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# HALLUX RIGIDUS

## Dealing With a Stiff Big Toe by Risa C. Doherty

**M**ost people do not pay a lot of attention to the health of their toes until one of them hurts. Even then, a lot of people try to ignore the pain for as long as possible. But eventually, if the pain does not disappear on its own, and especially if it is causing a person to limp, he is likely to seek professional help.

One foot condition that may prompt you to seek help is *hallux rigidus*, which means “stiff big toe” in Latin. A primary symptom of hallux rigidus is pain in the joint at the base of the big toe (the *metatarsophalangeal* joint). The pain may occur when you are active, even if you are wearing sensible, low-heeled shoes, or when you are at rest. You may also develop a bump on the top of your toe that looks somewhat like a bunion.

An experienced podiatrist or orthopedic surgeon will recognize the signs of this form of osteoarthritis, which include severely limited motion of the toe when flexed upward or downward and bone spurs (bony growths), which create a bump on the top of the joint. X-rays can confirm the diagnosis and determine the extent of the damage to the joint. If the extent of the damage is unclear from x-rays, a health-care provider may order an MRI or CT scan.

The stiffness and pain of hallux rigidus results

from the loss of cartilage in the joint. As the cartilage in the joint wears away, the bones move closer to each other, and the joint space narrows, limiting motion. In more extreme cases, pain results from bone rubbing against bone within the joint and from bone spurs rubbing against the inside of the shoe.

Hallux rigidus starts out as *hallux limitus*, which is characterized by some limitation of motion and is measured in stages. There are a variety of staging systems. According to Dr. Christopher Chiodo, Chief of the Foot and Ankle division at Brigham and Women’s Hospital in Boston, “The most useful staging system is based on the amount of joint space lost, with the end stage characterized by a stiff joint.”

### Nonsurgical treatments

Your podiatrist or rheumatologist may be able to recommend some nonsurgical treatment options for hallux rigidus, including the following:

- Immobilizing the damaged joint by taping it may temporarily alleviate the pain.
- Glucosamine and chondroitin supplements are sometimes helpful in relieving pain in the early stages, although not all doctors favor their use. Still, according to physician assistant Lisa Melnik, doctors at the major New York hospital where she works

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would not discourage patients from giving them a try.

- Wearing sneakers with a wide toe box, hard-soled shoes with little or no heel, or shoes with rocker-bottom soles, which help the foot to roll forward during walking without requiring the big toe joint to bend, may also be helpful. An ample toe box is necessary to accommodate bone spurs. Like rocker-bottom soles, hard soles (that cannot be easily bent in half) tend to take the pressure off the ball of the foot by limiting the amount the foot flexes upward when walking. It is always a good idea to have your podiatrist evaluate your shoes.

- Although many podiatrists and orthopedists recommend custom orthotics (shoe inserts), which can be costly, some believe that ready-made, store-bought insoles can be altered to reduce pain during walking. (You may be able to alter the insole yourself, or you can ask your podiatrist for help.)

- Some people have benefited from the use of a type of shoe insert called a Morton's extension carbon footplate orthosis, which limits the pain of walking by decreasing motion at the arthritic joint, according to Dr. Chiodo. Since this type of orthotic is thin, it can be used in many types of shoes without altering the fit. (Morton's extension footplates

benefits of the surgery, such as a reduction in pain, as well as the potential drawbacks, such as limited shoe choices or the possibility that they will need a second surgery later on.

**Cheilectomy.** Often referred to as the gold standard for joint preservation, cheilectomy is normally recommended for early-stage hallux rigidus. It involves the removal of bone spurs and the cleaning out of the joint area. According to Melnik, "Doctors also may perform a Moberg osteotomy to give a patient a feeling of more upward motion." (A Moberg osteotomy involves removing a wedge of bone from the top of the first bone of the big toe.)

Doctors' opinions differ on the prudence of performing cheilectomies for people with end-stage hallux rigidus. Melnik points out that the procedure presents the potential for increased pain "as the patient gains more motion of arthritic surfaces." However, Dr. Chiodo believes that people whose pain originates from bone spurs (as opposed to pain from movement in the joint itself) can benefit from this procedure and buy themselves time before a more extreme surgery.

Other procedures for hallux rigidus include arthrodesis, interpositional arthroplasty, joint replace-

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can be found online at <http://tinyurl.com/15qfl2a> and <http://tinyurl.com/n79vopd>.

- Dr. Chiodo also recommends that people try stretching their shoes with a ball and ring stretcher to keep them from pressing on spurs.

