

# **MR imaging of ankle tendons**

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## **Introduction**

The ankle and foot are both anatomically complex regions with a broad spectrum of pathologies. Magnetic resonance imaging (MRI) of the ankle and foot provides detailed, high-resolution imaging of the bones, ligaments, tendons and surrounding soft tissue structures, and therefore plays a major role in the diagnostic assessment of foot and ankle pain. The information from the MRI scan is often crucial to the managing physician in determining subsequent patient management, as well as return to play decisions in athletes.

Tendon abnormalities are common in the ankle and foot. In the ankle in particular, the tendons are relatively superficial and lie immediately adjacent to the underlying osseous structures, making them vulnerable to irritation or direct trauma. Four main tendon groups are seen at the level of the ankle: the extensor tendons are anterior, the flexor tendons are medial, the peroneal tendons are lateral, and the Achilles and plantaris tendons are posterior. Tendon pathologies include tendinosis, partial or complete tendon tears, tendon subluxation or dislocation, tenosynovitis, peritendinitis and tendon entrapment. A number of cases illustrating examples of these various pathologies in the four main tendon groups will be presented in an interactive format that will hopefully encourage audience participation.

## **Learning Objectives**

- 1.** Review pertinent anatomy of the ankle and foot.
- 2.** Recognize common tendon pathology in the ankle and foot, as well as some of the associated long term sequelae.
- 3.** Understand the value of MRI in the evaluation of associated soft tissue and osseous abnormalities.
- 4.** Identify normal variants that may either mimic or cause pathology.