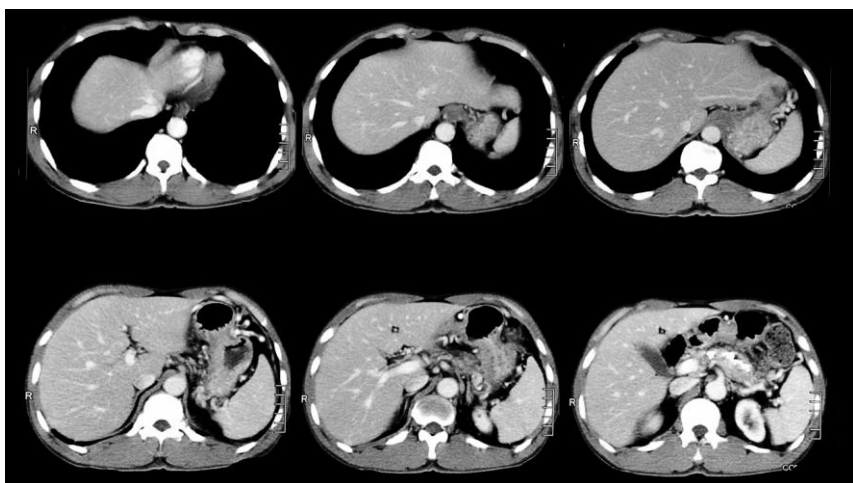
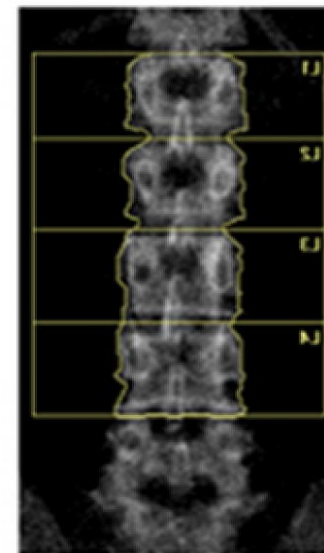
