



FIRST MTP JOINT FUSION

SEARCH

WHAT IS A FIRST MTP JOINT FUSION?

The first metatarsophalangeal (MTP) joint is the joint in your big toe. A first MTP joint fusion is a surgical procedure to treat **arthritis of the big toe**. Big toe arthritis (also known as hallux rigidus) can cause pain and swelling and lead to difficulty walking, running, and wearing shoes. Arthritis develops when the cartilage on each bone wears away and the two bones that make up the big toe joint rub against one another.

In a first MTP joint fusion, the bones are joined (fused) together permanently so they cannot rub against each other and cause pain. This procedure also removes any motion at the big toe joint.

Diagnosis

The need for surgery depends on how bad the arthritis is and how much pain you are experiencing. Surgery is typically recommended if you have pain and stiffness in the big toe joint. Some patients are unable to wear certain shoes (dress shoes, high heels, and boots) and can't participate in activities due to pain. If the condition exists in both feet, the more painful foot is operated on first.

A **foot and ankle orthopaedic surgeon** can determine the severity of the condition. Before considering surgery, you should try non-surgical treatment such as modifying your activities or taking steroid injections. You also can try wearing a different type of shoe, such as one with a rounded bottom, or using carbon shoe inserts that limit joint motion.

You should avoid surgery if you have an active infection or severe narrowing of the arteries. You must be able to manage a recovery period that can last six months or more.

Treatment

In an MTP joint fusion, your foot and ankle orthopaedic surgeon removes the damaged cartilage and fixes the two bones together with screws and/or plates to enable them to grow together.

This is routinely performed as an outpatient procedure. Most patients go home the same day of the surgery unless they need to be monitored in the hospital overnight.

Specific Technique

Your surgeon will make an incision on top of the big toe. Any cartilage is cleared away to allow the two bones to heal together. Your foot and ankle orthopaedic surgeon may use a combination of tools to shape each bone for a perfect fit.

Once prepared, the two bones are positioned and a metal plate is placed to hold both bones together. An additional screw is set across the joint for extra stability and compression, which aids in healing. In some cases, two screws can be placed across the joint without using a plate. After the hardware is placed, the incision is closed with sutures and the foot is placed in a dressing or splint.

Recovery



X-rays taken after a first MTP joint fusion showing placement of a plate and screw.

After surgery, you will likely be examined at two-week, six-week, three-month, and six-month intervals. X-rays may be taken at each visit to evaluate the bone healing and the position of the big toe. Your surgeon will determine when you can put weight on your foot. After a first MTP fusion, you should not wear shoes that put extra stress on the joint.

Risks and Complications

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

Complications specific to MTP fusion include poor or delayed bone healing, infection, and stiffness in neighboring joints. The metal plate used during surgery can sometimes cause irritation. In this case it can be **removed** after the bone has healed. Finally, scarring within the joint can limit neighboring tendons.

If I have a first MTP fusion, will I have a limp when I walk?

Most people who have a first MTP fusion do not have a limp after the toe is fully healed.

What kind of activities can I do after a first MTP fusion?

After a first MTP fusion, most people are able to return to an active lifestyle – including walking, hiking, biking, swimming, and jogging – without pain in their toe.

What kind of shoes can I wear after a first MTP fusion?

After a first MTP fusion, most people are able to wear sneakers, sandals, dress shoes that do not have a high heel, and boots.

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