MRI is the best diagnostic choice

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Although there are various radiologic procedures that can be most appropriate depending on specific clinical conditions, a good rule of thumb is that MRI can evaluate both soft tissues and bones. Therefore, in the workers compensation arena, where the primary objective is to get the patient the proper treatment and get them back to work as soon as possible, MRI is the best diagnostic choice.

Ultrasound imaging (also known as ultrasound scanning, echography, sonography or US) consists of exposing a part of the body to high-frequency sound waves to produce pictures of structures (muscles, tendons, ligaments, joints and soft tissue) inside the body.

Both Ultrasound and MRI, along with various other modalities, such as X-ray, Computed Tomography (CT), Positron Emission Tomography (PET) and other nuclear medicine scans can provide valuable diagnostic information to physicians.

Ultrasound images can be used to help diagnose injuries in tendons, such as tears of the rotator cuff in the shoulder or Achilles tendon in the ankle. Ultrasound can also be used to help diagnose abnormalities of the muscles, such as tears and soft tissue masses; it can also detect bleeding or other fluid collections within the muscles, bursae and joints.

However, Ultrasound has difficulty penetrating bone

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and thus can only see the outer surfaces of bony structures, and therefore, other imaging modalities such as MRI are typically used for visualizing the internal structure of bones or certain joints.

MRI is normally the best choice for examining the major joints of the body, the spine for disc disease and soft tissues of the extremities including muscles and bones. MRI is also usually performed to diagnose or evaluate degenerative joint disorders such as arthritis and meniscus tears; fractures; joint abnormalities due to trauma (i.e. tendon tears); spinal disc abnormalities (i.e. a herniated disc); integrity of the spinal cord after trauma; sport or work-related disorders caused by repeated strain, vibration or forceful impact; infections (i.e. osteomyelitis, infection of the bone); tumors involving the bones and joints; and pain, swelling or fluid in the tissues both in and around the joints and bones (i.e. edema, effusion).

The American College of Radiology (ACR) publishes a series of guidelines (ACR Appropriateness Criteria®) that rates the level of appropriateness for various radiologic procedures for specific clinical conditions. These guidelines can also be found at the National Guidelines Clearinghouse at www.guideline.gov by entering “ACR Criteria” in the search window. Select the specific clinical condition and you will be able to find the appropriate radiology test(s).

In workers’ compensation, the primary objective is to get the patient the proper treatment and get them back to work as soon as possible. In conclusion, **MRI is the best diagnostic choice for both soft tissues and bones.**