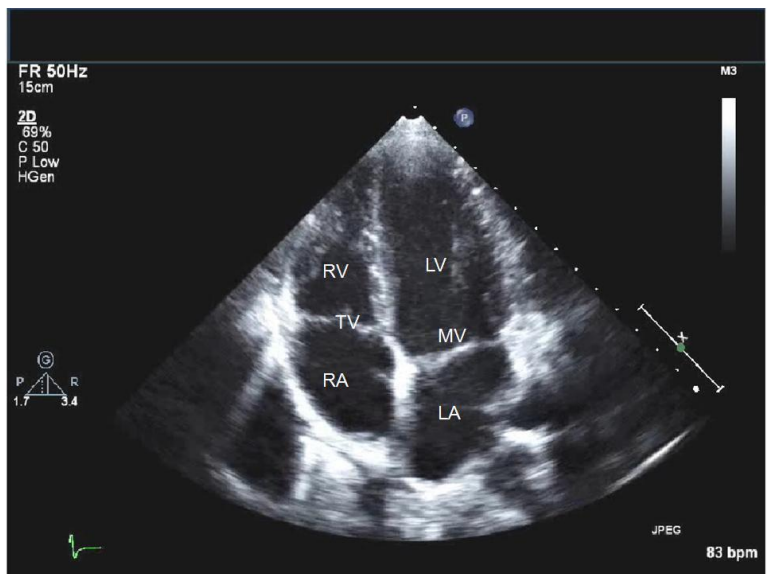
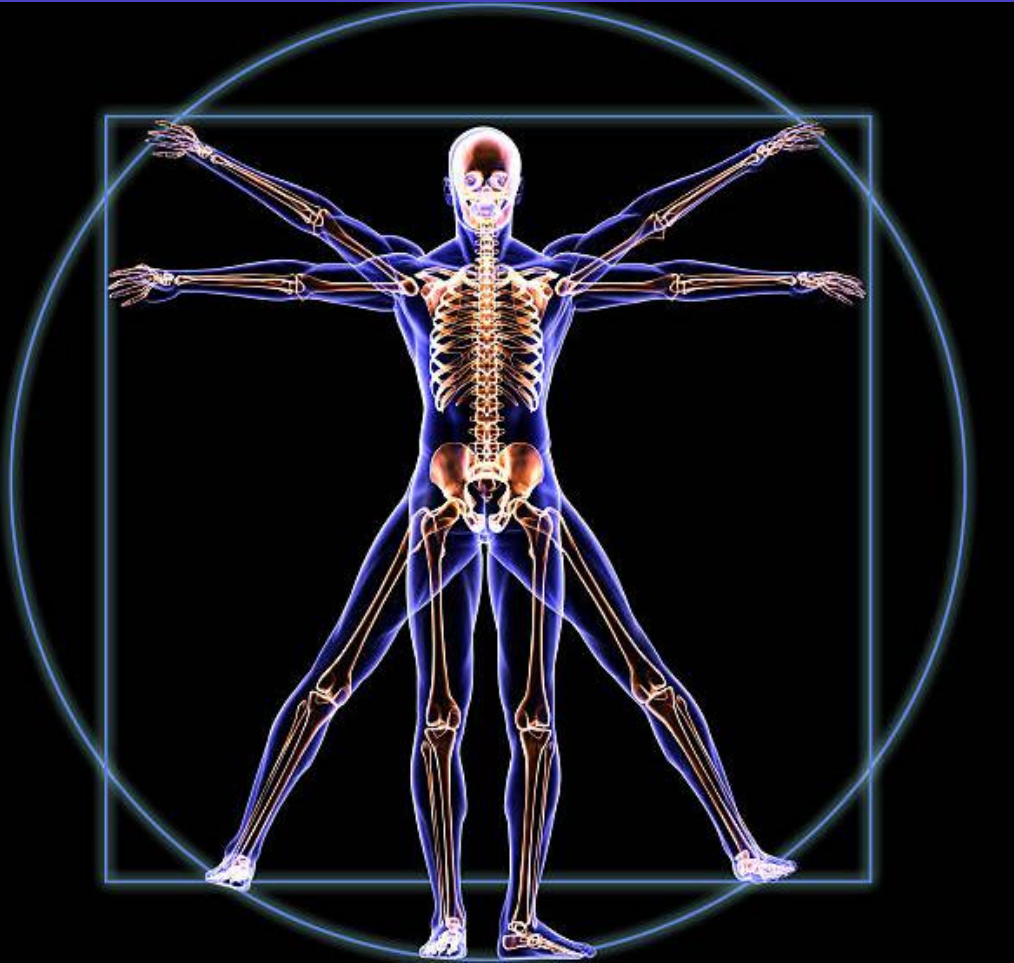


