Rheumatoid Arthritis of the Foot and Ankle

Rheumatoid arthritis (RA) is a systemic disease that attacks multiple joints throughout the body. About 90 percent of people with rheumatoid arthritis eventually develop symptoms related to the foot or ankle. Usually symptoms appear in the toes and forefeet first, then in the hindfeet or the back of the feet, and finally in the ankles. Other inflammatory types of arthritis that affect the foot and ankle include gout, ankylosing spondylitis, psoriatic arthritis and Reiter’s syndrome.

The exact cause of RA is unknown but there are several theories. Some people may be more likely to develop RA because of their genes. However, it usually takes a chemical or environmental trigger to activate the disease. In RA, the body's immune system turns against itself. Instead of protecting the joints, the body produces substances that attack and inflame the joints.

What are the symptoms of rheumatoid arthritis?
The most common symptoms of RA in the foot are pain, swelling and stiffness. Symptoms usually appear in several joints on both feet. You may feel pain in the joint or in the sole or ball of your foot. The joint may be warm and the way you walk may be affected. You may develop corns or bunions, and your toes can begin to curl and stiffen in positions called claw toe or hammer toe.

If your hindfoot (back of the foot) and ankle are affected, the bones may shift position. This can cause the long arch on the bottom of your foot to collapse (flat foot), resulting in pain and difficulty walking.

Because RA affects your entire system, you may also feel feverish, tire easily and lose your appetite. You may develop lumps near your joints, particularly around the elbow.

How is rheumatoid arthritis diagnosed?
Sometimes arthritis symptoms in the foot are the first indication that you have RA. Your doctor will ask you about your medical history, occupation and recreational activities, as well as any other persistent or previous conditions in your feet and legs. The appearance of symptoms in the same joint on both feet or in several joints is an indication that RA might be involved.

Your doctor will also request X-rays to see how much damage there is to the joints. Blood tests will show whether you are anemic or have an antibody called the rheumatoid factor, which is often present with RA. If you've already been diagnosed with RA, you and your doctor should be aware that the disease will probably spread to your feet and ankles. Watch for early signs such as swelling and foot pain.

What is the treatment?
Many people with RA can control their pain and the disease with medication and exercise. Some medications, such as aspirin or ibuprofen, help control pain. Others, including methotrexate, prednisone, sulfasalazine and gold compounds, help slow the spread of the disease itself. In some cases, an injection of a steroid medication into the joint can help relieve swelling and inflammation.

Your doctor may also prescribe special shoes. If your toes have begun to stiffen or curl, you should wear a shoe with an extra-deep toe box. You may also need to use a soft arch support with a rigid heel. In more severe cases, you may need to use a molded ankle-foot orthotic device, canes, or crutches.

Exercise is very important in the treatment of RA. Your doctor or physical therapist may recommend stretching as well as functional and range-of-motion exercises.

Surgical options for the foot or ankle
Surgery can correct several of the conditions associated with RA of the foot and ankle, including bunions and hammer toes. In many cases, however, the most successful surgical option is fusion (arthrodesis). Fusion is often performed on the big toe, in the midfoot, in the heel and in the ankle.

With a fusion, the joint cartilage is removed. In some cases, some of the adjacent bone is also removed. The bones are held in place with screws, plates and screws, or a rod through the bone. The surgeon may then implant a bone graft from the hip or leg. Eventually, the bones unite to create one solid bone.

There is loss of motion after a fusion, but the foot and ankle remain functional and generally pain-free. Replacing the ankle joint with an artificial joint (arthroplasty) may be possible. However, this is a relatively new surgical technique. Whether it will be as successful in the long term as hip or knee replacement surgery is not yet known.

As in all surgeries, there is some risk. Infections, failure to heal and loosening of the devices are the most common problems. Intravenous antibiotics and/or repeat surgery may be needed. Severe complications may require amputation, but this is rare.

What happens during recovery?
Your doctor will prescribe pain medication for your use after the surgery. Before you leave the hospital, you will be taught how to use crutches. It takes a long time to recover from foot surgery. Here are some things to consider as part of your recovery:

- Ask friends or family for help in preparing meals and doing other activities of daily living.
- For the first week or so after surgery, keep your foot elevated above the level of your heart as much as possible.
- Be sure to do the prescribed physical therapy exercises. They will help you regain strength, motion and the ability to walk.
- You won't be able to put all your weight on your foot for several weeks, and you may need to wear a special shoe or a cast for several months.
You will probably be able to resume ordinary daily activities three to four months after surgery.

RA is a progressive disease that currently has no cure. However, medications, exercises and surgery can help lessen the effects of the disease and may slow its progress.

Resources

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This material was codeveloped by the American Academy of Orthopaedic Surgeons.

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