

Imaging Insights

With the advent of actively shielded MRI magnets, it is now practical to site a 3.0T scanner in a clinical outpatient MR suite. Technology that was previously only used in research institutions is now available in your community. Advanced Radiology Healthcare, LLC now has a GE Signa EXCITE 3.0T MRI available for use with your patients.

Why does Tesla matter?

The stronger the MRI magnet, the better the images. So, the higher the Tesla, the more detailed the clinical information. The greatest advantage of a stronger magnetic field is an improved signal to noise ratio (SNR) and improved spatial resolution. Images are sharper and therefore the anatomy and pathology are more optimally displayed. The enhanced visibility of tiny structures is both remarkable and exciting. An additional benefit is faster image acquisition and consequently shorter exam times for the patient.

Musculo-Skeletal Imaging

3.0T MRI provides for better visualization of cartilage,

ligaments, and osseous abnormalities. Software can be applied to minimize metallic orthopedic hardware artifacts.

Magnetic Resonance Angiography

State of the art MR angiography on traditional 1.5T units can be classified as good. The increased power and resolution at 3.0T provides for spectacular MRA studies. 3-dimensional MRA studies give clinicians anatomic detail and orientation that are unsurpassed. Vascular studies of the body and brain on the 3.0T may well supplant riskier, more invasive catheter-based angiograms.

Neurological Imaging

Expectations of neurological imaging at 3.0T include better display of the internal structures of the brain and sharper contrast in white and gray matter. There is also increased conspicuity of areas of abnormal contrast enhancement as well as more detailed images of the spinal cord and nerve roots.

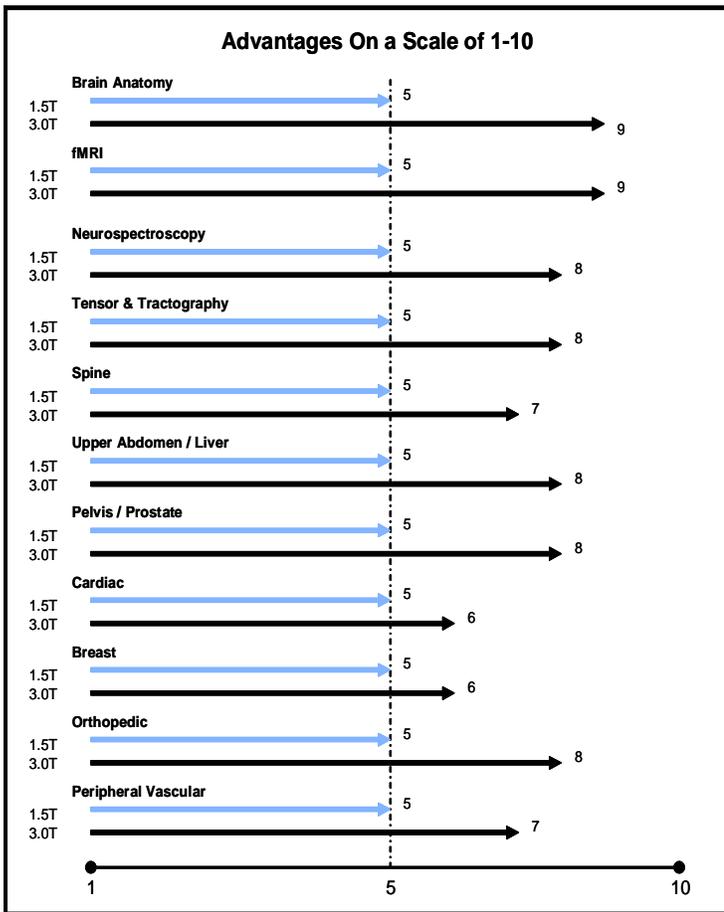


3.0T MRI doesn't just produce better pictures than the traditional units. The properties inherent in the 3.0T system allow us to gain functional knowledge of the brain. Two applications in this regard are functional MRI (fMRI) and MR spectroscopy. With higher SNR, increased magnetic susceptibility and greater contrast sensitivity, the 3.0T MR unit excels at fMRI.

Safety Considerations

If your patients have had major surgery or have implanted devices, they will be carefully screened prior to their MRI.

Technology Comparison & 3.0T Images



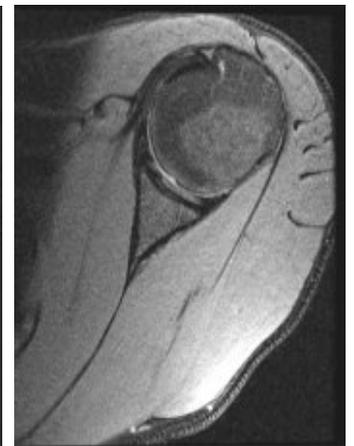
3.0T Brain



3.0T Ankle



3.0T Thoracic Spine



3.0T Shoulder

Who is Medical Diagnostic Imaging Group (MDIG)?

Founded in Phoenix, Arizona in 1987, Medical Diagnostic Imaging Group is a private radiology group practice that consists of a full spectrum of subspecialty trained, board certified Radiologists. Fellowship training includes:

- v Diagnostic Radiology
- v Neuro-Radiology
- v Interventional Radiology
- v Cross Sectional Body Imaging
- v Nuclear Medicine
- v Musculoskeletal
- v Magnetic Resonance Imaging
- v Computed Tomography; and
- v Ultrasound



With practice locations in Casa Grande, Phoenix, and Yuma Arizona, MDIG maintains a physical presence in multiple hospitals and imaging centers as well as a day and nighttime teleradiology service. State of the art IT systems allow almost instantaneous access to subspecialty services and personnel from any location to our Radiologists. For additional information please contact our corporate office at (602) 246-2584 and ask for our Director of Business Development.