# Imaging Careers



# Introduction



Imaging Technologists are Health Care professionals who specialize in the imaging of human anatomy for diagnosis and treatment of injury and disease. Radiographic image processing and evaluation, radiation protection, and basic patient assessment are within the scope of practice of a radiographer.

# Radiologic Technology

The A.S. degree is designed for students who are looking for immediate entry into a career upon graduation. Most discipline courses directly relate to the identified career area. The remaining courses are made up of general education courses.

After completion of the program, graduates will be eligible to sit for the American Registry of Radiologic Technologists (ARRT) Board Exam to become Registered Radiographers (RT).

Areas for further career advancement include:

- Bone Density
- Mammography
- Computed Tomography (CT Scan)
- Magnetic Resonance Imaging (MRI)



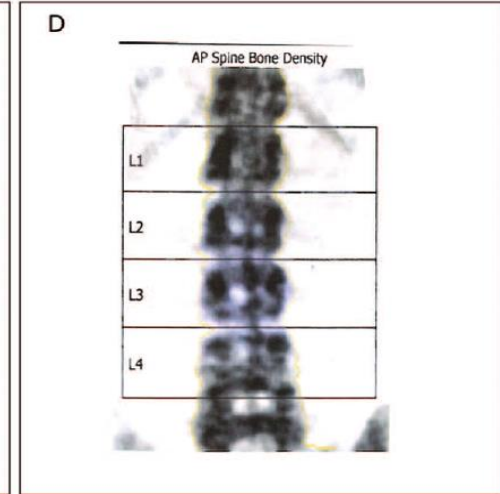
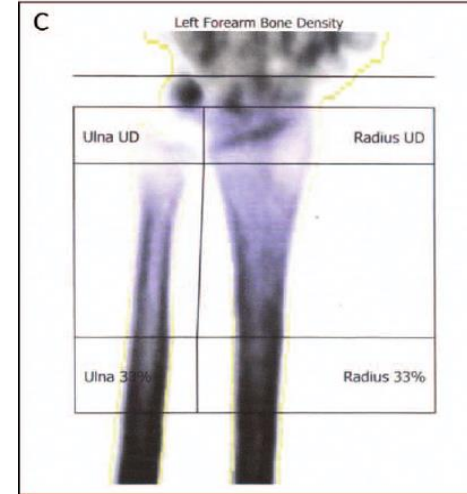
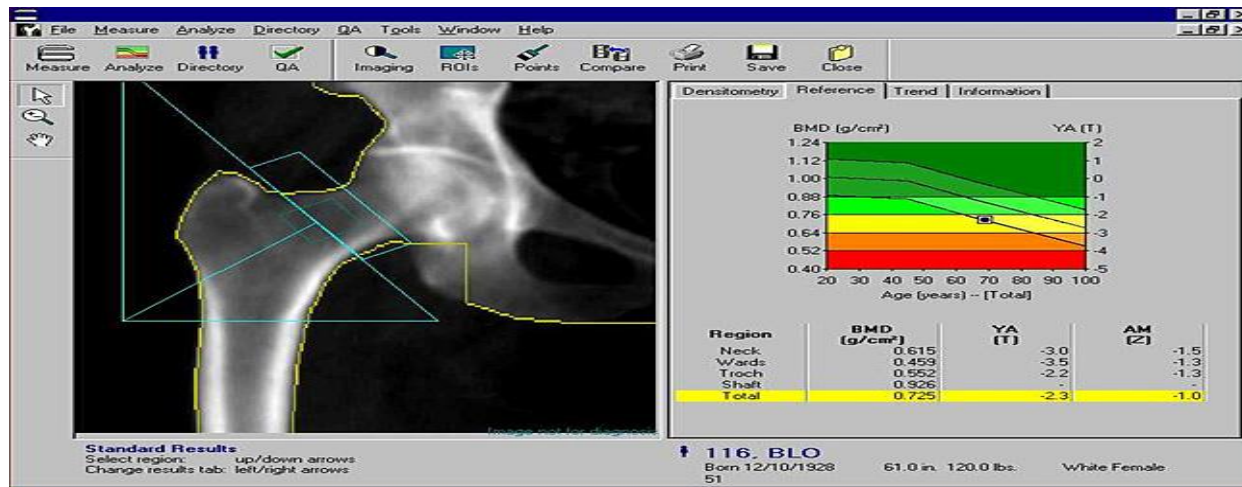
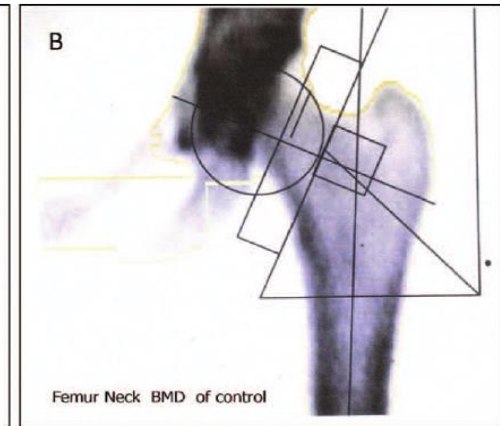
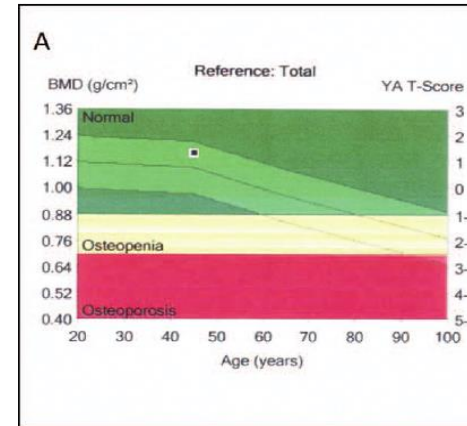


