Visionaire[™] for Total Knee Replacement

PATIENT MATCHED INSTRUMENTATION

Although traditional total knee replace has a high success rate, Smith & Nephew continually strives to improve orthopaedic joint replacement surgery with devices and instruments to create better patient outcomes.

VISIONAIRE Patient Matched Instrumentation

A revolutionary new technology for knee replacement surgery, the VISIONIARE Patient Matched system utilizes patient's MRI and X-Rays to design and create customized surgical instruments based on their unique anatomy.

VISIONAIRE Patient Matched Technology in action

Surgeons upload patient MRI's and X-Rays into Smith & Nephew's advanced web-based software. The software then maps out the patient's anatomy and re-establishes true alignment. Specific cutting blocks and instruments are created that match the outer shape and contours of the patient's knee joint bones. The software also calculates the proper knee joint implant size.

The custom-designed cutting guides and instruments allow orthopaedic surgeons to precisely position the knee implant during surgery avoiding misalignment which can potentially lead to early implant failure.

High Performance Knee Implants

VISIONAIRE Patient Matched technology is used for knee replacement surgery with the following high performance Smith & Nephew products.

- JOURNEY™ BCS Bi-Cruciate Stabilized Knee System
- GENESIS™ II Total Knee System
- LEGION™ PRIMARY Total Knee System

OXINIUM™ Technology

The above implants are made with OXINIUM Technology. Exclusive OXINIUM material is 4,900 more abrasion-resistant than cobalt chrome, reducing wear by as much as 85-percent in lab testing, potentially extending the life of the implant.

OXINIUM material contains no detectable nickel and chromium, making these Smith & Nephew implants one of the most hypoallergenic replacement joints on the market.

*FACT: According to the FDA, it is estimated that up to 10-percent of the population have metal allergies. Women are more likely to have metal allergies than men and account for two-thirds of knee replacement patients.

The thighbone component of a Smith & Nephew knee implant, which is the portion made with OXINIUM technology, weighs a full 20-percent less than a similarly sized implant made from cobalt chrome.

VISIONAIRE Patient Matched Instrumentation

- Bone conservation By customizing bone cuts, more bone may be preserved, which gives patients more options in the event that they may need revision knee replacement surgery in the future.
- Stability By making anatomically precise cuts of the bone, the knee implant is accurately aligned to fit the patient's anatomy. This provides more stability, giving patients greater confidence in their new knee. It also reduces pain and contributes to the longevity of the implant.
- Long Lasting The Smith & Nephew implants used in conjunction with VISIONAIRE instruments are made with exclusive OXINIUM™ technology. OXINIUM implants are among the longest lasting, lightest and hypoallergenic joint implant materials used today.

 Return to Active Lifestyle — Surgeons may be able to utilize minimally-
- invasive surgical techniques, giving patients the potential to return to their active lifestyle faster, with less pain, than with a standard total knee replacement.
- Reduced Anesthesia Time By determining proper implant size and alignment before surgery, surgeons may be able to reduce anesthesia time, minimizing the risk of infection.

VISIONAIRE Patient Matched Technology for everyone

Almost any patient who is considering knee replacement surgery may be a candidate for the custom fit experience of VISIONAIRE Patient Matched technology.

Smith & Nephew

Smith & Nephew is a global medical device company committed to designing innovative orthopaedic technology for active patients.

Smith & Nephew is a global medical technology business, specializing in Orthopaedic Reconstruction, Orthopaedic Trauma and Clinical Therapies, Endoscopy and Advanced Wound Management products. Smith & Nephew is a global leader in arthroscopy and advanced wound management and is one of the leading global orthopaedics companies.

Smith & Nephew is dedicated to helping improve people's lives. The Company prides itself on the strength of its relationships with its surgeons and professional healthcare customers, with whom its name is synonymous with high standards of performance, innovation and trust. The Company operates in 32 countries around the world. Annual sales in 2007 were nearly \$3,4 billion.

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