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Unicompartmental (Partial) Knee Replacement

UNDERSTANDING PARTIAL KNEE REPLACEMENT SURGERY

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Unicompartmental (Partial) Knee Replacement

Unicompartmental or partial knee replacement is an excellent operation in the appropriately selected patient. In fact, for the right patient it is probably better than total knee replacement. Up to 20% of patients having knee replacement could be suitable for partial knee replacement.

Partial knee replacement is an operation which traditionally has been uncommon in Newcastle and the Hunter Valley.

Partial knee replacement is an excellent operation for patients with arthritis isolated to a single part of the knee (usually the medial or inside part). Hospital admission and recovery time is generally much shorter than for total knee replacement. It is not uncommon for patients to only spend one or two nights in hospital. By four to six weeks most patients are almost fully recovered.

Longer term function is also generally better for partial knee replacement with patients reporting the knee feeling more natural than a total knee replacement. This may be due to the fact that the anterior cruciate ligament is routinely removed in total knee replacement but is left in-tact in partial knee replacement.

Positioning of the partial knee replacement components and the balance of the ligaments is critical in partial knee replacement. Slightly wrong component position or ligament tension can cause development of arthritis in the remaining parts of the knee or failure of the partial knee replacement. This can mean further surgery to convert the partial knee replacement to a total knee replacement.

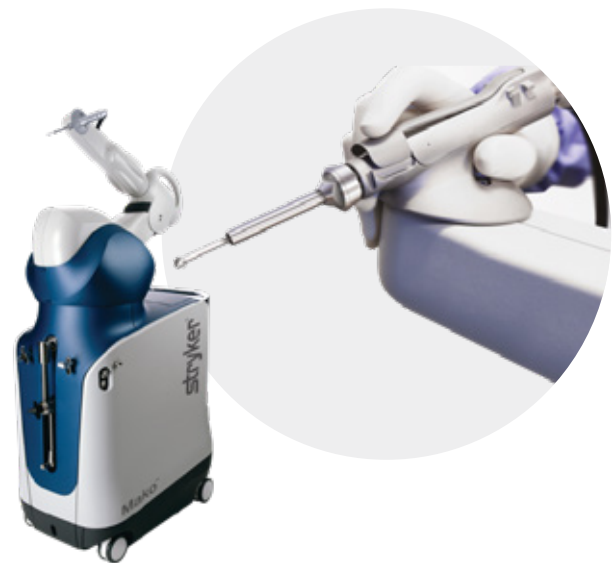
Robotic assisted surgery allows preoperative planning and dynamic intra-operative assessment to optimise prosthesis position, joint balance and limb alignment.

How It Works

- Patient gets pre-op CT
- The surgeon plans prosthesis position on 3D CT generated computer model
 - » 0.2mm accuracy
- During the operation the surgeon stresses the joint in different planes in multiple positions to determine ligament tension
- The surgical plan is modified to optimise the prosthesis position based on the ligament tension
- The robot assists the surgeon with bone preparation and prosthesis positioning
 - » Positioned to within 1mm of plan
 - » Surgeon and robot both hold the instruments

Robot assisted surgery has been shown to lead to lower rates of failure of partial knee replacement in the first 2 years after surgery than traditional techniques.

Robotic assisted surgery is suitable for almost all patients who are candidates for unicompartmental knee replacement. At this stage for patients in Newcastle and The Hunter robotic assisted unicompartmental knee replacement is only available at Lingard Private Hospital. There is no additional cost for robotic assisted surgery.



FIND OUT HOW A PARTIAL KNEE REPLACEMENT CAN BENEFIT YOU

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