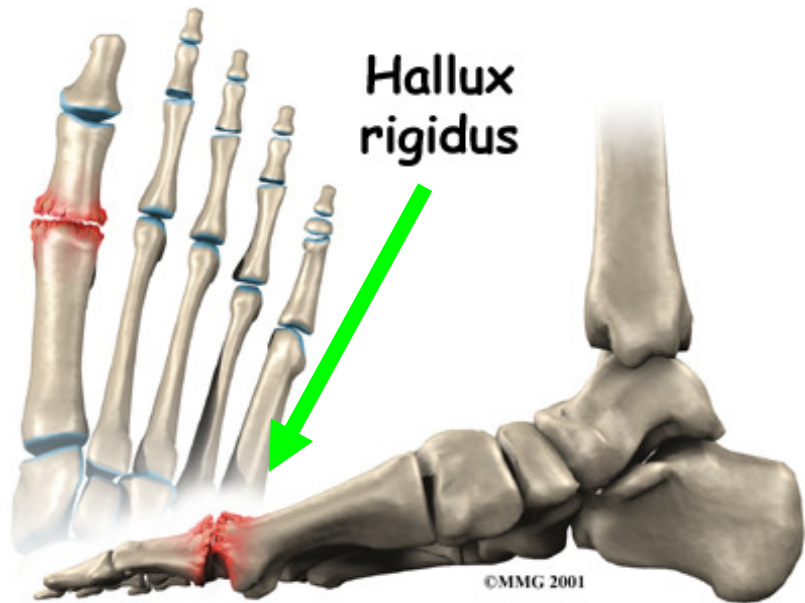


Hallux Rigidus

OVERVIEW

You have been diagnosed with hallux rigidus, which when translated means that you have a stiff or rigid big toe. This is due to arthritis and reactive changes in the joint at the base of the big toe, which is called the metatarsophalangeal joint, or first MTP joint. This joint is important because, extension of this joint is an important part of foot mechanics with walking. If the joint starts to stiffen, walking can become painful and difficult.



BACKGROUND

In the metatarsophalangeal joint, as in any joint, the ends of the bones are covered by a smooth articular cartilage. If there is osteoarthritis (wear-and-tear arthritis) or injury damage (traumatic arthritis) to the articular cartilage, the raw bone ends can rub together. A bone spur, or overgrowth, may develop on the top of the bone. This overgrowth can prevent the toe from bending as much as it needs to when you walk. The result is a stiff and painful joint, or hallux rigidus.

Hallux rigidus usually develops in adults between the ages of 30 and 60 years. No one knows why it appears in some people and not others. It may result from an injury to the toe that damages the articular cartilage or from differences in foot anatomy that increase stress on the joint.



DIAGNOSIS

Signs and symptoms of hallux rigidus are stiffness in the first metatarsophalangeal joint and pain in the joint when you are active, especially as you push-off on the toes when you walk. There can be swelling around the joint, but more commonly there is a hard bump, like a bunion or callus, that develops on the top of the foot above the joint.

Your doctor will examine your foot and will generally find limited motion at the first MTP

joint. Often this is an isolated condition, but he will look for other foot and toe problems as well. He will also review your gait and your choice in shoes. X-rays will show the location and size of any bone spurs, as well as the degree of degeneration in the joint space and cartilage.

TREATMENT

Initial treatment is symptomatic and supportive. Supportive treatment aims to reduce the mechanical stress that acts on the painful joint and reduce pressure on the painful bone spurs. Mechanical protection is combined with other symptomatic care including activity modifications and arthritis medications.

Pain relievers and anti-inflammatory medications such as ibuprofen may help reduce the swelling and ease the pain. Applying ice packs or taking contrast baths may also help reduce inflammation and control symptoms for a short period of time.



Wearing a shoe with a large toe box will reduce the pressure on the toe, and you will probably have to give up wearing high heels. Your doctor may recommend that you get a stiff-soled shoe with a rocker or roller bottom design and possibly even a steel shank or metal brace in the sole. This type of shoe supports the foot when you walk and reduces the amount of bend in the big toe. A similar option is a custom made semi-rigid shoe orthosis that fits inside your shoes and protects the painful joint.

Surgical options are used if symptoms become limiting. Options include cheilectomy or fusion. Cheilectomy is usually recommended when joint damage is mild or moderate. It involves removing the bone spurs, so the toe has more room to bend. The incision is made on the top of the foot. The toe and the operative site may remain swollen for several months after the operation, and you will have to wear a wooden-soled sandal for at least two weeks after the surgery. But most patients do get better motion and experience long-term relief.

Arthrodesis is done to get the bones to fuse together and is often recommended when the damage to the joint cartilage is severe. The damaged cartilage is removed and pins, screws, or a plate are used to fix the joint in a permanent position. Gradually, the bones grow together. This type of surgery means that you will not be able to bend the toe at all. However, the joint is usually fused in a better functional position and this is the most reliable way to reduce pain in these severe cases. For the first six weeks after surgery, you will have to wear a cast and then

use a protective boot for about another six weeks. You will need to wear shoes that fit with the joint in the fused position. Arthroplasty is another option with plusses and minuses. It is probably most appropriate for a very healthy older person who does not do a lot of walking and who put low functional demands on the feet. The joint surfaces are removed and an artificial joint is implanted. This procedure may relieve pain and preserve joint motion. In the past, the materials used for joint replacement caused problems with wear and tear breakdown. Newer materials are available, but have not been well tested for longer term or higher demand usage.



EXPECTED OUTCOMES

Many patients do well with supportive treatment. Patients who do not get good pain relief and are still limited by the pain, often do very well with surgery. In mild to moderate cases, a cheilectomy procedure is very effective at recovering motion and reducing pain.

MORE INFORMATION

Further information can be obtained on the internet. Your local public library can help you explore these sources if you are interested. Two good internet sites for expert and peer reviewed information are the American Academy of Orthopedic Surgeons at www.aaos.org and www.emedicine.com.

FEEDBACK

If you have questions or comments, please contact the office or submit them to the web site at www.pedortho.com.