



**Dr. John Restivo, MD**



## Radiology Associates

"Here and Now"

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**Q:** *What is the difference between CT and MRI?*

**A:** Computed tomography (CT) imaging, also known as "CAT scanning" (Computerized Axial Tomography) provides a form of imaging which utilizes advanced technology and x-rays to generate an image. CT imaging systems produce cross-sectional images or "slices" of anatomy, like the slices of an orange. A patient lies on a table which then moves him or her through a circular opening in the CT imaging system where the images are taken. Using advanced computerized technology, the CT equipment translates the images into "slices" of the patient's body. CT Scans are good for imaging all parts of the body. CT is also a very fast study. With advanced CT Scanners, we are able to scan a patient usually in less than a few minutes.

MRI stands for Magnetic Resonance Imaging. MRI uses radio frequency waves and a magnetic field to create an image. MRI does not utilize radiation. Instead, radio frequency waves are directed at the protons which are found in the body's hydrogen atoms. Once placed in the magnetic field of the MRI, the protons emit radio signals that are processed to form an image. For most MRI procedures, the patient lies on a table which slides into a cylindrical scanner. MRIs take about 30 minutes. MRIs allow radiologists to evaluate many different types of tissues including ligament and muscles from many different angles.