

Knee Arthritis



Introduction

Arthritis of the knee is a common condition and is becoming an increasingly important problem for the community as a whole. It is due to a gradual breakdown of the cartilage lining the joint surface (osteoarthritis) with narrowing of the joint space and the development of bony spurs. Injuries to the knee joint affecting the meniscus ('shock absorber'), the anterior cruciate ligament or the joint surface itself can all predispose to arthritis. Obesity alone can lead to arthritis and also make the symptoms much worse. Other causes include Rheumatoid arthritis and gout. The treatment of knee joint arthritis depends on the severity of the condition, the symptoms, the lifestyle of the individual, as well as their age and general health. In general, treatment can be divided into nonsurgical and nonsurgical options. As a basic principle it is always better to try all nonsurgical options first.

Non operative treatment

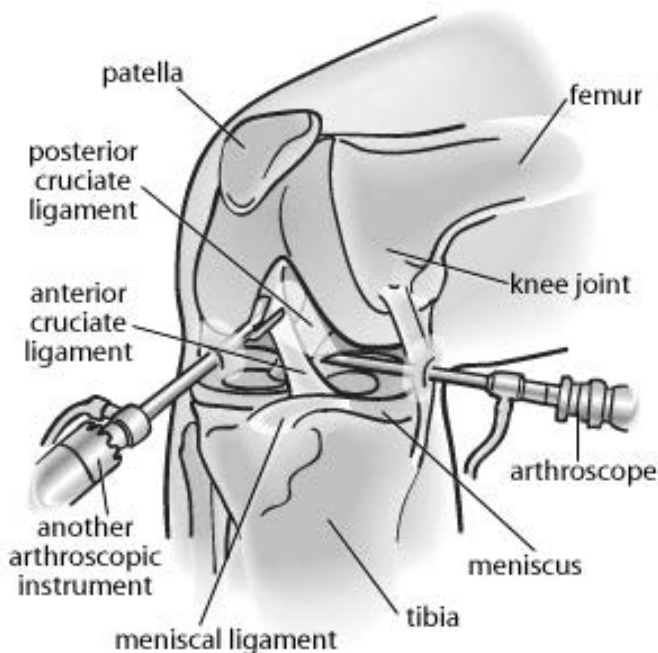
Early or mild ankle arthritis is treated with simple measures such as activity and lifestyle modification. These include losing weight, using walking aids like a walking stick and avoiding impact activities such as jumping and running. Low impact activities such as cycling, swimming and walking are recommended.

When arthritis becomes more severe, the next step is painkillers and anti-inflammatory tablets (if tolerated). These may be used in combination with physiotherapy to build up the thigh muscles (quadriceps). Some people find natural therapies such as glucosamine, chondroitin sulphate or fish oil beneficial. It is difficult to predict who will find these remedies useful but there

do not appear to be any significant side effects so it is probably worth trying. Sometimes injections of cortisone or a lubricant (viscosupplementation) may offer relief but as with all treatments the degree and extent of relief varies from patient to patient. There is some evidence to indicate that the use of lubricant injections provides relief that is similar to that obtained with the use of anti-inflammatory medication or cortisone injections for up to 3 to 6 months.

Anti-inflammatory medications, cortisone injections, or viscosupplementation do not affect the progression of osteoarthritis in the longer term. These options are simply to provide relief of pain. Operative treatment

Surgical options can be divided into three groups: arthroscopy (keyhole surgery), realignment procedures, and joint replacement.



Arthroscopy is a relatively minor and simple procedure and the idea of a “clean-up” operation seems attractive. There is, however increasing evidence to suggest that the use of arthroscopy for the treatment of the osteoarthritis provides little benefit compared to nonsurgical options over a period of a couple of years. It does still have a role in some situations. It seems to work better if there is swelling of the knee and it can be useful to trim a torn meniscus or remove loose fragments of articular cartilage. Once again, an arthroscopy is only aimed at relieving symptoms and does nothing to slow progression of the osteoarthritis. Sometimes arthroscopy seems to aggravate the arthritic process and may even accelerate the need for a knee replacement.



Osteotomy This involves cutting the tibia or femur bone and changing the overall alignment of the leg to make it more “knock-kneed” or sometimes more “bow-legged”. The aim is to take weight away from the part of the knee that is affected by osteoarthritis. Such procedures can only be used in certain patterns of arthritis. They can however provide good long-term relief and put off the need for joint replacement whilst at the same time allowing an individual to remain active. The likelihood of obtaining good pain relief is 80-90% at 5 years.



Knee Replacement involves shaping or cutting the bone ends and applying a metal or polyethylene component to the surface. Usually both sides of the joint are replaced. One can either replace all the parts of the knee, which is a total knee replacement or just one part of the knee, which is a partial replacement. Like osteotomies, partial replacement can only be used for certain patterns of osteoarthritis. In general we try to postpone joint replacement procedures for as long as possible because of concerns about long-term wear and loosening. In addition, replacement procedures are only compatible with low impact sporting activities. Golf, social or doubles tennis and cycling are reasonable whereas running, basketball, netball or any type of football should not be considered because of the risk of premature wear and loosening of the prosthesis. Many studies have shown that 90-95% of total knee replacements (TKR) will last for 10 years or more.

Risks and complications

No surgery is risk free. The risks and complications will be assessed and discussed with you. There is always a small risk of infection, blood clots and anaesthetic problems and measures are taken to reduce these. Often, there is a small (2-3 cm) patch of skin numbness on the outside of the knee (following osteotomy or TKR). This rarely causes a problem. Infection following TKR can be a devastating problem requiring further surgery and prolonged treatment.

Recovery:

Arthroscopy:

Inpatient	day surgery
Desk work	2 weeks
Manual labour	6 weeks

Osteotomy:

Inpatient	3-5 days
Crutches (no weight bearing)	6 weeks
Crutches (partial weight bearing)	6 weeks
Return to work (manual)	6 months
Final result	1 year

Total Knee Replacement:

Inpatient	5-7 days
Crutches	2-6 weeks
Return to work	6-12 weeks
Final result	1 year

This brochure is a brief overview of the management of knee arthritis and not designed to be all-inclusive. If you have any further questions, please discuss them with your surgeon.