



WHAT TO  
EXPECT

## **Genius™ 3D MAMMOGRAPHY™ Exam**

The most exciting advancement in  
mammography in over 30 years

# 91%

of patients agree the quality of care provided by the facility was better with a Genius™ 3D MAMMOGRAPHY™ exam.

- Results from independent survey conducted by Kadence International, June 2015

## What to expect during your exam

A Genius exam is very similar to a traditional mammogram. Just as with a digital mammogram, the technologist will position you, compress your breast under a paddle and take images from different angles. A Genius exam may be used as a screening tool in conjunction with a traditional digital mammogram or may be used by itself for a diagnostic mammogram.

During the Genius exam, the X-ray arm sweeps in a slight arc over the breast, taking multiple breast images in just seconds. Your doctor is then able to view your breast tissue in one millimeter layers. Instead of viewing all the complexities of your breast tissue in one flat image, the doctor can examine the tissue one page or “slice” at a time.

There is no additional compression required with the Genius exam, and it only takes a few seconds longer for each view. The technologist will view the images at a computer workstation to ensure adequate images have been captured for review by a radiologist, who studies them and reports results to either your physician or directly to you.

# Screening for breast cancer

Doctors and scientists agree that early detection is the best defense against breast cancer. Successful treatment and survival rates for breast cancer patients are dramatically affected by early detection of breast cancers. If we find breast cancer early, before it has spread to lymph nodes, the five-year survival rate is almost 100 percent.<sup>1</sup> Until now, the best way to do that has been with digital mammography.

While digital mammography is still one of the most advanced technologies available today, it is only a 2-dimensional picture of the breast. The breast is a 3-dimensional object composed of different structures, such as blood vessels, milk ducts, fat, and ligaments. All of these structures, which are located at different heights within the breast, can overlap and cause confusion when viewed as a 2-dimensional, flat image. This confusion of overlapping tissue is a leading reason why small breast cancers may be missed and normal tissue may appear abnormal, leading to unnecessary callbacks.

Hologic – a world leader in digital mammography – has developed an advanced technology called breast tomosynthesis, which has been shown in clinical studies to be superior to digital mammography.<sup>2</sup>



# What is A Genius™ 3D MAMMOGRAPHY™ exam?

A Genius exam is an advanced technology in the fight against breast cancer that allows doctors to examine your breast tissue one layer at a time. The imaging system uses high-powered computing to convert digital breast images into a stack of very thin layers or “slices” for your radiologist to review. A good analogy for a Genius exam is thinking of the pages in a book. If you look down at the cover you cannot see all of the pages – but when you open it up, you can go through the entire book page-by-page to see everything between the covers. The Genius exam was designed with the same concept in mind.



The Selenia® Dimensions®  
system is designed to  
maximize patient comfort  
during the exam.

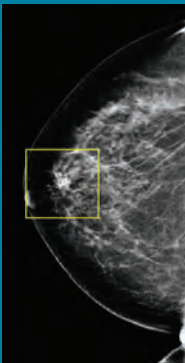
Very low X-ray energy is used during the screening examination so your radiation exposure is below the FDA guidelines.

Combining the Genius exam with digital mammography for screening has been proven to significantly reduce callbacks by up to 40%.<sup>2,3</sup> In addition, the Genius exam finds cancers earlier than 2D mammography alone, with a 41% increase in invasive cancer detection.<sup>2</sup>

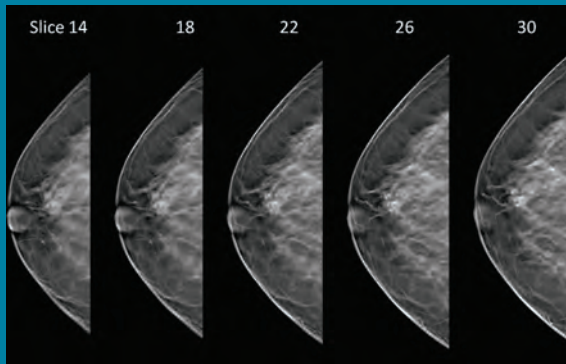
The Genius exam may also be used during a diagnostic mammogram if you happen to be called back for this type of exam.

**41% increase in  
invasive cancer  
detection.<sup>2</sup>**

## Images from a breast exam: 2D vs 3D™ slices



2D image



3D™ image slices

In a conventional 2D mammogram there appears to be an area of concern that the doctor may want to further investigate with another mammogram or a biopsy. Looking at the same breast tissue in slices from the Genius exam, the doctor can now see that the tissue is in fact normal breast tissue that was overlapping in the traditional mammogram creating the illusion of an abnormal area. In this scenario this patient likely avoided a callback for an additional mammogram thanks to the Genius exam.

# Early Detection is the Key

Because our primary goal has always been to deliver the highest quality care to our patients, we are adding breast tomosynthesis to our breast health services.

We have chosen to offer the Genius<sup>™</sup> 3D MAMMOGRAPHY<sup>™</sup> exam from Hologic because clinical studies show that it is a more accurate mammogram.<sup>2</sup>

Please call our office to schedule your Genius exam.

For additional information on breast health, call the American Cancer Society at 1.800.ACS.2345 or visit [www.cancer.org](http://www.cancer.org)

**genius**<sup>™</sup>  
3D MAMMOGRAPHY

To learn more about the  
Genius exam and locations,  
visit [MyGenius3D.com](http://MyGenius3D.com)

**REFERENCES:** **1.** Stages 0 & 1: what does it mean to have stage 1 breast cancer? National Breast Cancer Foundation, Inc. <http://www.nationalbreastcancer.org/breast-cancer-stage-0-and-stage-1>. Accessed March 31, 2015. **2.** Friedewald SM, Rafferty EA, Rose SL, et al. Breast cancer screening using tomosynthesis in combination with digital mammography. *JAMA*. 2014;311(24):2499-2507. **3.** Rose SL, Tidwell AL, Bujnoch LJ, et al. Implementation of breast tomosynthesis in a routine screening practice: an observational study. *AJR Am J Roentgenol*. 2013;200(6):1401-1408.

Genius<sup>™</sup> 3D MAMMOGRAPHY<sup>™</sup> exams are only available on the Hologic Selenia<sup>®</sup> Dimensions<sup>®</sup> system. Physicians should be consulted about the benefits and risks associated with mammography.

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Your breast is three-dimensional. Your mammogram should be, too.

The Genius™ 3D MAMMOGRAPHY™ exam allows doctors to examine your breast tissue layer by layer. So, instead of viewing all of the complexities of your breast tissue in a flat image, as with conventional 2D mammography, fine details are more visible and no longer hidden by the tissue above or below.

The Genius exam is the first and only clinically superior breast tomosynthesis exam as approved by the FDA.



## Hologic. The leader in mammography technology.

At Hologic, we know the realities of breast cancer as scientists, supporters, and survivors. The Genius exam is clinically proven to be superior to conventional 2D mammography, as shown in extensive research published by the Journal of American Medical Association (JAMA).

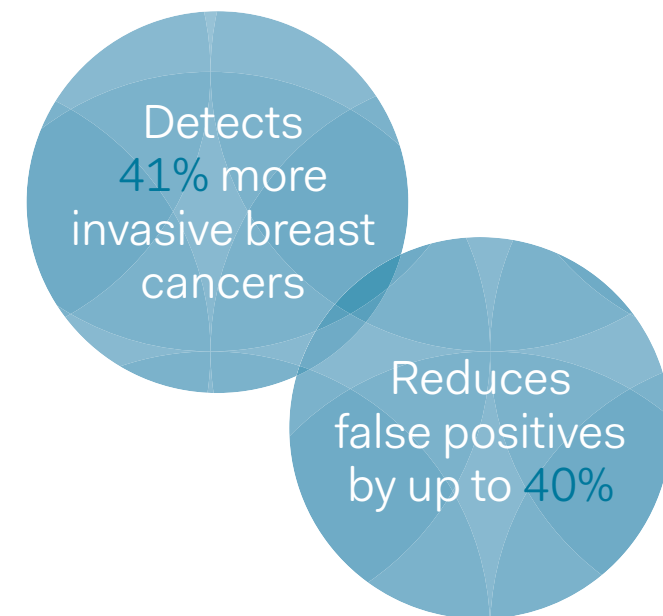
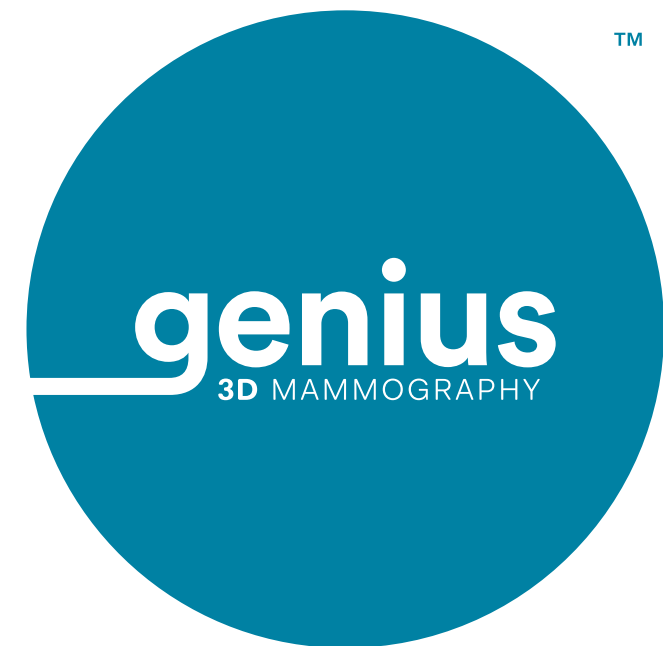
Please call our office to schedule your annual Genius 3D MAMMOGRAPHY™ exam

Learn more about the Genius exam at [mygenius3d.com/brochure](http://mygenius3d.com/brochure)



Data on file. \*Compared to 2D mammography alone.  
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The Genius™ 3D MAMMOGRAPHY™ exam is available on the Hologic Selenia® Dimensions® system. Please consult your physician for a complete list of benefits and risks associated with mammography.



A breakthrough in the early detection of breast cancer.

## What to expect during your exam.

A Genius™ 3D MAMMOGRAPHY™ exam is very similar to having a conventional 2D mammogram. Like a 2D mammogram, the technologist will position you, compress your breast, and take images from different angles.

There's no additional compression required with the Genius exam, and it only takes a few seconds longer for each view.

The technologist will view the images of your breasts at the computer workstation to ensure quality images have been captured for review. A radiologist will then examine the images and report results to either your physician or directly to you.

“My 3D MAMMOGRAPHY™ exam wasn't any more uncomfortable than the routine mammograms I've had since I was 35.”

**Sarah Downs**, Kennebunk, Maine

# More accuracy is key

The Genius 3D MAMMOGRAPHY™ exam is the first and only clinically superior breast tomosynthesis exam as approved by the FDA.

With early detection the five-year survival rate is almost 100%.

Detects 41% more invasive breast cancers

Reduces false positives by up to 40%

Doctors agree that early detection is the best defense against breast cancer. Successful treatment and survival rates for breast cancer patients are dramatically affected by early detection of breast cancers. If breast cancer is found early, the five-year survival rate is almost 100 percent. The Genius exam detects 41% more invasive cancers, while reducing false positives by up to 40%. It is simply a more accurate mammogram.\*





## Reasons to Get Screened



**1 IN 8 WOMEN**  
will develop breast cancer in her lifetime.<sup>5</sup>



**8 OUT OF 9 WOMEN**  
diagnosed with breast cancer have  
no family history.<sup>6</sup>



But, with early detection, the five-year  
survival rate is almost **100%.**<sup>7</sup>

**genius**<sup>™</sup>  
3D MAMMOGRAPHY

Breast cancer survivor and nine-time  
GRAMMY<sup>®</sup> award winner Sheryl Crow  
chooses the Genius<sup>™</sup> 3D<sup>™</sup> mammogram. ←

<sup>1</sup> McDonald, E.S., Oustimov, A., Weinstein, S.P., Synnestvedt, M.B., Schnell, M., and Conant, E.F. Effectiveness of Digital Breast Tomosynthesis Compared with Digital Mammography. JAMA Oncol. 2016;2(6):1-7. Doi:10.1001/jamooncol.2015.5536. <sup>2</sup> Friedewald SM, Rafferty EA, Rose SL, et al. Breast cancer screening using tomosynthesis in combination with digital mammography. JAMA. 2014;311(24):2499-2507. <sup>3</sup> Rose SL, Tidwell AL, Bujnoch LJ, et al. Implementation of breast tomosynthesis in a routine screening practice: an observational study. AJR Am J Roentgenol. 2013;200(6):1401-1408. <sup>4</sup> Rafferty EA, Niklason LT. FFDM vs FFDM with tomosynthesis for women with radiographically dense breasts: an enriched retrospective reader study. Paper presented at: Annual Radiological Society of North America Scientific Assembly and Annual Meeting; November 2011; Chicago, IL. <sup>5</sup> National Cancer Institute: <http://www.cancer.gov/types/breast/risk-fact-sheet> <sup>6</sup> US breast cancer statistics. Breastcancer.org. [http://www.breastcancer.org/symptoms/understand\\_bc/statistics](http://www.breastcancer.org/symptoms/understand_bc/statistics). Accessed March 27, 2015. <sup>7</sup> American Cancer Society: <http://www.cancer.org/cancer/breastcancer/detailedguide/breast-cancer-survival-by-stage>

"I opted for a Genius™  
3D™ mammogram  
because early detection  
is what saved my life."

– BREAST CANCER SURVIVOR  
AND NINE-TIME GRAMMY®  
AWARD WINNER **SHERYL CROW**



## Why Choose the Genius™ Exam?

The Genius™ 3D MAMMOGRAPHY™ exam is the only mammogram proven to detect breast cancers 15 months earlier,<sup>1</sup> reduce unnecessary callbacks by up to 40%,<sup>2,3</sup> and find 41% more invasive cancers than conventional mammography alone.<sup>2</sup>



## How it Works

The Genius™ 3D MAMMOGRAPHY™ exam allows doctors to examine your breast tissue layer by layer. So, instead of viewing all of the complexities of your breast tissue in a flat image, as with conventional 2D mammography, fine details are more visible and no longer hidden by the tissue above or below.

More than 100 clinical studies have shown that by using this technology, **doctors are able to screen for breast cancer with much greater accuracy**<sup>2</sup>—regardless of a woman's age or breast density.<sup>4</sup>



## What to Expect During Your Exam

The process of a Genius™ 3D MAMMOGRAPHY™ exam is the same as your conventional 2D exam. The technologist will position you, compress your breast, and take images from different angles. There's no additional compression required with the Genius™ 3D MAMMOGRAPHY™ exam, and **only requires a few extra seconds to receive a more accurate reading of the breast tissue.**

The technologist will view the images of your breasts at the computer workstation to ensure quality images have been captured for review. A radiologist will then examine the images and report results to either your physician or directly to you.

Early detection saves lives. Ask about getting the Genius™ 3D MAMMOGRAPHY™ exam today!



“I opted for a Genius™  
3D™ mammogram because early  
detection is what saved my life.”

– **SHERYL CROW**  
Breast Cancer Survivor and  
Nine-Time GRAMMY® Award Winner

## The Genius™ 3D MAMMOGRAPHY™ Exam FREQUENTLY ASKED QUESTIONS

### Why should I get a Genius™ 3D MAMMOGRAPHY™ exam?

The Genius™ 3D MAMMOGRAPHY™ exam is a more accurate procedure in the fight against breast cancer. Greater accuracy means better breast cancer detection and a reduced chance of additional screenings. The Genius exam is the only mammogram proven to:



Detect breast cancers **15 months** earlier<sup>1</sup>



Reduce unnecessary callbacks by up to **40%**<sup>2,3</sup>



Find **41%** more invasive cancers than conventional mammography alone<sup>2</sup>

### What should I expect during my Genius™ 3D MAMMOGRAPHY™ exam?

The process of a Genius™ 3D MAMMOGRAPHY™ exam is the same as a conventional 2D exam, only the results are more accurate.<sup>2</sup> The technologist will position you, compress your breast, and take images from different angles. There's no additional compression required with the Genius exam, and it only takes a few extra seconds.

