

# New Study Challenges Surgery for Achilles Tendon Ruptures

The debate continues among surgeons about the best way to treat Achilles tendon ruptures early on after they have happened. The first question is whether to operate and repair the torn tendon or treat it conservatively (without surgery). It would seem that whichever way gives the best outcomes is the way to go. But the problem is that different studies come up with different results. There just don't seem to be consistent results to support one approach over the other.

In a recent study by this author (Dr. Kevin R. Willits), a high-quality study was designed to put this argument to rest. Dr. Willits recognized that one reason study results vary so much is because different post-operative rehab programs are used. He started to wonder if the patients who had the best results were doing so well because of a more aggressive rehab protocol. He based this hypothesis on the fact that so many studies that had poor outcomes used a very conservative, slow rehab program.

So he put his idea to the test. He compared two groups of patients. They all had an acute Achilles tendon rupture. They all followed the same fast-paced (called accelerated) rehab program. The only difference was that one group had surgery right away and the other group didn't. The natural question that comes to mind is what makes up an accelerated program?

There are two key features to the accelerated functional rehab program. One is getting up and putting weight on that foot and leg. The second is early ankle motion. Scientists have already shown that load and pressure on healing collagen tissue speeds up the healing process.

But the worry with Achilles tendon rupture has always been that the tendon would re-rupture with too much too soon. So, in the past, these injuries were always treated with cast immobilization with no weight on the foot. That protocol was used for both conservative care and after surgery.

Now this study showed that, in fact, the early mobilization group had the best results. There were less (not more) re-ruptures. They did have a period of non-weight-bearing and immobilization-- but only for two weeks. During that two-week period of time, they were put in a special splint and kept weight off the foot.

The splint was exchanged for a boot brace with a heel that protected the healing tendon for the next four weeks. During that time, they were allowed to move the ankle from a toe pointed down position (called plantar flexion) to a neutral alignment. By the end of eight weeks, they were out of any protective boot at all and allowed to move the foot freely and put full weight on it.

The conclusion of the study was that early motion and early weight-bearing (early, not immediate) were keys to a successful outcome. With equal results between conservative (nonoperative) care and surgery, the natural conclusion is that surgery isn't needed after all. An aggressive functional rehab program is what people really need. This formula is especially helpful for athletes who want to get back into action as soon as possible.

Even with conservative care and an aggressive rehab program, Achilles tendon ruptures simply take a long time to heal. Eliminating the added risks that come with surgery improves the odds that the athlete will stay on course and get full recovery without delays. The author concludes that his group will continue investigating this topic. There may be other ways to aid recovery and reduce the amount of time it takes to go from injury back to the field or court.

Reference: Kevin R. Willits, MA, MD, FRSCC. Treating the Acute Disruption of the Achilles Tendon: The Nonoperative Option. In *Orthopedics Today*. January 2011. Vol. 31. No. 1. Pp. 62.