

## Abstract

Third Annual US Comprehensive Course on Total Hip Resurfacing Arthroplasty.  
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### SESSION 9 APPROACHES Minimally Invasive Posterior

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**Background:** Traditionally, a larger more extensive approach has been required for hip surface replacement (HSR) than for standard stemmed total hip replacement. As we have gained experience with HSR, a minimally invasive surgical technique (MIS) using the posterior approach has been developed. We now report our 4 year experience with this modified technique and compare the rate of postoperative complications to a group of HSR done just prior to the institution of this MIS.

#### **Methods:**

- Posterior MIS was begun on 1/26/2005. Since that time, 946 / 1032 (92%) resurfacings have been done through a 4 inch incision.
- We compared the 4 year results and complications between two groups:  
Study Group = first 100 MIS  
Comparison Group = last 100 prior to MIS
- We analyzed the results when a comprehensive blood management protocol was employed in conjunction with MIS HSR in 100 consecutive cases.
- A technique video illustrating details of the posterior MIS technique for HSR is presented.

**Results:** There were no differences in the rate of complications when a posterior MIS technique was instituted. No complications associated with a learning curve were identified. With comprehensive blood management techniques, no transfusions were required in 100 consecutive unilateral MIS HSR and 50 consecutive bilateral MIS HSR. Hospital stay was limited to  $1.8 \pm 0.4$  days per hip for unilateral, and 2.0 days per hip for bilateral HSR.

**Conclusions:** MIS Posterior HSR is as safe as standard incision HSR if a surgeon has adequate prior experience with HSR. Blood transfusions are almost never required for this operation if a comprehensive blood management program is followed. Only a very short hospital stay is required. A detailed step by step technique is demonstrated for reliably accomplishing this procedure through a minimally invasive, four inch posterior approach.