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FOOT ARTHRITIS

What is arthritis?

Arthritis occurs as a result of thinning of the cartilage that lines the joints. The symptoms are pain, swelling and in the most severe cases progressive deformity. There are more than a dozen joints in the foot, many of them close together, and any one (or often more than one) can be involved in the arthritic process.

How is foot arthritis diagnosed?

Despite a careful clinical assessment, it may still be difficult to be certain which joint is causing the pain. Many patients have more than one joint affected. In such cases, it may be appropriate to consider a diagnostic injection of steroid and local anaesthetic into the joint. This can be performed under a short general anaesthetic with the assistance of an x-ray machine to ensure the correct positioning of the needle or awake under ultrasound guidance by a radiologist. If good relief of symptoms from a targeted injection occurs, even if short lived, then it is likely that this is the joint most severely affected. If there is no relief from symptoms then this joint is less likely as the cause for pain.

How is foot arthritis treated?

- Non-surgical treatment – this involves the use of painkilling tablets, injections, orthotics (insoles) and activity modification. In general, however, if symptoms persist, then surgery is required.
- Surgical treatment - Unlike with the ankle or big toe joint, there are no replacements for any of the other foot joints. In general, the solution to arthritis in the joints of the foot is an arthrodesis. This involves removing any remaining cartilage and fusing the joint. This removes any remaining movement in the joint, but is very successful in relieving pain.

Are there any complications of having a fusion?

There are risks with all surgical procedures. Risks of severe complications are increased in heavy smokers, and if there is significant deformity in the foot. Surgery is performed under a general anaesthetic. With modern techniques, the risk from the anaesthetic itself is now very low. There are also general risks of the surgery, which include infection, pain, swelling, stiffness, blood clots, nerve and blood vessel damage and a risk that the surgery may not fully cure the pain.

Specific to the fusion is the risk that the fusion will not take – this is known as a non-union. If this is symptomatic, it may require more complex surgery to repeat the fusion, often with bone graft taken from the top of the pelvis. The risk of non-union is significantly higher in smokers. There is also the risk that the surrounding joints may have to work harder as a result of the affected joint being fused and with time they too may become arthritic. This can be treated if necessary.

Which joints are most commonly affected?

- Subtalar joint - this joint lies beneath the ankle, between the talus (ankle bone) and the calcaneum (heel bone). Treatment for subtalar arthritis is usually a fusion and in cases where there is deformity of the heel, it may be necessary to insert a block of bone graft, taken from the top of the pelvis, to correct the deformity.
- Triple joint – this is made up of the subtalar, talonavicular and calcaneocuboid joints. As well as to treat arthritis, a triple fusion may be performed to correct a severe flat foot deformity.
- Talonavicular joint – this joint lies just in front of the ankle joint and is the main joint in the foot that allows the foot to move from side to side. It is commonly a site of arthritic change either on its own or in combination with other joints (see triple joint arthritis, above).
- Midfoot joints - The five joints at the base of the metatarsals, the tarsometatarsal joints, are another common site for arthritic change. Usually, it is only the 1st, 2nd and 3rd tarsometatarsal joints that are involved, with sparing of the 4th and 5th. As with the triple joint, this can be associated with a flat foot deformity. There may be large osteophytes around the joint which can cause pressure problems in shoes. Fusion of these joints will aim to improve the deformity as well as relieving pain and reducing the size of the bone swelling