



Total Ankle Replacement Surgery

Approved by ACFAS Board of Directors, July 2013

The American College of Foot and Ankle Surgeons (ACFAS) is a professional society of more than 6,800 foot and ankle surgeons. Founded in 1942, ACFAS seeks to promote the art and science of foot, ankle, and related lower extremity surgery, address the concerns of foot and ankle surgeons, and advance and improve standards of education and surgical skill.

ACFAS member physicians are doctors of podiatric medicine who are graduates of accredited U.S. podiatric medical schools. ACFAS members have completed surgical residency programs of up to four years, and all Fellows of the College are certified by the American Board of Podiatric Surgery, the surgical board of foot and ankle surgeons recognized by the Joint Committee on the Recognition of Specialty Boards. Many have additional fellowship training in various aspects of foot, ankle, and lower extremity surgery, including total ankle replacement.

End stage arthritis of the ankle is a leading cause of chronic disability in North America.(1) Historically, the prevailing option for patients with painful end-stage ankle arthritis has been ankle fusion.(2) While ankle fusion can successfully relieve the pain within the joint, the resulting range of motion restriction can shift motion stresses to the adjacent joints, which in time also become arthritic.(3) In more recent years, total ankle replacement has been refined and now has become a viable option to ankle fusion and has high patient acceptance. In a survey of the world literature on ankle fusion versus ankle replacement surgery, the safety profile of the two procedures are comparable. (4)

Not every patient with end-stage arthritis of the ankle is a sound candidate for ankle replacement. A surgeon experienced in total ankle surgery can make this determination through careful history and physical evaluation. (5) As with any total joint replacement, patients who are candidates for this procedure should be made aware of alternative treatments and expected outcomes. Furthermore, adjunctive procedures are often necessary as part of the surgical plan to ensure proper device function. (6)

In the United States, total ankle replacement surgery is currently a safe and effective treatment option for select patients with end stage ankle arthritis. Studies have shown total ankle replacement surgery improves patient function, reduces pain, and promotes improved quality of life. (7, 8)

Patients should consider consulting with a surgeon who is board certified or board qualified in foot and ankle surgery with experience and training in total ankle replacement when considering this procedure.



References

1. Glazebrook M, Daniels T, Younger A, et al. Comparison of health-related quality of life between patients with end-stage ankle and hip arthrosis. *J Bone Joint Surg Am*; 90: 499-505, 2008.
2. Hintermann B. *Total Ankle Arthroplasty*, 1st ed. New York: SpringerWien, 2005.
3. Coester LM, Saltzman CL, Leupold J, Pontarelli W. Long-term results following ankle arthrodesis for post-traumatic arthritis. *J Bone Joint Surg Am*; 83-A: 219-28, 2001.
4. Haddad SL, Coetzee JC, Estok R, Fahrback K, Banel D, Nalysnyk L. Intermediate and long-term outcomes of total ankle arthroplasty and ankle arthrodesis. A systematic review of the literature. *J Bone Joint Surg Am*; 89: 1899-905, 2007.
5. Steck JK, Anderson JB. Total ankle arthroplasty: indications and avoiding complications. *Clin Podiatr Med Surg*; 26: 303-24, 2009.
6. Schubert JM, Patel S, Zarutsky E. Perioperative complications of the Agility total ankle replacement in 50 initial, consecutive cases. *J Foot Ankle Surg*; 45: 139-46, 2006.
7. Saltzman CL, Mann RA, Ahrens JE, et al. Prospective controlled trial of STAR total ankle replacement versus ankle fusion: initial results. *Foot Ankle Int*; 30: 579-96, 2009.
8. Detrembleur C, Leemrijse T. The effects of total ankle replacement on gait disability: analysis of energetic and mechanical variables. *Gait Posture*; 29: 270-4, 2009.