OMNIBotics®
Advanced robotics for total knee arthroplasty
The OMNIBotics advantage

OMNIBotics is the industry leading technology for robotic-assisted total knee arthroplasty, with a clinical track record dating back to 2010. It is the only technology to include a robotic soft tissue tension device that can plan implant positioning with predictive balance tools.¹

The latest in robotic-assisted knee replacement technology

- Accurate OMNIBot™ robotic cutting guide¹ for femoral cuts
- Ability to predict ligament tension intra-operatively using the Predictive Balance Technique with BalanceBot™
- Proven 10 year survivorship of the Apex Knee™ system.†

Customized surgery for each patient

- Patented OMNIBotics Bone Morphing™ creates a highly accurate 3D model of patient anatomy
- No additional MRI’s or CT scans required
- Patient anatomy analysis is used to determine operative plan with real-time validation

Getting patients back on their feet again, and staying there

- Balancing the soft tissue structures to create a stable joint and improve patient satisfaction²
- Designed to limit soft tissue manipulations and promote a faster recovery process
- Proper joint alignment to ensure longevity of the implants⁴
- A less invasive procedure with no IM Rod helps to reduce the incidence of fat embolism⁵,⁶, blood loss, and potentially reduces overall recovery time⁷

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Predictive Balance™
technique

Balance

Soft tissue balance is essential to achieve a successful knee replacement. With 15 – 20 % of patients unsatisfied with a traditional manual total knee replacement, studies show that patients with a well balanced knee are satisfied 96.7% of the time.3

With the BalanceBot™, the surgeon is able to intra-operatively measure soft tissue balance in real time, and plan to balance with optimized implant positioning. Predictive Balance Technology is able to predict the post-operative ligament tension before cuts are performed.

Execution

Post-operative knee kinematics and articulation are dependent on the component alignment. Executing the desired component alignment consistently across a range of patient anatomy is critical in total knee arthroplasty.

During the OMNIBotics procedure, the surgeon is able to intra-operatively measure and document existing patient physiology and plan accordingly. The OMNIBot robotic cutting guide is used to ensure the plan is executed with robotic precision. Before the case is completed, final alignment is measured and documented.

Minimal releases

With the knee aligned to accurately account for the soft tissue envelope, the surgeon can be less reliant on soft tissue releases and manipulations8, and may result in a more stable joint and improved recovery process.
OMNIBotics and Apex Knee™ system

Consistent results for every patient

- 99% survivorship at 10 years†
- Optimized contact with advanced EtO sterilized compression molded GUR-1050 polyethylene†
- Bone preserving Apex PS design†

By combining the long term survivorship of the Apex Knee system with the accuracy and reproducibility of OMNIBotics, both surgeon and patient can expect significant advantages when compared to other knee replacement procedures.†

K-M Survival estimate for the Apex Knee™ versus National TKA Registries
Precision robotics for optimized outcomes

BalanceBot™ ligament tensioner

- The first robotic ligament balancing device for TKR
- 2 independent robotic paddles quantify soft tissue gaps before and after femoral cuts executed
- Measures gaps and forces in the knee joint to balance knee throughout range of motion
- Predictive Balance™ technique optimizes soft tissue balance with femoral implant positioning

OMNIBot™ femoral cutting guide

- Improved accuracy of complex cuts by eliminating multiple instruments and pinned interfaces
- Live verification of the virtual plan
- Robotic-assisted support for all five femoral cuts

References
†. Data on file at OMNIlife science
Manufacturer
OMNILife science Inc.
480 Paramount Drive
Raynham, MA 02767

Patents:
Other patents pending.