Surface replacement of the hip was established in the 1970’s as a bone preserving alternative to total hip replacement. However, problems with femoral neck fracture, osteolysis, and component loosening led to early failures and an abandonment of the procedure.[1]

The modern generation of hip resurfacing, however, has improved upon past results with new implant designs and materials.[2,3] Better surgical guides and a short femoral stem allow for more accurate placement of the implants. A metal-on-metal articulation creates a larger diameter bearing and avoids polyethylene wear debris. Also paramount in the recent successes of surface replacement are refinements in surgical techniques, leading to more accurate component positioning, avoidance of neck notching, and an appreciation of the femoral head blood supply. It has been well-established that surgeons with higher volumes of hip resurfacing operations have a lower complication rate.[4] The mid-term results of these newer hip resurfacing devices, coupled with appropriate patient selection and good surgical technique, have been encouraging.

Although, more recently, surface replacement has come under fire because of the metal-on-metal articulation, the Australian National Joint Registry finds that a certain group of patients has greater survivorship with resurfacing than with total hip replacement.[5] Additionally, the benefits of surface replacement include the preservation of bone, a lower dislocation rate, and potentially a higher activity level. Therefore, the presenter feels that surface replacement arthroplasty is still a viable option, for the right patient and surgeon.

References: