NEW
ADVANCED 3D ULTRASOUND TECHNOLOGY

Next Gen Imaging Center
Advanced Diagnostic Imaging

Breast Cancer     Cardiovascular     Pre-Natal
Musculoskeletal   Digital Pulse Wave Analysis (DPA)

3D Ultrasound
Breast Cancer Screening
Reference Guide

• Automated 3D Breast Ultrasound
  o Reduces & Eliminates Scanning Errors
  o Expanded Diagnostic Coverage Area
  o Safe (No Radiation), Accurate & Comprehensive

• Higher Diagnostic Sensitivity than Mammography for Invasive Cancers

• The Most Accurate Breast Cancer Screening Option for women with Dense Beasts

• High Patient Satisfaction Ratings

Next Gen Breast Imaging
Advanced 3-D Ultrasound Diagnostic Technology

1942 E Dupont Road ♦ Fort Wayne, Indiana 46825
Next Gen
3D Ultrasound Breast Imaging

Offers Your Patients Big Advantages

Fast, Convenient & Comfortable Procedure
- Near Parkview North and Dupont Hospital
- **Fast**... 20 Minute Appointments Start to Finish.
- **Comfortable**, Uses No Breast Compression

Accurate, Comprehensive Digital Imaging
- Fully Automated = No Scanning Errors
- Chest Wall to Nipple Coverage (800, 2mm Image Slices)
- Safe for **All Ages, Uses No Radiation**

Perfect Cancer Screening Option
- Dense Breasts
- Pregnant or Breastfeeding
- Symptomatic Women Under Age 35
- Cancer Survivors
- Breast Implants

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Next Gen Imaging Center

Offers a variety of ultrasound and diagnostic services in Fort Wayne. Our ultrasound and other diagnostic services include:

– Automated 3D Breast – Pre Natal –
  – Cardiovascular – Thoracic – Musculoskeletal –
  - Digital Pulse Wave Analysis (DPA) -

3D Ultrasound Breast Imaging

Ultrasounds of the breast have been the standard follow-up for women who’s mammogram was inconclusive or density prevented an accurate reading. Now you may consider starting with an ultrasound. Next Gen’s 3D Ultrasound is a highly advanced form of diagnostic imaging that offers more comprehensive breast cancer screening for most women... without the discomfort and radiation exposure of mammography.

Today Automated 3D Breast Imaging has become the standard for breast cancer screening in New Zealand, Australia, the EU and other parts of the world, where it has been in wide use for almost a decade. Physicians in New Zealand and Australia now identify 3D Ultrasound as the PREFERRED breast cancer screening technology.

Automated 3D breast Imaging was given FDA approval in November of 2012. It is now rapidly becoming an important screening tool here in the US. Long term clinical studies now underway suggest 3D ultrasound technology offers several significant advantages over mammography and may become the primary tool for breast cancer screening in the not to distant future. Next Gen Breast Imaging is the first to bring this technology to Fort Wayne. In fact we are the first to offer 3D Ultrasound Breast Imaging in the state of Indiana.

Dr. M. Ahmad, Medical Director
Clinical Considerations

Cancer Screening in Women with Dense Breasts

Mammography’s Dangerous Limitations
Women with dense breast tissue have 4X to 6X greater risk of death from breast cancer than women with low density. Late or missed detection at an early stage may be the most important factor for the significantly higher mortality rate among women with dense breasts. Mammography misses more than 60% of abnormal breast tissues.

Diagnostic Sensitivity
Mammography’s sensitivity detecting cancer in its earliest stage has risen to more than 85% in some women... *The Exception is the 40% of women who have dense breasts*

<table>
<thead>
<tr>
<th>Breast Density</th>
<th>Diagnostic Sensitivity</th>
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<tbody>
<tr>
<td></td>
<td>Mammography</td>
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<tr>
<td>Normal (40% of women)</td>
<td>85%</td>
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<tr>
<td>Dense (40% of women)</td>
<td>34%</td>
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Breast Density Notification Law
Indiana is among the 24 states that require physicians to notify women who have undergone mammography the density of their breasts. It is recommended that appropriate diagnostic follow up information be provided.

The intent of the law is to give women the necessary information to decide if further action is necessary. Dense breast tissue makes it difficult to identify cancer on a mammogram and has been associated with an increased risk of breast cancer, according to the *American College of Radiology (ACR)*.
Expanded Diagnostic Coverage

To lower mortality risk, women with a family or personal history of breast cancer typically need a comprehensive screening for breast cancer. It is important that it includes the chest wall and surrounding tissue. Mammography does not image the chest wall or surrounding tissue. Next Gen’s 3D Ultrasound provides wide area coverage... including the chest wall. And when requested we provide accurate imaging to include the rib cage and surrounding tissue. If indicated Next Gen can also provide detailed thoracic images as well as pulmonary and cardiovascular ultrasounds in addition to 3D breast ultrasounds.

Improved Diagnostic Safety

No Radiation

When indicated, young women, pregnant, breastfeeding or cancer survivors (who have already received high doses of radiation) should avoid radiation exposure.

A significant advantage of Next Gen 3D ultrasound in breast cancer screening is no radiation is used in ultrasound diagnostic imaging.

No Compression Discomfort or Injury

Most women who have endured a mammogram first complaint is that it is painful! Bruising and lingering discomfort are avoided with Automated 3D Breast Ultrasound. No compression is needed for a complete and comprehensive scan. (The scan is conducted while the patient lays in a prone position on their stomach for 60 seconds)
Case Study

Mammography – Normal with focal area of Density (See A, below left image)

Manual Ultrasound – Indeterminate (Not Shown)

3D US Scan – Abnormal area with posterior shadowing at 3:00 indicative of cancer (See B, below right image)

Pathology – Ductal carcinoma in-situ grade 3 of 3.

“The 3D US Scan revealed an abnormal anatomical feature that was not actionable based on mammography or standard ultrasound images. The patient was referred to MRI resulting in a biopsy and an earlier diagnosis of cancer.”

Mammography Does Not Provide Clear Diagnostic Imagery of Dense Breasts, or Inside Cysts & Tumors
Automated 3D Ultrasound Breast Imaging Summary

Next Gen provides state of the art whole breast tomographic data sets that are presented in 2D, 3D, and MPR views for enhanced characterization of abnormal anatomical features. Due to the tomographic nature of acquired data sets, our HITACHI SOFIA™ technology is uniquely capable as an adjunct to mammography or as a primary imaging tool for high risk or dense breast patients, for identification of bilateral and multi-focal disease states, diagnosis of palpable breast masses, evaluation of breast implants, and whole breast imaging for patients where mammography is contraindicated.

1. High Resolution, 3D Digital Ultrasound Imaging
2. More Comprehensive than Mammography alone. Scan includes Chest Wall to Nipple Coverage
3. Process builds an 800 layer, actionable, 3D image of the entire breast (and surrounding tissue when indicated)
4. Fully automated process assures No Scanning Errors
5. 3D Ultrasound Imaging provides the radiologist with complete image rotation, magnification, colorization and pin point accuracy while navigating the breast tissue.
6. No Radiation Exposure, safe for young women, during pregnancy or women who want to limit radiation exposure.
7. Ideal for Patients with:
   a) Dense Breasts
   b) Cancer Survivors
   c) Breast Implants
   d) Follow-up to inconclusive Mammograms

Dense Breast Case Study
Sees What Mammography Cannot

Both patients primary complaint is a lump above the nipple. Mammogram in both cases provided no image clarity of palpable breast lumps. Follow-up with 3D Ultrasound provided an image of problematic tissues with clear definition of wall and content.
Next Gen provides comprehensive cardio vascular sonographic images for enhanced diagnosis of abnormal anatomical features of the heart, lungs and vascular system. Our system provides exceptional high-resolution ultrasound imaging.

**Echocardiogram**
- Four chambers of the heart
- Heart valves and the walls of the heart
- Blood vessels entering and leaving the heart
- Pericardium—the sac that surrounds the heart

**Echocardiogram and TEE Features**
- Advanced Doppler
- New State of the art Hitachi Aloka Imaging Technology
- We use Hitachi’s advanced HD Analytics™ - A ground breaking collection of cardiovascular analytic tools
  - LV eFlow
  - Dual Gate Doppler
  - 2D TT
  - Vector Flow Mapping
  - Auto EF
  - E Tracking
  - Wave Intensity

**Vascular Ultrasound to Evaluate Risk**
Non-Invasive Testing for Diagnosing
- Stroke
- PAD & Vascular Disease
- Arterial & Venous Mapping
Digital Pulse Wave Analysis (DPA)

DPA is a diagnostic tool that helps reduce the incidence of cardiovascular disease in patient populations through early detection. Our report includes:

- The stiffness of the arteries which is displayed as a percentage in each of the 7 categories.
- The presence or absence of arrhythmia.
- The stress score which is a percentage assigned based on the individuals ability to handle stress and the amount of physical and mental stress measured.
- The balance between the sympathetic and parasympathetic nervous system.
- The ejection of blood from the left ventricle during systole that initiates an arterial pressure wave that travels towards the periphery.
- How as the heart beats, pressure and flow pulse waves travel away from the heart and are reflected back toward the heart from the arterial system.
- The aging and disease states associated with an increase in cardiovascular events alter the physical characteristics of blood vessel walls and impair the pulsatile function of the arteries which can provides important prognostic and therapeutic information beyond that provided by traditional blood pressure measurements.