Hip Resurfacing

- The end of the femur is capped somewhat like a tooth cap
- The hip socket receives a cupped implant to move together to restore the joint
- Hip Resurfacing has been around for more than 30 years

http://www.birminghamhipresurfacing.com/hipresurfacing/technology.cfm
“Keep Me Active”

Hip Resurfacing has been one of the most important innovations in orthopaedic surgery of the last few years, offering younger, active patients the possibility of a normal lifestyle, without fear of wearing out their implant. With these claims why would you want anything else?

http://www.resurfacingofthehip.com/MyHip/hip_theimplant.htm
For the young and active?

- Proponents say:
  - Easier revision and spares the bone stock on the femur
  - Faster return to activity with less restrictions
  - Low dislocation rates
  - Less invasive
Concerns and Observations

• There is a learning curve with complication rates even higher during this time

• British & Australian researchers identified a longer-than-expected learning curve to accurately perform resurfacing. Initially they estimated 10-20 cases however the results showed it took 55-60 cases for most surgeons to get the femoral component where they actually planned it. (1)

• 1-2% femoral fracture rate, similar to cementless femoral THA (Australian experience)

• overall complication rates at least as high as THA

• >1% femoral palsy (nerve injury) early in Amstutz’ series, ICL 2007

• other unknowns...metal ions, hypersensitivity, allergic reactions

• reports of lysis (bone destruction) with MOM (metal on metal) articulations

• clicking/squeaking 22.9%, Australian experience - ICL 2007

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Contraindications to Metal on Metal Resurfacing

**Absolute contraindications**
- Loss of femoral head (severe bone loss)
- Large femoral neck cysts found at surgery
- Small or bone-deficient acetabulum (typical in females)

**Relative contraindications**
- Poor bone stock (assessed via DEXA scans)
- Chronological age >65 years
- Body mass index >35

**Use with caution**
- Patients with rheumatoid arthritis
- Tall and thin patient
- Female patient
- Patient with femoral head cyst >1 cm as demonstrated in pre-op radiographs
- Patient with osteonecrosis of the femoral head

Less Invasive?

• Muscle cutting approaches used

• Bone sparing…femoral neck preservation - what about the acetabulum? Certainly not “muscle-sparing”
  • valgus implantation/upsizing head to avoid notching
  • larger cups implanted – removes more bone from the socket side then standard hip replacement

• Heterotopic bone (abnormal bone formation in the muscles) after resurfacing 28-60% (ICL 2007)
Dual Incision Total Hip

- Incision’s are small
- In over 750 cases no reported dislocations in Dr. Nessler’s patients
- Patients are under no restrictions
- Shorter hospital stays
- Patients return to active lifestyle

This is not your Grandma’s Hip Replacement
Contraindications for Dual Incision THA

- Previous hip replacement
- Retained hardware
- Deformity requiring osteotomy
- Severe heterotopic bone
- Severe dysplasia or osteoporosis

95% of all my patients qualify for the Dual Incision procedure
Hip Resurfacing will I consider this option for my patients in the future?

- Possibly if...
  - Incorporating Navigation
  - The right patient
  - Improvements in component durability and design
  - Muscle sparing approaches developed for resurfacing
Hip Resurfacing – final thoughts

✓ My preference is Dual incision Hip replacement because:
  ✓ It is performed as a more muscle sparing procedure
  ✓ Has more implant choices than resurfacing
  ✓ Implant durability is the same as or better than resurfacing
  ✓ Active patients can return to similar activity levels with resurfacing or Dual incision replacement
  ✓ Patients will recover quicker with muscle sparing (Dual incision) surgery