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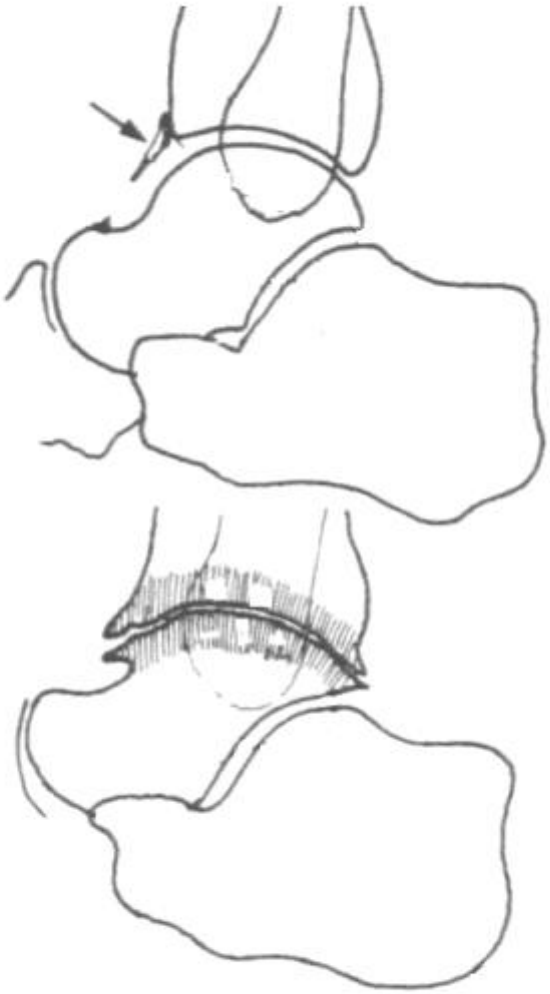
ARTHRITIS AND PAIN

Arthritis is a condition, which can affect any joint in the body, although some joints are affected more than others. A joint is made up of bone covered with cartilage and joined by a capsule and ligaments. In arthritis this cartilage is severely damaged often leading to the underlying bone being exposed and damaged. There are many causes of arthritis, but the most common are:

Osteoarthritis is often referred to as 'wear and tear'. It is a painful condition, and maybe accompanied with deformity. Osteoarthritis can occur following injury/trauma or years of high impact activities. Sometimes there is no obvious cause. The normal cartilage lining of the joint is slowly destroyed and the surfaces of bone have little or no protection, resulting in inflammation, swelling and pain.

Rheumatoid-Arthritis is an inflammatory disease often accompanied with varying degrees of pain and deformity. In those individuals affected by rheumatoid arthritis, the body's immune system is overactive, producing substances that cause inflammation, pain, stiffness and reduced mobility.



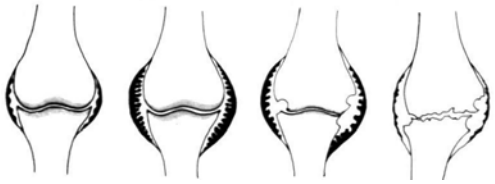
Normal joint Synovitis and

joint swelling

Early joint destruction with periarticular

erosions

Advanced joint destruction & deformity



Just because a joint is damaged does not mean that it will be very painful: some people have very severe arthritis on the X-rays but very little pain and other people have very little changes on the X-ray but a lot of pain. The doctor orders the X-ray to see how much damage has occurred to the joint to

help decide on the best treatment.

Although ankle arthritis is less common than that occurring in the hip or knee, it affects many people, causing pain and disability. There are many ways of reducing the pain caused by arthritis of the ankle, for example:

medication injections braces and therapeutic shoes walking stick

One or more of these methods should be tried before considering surgery because all surgery carries a risk of complications and failure.

The decision to have surgery is based on the degree to which everyday activities are limited by pain. If non-surgical methods are ineffective, the following surgical treatments may be of potential value in ankle arthritis:-

ankle arthroscopy (viewing the joint by way of a small incision and special camera) ankle arthrotomy and debridement (opening the joint and removing bone spurs) ankle fusion (removing the joint surfaces and making the joint completely fixed); total ankle arthroplasty (removal of ankle joint and replacing it with a metal-and- plastic substitute).

