

## Rheumatoid arthritis in the foot and ankle

### How does rheumatoid arthritis affect my foot and ankle?

90% of patients will develop symptoms in their foot or ankle due to RA. These symptoms can range from mild inflammation and stiffness in the joints too developing deformities and arthritis.

The toes are the most commonly affected part of the foot. The big toe can develop a bunion and start going skew. This causes pain over the bunion with shoe wear and activities. With time the big toe joint can become arthritic, making it stiff and painful. The lesser toes can also start going skew and form hammer (curling) toes. As the hammer toes get worse the joint of the toes dislocate making the metatarsal heads prominent under the ball of the foot. This makes it difficult to walk barefoot and callosities form under the ball of the foot. The hammer toes can cause pain with shoes because of rubbing against the shoe.

The midfoot or arch can become arthritic, but this is not common. If the arthritis is bad it will cause swelling and bony bumps over the midfoot. When this occurs, it causes pain (burning) with lace-up shoes. You may also experience pain and stiffness in the arch of the foot with the first couple of steps in the morning.

The hindfoot (heel area) is the second most affected part of the foot. There are two main problems that can occur. Firstly, the tendon on the inside of the foot can become damaged causing the arch to collapse and the foot becomes flat. The second problem that can happen is the joints of the hindfoot become arthritic. This will cause pain and swelling below the ankle. As the arthritis becomes worse the foot becomes more uncomfortable to perform impact activities.

The ankle can also become arthritic. This will start with the ankle swelling and being painful. As the arthritis worsens the ankle becomes stiff making it difficult to walk, especially uphill and downhill.

The tendons around the ankle and foot can become inflamed causing swelling and pain. In rare cases the tendon can rupture. The commonly affected tendons include the Achilles, peroneal and posterior tibial tendon.

### **What can I do to try prevent the above problems?**

Most importantly is to follow up with your rheumatologist to keep the disease process under control. Modern medical treatment (medication and injections) for rheumatoid arthritis has improved significantly over the years. The disease process (the inflammation which causes the damage) can be stopped if you are well controlled.

Always wear good supportive shoes. Try avoid wearing narrow toe box shoes for long periods. When walking long distances, like on holiday, wear a sports shoe. It is advisable to consult a podiatrist regarding foot care and shoe wear.

### **When do I need surgery for my feet?**

Once the toe deformities become fixed or the arthritis in the foot makes it difficult for you to wear shoes and perform your normal daily activities, you should consult with an orthopaedic surgeon.

### **What operations can be done to help with my feet?**

The aim of surgery is to:

- Relieve pain
- Correct the deformity
- Preserve or restore function
- Walking stability
- Allow comfortable shoe wear

A big toe deformity (Bunion) or arthritis is best treated by fusing (stiffen) the joint in a straight functional position. All bumps and prominences will be removed. The recovery includes six weeks and a special post-operative shoe which allows you to walk on the heel. It takes approximately 10 weeks for the swelling to settle and be comfortable in shoes to exercise. You will be able to walk and even jog comfortably with a fused big toe.

The lesser toes are straightened by shortening or removing the metatarsal heads and removing a piece of the bent knuckle. The toes are held in a straight position for six weeks with a wire. This wire is removed at six weeks. The recovery period is the same as for the big toe. (figure 1)

If the hindfoot arthritis becomes very painful and debilitating it is best to fuse (stiffen) the hindfoot joints. Fusing these joints does not affect the movement in the ankle. You will still walk normally after fusing the hindfoot joints. Recovery includes 8 weeks in a plaster cast followed by a moonboot and physiotherapy. Rehabilitation is lengthy (up to 12 months).

Arthritis of the ankle can be treated with a fusion (stiffening) (figure 2) or total ankle replacement (figure 3). An ankle replacement can only be considered once certain criteria are met. Your orthopaedic surgeon will be able to advise you as to which procedure is best for you. Recovery is similar to the hindfoot fusion.

**Fusion:** The joint cartilage is removed. The bones are held in place with screws, plates and screws, or a rod through the bone. Eventually, the bones unite to create one solid bone.

### **What are the risks of having surgery?**

All surgeries have some risk but fortunately they are rare. Infections, failure for the fusion to heal and loosening of the hardware are the most common problems. Intravenous antibiotics and/or repeat surgery may be needed to treat the complications. It is important to follow your surgeon's instructions to minimise complications.

Be aware that rheumatoid arthritis is a systemic disease so the healing may take longer than usual. You may be required to temporarily stop certain of your rheumatoid medication before and after the surgery. You will be advised by your orthopaedic surgeon and rheumatologist accordingly.



Figure 1

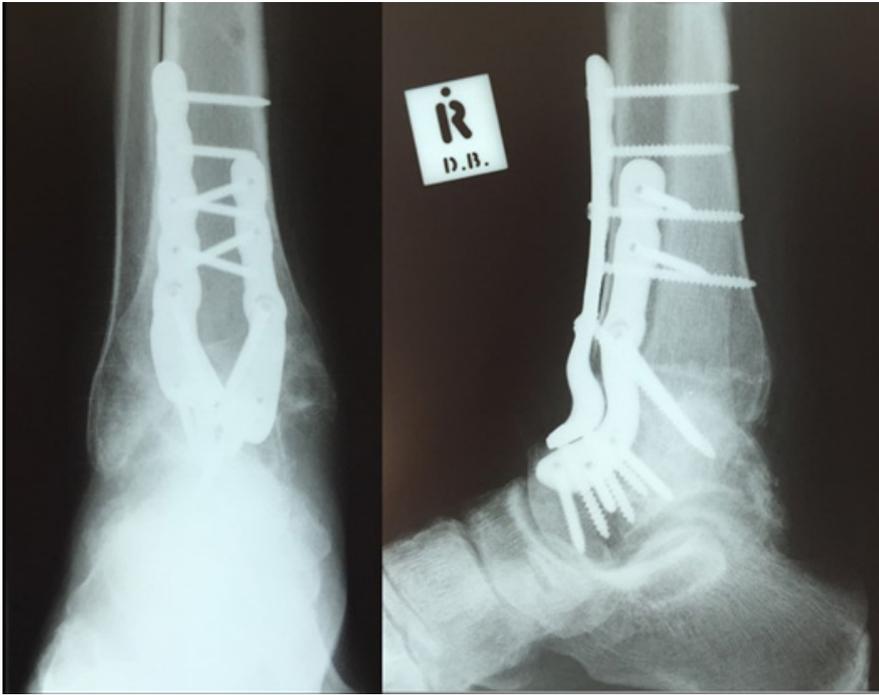


Figure 2



Figure 3