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ROBOTIC SURGERY - HIP & KNEE

ROBOTIC SURGERY UTILISES COMPUTER-ASSISTED PLANNING COMBINED WITH A ROBOTIC ARM GUIDED BYYOUR SURGEON, AS AMEANS TO INSERTJOINTREPLACEMENT PROSTHESES. IT IS AN ADVANCEMENT OF A CURRENT TECHNOLOGY USING COMPUTER NAVIGATION TO ASSIST POSITIONING OF A JOINT REPLACEMENT IMPLANT.

Robotic assisted joint replacement is a relatively new technology, though it has been in use overseas for approximately 10 years. The major aim is to assist the surgeon in achieving highly accurate placement of a hip or knee prosthesis.

Hip and knee replacements already are proven to provide excellent long term outcomes. As robotics is relatively new there are not yet any studies on how this technology affects 'long term' outcomes. Shorter term studies have been undertaken and published in peer-reviewed medical journals.

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How does it work?

1. The patient is assessed by the surgeon and deemed an appropriate candidate for joint replacement surgery
2. A specialised CT scan of the limb is performed to map bony anatomy and alignment
3. A pre-operative surgical plan including implant positioning and sizing is developed by the robotic software and reviewed by the surgeon
4. The surgeon-controlled robotic arm aids in implant positioning during surgery to achieve the desired plan. The robotic arm is held by the surgeon and provides live visual image feedback and haptic (tactile) feedback.

Who is a candidate for robotic assisted joint replacement?

All patients who are suitable for joint replacement may be suitabe for robotic assisted surgery. Your surgeon will discuss your suitability for Robotic Surgery.

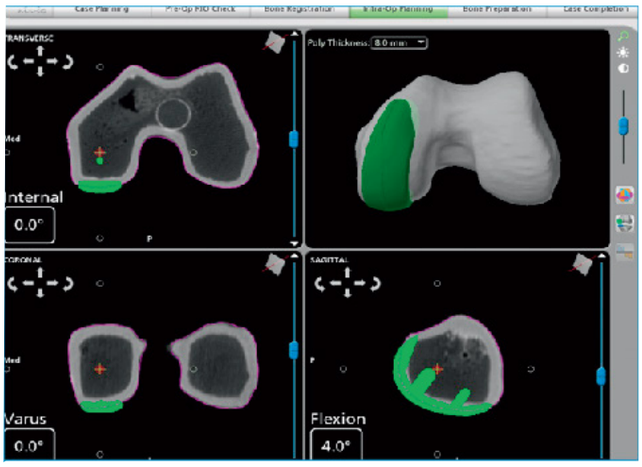


IMAGE: 3D Pre-operative plans for a partial knee replacement (patients.stryker.com)

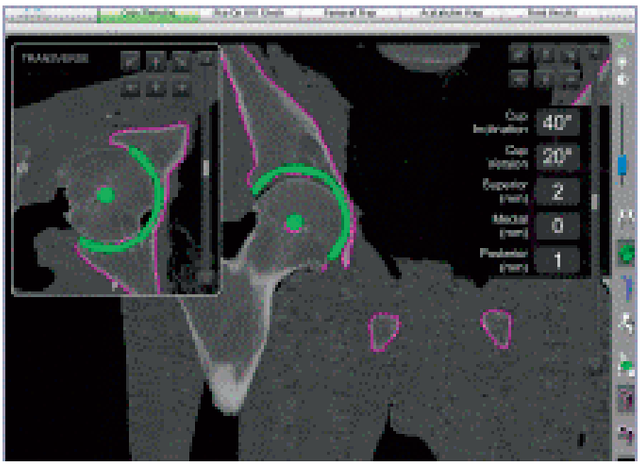


IMAGE: Operative planning for cup position in a total hip replacement (patients.stryker.com)

What is the average hospital stay?

Most patients are in hospital for only 2-3 days after robotic assisted surgery.

What is the recovery time?

Recovery after surgery depends on a multitude of factors, mainly related to the patient's pre-operative strength, weight, stiffness, and general medical health. Most patients will be expected to walk with a walking stick before leaving hospital.

References

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