

Hallux Rigidus

Each day, with every step you take, your big toe bears a tremendous amount of stress, a force equal to about twice your body weight. Most of us don't realize how much we use our big toe. We tend to take it for granted, unless a problem develops.

One problem that afflicts the big toe is called hallux rigidus, a condition where movement of the toe is restricted to varying degrees. This disorder can be very troubling and even disabling, since we use the all-important big toe whenever we walk, stoop down, climb up or even stand. If you have pain and/or stiffness in your big toe, you may have this condition.

Hallux rigidus is a disorder of the joint located at the base of the big toe. It causes pain and stiffness in the big toe and with time it gets increasingly harder to bend the toe. "Hallux" refers to the big toe, while "rigidus" indicates that the toe is rigid and cannot move. Hallux rigidus is actually a form of degenerative arthritis (a wearing out of the cartilage within the joint that occurs in the foot and other parts of the body).

Because hallux rigidus is a progressive condition, the toe's motion decreases as time goes on. In its earlier stage, motion of the big toe is only somewhat limited, at this point the condition is called "hallux limitus." But as the problem advances, the toe's range of motion gradually decreases until it potentially reaches the end stage of "rigidus"—where the big toe becomes stiff or what is sometimes called a "frozen joint."

Early signs and symptoms include:

- Pain and stiffness in the big toe during use (walking, standing, bending)
- Pain and stiffness aggravated by cold, damp weather
- Difficulty with certain activities (running, squatting)
- Swelling and inflammation around the joint

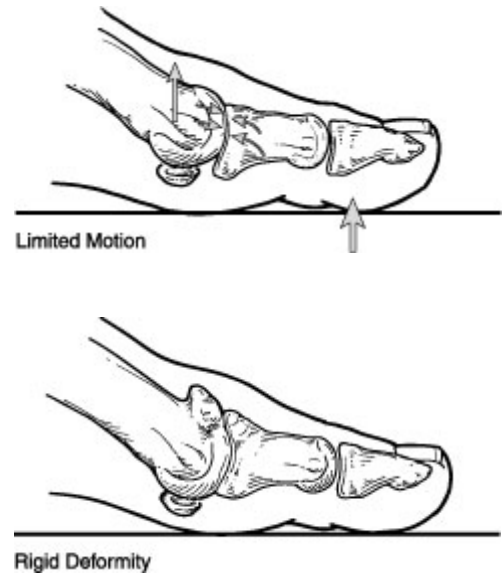
As the disorder gets more serious, additional symptoms may develop, including:

- Pain, even during rest
- Difficulty wearing shoes because bone spurs (overgrowths) develop. Wearing high-heeled shoes can be particularly difficult.
- Dull pain in the hip, knee, or lower back due to changes in the way you walk
- Limping, in severe cases

What Causes Hallux Rigidus?

Common causes of hallux rigidus are faulty function (biomechanics) and structural abnormalities of the foot that can lead to osteoarthritis in the big toe joint. This type of arthritis—the kind that results from "wear and tear"—often develops in people who have defects that change the way their foot and big toe functions.

In some people, hallux rigidus runs in the family and is a result of inheriting a foot type that is prone to developing this condition. In other cases, it is associated with overuse, especially among people engaged in activities or jobs that increase the stress on the big toe, such as workers who often have to stoop or squat. Hallux rigidus can also result from an injury or an inflammatory diseases, such as rheumatoid arthritis or gout. Your foot and ankle surgeon can determine the cause of your hallux rigidus and recommend the best treatment.



Treatment: Non-Surgical Approaches

Treatment for mild or moderate cases of hallux rigidus may include one or more of these strategies:

- **Shoe modifications.** Shoes that have a large toe box should be worn, because they put less pressure on your toe. Stiff or rocker-bottom soles may also be recommended. Most likely, you'll have to stop wearing high heels.
- **Orthotic devices.** Custom orthotic devices may improve the function of your foot.
- **Medications.** Non-steroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen, may be prescribed to help reduce pain and inflammation. Supplements such as glucosamine-chondroitin sulfate and some vitamins and minerals may also be helpful.
- **Injection therapy.** Injections of corticosteroids in small amounts are sometimes given in the affected toe to help reduce the inflammation and pain.
- **Physical therapy.** Ultrasound therapy or other physical therapy modalities may be undertaken to provide temporary relief. any bone spurs or other abnormalities that may have formed

When is Surgery Needed?

In some cases, surgery is the only way to eliminate or reduce pain. There are several types of surgery that can be undertaken to treat hallux rigidus. These surgical procedures fall into *two categories*:

- Some *procedures reconstruct and "clean up" the joint.* The foot and ankle surgeon removes the arthritic damage from the joint as well as any accompanying bone spurs and then alters the position of one or more bones in the big toe. These procedures are designed to preserve and restore normal alignment and function of the joint as well as reduce or eliminate pain.
- More *aggressive procedures* are used when the joint cannot be preserved. These may involve fusing the joint, or removing part or all of the joint and in some cases, replacing it with an implant, such as is done for the hip or knee. These procedures eliminate painful motion in the joint and provide a stable foot.

The procedure that is used to correct hallux rigidus depends on many factors, including the cause of the condition and the severity, as well as the patient's age, occupation and activity level. Your foot and ankle surgeon is trained to select a surgical procedure best suited to your particular condition and needs.