

Achilles: Debridement, Repair, Reconstruction, Haglund Resection and Tendon Transfer

The Achilles tendon is a large tendon on the back of your ankle that plays an important role in your ability to walk. Daily activities generate a great deal of strain on that tendon and sometimes it has a difficult time repairing itself. When this happens, you may develop Achilles tendonitis, a condition resulting in pain, redness, and swelling, especially during or after activity. Most of the time, this can be treated with immobilization, special exercises with physical therapy, anti-inflammatories and rest. However, if your symptoms last longer than 6-12 months it may be time to consider surgery.

The surgery required will depend on the exact type of Achilles damage. Many people have extra tightness of their calf muscles which, if left untreated, can cause continued pain even after tendon repair. Many people also have a large bone called a Haglund prominence that causes the tendon to rub against it. This rubbing can create bursitis - the inflammation of the tissue between the bone and tendon. If bursitis is present, the bone and bursal tissue are typically removed at the same time. This requires at least partial detachment of the Achilles tendon, which is immediately repaired during surgery. Recovery after this procedure is similar to recovery after the repair of a traumatic Achilles tendon rupture.

When repair of the tendon is not enough, a tendon transfer may also be performed. This brings both strength and blood supply to the Achilles region to reinforce the repair. The tendon used in the transfer, the Flexor Hallicus Longus, is nearby and accessed through the same incision. You may notice an increase in the flex of your great toe and some decreased motion after the procedure, although most patients do not notice this due to other tendon connections that allow your foot to compensate.

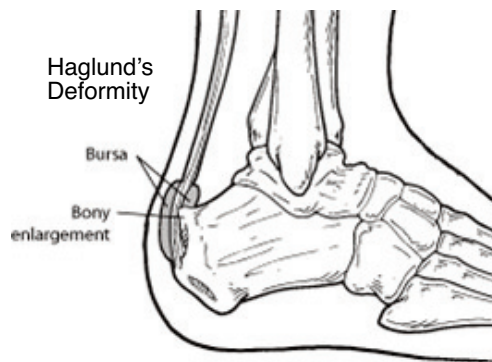


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When is it Time to Think About Surgery?

Non-surgical therapies such as immobilization, physical therapy, rest and anti-inflammatories are recommended for at least 6 - 12 months after your symptoms begin. If non-surgical treatment is unsuccessful and you are considering surgery, it is important to know that surgery can leave painful scars. There is also no guarantee that you will not experience a complication after your procedure.

Who is a Candidate for Surgery?

If you continue to experience Achilles tendon pain after at least 6 months of non-surgical treatment, you may be a candidate for surgery. However, this region of the body has poor blood flow and a higher rate of wound issues. Therefore, Achilles surgery is not recommended for current smokers, tobacco users, uncontrolled diabetics or patients with moderate to severe peripheral vascular disease. In addition, if you have a medical issue that prevents you from receiving anesthetic or you cannot tolerate prone positioning, you may not be a candidate for this surgery.

About the Surgery

Once you are deemed a candidate, preadmission testing is done to confirm you are healthy enough for surgery. This

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will include labs and often an electrocardiogram and chest x-ray. We may also require evaluations from your primary care physician or another specialist such as a cardiologist. You should stop smoking at least three weeks prior to surgery to reduce your risk of lung issues after your procedure, and to lower your risk of not healing or having other complications such as nerve injuries.

The average time to perform Achilles tendon surgery is 60 – 90 minutes. Surgery is typically done on an outpatient basis under general anesthesia in a prone (face down) position. A pre-operative nerve block is usually administered by an anesthesiologist in the pre-operative area before you receive general anesthetic. An incision of approximately 3-4 inches is made on the inside of the Achilles tendon. A second incision on the calf is sometimes required to stretch the tendon as well. The tendon will be repaired with anchors that attach it to the bone, and anchors may also be necessary if a tendon transfer is performed. These anchors should not cause pain and are not meant to be removed later. Some are made of metal and many are made of a bioabsorbable plastic material that cannot be seen on x-rays.

What to Expect After Surgery

You will not be allowed to bear weight for at least two weeks after surgery, at which time you will have your follow-up appointment with your surgeon. Immediately following your procedure, a non-removable splint will be placed from the knee to the toes. This holds the ankle in the proper position and allows the tendon to heal. This also protects the incision and repair.

The splint is to be kept dry and in place until your two-week follow-up appointment, and you may require crutches and/or a knee scooter until your surgeon permits you to begin progressive weight bearing. Weight bearing starts slowly after the first post-operative appointment. You will be given a special boot with wedges in it that you will remove weekly as your weight bearing advances. You can expect to be able to bear full weight in your boot six weeks after your surgery, and at eight weeks you can expect to wear a regular shoe. You will also begin physical therapy six weeks after surgery that will last a minimum of six weeks. Physical therapy is important for regaining strength, endurance and range of motion. Full recovery after Achilles tendon surgery can take up to a year.

Complications and Risks of Surgery

The biggest risk with any surgery around the Achilles tendon is a wound or serious infection that results in the need for additional surgery, including plastic surgery. These risks are significantly decreased by avoiding risk factors such as uncontrolled diabetes, peripheral vascular disease and nicotine use. Continued pain, nerve damage, stiffness, tendon rupture and recurrence are not common. Your post-surgical physical therapy regimen will diminish many of these risks.

Recovery Period

Weeks 0-2: Non-weight bearing in a non-removable splint.

Weeks 2-6: Progressive weight bearing with special wedge boot.

- Week 3: 25% weight bearing with 4 wedges
- Week 4: 50% weight bearing with 3 wedges
- Week 5: 75% weight bearing with 2 wedges
- Week 6: Full weight bearing with 1 wedge

Weeks 6-12: Supervised physical therapy regimen.

Weeks 12-52: You may continue physical therapy, but most patients progress to a home exercise program and resume activities as tolerated. Most patients are able to perform a double heel rise at three months and a single leg heel rise at six months. Most patients return to sport, running and high-impact activities by six months post-surgery, although full strength and resolution of all symptoms can take up to a year.