

# The Advantage of Conservative Care for Achilles Tendon Rupture

For a long time now, studies have repeatedly shown that surgery is the better way to treat Achilles tendon ruptures. Patients got better faster and returned to work and play sooner. And there were fewer cases of tendon rerupture after surgery compared with conservative care. But surgery always comes with some risks of its own. So there have been continued efforts to compare different types of conservative care against surgical repair.

In this meta-analysis, the authors combined the results of 10 studies that measured the same things. The authors looked at rerupture rate as the main measure. But other factors evaluated included the rate of other complications (e.g., infection, skin breakdown, tendon necrosis, blood clots, nerve damage, scarring), return to work, calf circumference (size), muscle strength, and function.

These patient outcomes were compared between early range of motion and bracing (the conservative care) and surgery. This type of conservative care is referred to as functional rehabilitation. It is not offered at every health center so the results of this study are especially important if it should be.

Here's a little more about this concept of functional rehab. Instead of putting the lower leg in a cast for six weeks a brace is used. The cast would hold the ankle in a slight amount of plantar flexion (toes pointed down) with no movement allowed. The brace could be removed so the patient could actively plantar flex the ankle every day from day 10 on. The idea is to use early range-of-motion to stimulate tendon healing without putting any stress on the tear.

The first important finding is the risk of complications other than rerupture with surgery: 15.8 per cent higher with surgery compared with conservative care. However, on the plus side for surgery, patients went back to work almost three weeks sooner after surgery compared with functional rehab. All other factors (ankle motion, function, and calf size) were the same regardless of treatment.

So what's the answer then? Should patients have surgery right away for an Achilles tendon rupture? Or should they go with functional rehab if it's available? There may not be a one-size-fits-all kind of reply. Consider these facts: the rerupture rate is the same between surgery and functional rehab. However, the risk of other complications is higher whenever surgery is done. The risk of rerupture is higher after prolonged immobilization (traditional conservative care) compared with surgery.

If all other factors are equal, functional rehab should be considered first. If functional rehab is not available, then surgery should be the top option but keeping in mind the risk of other complications. Those "other" complications could be something as minor as a skin rash or infection but could be as serious as a life-threatening blood clot to the lungs. There is no way to predict who will have a post-operative problem and whether it will be minor or major.

In terms of motion, function, and return to full activities, patients in both groups are equally successful. But there is a 3 per cent chance of rerupture after surgery compared with 10 to 12 per cent following nonsurgical treatment. Each patient must discuss with the surgeon the potential benefits, problems, and trade-offs with each type of treatment available.

Reference: Alexandra Soroceanu, MD, CM, MPH, et al. Surgical Versus Nonsurgical Treatment of Acute Achilles Tendon Rupture. A Meta-Analysis of Randomized Trials. In *The Journal of Bone and Joint Surgery*. December 5, 2011. Vol. 94A. No. 23. Pp. 2136-2143.