

Can I wear my sister's brace for a torn Achilles tendon?

Q: This is kind of a weird question but here goes. My sister tore her Achilles tendon about two years ago. They put her in a rigid ankle brace with her foot wedged in a pointed position. I just did the exact same thing (tore my Achilles tendon). Can I just wear her brace for awhile and skip seeing the doctor? It fits perfectly.

A: A quick review of anatomy might help us answer this question. The Achilles tendon is a strong, fibrous band that connects the calf muscle to the heel. The calf is actually formed by two muscles, the underlying soleus and the thick outer gastrocnemius. Together, they form the gastroc-soleus muscle group.

When they contract, they pull on the Achilles tendon. This action causes your foot to point down and helps you rise up on your toes. This powerful muscle group helps when you sprint, jump, or climb. Several different problems can occur that affect the Achilles tendon, some rather minor and some quite severe. In severe cases, the force of a violent strain can rupture the tendon.

Traditionally, this type of injury required a long period of time for healing, recovery, and rehab. But changes have been made in the way this problem is managed early on. Bracing like your sister used allows early weight-bearing and seems to allow for faster return to normal function without endangering the healing tendon.

The goal is to find the position that protects the healing Achilles while still allowing function in order to avoid atrophy (wasting) of the gastroc-soleus muscle group. The benefit is to restore motion and strength faster and therefore allow the patient to return to daily (and sports) activities sooner with less disability.

But there are some important things to know about this. The tendon must be kept in a shortened position while it heals. That means keeping your ankle in a slightly plantarflexed (toe pointed down) position. A special wedge under the heel is used to accomplish this. Healing in a position of too much dorsiflexion (foot neutral or with toes pulled up toward the face) could have long-term, disabling effects.

Don't skimp on your medical care with this injury. You may be able to save some money by re-using that brace but it is important that you have an orthopedic surgeon evaluate what you really need for optimal healing. Take the brace with you to your appointment. It's possible the brace can be modified for your specific needs. Achilles tendon ruptures are complex injuries and require careful management for optimal healing.

Reference: Rebecca S. Kearney, MSc, et al. In-Shoe Plantar Pressures Within Ankle-Foot Orthoses. In *The American Journal of Sports Medicine*. December 2011. Vol. 39. No. 12. Pp. 2679-2685.