# Bone Density

A bone density scan, also known as a DEXA scan, is a type of low-dose x-ray test that measures calcium and other minerals in your bones. The measurement helps show the strength and thickness (known as bone density or mass) of your bones.

A bone density scan is used to:

- Diagnose osteopenia (low bone mass)
- Diagnose osteoporosis
- Predict risk of future fractures
- See if treatment for osteoporosis is working



# Mammography

Mammography is the process of using low-energy X-rays to examine the human breast for diagnosis and screening.

The goal of mammography is the early detection of breast cancer, typically through detection of characteristic masses or microcalcifications.

During a mammogram, your breasts are compressed between two firm surfaces to spread out the breast tissue. Then an X-ray captures black-and-white images that are displayed on a computer screen and examined for signs of cancer.

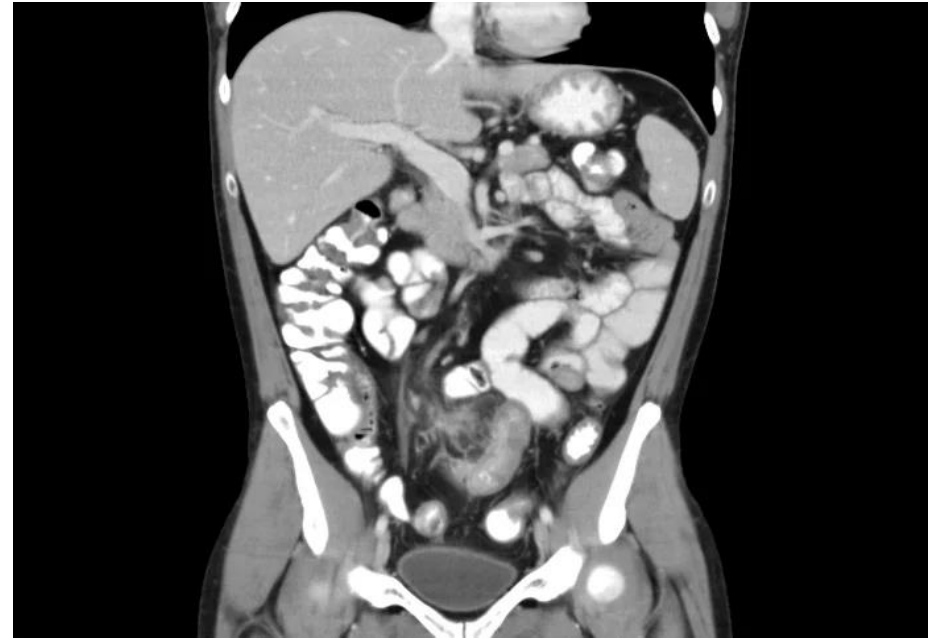


© DenseBreast-info.org and Dr. Wendie Berg

# Computed Tomography CT Scan

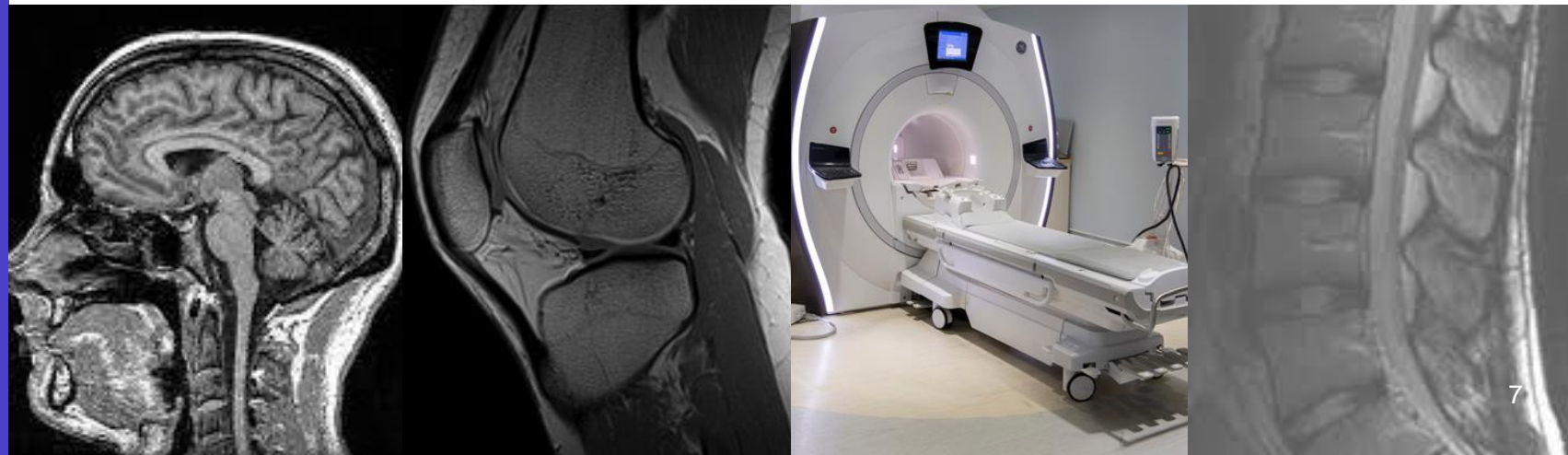
Medical professionals use computed tomography, also known as CT scan, to examine structures inside your body. A CT scan uses X-rays and computers to produce images of a cross-section of your body.

It takes pictures that show very thin “slices” of your bones, muscles, organs and blood vessels so that healthcare providers can see your body in detail.



