

All About Stryker Navigation for Total Hip Replacement Surgery

Fact Sheet

What is a Total Hip Replacement Surgery?

- A total hip replacement surgery is a surgical procedure that replaces the diseased or damaged hip joint with an artificial prosthesis consisting of three parts: A cup, replacing the hip socket, a metal stem, replacing the neck of the thigh bone and a metal or ceramic ball, replacing the damaged head of the thigh bone and linking the cup and stem together.

What is Navigation for Total Hip Replacement Surgery?

- Technology that helps the surgeon more accurately align a hip implant with the patient's anatomy.
- It provides the surgeon with real time information needed to accurately align and position the implant, which is the most important prerequisite for hip joint stability, durability of the implant and for a sufficient range of motion.
- It is rapidly expanding the options of medical technology for Orthopaedic surgery.

How does Navigation Work?

- In the operating room, the position of navigated smart active tools equipped with infrared LEDs is continually monitored by a camera and analyzed by the navigation software.
- Smart Active wireless instruments send real time data regarding angles of the pelvis and femur of the hip to a computer.
- A computer and camera system analyzes and graphically displays the alignment and position of navigated Smart Active tools.

What are the Potential Benefits of Navigation?

- It does not require pre-operative x-rays or CT scans.
- It provides the surgeon with a comprehensive understanding of the patient's anatomy before any cuts are made.
- It allows the surgeon to make adjustments within 1-2 degrees, helping to ensure the best possible fit of the implant.
- It may lead to possible shorter hospital stay, fewer complications, and improved joint stability².

Who has the Potential to Benefit from Navigation?

- Younger patients are now receiving hip replacements and are demanding state of the art implants and technology intensive procedures.
- Approximately 180,000 total hip arthroplasties (THA) are performed each year in the U.S.¹
- Increasingly, THA is being performed with the use of Navigation.

How can an individual learn more about the Stryker Navigation System?

- Individuals who would like to learn more about the Stryker Navigation System or other Stryker products, can go online to www.stryker.com/navigation.

¹ American Academy of Orthopaedic Surgeons - www.aaos.org

* Patients should consult their physicians regarding risks associated with Total Hip Replacement Surgery

² J.M. Sikorski, S. Chauhan (2003). *Aspects of Current Management, Computer Assisted Orthopedic Surgery: Do We Need CAOS?* JBJS(Br) Vol. 85-B, No. 3.