



TOTAL ANKLE REPLACEMENT (ARTHROPLASTY) SEARCH

WHAT IS TOTAL ANKLE REPLACEMENT?

Total ankle replacement, also known as total ankle arthroplasty, is a surgical procedure that foot and ankle orthopaedic surgeons use to treat **ankle arthritis**. Arthritic changes may be a result of normal "wear and tear" due to aging or from an injury such as a broken ankle or dislocation. Arthritis eventually leads to loss of cartilage, pain, and/or deformity.

In a total ankle replacement, the ankle joint is removed and replaced with an artificial implant made of metal and plastic. The goal of ankle replacement is to provide pain relief while preserving ankle motion so the patient has less pain and better function during activity.

An alternative to total ankle replacement is **ankle fusion surgery**. Your **foot and ankle orthopaedic surgeon** has expertise in both procedures and will work with you to determine the surgery that best fits your lifestyle and treatment goals.

Nancy's Story - Total Ankle Replacement

Earle's Story - Ankle Fusion

Diagnosis

If you have tried non-surgical treatment including anti-inflammatory medication, bracing, physical therapy, activity modification, and injections, and continue to experience ankle pain and decreased function from arthritis, your **foot and ankle orthopaedic surgeon** may recommend ankle replacement.

Ankle replacement is not recommended if you have severe deformity, dead bone in the talus (the bottom bone of the ankle joint), or bone too soft to support the joint. A history of deep infections of the ankle, significantly abnormal nerve function or sensation (also known as peripheral neuropathy), inadequate or absent leg muscle function, and poor blood flow of the leg also are signs that ankle replacement should be avoided. In these cases, an **ankle fusion** may be a better option for pain relief.

Treatment

Ankle replacement is performed either under general anesthesia or nerve block. Your surgeon will use a tourniquet to control bleeding and improve visualization during the surgery. They

will approach the ankle from the front or the side, depending on the type of implant being used. They then cut the bone and place the metal and plastic components that recreate the ankle joint. Sometimes additional procedures will have to be done at the same time to ensure the foot and ankle are properly aligned and the deformity is corrected. Your surgeon then closes the wounds using stitches or staples, and applies a splint.



Post-surgery X-ray of a total ankle replacement

Recovery

Recovery from a total ankle replacement requires a variable period of **non-weightbearing** in a cast or boot to allow the implants to heal in place. The procedure is usually performed in an inpatient setting, with the patient spending up to several nights in the hospital. Strict elevation for many days after the procedure is necessary to control swelling and improve wound healing. After the surgical wounds are healed, some foot and ankle orthopaedic surgeons will allow the patient to start working on gentle range-of-motion activities even if they are non-weightbearing. Weightbearing usually begins a few weeks after surgery if X-rays show good healing.

Risks and Complications

All surgeries come with possible complications, including the risks associated with anesthesia, infection, damage to nerves and blood vessels, and bleeding or blood clots.

A broken bone on the side of the total ankle implant is the most common complication. Patients may also experience an injury to the tendons, nerves, or blood vessels. Wound healing is critical in the early weeks as issues with wound healing can lead to superficial or deep infections. Many of these problems are a greater risk in patients who **smoke**, have **diabetes**, or have **rheumatoid arthritis**. Another possible complication is the failure of the ankle implant to heal into the bone.

Just as with artificial knee and hip replacements, ankle replacements may have problems that happen even years after the initial surgery because there are moving, artificial parts. These issues may require additional surgery and include infection or loosening/wear of the artificial parts.

There are two surgical approaches for treatment of end-stage ankle arthritis: ankle fusion and total ankle replacement. Why should I consider an ankle replacement?

There are many factors that go into this decision, so each individual case should be discussed with your foot and ankle orthopaedic surgeon. In general, when motion of the ankle is preserved in an ankle replacement, the surrounding joints are protected from increased wear, which is especially important if there is already arthritis in these neighboring joints. The number of ankle replacements being performed is increasing dramatically, as is the amount of published and ongoing research in the area. Newer implant designs and improved surgical techniques constantly are evolving with the promise and goal of helping patients with an ankle replacement get results at least as good as their hip and knee counterparts.

Who should I see to have a total ankle replacement?

A foot and ankle orthopaedic surgeon should be seen for management of ankle arthritis. Orthopaedic surgeons who specialize in foot and ankle surgery are specifically trained to perform ankle replacements as well as take care of any complications that may arise.

FIND A SURGEON NEAR YOU

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