Ankle replacement will be most usually advised for patients who due to age or infirmity will be somewhat restricted in the level of physical activity in which they engage after surgery.

Ankle fusion is preferable for active patients whose only limitation is the painful ankle and once that is resolved will return to vigorous exercise. Fusion is also a better option for patients whose ankles have become virtually immobile or alternatively severely tilted or distorted due to the arthritis or previous fracture.

Ankle fusion

Ankle fusion is a procedure, which has been used for many years and the problems, and difficulties associated with it are fairly well understood. An Arthrodesis or fusion is an operation performed to 'fix' a joint: your body is 'tricked' into treating the joint as it would a broken bone. The joint surface is removed and screws or other metalwork are passed across the joint to maintain position while the bone healing occurs. Bone then grows across the joint fusing it solid. The aim of this operation is usually to turn a stiff painful joint into a stiff painless joint. It has a 90% success rate.

Patients usually express concerns as regards the level of mobility /movement following an ankle fusion. The operation removes ankle movements

completely; however, you are likely to do more following the procedure as your pain will be greatly diminished. Your ankle joint will probably already be quite stiff but is likely to be painful and stiff. A successful fusion in ideal alignment is excellent for pain relief. You will retain as much as 50% of the extension-flexion (up and down) movement of the foot which is achieved because your many foot joints are still mobile. While walking there is barely a limp and heavy activity, such as work involving standing and walking for most of the day, is still possible. However, walking on inclines and running usually remain a problem.. Once an ankle is fused in a 'good' position, it is most unusual for any further surgery to be needed in the future. Success cannot be guaranteed however and apart from the immediate risks of any major surgery, there is a possibility that the fusion will not 'take', ie the bone will not unite solidly across the joint, causing pain to persist. The situation can usually be rectified by a further operation. A second reason why the operation may be relatively unsuccessful is that the ankle unites in a less than ideal position and/or that there is persistent swelling and incomplete pain relief.

Ankle replacement

While the hip and knee are by far the most commonly replaced joints, other joints such as the shoulder, elbow and ankle have been replaced with varying degrees of success. When considering ankle replacement, one must understand the history of this procedure and the current state of its evolution.

The original ankle replacement designs used in the 1970s and 1980s were successful in the short term but their use was discontinued due to a high long-term failure rate due to complications such as infection, loosening and collapse, leading to additional extensive surgical procedures. Currently, new-generation designs are being tested, and ankle replacements with these designs are being performed by surgeons in Europe, North America and Japan. While early results are encouraging, the procedure should be considered as yet unproven because there is very little information about the long-term success or failure. More extensive experience is needed to determine for whom replacement is a sensible choice and for whom fusion remains the best option.

Advantages of ankle replacement

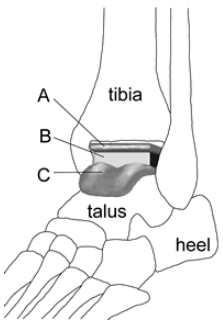
The attr

it preserves a useful amount of movement whilst effectively relieving pain. This is of particular advantage to patients who have arthritis in other joints of the leg because the ability of the ankle to move will lessen the strain upon those joints. Recovery in all cases takes several months and during this time swelling of the foot and altered sensation due to 'bruising' to nerves in the skin are a feature. Regaining movement requires considerable effort from the patient and even so some patients never obtain the ability to pull the foot up so that it is at ninety degrees to the leg and this can make it awkward to walk in bare feet.

Concerns about ankle replacements The main concerns around contemplating ankle replacement are

the serious nature of complications should they arise the certainty some time in the future the replacement will loosen and fail due to wear of the components causing pain and disability once more.