### Who can have a Genius™ 3D MAMMOGRAPHY™ exam?

Genius exams are a more accurate exam for women of all ages, with both dense and non-dense breasts.<sup>7</sup>

### What about radiation?

With the latest low dose software, a Genius™ 3D MAMMOGRAPHY™ exam delivers a low dose of radiation, well within FDA guidelines, that is comparable to a 2D mammogram.<sup>4,5,6</sup>

### How does the Genius™ 3D MAMMOGRAPHY™ exam work?

The Genius™ 3D MAMMOGRAPHY™ exam allows doctors to examine your breast tissue layer by layer. So, instead of viewing all of the complexities of your breast tissue in a flat image, as with conventional 2D mammography, fine details are more visible and no longer hidden by the tissue above or below.

A good analogy for the Genius exam is like thinking of the pages in a book. If you look down at the cover you cannot see all of the pages—but when you open it up, you can go through the entire book page by page to see everything between the covers.



# The Genius™ 3D MAMMOGRAPHY™ Exam

## Reasons to Get Screened



### EARLIER DETECTION

Only mammogram proven to detect breast cancer 15 months earlier<sup>1</sup>



### GREATER PEACE OF MIND

Reduces unnecessary callbacks by up to 40%<sup>2,3</sup>



### MORE ACCURATE

Finds 41% more invasive cancers than conventional mammograms alone<sup>2</sup>

## Key Facts



**1 IN 8 WOMEN**  
will develop breast cancer in her lifetime<sup>8</sup>



**8 OUT OF 9 WOMEN**  
diagnosed with breast cancer have no family history<sup>8</sup>



But, with early detection, the five-year survival rate is almost **100%**<sup>9</sup>

**Over 10 million women have benefited from a Genius™ exam. Ask about getting the Genius™ 3D MAMMOGRAPHY™ exam today!**

<sup>1</sup>McDonald, E.S., Oustimov, A., Weinstein, S.P., Synnestvedt, M.B., Schnall, M., and Conant, E.F. Effectiveness of Digital Breast Tomosynthesis Compared with Digital Mammography. JAMA Oncol. 2016;2(6):1-7. Doi:10.1001/jam onc ol. 2015.5536. <sup>2</sup>Friedewald SM, Rafferty EA, Rose SL, et al. Breast cancer screening using tomosynthesis in combination with digital mammography. JAMA. 2014;311(24):2499-2507. <sup>3</sup>Rose SL, Tidwell AL, Bujnoch LJ, et al. Implementation of breast tomosynthesis in a routine screening practice: an observational study. AJR Am J Roentgenol. 2013;200(6):1401-1408. <sup>4</sup>Skaane P, Bandos A, Eben E, et al. Two-view digital breast tomosynthesis screening with synthetically reconstructed projection images: comparison with digital breast tomosynthesis with full-field digital mammographic images. Radiology. 2014;271(3):655-663. <sup>5</sup>Zuley ML, Guo B, Catullo VJ, et al. Comparison of two-dimensional synthesized mammograms versus original digital mammograms alone and in combination with tomosynthesis images. Radiology. 2014;271(3):664-671. <sup>6</sup>FDA PMA submission P080003/S001 physician labeling. <sup>7</sup>Rafferty EA, Niklason LT. FFDM vs FFDM with tomosynthesis for women with radiographically dense breasts: an enriched retrospective reader study. Paper presented at: Annual Radiological Society of North America Scientific Assembly and Annual Meeting; November 2011; Chicago, IL. <sup>8</sup>US breast cancer statistics. Breastcancer.org. [http://www.breastcancer.org/symptoms/understand\\_bc/statistics](http://www.breastcancer.org/symptoms/understand_bc/statistics). Accessed March 27, 2015. <sup>9</sup><http://www.cancer.org/cancer/breastcancer/detailedguide/breast-cancer-survival-by-stage>