JAMES REIDY
ORTHOPAEDIC SURGEON
HIP, KNEE & TRAUMA

Knee Arthritis

What is knee arthritis?

Knee arthritis is inflammation and deterioration of knee joint cartilage. Cartilage is the smooth coating on the ends of bones that serves as a cushion and allows the knee to smoothly bend and straighten. Knee cartilage coats the end of the thighbone (femur), top of the shinbone (tibia) and the backside of the kneecap (patella). When cartilage wears away, the space between the bone's narrows. In advanced arthritis, bone rubs on bone and bone spurs may form.

Types of arthritis:

Osteoarthritis (OA)

Osteoarthritis is also known as 'degenerative joint disease'. It is the most common form of knee arthritis, and it can also affect other joints. It is often associated with wear and tear related to aging, and gradually progresses over time.

Rheumatoid Arthritis (RA)

Rheumatoid arthritis (RA) is an autoimmune disease in which the immune system attacks healthy tissue in several joints of the body, including the knee. It causes inflammation of the synovial membrane, the capsule surrounding the knee joint. Inflammatory cells release substances that break down knee cartilage over time. Rheumatoid arthritis can affect people of any age.

Post Traumatic Arthritis

A history of injury or trauma to the knee may lead to development of arthritis. Injuries to the ligaments of the knee can make the joint less stable over time, which may lead to cartilage breakdown.

Symptoms:

- Knee pain that is worsened by certain movements or exercises, including prolonged walking and standing.
- Stiffness of the knee joint, which can make it difficult to bend and/or straighten the knee.
- 'Locking' or 'Catching' of the knee.
- Audible cracking, crunching or clicking sound on movement.
- Weakness in the knee. Knee arthritis may reduce how much someone moves, which can make the joint and muscles weaker and can worsen symptoms.

How is knee arthritis diagnosed?

- Physical examination and medical history
- Xray- cartilage cannot be seen on X-ray, however narrowing of the joint space between the bones indicates loss of cartilage.
- Blood tests if (RA) is suspected

Treatment:

Treatment can vary depending on the type and stage of arthritis, age, severity of pain and impact on daily activities. Cartilage damage or loss cannot be reversed but there are ways to reduce pain and prevent or slow down further damage.

Non-Operative Treatments:

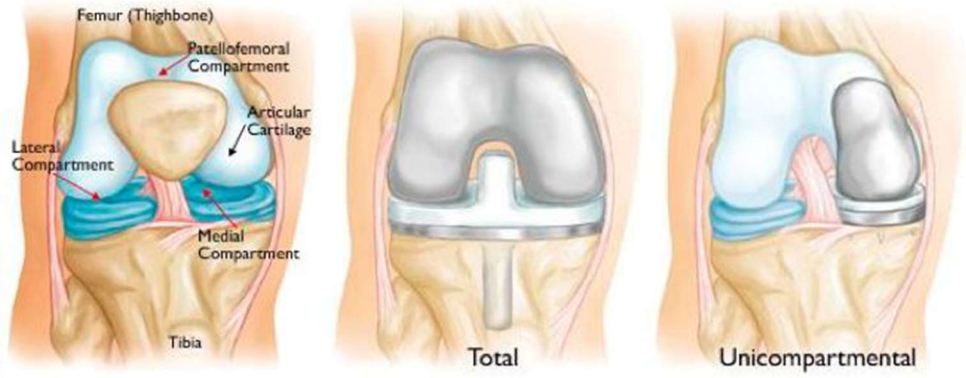
- Activity adjustments: This may involve avoiding high-impact exercise or sport, such as running and jumping. Engaging in low impact exercises (e.g. swimming or cycling). Remaining physically active is important for managing symptoms.
- Physiotherapy: To improve strength and range of motion.
- Weight loss (if applicable): To reduce the stress on the joint.
- Walking aids: such as a walking stick or walker to provide support.
- Medications and injections: such as cortisone injections, anti-inflammatories and simple analgesia (Panadol osteo). Discuss with your doctor/surgeon for the most appropriate option for you.

Operative Treatments:

If your knee arthritis is severely affecting your quality of life, despite trying non-operative alternatives, your doctor may recommend a "total joint replacement" or "partial joint replacement".

Total Knee Replacement:

A total knee replacement, also called a total knee arthroplasty, is a surgical procedure in which the worn out or damaged surfaces of the knee joint are removed and replaced with artificial parts. The goal of a total knee replacement is to relieve pain and restore the alignment and function of your knee.



Partial Knee Replacement:

Partial knee replacement also known as a "Uni knee replacement" is a surgical procedure that replaces (or resurfaces) only the damaged portion of the knee while conserving knee ligaments and unaffected cartilage. Only certain patients are eligible for this type of surgery. If your arthritis is present in only one area of the knee, and the rest remains healthy, partial knee replacement surgery may be possible.