# Everything you need to know about ankle fusion





# **ANKLE FUSION**

#### **OVERVIEW**

When the cartilage in the ankle joint becomes damaged from severe arthritis (or from a previous injury or ankle fracture), ankle fusion is used to permanently join the damaged bones, preventing them from rubbing against each another and causing pain.

The ankle joint consists of the shin bones (tibia and fibula) and the ankle bone (talus). Where these bones meet, they are covered by a smooth cartilage lining in the joint that allows you to move your ankle freely. As the cartilage wears, the space in the joint gradually narrows, causing bone-on-bone contact, resulting in pain and stiffness.

Ankle arthritis is a common problem and requires careful management to maintain motion while minimizing pain. Ankle arthritis occurs when the cartilage covering the ends of the bones that form the ankle joint degenerate. When there's movement in the arthritic ankle, pain typically increases.

For those patients that are not candidates for an ankle replacement, ankle fusions remain the gold standard. Patients can walk without a limp using modern techniques to remove minimal amounts of bone and position the ankle so the joint below moves well.

Ankle fusion (arthrodesis) takes the ankle bones and mechanically joins them into one. By eliminating the motion, pain is reduced in the arthritic joint.

#### ANATOMY

The ankle joint has three bones:

- •The lower end of the tibia (shinbone)
- •The fibula (the small bone from the lower leg)
- •The talus (the bone in the socket of the tibia and fibula)

Ligaments help to hold the ankle joints together. Tendons attach muscles to bone. The Achilles tendon is the most powerful in the foot and allows for the range of motion to be at its peak.

Cartilage is the firm, white, and flexible connective tissue in articulated joints. In the ankle, the cartilage lining is onequarter of an inch thick and allows for both the softness of shock absorption and the toughness to last a lifetime.

Ankle arthritis affects the bone and cartilage.



#### **SYMPTOMS** & **TREATMENT**

An arthritic or worn ankle joint has some or all of the following symptoms:

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- Ankle swelling
- •Bruising
- Stiffness
- •Weakness in the ankle and foot
- Instability



The first line of treatment is oral medications, but stem cell injections are being used frequently to reduce the inflammation in the ankle that causes the pain. When this is not effective, arthroscopy can remove irritating tissue.

At Florida Orthopaedic Institute, these minimally invasive procedures are designed to prevent the need for an open operation. When arthritic pain and deformity prevents patients from maintaining a normal lifestyle, either an ankle replacement or ankle fusion is the next step.

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# FREQUENTLY ASKED QUEST

#### WILL I LOSE ALL THE MOTION IN MY ANKLE?

The majority of up-and-down motion comes from your ankle joint. While ankle fusion decreases this movement, there is remaining movement in the other foot joints. Depending on the type of fusion performed, the heel can move from side to side and the middle of the foot can move up and down.

#### WILL THE PLATES OR SCREWS BE REMOVED?

Hardware is not typically removed, unless it is close to the skin and causes irritation or if an infection develops. The amount and type of the hardware in an ankle fusion does not usually set off metal detectors.

#### ARE THERE THINGS I SHOULD AVOID AFTER AN ANKLE FUSION?

The ankle is quite durable once it has been fused. Patients with fused ankles work physically demanding jobs, and enjoy outdoor activities such as walking, hiking, and biking. While the fused ankle will never function exactly like a normal ankle, we encourage you to discuss your specific return activities with your physician.

#### WHAT IS THE RECOVERY LIKE?

At first, you'll wear a cast and keep your leg elevated. You'll be on crutches for several weeks followed by physical therapy to learn how to walk smoothly. Most patients are fitted with special shoes to protect and compress the feet.

#### WHAT IS THE RECOVERY TIME AFTER SURGERY?

The recovery time for ankle fusion surgery usually takes 6 to 16 weeks before you can put weight on the ankle and leg. Time varies by patient.

#### WILL I WALK WITH A LIMP AFTER ANKLE FUSION?

Ankle fusion will change how you walk. But with proper shoes, most patients do not limp. A fused ankle does not usually result in a fully rigid foot.

# **ONS ABOUT ANKLE FUSION**



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