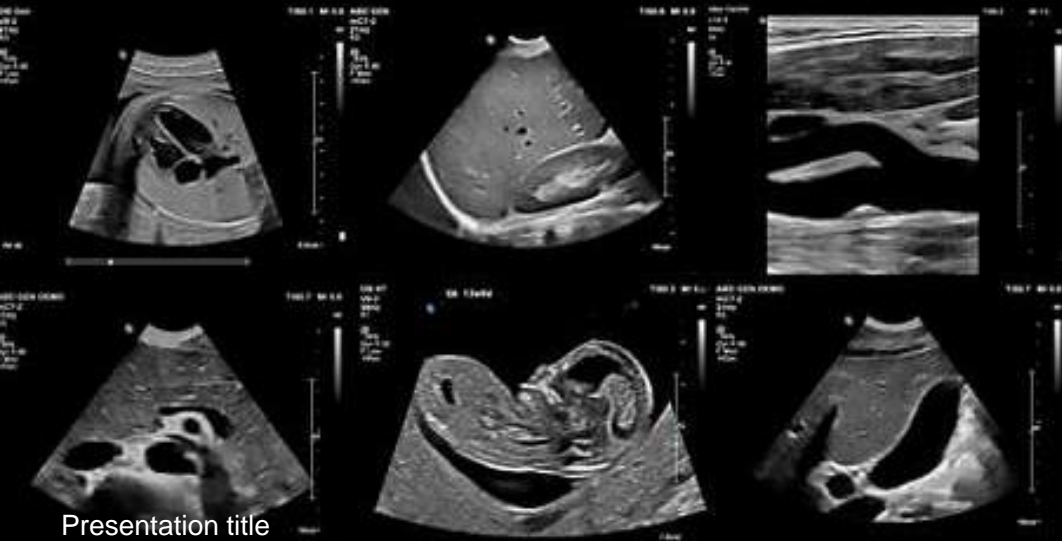
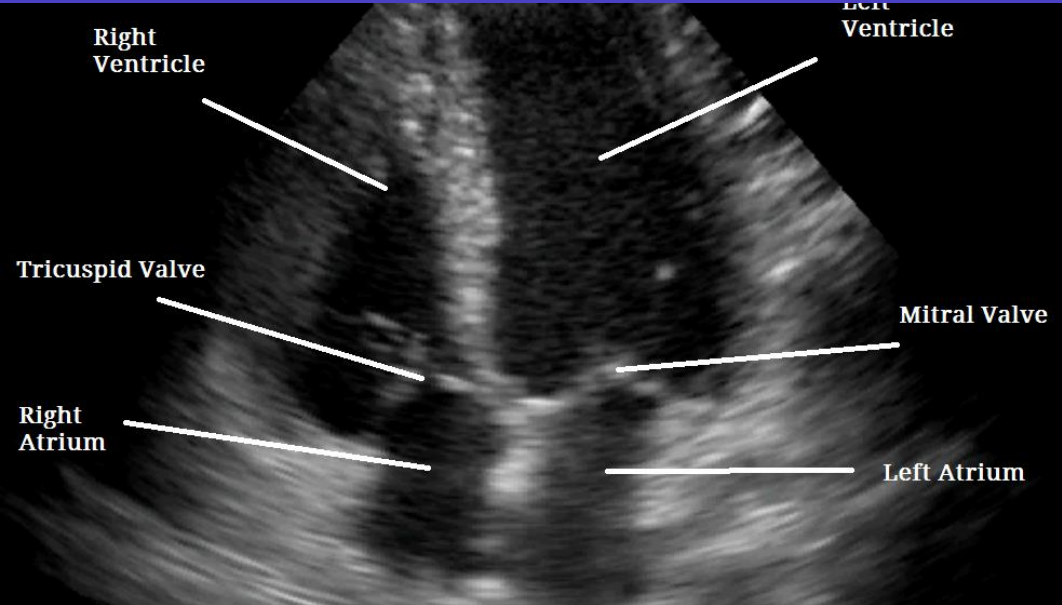
# Magnetic Resonance Imaging MRI

- Magnetic resonance imaging (MRI) is a medical imaging technique that uses a magnetic field and computer-generated radio waves to create detailed images of the organs and tissues in your body.
- Most MRI machines are large, tube-shaped magnets. When you lie inside an MRI machine, the magnetic field temporarily realigns water molecules in your body. Radio waves cause these aligned atoms to produce faint signals, which are used to create cross-sectional MRI images — like slices in a loaf of bread.
- The MRI machine can also produce 3D images that can be viewed from different angles.





# Diagnostic Medical Sonography



- Diagnostic ultrasound, also called sonography or diagnostic medical sonography, is an imaging method that uses sound waves to produce images of structures within your body. The images can provide valuable information for diagnosing and directing treatment for a variety of diseases and conditions.
- Most ultrasound examinations are done using an ultrasound device outside your body, though some involve placing a small device inside your body.
- Ultrasound is used for many reasons, including to:
  - View the uterus and ovaries during pregnancy
  - Check the baby's health
  - Diagnose gallbladder disease
  - Evaluate blood flow and the human heart
  - Guide a needle for biopsy or tumor treatment
  - Examine a breast lump
  - Check the thyroid gland



## **Miami Dade College ( A.S Degree)**

Radiologic Technology Program  
Diagnostic Medical Sonography Program  
Nuclear Medicine Program

\*\*\* Please verify that all programs are accredited through JCERT (RT) and JRCDMS (Ultrasound)

## **Florida National University ( A.S Degree)**

Radiologic Technology Program  
Diagnostic Medical Sonography Program

## **Broward College ( A.S Degree)**

Radiologic Technology Program  
Diagnostic Medical Sonography Program  
Nuclear Medicine Program

## **Nova Southeastern University ( B.S Degree)**

Diagnostic Medical Sonography Program

## **Keiser University ( A.S Degree)**

Diagnostic Medical Sonography Program

# Imaging Schools



**Thank you**

