KEY PROCEDURES

POSTERIOR MINI-INCISION APPROACH FOR
TOTAL HIP REPLACEMENT

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Published outcomes of this procedure can be found at: *J Bone Joint Surg Am.* 2007 Jun;89(6):1153-60, *Clin Orthop Relat Res.* 2005 Dec;441:104-14, and *Clin Orthop Relat Res.* 2006 Dec;453:231-8.

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Abstract

We developed a modification of the posterior mini-incision for total hip arthroplasty, which was initially used by Sculco at The Hospital for Special Surgery, in response to the movement in the orthopaedic community to perform total hip arthroplasty with smaller incisions. Our approach preserves the piriformis and quadratus femoris muscles of the external rotators, uses three incisions into the capsule but does not excise the capsule, does not incise the tensor fascia/iliotibial band, and leaves intact the insertion of the gluteus maximus onto the femur. We have used this incision since 2004, and our published results and those of others show that the greatest advantage is cosmetic and patients' perception of less violation of their body. It is a contributor to the same-day surgery program and rapid recovery protocol on which we have reported.

The steps of the procedure include (1) an incision made along the posterior edge of the greater trochanter from the level of the vastus tubercle to one fingerbreadth from the tip of the greater trochanter; (2) a deep L-shaped incision parallel to the piriformis tendon, and along the posterior edge of the greater trochanter through the small external rotator muscles and hip capsule to the proximal edge of the quadratus to expose the femoral head and neck; (3) measurement of the neck cut from the distal edge of the femoral head and amputation of the femoral head; (4) exposure of the cut neck of the femur with retractors and broaching of the femur; (5) exposure of the acetabulum with retractors and acetabular reaming to prepare it for the cup; (6) implantation of the cup and stem and a femoral head of the correct length to restore lower-limb length and offset; and (7) closure of the wound in layers with the skin with subcutaneous sutures and sealing of the wound with a DERMABOND dressing (Ethicon).

The expected outcome is that the patient will walk with full weight-bearing on the day of the operation and be discharged home that day or the

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next. Patients with occupations that do not require physical labor can return to work in one week, and according to our data 98% of patients under sixty-five can walk one mile (1.6 km) by three weeks. Recovery is in three phases: for the first month, the patient has soreness and swelling from the surgical trauma to the tissues; at three months, the muscles are well healed; and at six months, bone healing is mature. The hip is “forgotten” (the patient goes days without thinking about it) after six months.

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