- Anti-inflammatory medicines, such as ibuprofen, and cortisone injections may be used to manage more intense pain.

- Physical therapy is an option for hallux limitus, but doctors do not prescribe it for hallux rigidus, because it does not effectively relieve the pain or increase the range of motion of the toe, and it may actually increase pain.

## Surgical options

If nonsurgical treatments have failed to provide adequate pain relief and/or improve your ability to walk, you may want to consider surgery. However, surgical solutions for hallux rigidus are not "one size fits all," and different doctors advocate different procedures.

Surgeries for hallux rigidus may aim to increase motion and maintain function, or may seek to relieve pain by eliminating motion entirely. People contemplating surgery need to consider the likely

ment, and arthrodiastasis, to name just a few.

**Arthrodesis.** Commonly known as "fusion," arthrodesis is widely accepted as the most reliable procedure to relieve pain for people with severe joint damage. In fact, some orthopedic surgeons believe that fusion is the only surgical procedure that can reliably ease the symptoms associated with end-stage hallux rigidus. Some surgeons report routinely having to perform fusion operations after alternative surgeries have failed.

In arthrodesis, the damaged cartilage is removed, and then the two bones are fused together permanently. Screws, plates, wires, or a combination of these are inserted to hold the bones in place, preventing any future motion. Doctors say that fusion is easier if it is not preceded by another surgical procedure, which may leave scar tissue or bone erosion in its wake.

The drawback to fusion is that you can no longer stand on your tiptoes or perform other movements that require flexing at the ball of the foot, such as the downward dog position in yoga. (However, you may be able to modify exercises or poses rather than stop doing them altogether.)

For some women, the near-impossibility of finding dress shoes that fit is the most alarming potential consequence of hallux rigidus, and fusion makes this limitation permanent, preventing a person from ever wearing a heel exceeding 1½", with the possible exception of a platform shoe. A future with limited shoe options can make the decision to undergo fusion particularly difficult for younger women with hallux rigidus.

**Interpositional arthroplasty.** In this procedure, damaged bone is removed and soft tissue, such as part of a tendon, is inserted into the joint to ease motion. For those with end-stage hallux rigidus, it may not be a permanent solution, but it can delay a need for fusion. A similar procedure called a Keller resection arthroplasty is also an option, but it can lead to “a weak and unsupportive big toe,” according to Dr. Chiodo.

**Joint replacement.** Joint replacement and hemi-joint replacement involve the use of a metal, metal and plastic, or silicone implant, (with “hemi” referring to the resurfacing of only one side of the joint). When an implant is successful, it can restore a person’s range of motion, enabling the person to return to all regular activities and to wear heels without strict limitations. However, a joint replacement does not necessarily alleviate all the pain. Still, the ability to return to normal activities and shoes can be very tempting (even for women who claim not to care much about shoes).

**Arthrodiastasis.** Arthrodiastasis is a new, somewhat experimental arthroscopic procedure in which an external metal mechanism stretches the ligaments to open up the space where the joint has closed. However, most doctors do not perform this procedure for the metatarsophalangeal joint at this time.

## Choosing a surgeon— and a surgery

If you are considering surgery, you need to consult a podiatrist who performs surgery or an orthopedic surgeon who is a foot and ankle specialist.

When seeking a surgeon, try to get recommendations from trusted internists or friends who have actually been treated by the specialists they are recommending. Keep in mind that a glowing recommendation for a podiatrist who performed a successful reconstructive bunion surgery should not be

an automatic green light for a joint replacement. You are looking for a doctor who has performed the type of surgery you need (although you may not know yet what that is). In addition to getting personal recommendations, you should also check a doctor’s hospital affiliations and credentials, including his board certifications. You can do this by contacting the American Medical Association, a local medical society (if the doctor is a member), and local hospitals. If you have health insurance through an HMO, it will have this information on in-network doctors.

Ultimately, the choice of surgical procedure is yours, but it’s hard to make that choice alone. The solution is to find a doctor who will work with you. “Your doctor should sit down and get to know you, your actual activity level, and the extent of your pain, so that you can reach a [suitable] decision together,” says Dr. Chiodo. If your doctor does not do this, you should look for another doctor. And even if he does, it is good to get a second opinion (and sometimes third). If you feel that your local doctors are offering limited choices, try contacting teaching hospitals in other areas.

If you decide to proceed with surgery, you can and should ask as many questions as you need to. While you don’t need to understand all the technical issues associated with your surgery, you do need to know the basics and the potential consequences of your choice. Part of advocating for yourself is being willing to ask for explanations or clarifications of technical terms—and to ask again if you don’t understand the first time.

