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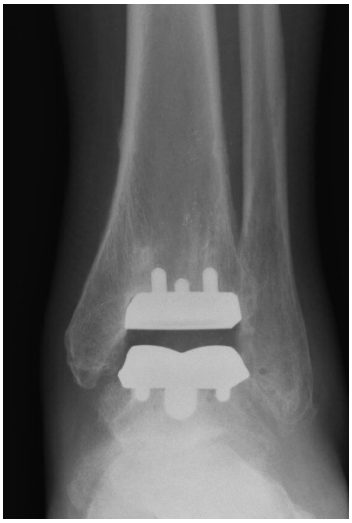
Ankle Arthritis



The ankle joint is composed of three different bones: the tibia, fibula, and talus. These three bones are held together by a series of ligaments and together function as the ankle joint. The main function of the ankle joint is to allow for the up and down (dorsiflexion/plantarflexion) motion of the ankle. Arthritis is when the cartilage is damaged or worn away and no longer provides the cushion to allow the smooth motion between the bones. Cartilage is unique in that there is no blood flow that provides nutrition, so that when injured it does not have the ability to repair itself very well, unlike bone. This inability to repair itself is why scientists and surgeons have a very difficult time in trying to restore large cartilage defects in the setting of arthritis. The most common reasons for ankle arthritis include: trauma (fractures/dislocations), ankle instability, deformity, autoimmune arthritis, and what is called idiopathic (no known cause - or wear and tear).

Diagnosing ankle arthritis begins with a thorough history, focusing on the location of the pain and what causes aggravation. In many patients the pain presents along the front of the ankle joint. "Start up" pain occurs in the morning or when a patient has been in one position for a prolonged time such as sitting in a car. The ankle joint becomes stiff and can hurt for the first few steps while the joint "loosens" up the joint. Although there is no perfect answer for this, some of the reason is felt to be that the joint lining called

the synovium begins to produce joint fluid more when you are moving and this helps to minimize the pain after a few minutes. This may be why many patients with ankle arthritis prefer a little walking to standing in one place. The physical exam is particularly focused on how much motion is left in the ankle joint. Not all of the up and down motion of the foot is from the ankle, and the remaining motion of the ankle does help to determine what surgery would be better for the patient. Additionally any deformity, such as a high arched foot or flatfoot is noted as this can impact the nonoperative and operative options. The location of the pain is in the front of the ankle is confirmed in addition to other joints that might be painful, so that a complete understanding of your problematic areas can be understood and an effective treatment plan can be created. Xrays are taken to confirm the presence of arthritis and evaluate the biomechanical alignment of your foot and ankle. Additional testing such as a CT scan and MRI may be considered.

Treatment of ankle arthritis is focused on your needs based on your pain and desired level of activity. Non-surgical treatment focuses on minimizing the strain and stress across the ankle with the use of semi-rigid or rigid ankle braces. The braces cannot improve the lack of cartilage, however, can help to minimize your pain. Injections can help in many patients and provide relief, however, rarely are they able to provide a long-term solution in isolation. Injections can include steroid and PRP (platelet rich plasma) depending on the severity of the arthritis. Shoewear and activity modification can also help to minimize the stress across the joint and help to provide symptom relief and avoid surgery. In patients that do not obtain relief or the restrictions are not amenable or acceptable to their desired lifestyle or work demands, surgical options can be considered. In very mild cases of ankle arthritis, joint preservation with mechanical stabilization and spur removal combined with concentrated bone marrow aspirate (autologous stem cell) therapy is considered. In more severe cases, the most appropriate options are either ankle replacement or ankle fusion. We perform both of these procedures and are also experienced in treating referred patients that have had either procedure before and unfortunately have continued pain. There is no one perfect operation since both ankle replacement and ankle fusion provide relief of pain and improvement in function in the right patient. Each patient must be individualized with regards to their desired level of activity/expectations, the deformity present, amount of ankle motion and many other factors in order to determine what option is best for them. We believe in a shared decision making process and this is extremely important when considering an ankle replacement versus ankle fusion.