Shoulder humeral Prosthesis:
Stem?
Stemless?
Short stem?
Resurfacing?

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Background

- **1955: Neer’s hemiarthroplasty (trauma)**
  - Neer CS II.
  - Articular replacement for the humeral head.

- **1974: Neer’s TSA**
  - Neer CS II.
  - Replacement arthroplasty for glenohumeral osteoarthritis.
Question 1

Do you have any issue with (classical) humeral stem?
Stem loosening?

- **Outcome**
  - Humeral loosening (cemented)
    - 28/1803 (1.5%)
  - Humeral loosening (cemented) revised:
    - 6/1842 (0.3%)

Boileau P, Sinnerton RJ, Chuinard, Walch G. JBJS 2006
HA revisions?

Outcome (1976-2008, Mayo Clinic)

- >> 15 yrs
- 2588 Shoulder arthroplasties
- 1431 Hemi: 114 were revised (7.9%)
- 62 Patients < 50 yo with Hemi:
  - 17 were revised (27%)
  - 2 loosening (3%)

Singh, Sperling, Cofield JSES 2011
Question 2
Do you think Stemless or short stem Could be an option?
Stemless complications
Nice Shoulder Course 2012

- TESS (L. Beguin, NSC 2012)
  - 161 cases since 2005
  - No complication linked to the absence of a stem

- Eclipse (P. Habermeyer, NSC 2012)
  - 20 Eclipses versus 20 Univers (FU>3yrs)
  - Comparable results to stem prosthesis

- Simplicity (Ph. Collin)
  - 19 cases (FU 2 yrs)
  - Good bone quality useful+++
Short stem complications
Nice Shoulder Course 2012

- Green: 61 cases, 1 yr FU
  - Bone loss at calcar (80%)
- Edwards: 83 cases, 1yr FU
  - 7 revisions
- Dines: 100 cases, 3.6yrs FU
  - 3 revisions
  - 11 distal lucent lines

Osteolysis?
Stress shielding?
Question 3
What about resurfacing?
Resurfacing complications

- **Multicentric study: L. Neyton (426 cases, 21 mths FU)**
  - Nice Shoulder Course 20012
  - Revision 5.9% (glenoid wear+++)

- **Global CAP: P. Mansat (64 cases, 42 mths FU)**
  - SECEC 2014
  - Mal-positioning (varus, overstuffing)
  - Glenoid wear with FU+++ 
  - 18% complications (pain)
  - 7% révisions

- 60 yo
- H fracture 20 yrs ago
- VAS 8/10, Stiffness+++
Thank you