Minimally Invasive Surgery (MIS)

Total Hip Replacement

ORTHOPEDIC SPECIALISTS
Minimally Invasive Surgery (MIS) of the hip is an evolving treatment option for patients with arthritis and other serious conditions affecting the hip joint. As the result of improved instrumentation and techniques, surgeons are now able to perform major orthopedic procedures through smaller, less traumatic incisions.

**Arthritis**

Arthritis of the hip joint occurs when the joint cartilage wears out. This results in pain, stiffness, and frequently a limp. The pain is usually located in the groin or front of the thigh and is aggravated by activity and excess body weight. Arthritis can be caused by the wear and tear of routine life, serious injuries, avascular necrosis or other medical conditions. Treatment options include weight loss, medications, injection therapy, and assistive devices such as a cane, physical therapy, and joint replacement surgery.

**Traditional Hip Replacement**

When all of the above measures have failed to provide adequate relief, hip replacement may be recommended. Traditional hip replacement typically involves making a 10 to 12 inch incision on the side of the hip. Muscles are split or detached from the hip, the hip is dislocated and the ball and socket are replaced.
MIS hip replacement has been developed to allow hip replacement to be performed through one or two smaller incisions. A single MIS hip incision typically measures only 3 to 6 inches, depending on the size of the patient and the difficulty of the procedure. Less muscle is split or detached than in a traditional replacement, and these are routinely repaired at the end of the procedure to help healing and improve recovery.

The artificial joints being used for MIS hip replacement are the same as those used for traditional hip replacement but specially designed instruments are needed in order to prepare the socket and femur. Implantation is the same and may involve pressed fit, screws, or bone cement. MIS hip replacement is more technically demanding and requires special training and considerable experience on the part of the surgeon.
Benefits of MIS Hip Replacement

Patients generally see the following potential benefits:

- Less postoperative pain
- Less muscle damage
- Less blood loss
- Less scarring, more cosmetic
- Shorter hospital stays
- Faster recovery
- Less rehabilitation
- Quicker return to normal function

While early studies suggest MIS hip replacement is a safe and effective alternative to traditional hip replacement, the long-term benefits of these less invasive techniques have not been documented to represent an improvement over the traditional method.

NOTES
Ideal Candidates for MIS

MIS hip replacement is usually performed on smaller, thinner patients with no previous surgery on the hip. Patients that are younger or more motivated for a quick recovery will tend to do best.

Longer incisions may be needed in muscular or very heavy patients or in complex cases such as revision hip surgery or previous hip surgery. The decision to undergo a MIS hip replacement involves a thorough evaluation and discussion with the operating surgeon about the risks and benefits.

Future Directions of MIS

Extensive research is currently underway to evaluate MIS procedures as they evolve. The use of computer assisted navigation (CAN) for MIS is rapidly expanding to allow more precise reconstruction of the hip with less direct visualization. In addition, new materials and implant designs continue to be developed to prolong the life-span of hip replacement.