

TOTAL KNEE REPLACEMENT

The majority of patients with symptomatic knee arthritis (three out of every four), will have at least two of the three compartments (medial tibiofemoral, lateral tibiofemoral, patellofemoral) involved and will require consideration of a total knee replacement (TKR). A TKR removes the arthritic or worn ends of the knee by resurfacing the ends of the femur and tibia and - where appropriate - the patella, by shaving a 1 to 2mm rim of cartilage and bone and fitting the replacement components over the top, much like a crown on a tooth.

Most knee replacements have metal alloy components for the femur and tibia and polyethylene (plastic) components for the patella and for the bearing or liner attached to the tibial component. These implants have traditionally been used in patients aged in their late 60's and 70's but as the implant designs and surgical technique and experience have improved making recovery from surgery easier, knee replacements have become increasingly used in both older and younger patients. Knee replacements are primarily designed to give patients pain relief from their arthritis with additional secondary benefits including correction of deformity, improved alignment, leg length and mobility. Most knee replacements inserted in patients aged 55 years or older are expected to last at least between 10 – 15 years, with a 90% or greater likelihood that it will still be working in 10 years' time.

The traditional incision for a TKR is 6 - 8 inches or 15 - 20cms but the surgery can be performed through a significantly smaller (10 - 12cm) incision using minimally invasive surgery (MIS) technique where the quadriceps muscles are not cut into, often resulting in less blood loss, faster restoration of independent mobility, shorter hospital stay and lower risk of infection and other complications including blood clots. Patients usually require a 6 - 7 night stay in hospital following a TKR, but this is often reduced to 3 or 4 nights with the minimally invasive technique and generally patients are able to mobilise without walking aids after 2 weeks. Most patients will use strong analgesia for 4 - 6 weeks and anti-inflammatories for 2 - 3 months and are usually able to resume most normal day-to-day activities within the first 6 weeks. Recreational activities (walking for fitness, cycling and swimming etc) can usually commence after 2 - 3 months and more vigorous activities (golf, tennis, surfing) after 3 - 4 months. Whilst most TKR patients will be walking without aids after 3 weeks and 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 sometimes possible for clerical type jobs within 3 to 4 weeks but may require up to 3 to 4 months depending upon the individual's job demands.

Approximately a third of all patients with arthritic knees have severe arthritis in both knees and are sufficiently troubled to consider having both knees replaced at the same time. If patients wish to do so, it is useful to have some home supports in place with family members or close friends being available to help care for patients in the early post-operative period or to consider spending a week or two in a local rehabilitation facility (including the Brisbane Private Hospital). Dr Gallagher will routinely arrange for a pre-operative medical review with one of his perioperative physicians before bilateral TKRs to exclude any occult (as yet undiagnosed) medical problems and to ensure that all known medical conditions are optimised prior to surgery. Occasionally, it may be preferable on medical grounds to perform staged knee replacements, doing the second knee replacement 3 or 4 months after the first. Patients who undergo bilateral TKRs usually stay in hospital for 5 -7 days and whilst going a bit slower initially, by the sixth post-operative week have usually achieved all rehabilitation milestones of those patients undergoing only a single TKR.