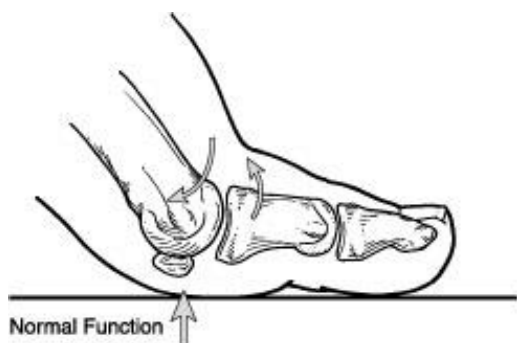


## Hallux Rigidus

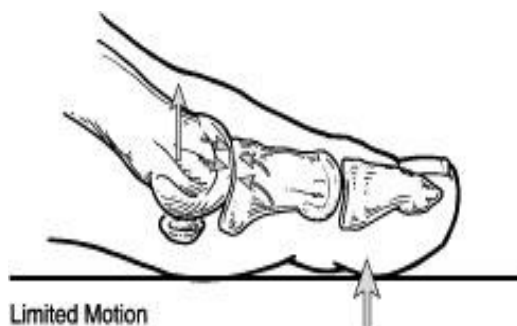
Each day, with every step you take, your big toe bears a tremendous amount of stress—a force equal to about twice your body weight. Most of us don't realize how much we use our big toe. We tend to take it for granted, unless a problem develops. Hallux rigidus is a condition where the movement of the toe is restricted to varying degrees. This disorder can be very troubling and even disabling.

### What is Hallux Rigidus?

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 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. 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."



### Symptoms

Early signs and symptoms include:

- Pain and stiffness in the big toe during (walking, standing, bending, etc.)
- 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:

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



Rigid Deformity

### **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 rheumatoid arthritis or gout.

### **Diagnosis of Hallux Rigidus**

The sooner this condition is diagnosed, the easier it is to treat. Therefore, the best time to see an orthopaedic foot and ankle surgeon is when you first notice that your big toe feels stiff or hurts when you walk, stand, bend over, or squat. If you wait until bone spurs develop, your condition is likely to become more difficult to manage.

In diagnosing hallux rigidus, your surgeon will examine your feet and manipulate the toe to determine its range of motion. X-rays are usually required to determine how much arthritis is present as well as to evaluate any bone spurs or other abnormalities that may have formed.

### **Treatment: Non-Surgical Approaches**

If your condition is caught early enough, it is more likely to respond to less aggressive treatment. In fact, in many cases, early treatment may prevent or postpone the need for surgery in the future.

*Treatment for mild or moderate cases 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.

1. **Orthotic devices.** Custom orthotic devices may improve the function of your foot.
2. **Medications.** Non-steroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen or supplements such as glucosamine-chondroitin sulfate may be helpful.
3. **Injection therapy.** Injections of cortisone in small amounts are sometimes given in the affected toe to help reduce inflammation and pain.
4. **Physical therapy.** Ultrasound therapy or other physical therapy modalities may be undertaken to provide temporary relief.

### **When is Surgery Needed?**

In some cases, surgery is the only way to eliminate or reduce pain:

1. Some procedures reconstruct and "clean up" the joint. The surgeon removes the arthritic damage from the joint as well as any accompanying bone spurs. Sometimes a tissue spacer is placed in the joint to reduce pain. These procedures are designed to preserve and restore normal alignment and function of the joint as well as reduce or eliminate pain.
2. More aggressive procedures are used when the joint cannot be preserved. These may involve fusing the joint, or removing part of the joint and, 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.