

PARTIAL KNEE REPLACEMENT - MEDIAL (OXFORD) TIBIOFEMORAL UKR

The medial compartment of the knee will often develop a pattern of wear and tear affecting the front (anterior) and inside (medial) aspect with associated pain, swelling and stiffness. If the patient has an intact anterior cruciate ligament (ACL) and reasonable preservation of their flexibility (knee bending - range of motion) and cartilage in the lateral and patellofemoral compartments, they may be suitable for a medial unicompartmental knee replacement (UKR) rather than a total knee replacement (TKR). Approximately 1 in 4 patients who are being considered for knee replacement surgery are suitable for a UKR rather than a TKR.

The most successful and commonly used implant in Australia for partial knee replacement has been the Oxford UKR, which has a mobile bearing and several potential advantages to most fixed bearing UKR devices including lower wear rates, lower revision rates, greater range of motion and more natural movement. The ACL contains important nerve fibres used for proprioception or position sense and as it is preserved with the Oxford UKR, it allows patients to walk over unsteady ground or in poorly lit conditions and also to change direction with more confidence than those patients without an ACL, which is a distinct advantage over other knee replacements that sacrifice this ligament including TKRs. Patients who engage in recreational social sports where sudden changes in direction are important such as golf, skiing, surfing and tennis are thus better able to do so with a UKR than a TKR.

The Oxford UKR is performed through a minimally invasive surgery (MIS) technique with a small (6 - 8cm) incision, replacing the worn areas of cartilage only on the medial femur and tibia with two small metallic implants and inserting a mobile plastic bearing between these components. The lateral and patellofemoral compartments are left intact as are also the cruciate and collateral ligaments and the surrounding muscles including the quadriceps. Because of this, there is significantly less blood loss, a shorter hospital stay and lower infection rates and other complications such as deep vein thrombosis (DVT) and pulmonary embolism (PE) are also significantly lower. Patients usually only require a 2 night stay in hospital following a UKR as compared to a 4 - 7 night stay following a TKR and generally are able to mobilise without walking aids after one week. Most patients will use strong analgesia for 2 - 4 weeks and anti-inflammatories for 2 - 3 months and are usually able to resume most normal day to day activities within the first 4 - 6 weeks. Recreational activities (walking for fitness, cycling and swimming etc) can usually be commenced after 6 weeks and more vigorous activities (golf, tennis, surfing) after 2 - 3 months. Whilst most UKR patients will be walking fairly freely after 3 or 4 weeks and may feel like they are able to drive a car, it is a legal recommendation for insurance purposes that patients who have undergone knee replacement surgery do not drive a motorised vehicle (car, motorbike, truck etc) for a 6 week period. Returning to work duties is generally possible for clerical type jobs within 3 - 4 weeks and sooner for some, depending upon the individual's mobility, analgesia requirements and job demands.

Most knee replacements are likely to last for 10 - 15 years, so depending upon the age and health of the patient at the time of their initial knee replacement procedure (regardless of whether it is a total or partial knee replacement), there is a high likelihood that they will outlast their first knee replacement. Most Oxford UKRs if performed using prescribed technique are quite bone conserving and when ready for revision, can simply be converted to a normal or primary TKR. Thus one of the additional benefits of having a UKR as your first knee replacement is that your next knee replacement will still only be a primary (normal) TKR which should then last for another 10 - 15 years, meaning that between these two implants, patients usually will have 20 - 30 years before needing to be considered for a more complex revision (stemmed) TKR.