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Torn Achilles Tendon? New Guidelines Say Early Motion Can Be Beneficial
Orthopaedic surgeons release treatment guidelines on acute Achilles tendon rupture

Rosemont, Ill. – The [American Academy of Orthopaedic Surgeons](#) (AAOS) has approved and released an evidence-based clinical practice guideline on “The Diagnosis and Treatment of Acute Achilles Tendon Rupture.”

The [Achilles tendon](#) is the thick, cord-like structure connecting the heel bone to the muscles along the back of the calf. It is one of the strongest tendons in the body, and a rupture can be quite disabling, said orthopaedic surgeon Christopher Chiodo, MD. According to Dr. Chiodo, Chair of the AAOS work group responsible for this guideline, an acute rupture of the Achilles tendon is an injury commonly treated by orthopaedic surgeons and can include treatment with casts or braces.

“A recommendation of special interest to patients having surgery is that in most cases their ankle should be mobilized and some weight-bearing allowed post-operatively,” stated Dr. Chiodo. “More than one high-quality study has demonstrated that such controlled early motion and weight-bearing is beneficial, especially with regard to return of function.”

“As for orthopaedic surgeons, the Academy work group found no evidence to support the use of biological agents, autograft, or synthetic tissue when surgically repairing Achilles tendon ruptures,” Dr. Chiodo said.

Inconclusive evidence-based research was identified for recommending for or against the following:

- the use of physical therapy following surgery;
- a specific time in which patients can return to the activities of daily living — irrespective of treatment type; or
- a specific time in which patients can return to athletic activity when treated without surgery.

Statistically, Achilles tendon rupture is more common in males in their 30s and 40s. Yet today, more people remain active as they age, so it is very common to see this injury in all age groups.

This final guideline contains 16 recommendations, and includes that operative treatment for an Achilles tendon rupture should be approached more cautiously in the following individuals:

- patients over age 65;
- patients with sedentary lifestyles;
- obese individuals;
- those with immuno-compromised status;
- smokers; and
- patients with diabetes, neuropathy, and vascular (circulatory) disorders.

After a thorough analysis of the literature, the work group was unable to recommend for or against the routine use of the following tests to confirm a diagnosis of acute Achilles tendon rupture:

- [ultrasound](#);
- [radiographs](#) (X-rays and similar tests); and
- [magnetic resonance imaging](#) (MRI).

An acute Achilles tendon rupture affects an estimated 5.5 to 9.9 of every 100,000 people in North America each year. However, no universally agreed upon treatment regimen currently exists. The following recommendations highlight the need for further high level research using current techniques.

- Operative treatment is an option for treating patients with Achilles tendon rupture.
- Some studies showed possible advantages to the minimally invasive repair of this tendon, specifically with regard to wound healing, but this needs to be validated by further research.
- Some recent studies demonstrated acceptable outcomes based on function with non-operative management (using braces or casts).

According to Dr. Chiodo, these guidelines are the result of a robust review of the literature, which included screening and reading thousands of citations, abstracts and articles. Ultimately, they selected about 50 papers upon which to base their recommendations.

While he had no surprises in terms of clinical findings during this review, Dr. Chiodo admits to being surprised by the lack of high quality prospective, randomly controlled clinical trials on many topics important to orthopaedic surgeons.

“There is a definite need for large studies utilizing multi-center protocols and databases,” Dr. Chiodo stated. “We also need to establish [patient registries](#) that include large volumes of cases, so we can follow these patients and sufficiently evaluate long-term outcome.

“It is also important to mention that decision-making does not end at the time of surgery,” he adds. “Post-operative protocols are important as well.”

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Editor’s Note: This AAOS guideline was developed by an AAOS physician volunteer work group and was based upon a systematic review of the current scientific and clinical information on accepted approaches to treatment and/or diagnosis. The entire process included a review panel consisting of internal and external committees, public commentaries and final approval by the AAOS Board of Directors.

Disclaimer: This summary of recommendations is not intended to stand alone. Treatment decisions should be made in light of all circumstances presented by the patient. Treatments and procedures applicable to the individual patient rely on mutual communication between patient, physician, and other healthcare practitioners.

The full guideline along with all supporting documentation and workgroup disclosures is available on the AAOS website: <http://www.aaos.org/guidelines>.

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