How soon this happens depends upon the amount of vigorous activity the patient engages in over future years. For an elderly patient or one whose activity is restricted by rheumatoid arthritis, it is believed that the ankle will perform satisfactorily for many years. Not all replacements are satisfactory even in the short term and sometimes failure occurs within the first few years. This is due either to infection, early aseptic loosening, dislocation of the components or other occasional causes. Early failure affects approximately 1 in 50 patients. The further surgery required to try to rectify the situation is protracted and usually of only limited success in that some pain and swelling may continue to be a problem. I am currently using a relatively new design of ankle replacement, the Mobility prosthesis. All of my patients who are about to undergo ankle replacement will be asked to attend yearly for review and allow information about their operation to be used to prepare reports for publication in orthopaedic journals. This in ime will contribute to progress to being made in improving the technique of the surgery and the design of the prosthesis.



THE OPERATION

An incision (cut) is made over the front of the ankle. Sometimes patients require additional surgery to correct the alignment of the foot The degenerate surfaces are cleared away and if necessary re-shaped to correct any deformity. The joint is placed into the correct position metal surfaces with a plastic insert are used to become the replaced"joint". Your ankle will then be protected by a plaster cast for about 4 weeks (see post operative instructions).

The operation usually takes one and a half hours and is usually done under a general anaesthesia (asleep). A lower leg block anaesthesia is used to provide pain relief following the procedure. The anaesthetist will discuss the most suitable method of anaesthesia for you.

IMPORTANT POST OPERATIVE ADVICE

Following your operation you will remain in hospital for approximately 2 days. When you arrive back on the ward from theatre your leg will be in a backslab (half plaster cast) from toe to knee. A check radiograph (x-ray) will be taken prior to discharge.

Wound site - you will either have stitches or steri strips in-situ with a dressing covering the wounds. It is extremely important to keep your leg elevated to above groin level for 55 minutes in every hour for the first 2 weeks following the operation. This greatly helps to limit swelling and reduce post operative complications. You will be seen and assessed by a physiotherapist who will instruct you on the safe use of crutches.

An appointment to attend the outpatient department two weeks following your procedure will be arranged. The backslab will be removed and your wound site inspected. If the wounds are sufficiently healed then a complete light weight plaster cast will be applied. You will be reviewed 4 weeks after the operation and, if everything is progressing satisfactorily, you will be referred for physiotherapy to reduce swelling, encourage movement, regain strength and maintain balance.

Returning to work – this depends on the type of employment. If you have an office or sedentary type of employment and there are provisions for you to elevate the affected limb then you may resume work 4 weeks following surgery. However, if your employment is physically demanding and usually involves long periods on your feet then it is advisable to refrain from work for up to 6 months. This decision will entirely depend on where your type of employment falls between these two extremes!

Driving – if you have a replacement on the left ankle and an automatic car,

you can usually drive by two weeks after your operation. Otherwise, it will take you about 3 months to drive with your replaced ankle. You must be able to perform an emergency stop. Your insurance company must be notified regarding the type of operation that you have undergone to ensure that cover is valid.

POSSIBLE COMPLICATIONS OF SURGERY

Swelling – You should expect some swelling for up to one year after surgery. Each person heals at differing rates. If swelling persists and you are concerned, seek advice from a member of the foot and ankle team.

Infection – This occasionally occurs in a small percentage of patients. However, if this is severe, then it is possible that further surgery may be required to remove infected tissue and administer a prolonged course of antibiotics. In very rare cases, the joint replacement may have to be removed completely. Minor infections are slightly more common and normally settle after a short course of antibiotics.

Numbness or tingling – This can occur at the surgical site(s) as a result of minor nerve damage. Most often this is temporary, however, numbness or sensitised area may be permanent.

Incision site – The wound where the blood supply is not so good may be slow to heal. If this is the case more frequent wound dressings may be required to ensure that the wound does not become infected.

Scarring – Any type of surgery will leave a scar. Occasionally this causes pain and irritation.

Blood clots – Deep vein thrombosis (DVT) or Pulmonary Embolus (PE) are rare. Please inform the team if you have had a DVT or PE before or if you have a family history of clotting disorders.

REPORT SEVERE PAIN, MASSIVE SWELLING, EXCESSIVE NUMBNESS OR PINS AND NEEDLES TO YOUR GP OR TO US