

Evidence Discussion (MS-11)

Muscle/Tendon Unit Injuries/Diseases

Initial evaluation of a patient with a suspected tendon injury should include an accurate history, careful examination and plain radiographs. [1,2] After x-ray, additional imaging may include MRI or ultrasound, both of which can demonstrate changes to tendons as a result of disease and/or injury. Both MRI and ultrasound findings have been validated against surgical and histological findings. [3] Complete and partial tendon tears can be easily visualized with these modalities [3,4] and results of advanced imaging can play a role in treatment planning.

There is lack of evidence to support surgical repair of muscle belly strains/tears. [5-7] As these injuries are treated non-operatively, advanced imaging will typically not change the treatment plan and is not required.

Acute compartment syndrome is diagnosed based on clinical findings and the measurement of compartmental pressures. Advanced imaging does not play a role in the diagnosis or management of this condition [8,9] and may delay the time to surgical treatment.

For chronic exertional compartment syndrome, dynamic intracompartmental pressure measurements are considered the gold standard for diagnosis. MRI has lacked validity as a non-invasive diagnostic tool for this condition. [10] However, MRI may be useful to rule out other possible sources of pain if plain x-rays fail to find a source.

References

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