

AXIS REVISION KNEE SYSTEM



THE PROBLEM

Total Knee Replacement (TKR) is a surgical procedure commonly done on arthritic patients who are experiencing chronic severe pain and impaired function of the knee joint. This is due to exhaustion of the articular cartilage that protects the bones from unnatural contact. TKR is a highly successful procedure that significantly reduces pain, prevents disability, and enhances quality of life of orthopaedic patients. Despite TKR's high success rate, the procedure is still prone to defects such as loosening of the components, infection and inflammation reaction, dislocation of the prosthetic joint, and other device complications. A revision TKR is necessary when failure of the primary TKR occurs. As this procedure is more expensive and complicated, there is a need for high-quality yet inexpensive revision implants.

THE SOLUTION

Axis Revision Knee System is a revision total knee replacement (TKR) system designed based on the Axis Knee System that was developed by a Filipino-owned company, Orthopaedic International, Inc. (OII), through the funding support of DOST-PCHRD. Axis Knee System is the first world-class knee replacement system developed in the ASEAN Region. It uses a Femur Mechanical Axis Finder (FMAF) to allow surgeons to perform correct implant alignment by locating the true mechanical axis of the lower extremities.



TECHNOLOGY GENERATOR

Orthopaedic International, Inc.
Project Leader: Ramon B. Gustilo, MD

TECHNOLOGY DEVELOPMENT

The technology is currently at Technology Readiness Level 8. All validation studies of the technology are completed. Certifications of Product Registration for the thirteen (13) Axis revision knee implants as medical devices have been issued by the Food and Drug Administration (FDA). The system is ready for full commercial application.

Interested technology adopters may send a letter of intent addressed to:



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