

Achilles Rupture



The Achilles tendon is one of the strongest tendons in the body, yet it is most commonly affected by spontaneous ruptures. Ruptures occur primarily in patients who participate in activities involving explosive acceleration and maximal effort. Untreated Achilles tendon ruptures hinder an active lifestyle and additionally have a detrimental effect on activities of daily living. Increased functional length of the tendon in untreated patients results in significant weakness and altered gait and is the underlying reason why operative fixation is considered for this pathology.

Most patients will feel a sudden sense of pain and loss of function of the leg when the tendon ruptures. Many patients describe a feeling as if they were hit in the back of the leg and heard a loud pop. This injury does not occur from direct contact, even though that is what many patients feel may have happened at the time of the injury. The tendon ruptures because it does not have the elasticity to tolerate the high stress that can occur with explosive activity. On examination, a defect is felt approximately 4-6 cm above the heel bone where the tendon has ruptured, and there is weakness with pushing the foot down (plantar flexion). Additionally, there is more “up motion” of the ankle (dorsiflexion) when compared to the uninjured side. There is data to demonstrate that when a patient

has these findings that the diagnosis is an Achilles tendon rupture and no MRI is needed to further confirm the diagnosis. Xrays are obtained to ensure that the tendon has not pulled off the heel bone, as this type of rupture may require a different type of surgery compared to a non-insertional (more common) Achilles rupture. If there is any concern or non-surgical management is being considered then a MRI or Ultrasound may be ordered.

Modern treatment options for an acute Achilles tendon rupture include conservative care (functional rehabilitation) and open, percutaneous, and minimally invasive or limited open Achilles repair for acute midsubstance Achilles tendon ruptures. Individual patients have different functional needs of their lower extremity depending on age, occupation, and/or activity level. Choice of treatment regimen ultimately is up to the patient; the job of surgeons is to educate patients with current evidence based results. Outcomes also differ depending on patient compliance with treatment regimen. The debate is not as simplistic as whether surgery or conservative treatment is the best for an Achilles rupture; the real question is which treatment is best for a patient's physiology and athletic demands. We individualize the appropriate treatment based on the needs of the patient and how long it has been from the injury before seeking treatment. As in cases where it has been more than 5 days from injury, conservative care may not be very effective as the tendon has already begun to heal in these cases. We use the advanced techniques of minimally invasive repair with the PARS device or mid-substance Achilles speed bridge to restore the appropriate tension of tendon to provide the maximal functional outcome and minimize the risk of infection .