spokeswoman for ProHealth Care. Those charges do not include professional fees charged by radiologists for reading the [mammograms](#).

Insurance carriers have paid anywhere from \$40 up to all of the additional cost, she said.

She said patients are told up front that there may be some out-of-pocket expense.

"The 3D technology is so new that we are still discovering what insurance plans will cover," Peterson said.

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