

Extensile Direct Anterior Approach for Total Hip Arthroplasty of Failed Cephalomedullary Nail Fixation

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This video demonstrates a step-by-step extensile direct anterior approach for conversion total hip arthroplasty (THA) in the setting of failed proximal femoral fixation. The featured case involves a 74-year-old woman with a malunited pertrochanteric fracture and a failed short cephalomedullary nail (CMN) with lag screw cutout and acetabular impingement, resulting in debilitating pain and leg length discrepancy. The extensile direct anterior approach provides critical advantages in complex primary THA or revision THA scenarios, including supine positioning, direct visualization of the acetabulum and proximal femur, and real-time intraoperative fluoroscopy to guide hardware removal, implant positioning, and leg length restoration. The procedure begins with strategic positioning and a modified anterolateral incision to accommodate nail removal. Key aspects include maintaining femoral integrity by initially retaining the nail body, staged removal of the lag and distal interlocking screws using fluoroscopic guidance, and reestablishment of acetabular geometry. The femoral canal is prepared using a figure-four technique to optimize exposure. A fluted, tapered, conical stem bypasses the distal screw hole, and leg length and stability are confirmed both fluoroscopically and clinically. Postoperative care includes early mobilization with anterior precautions. Radiographic and clinical follow-up at 3 months confirmed restoration of alignment, implant stability, and pain-free ambulation. This approach highlights techniques to safely manage revision THA in a case of cephalomedullary nail fixation failure while minimizing soft tissue trauma and optimizing functional outcomes.