It helps to have an extra set of ears when talking to your surgeon, so if possible, bring a close friend or relative with you to your consultation. If that’s not possible, you should sign a HIPAA form (sometimes called a “medical release” or a “disclosure authorization”) so that someone else can speak with the doctor or a physician assistant at another time, if information needs to be clarified.

You want to feel fully confident of the surgeon’s abilities, so you should ask the doctor you’re considering when the last time he performed the selected procedure was and how often he performs it. Ask also about the rate of failure for the procedure, the risks associated with it, and how often those risks have become realities. Some risks with fusion are non-union of the bones and misalignment. Risks for joint replacement include bone erosion, implant rejec-

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tion, loosened implants, and scar tissue formation.

Candidates for joint replacement should ask about implant choices (including the materials the implants are made of), the expected longevity of the implant, and the track record for the implant and the company that makes it. For the nonfusion surgical alternatives, you should ask about the chances of bone spurs returning, as well as the length of time before a follow-up surgery might be necessary.

Prospective patients should ask to speak to more than one person who has had the procedure performed by the doctor. No two people are identical, and the success or failure of a procedure is somewhat subjective, especially if people have unrealistic expectations. Ask to speak with both recent patients and people who had the surgery at least five years ago, to see if they experienced any problems later. Ask them about the doctor's accessibility and whether the recovery was consistent with what they were told to expect. In addition to giving you useful information, speaking with other, similarly-situated individuals can be empowering and help you to feel less isolated.

Since doctors normally connect prospective patients with only satisfied former patients, you might want to look on a site such as [www.angieslist.com](http://www.angieslist.com), which allows members to submit reviews for various types of service providers. Physician assistants and nurse practitioners who specialize in this area can also have a wealth of information and be wonderful resources, and they also tend to be more accessible than orthopedic surgeons.

In the end, you need to pick a doctor based on your comfort level and the doctor's ability to respond capably to your needs.

## The recovery period

Another important factor to take into consideration when deciding whether to have a particular procedure is the expected recovery period and the amount of time you will likely be unable to walk or drive. Following your surgeon's postoperative directions is critical, as a failure to do so can result in an unsuccessful procedure.

According to Melnik, "Each doctor's [postoperative] approach is different." Fusion at the hospital where she works requires two weeks off one's feet, followed by four weeks in a surgical boot, and no full weight bearing until 10 weeks after the surgery. Melnik notes, "It does take four to five months for the swelling to take a significant drop, allowing a return to certain activities." Full healing may take even longer.

People recovering from interpositional arthroplasty are prohibited from weight bearing for two

weeks and from resuming certain activities until four or five months after the surgery.

Recovery from a joint replacement or hemireplacement is much easier. There can be immediate weight bearing, no cast, and even no crutches, according to Dr. Barbara Schlefman, an Atlanta-based podiatrist. Recovery may take only two to four weeks.

Regardless of the length of the recovery period, people undergoing foot surgery need to make transportation arrangements and manage their work or home responsibilities accordingly. For many people, that means asking friends or family members to help them—and to assist those they normally care for—especially if they cannot drive or walk easily. For others, it may mean hiring a home health aide or a homemaking service to help with personal or household tasks.

Most of the surgeries described in this article also require regular physical therapy following the procedure. For some people, physical therapy may consist mainly of doing some prescribed exercises at home, while others may need to go to regular appointments with a physical therapist. It all depends on the procedure, the doctor, and the patient. However, anyone contemplating foot surgery needs to think ahead to how he will make time and transportation arrangements for physical therapy following surgery.

## No easy answers

Surgery for hallux rigidus is a big decision, in part because all surgical procedures have potential risks and side effects. A common recommendation is to wait until the condition interferes with your daily life before going ahead with surgery.

Keep in mind that no form of surgery can restore your toe to the way it was before you developed hallux rigidus. Surgery can ameliorate some of the symptoms, but it is not a panacea; there is a limit to the benefits surgery can provide. Although joint replacement surgery aims to restore range of motion, it often does not do so completely.

Don't rush your decision. If you have end-stage hallux rigidus, chances are you lived with it for a long time and adapted to your condition somewhat before it became noticeable enough for you to seek help. Waiting a bit longer to decide on the path that is right for you is worth it. □

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*Risa C. Doberty is an award-winning freelance writer from Long Island, New York, who was diagnosed with end-stage hallux rigidus in the summer of 2012. Read more at [www.risadoberty.com](http://www.risadoberty.com).*