



Design Features

Tissue Sparing Neck Stabilized Stem

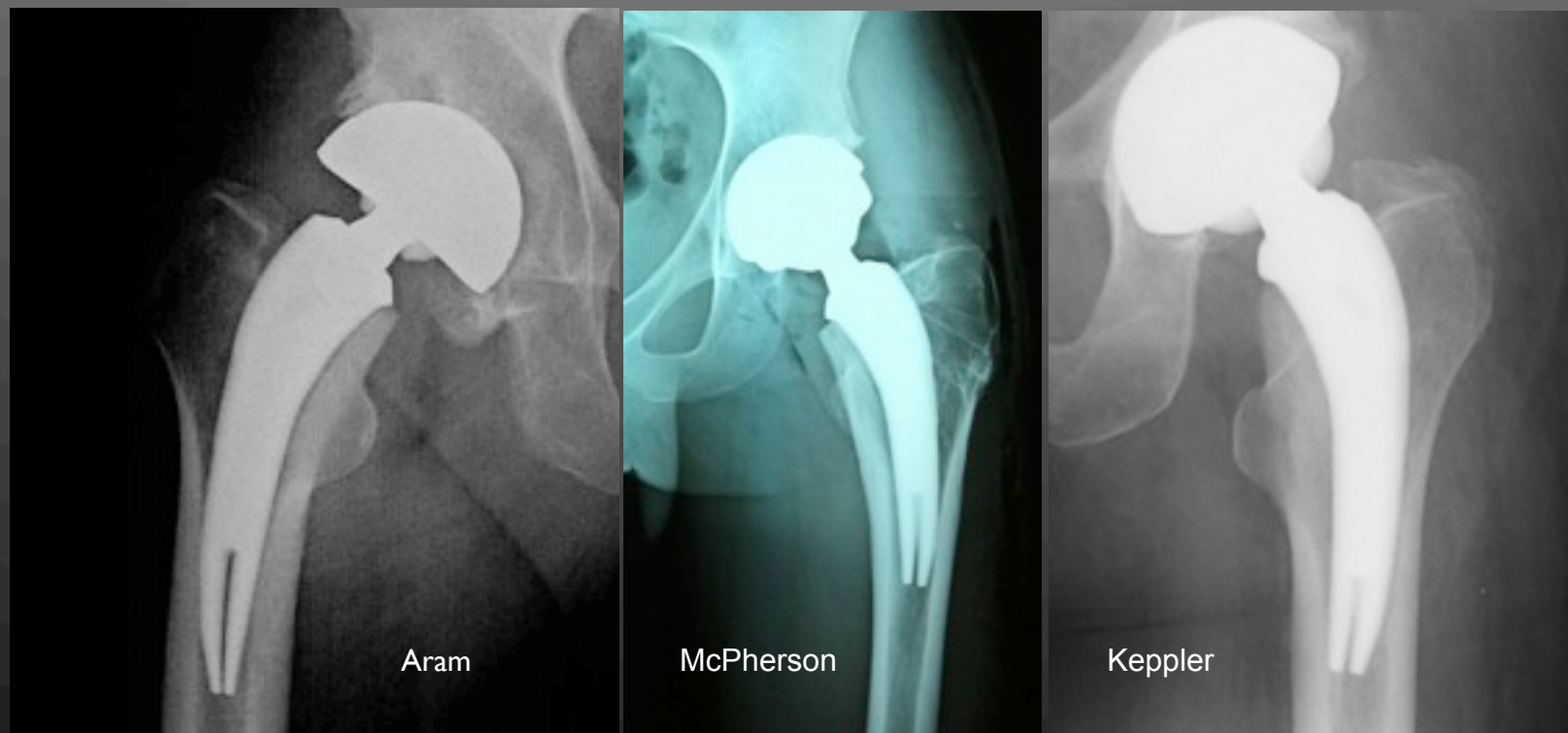
By

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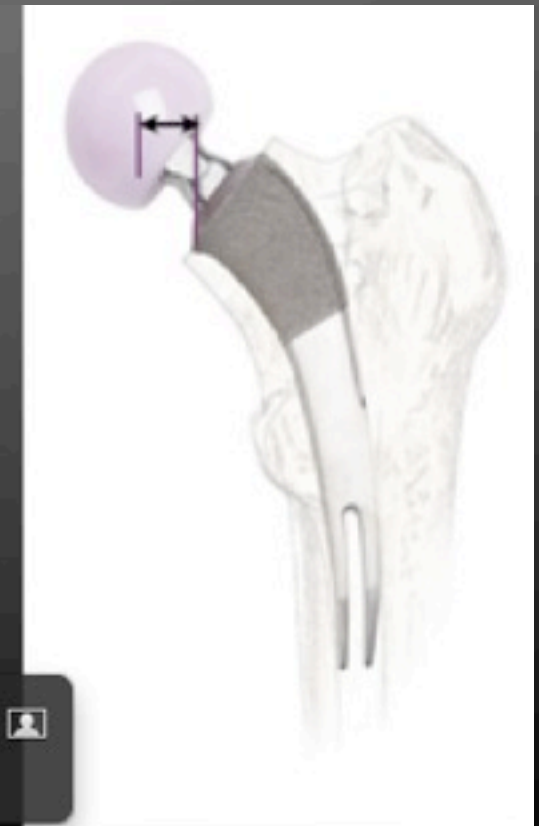
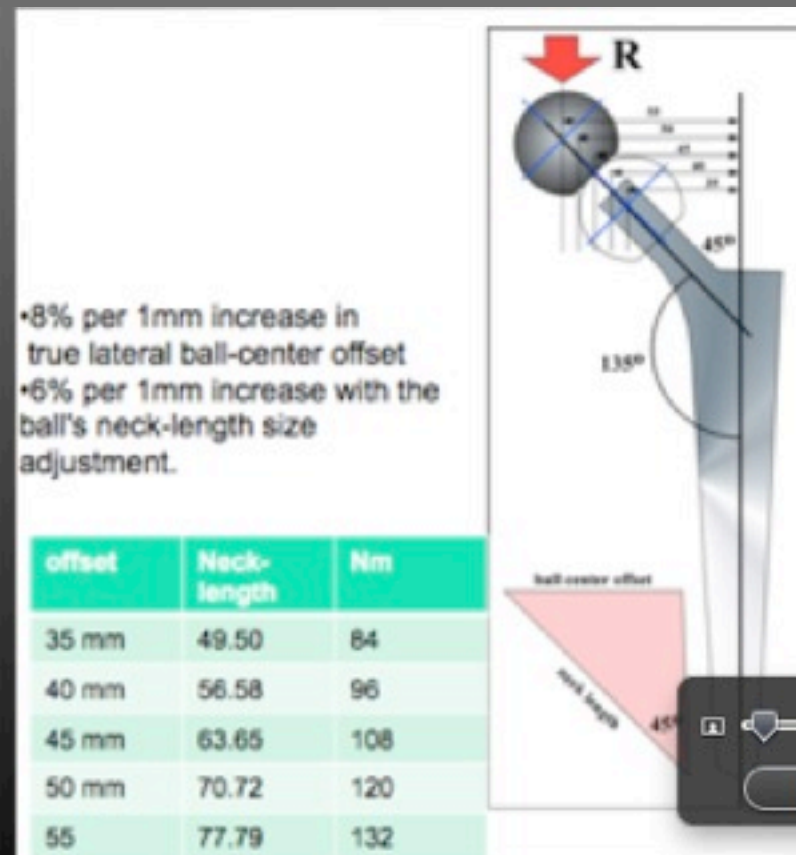


Mini-Symposium
held prior to AAHKS 20th Annual Meeting
Friday, November 5, 2010
2pm-4pm

Why save the neck?

Neck resection generates significant torsional moment at the stem/bone interface Freeman

Also neck resection increases bending moment at the head/neck-stem junction.



Short Curved Neck Stabilized Stems



C.F. P. by Pipino



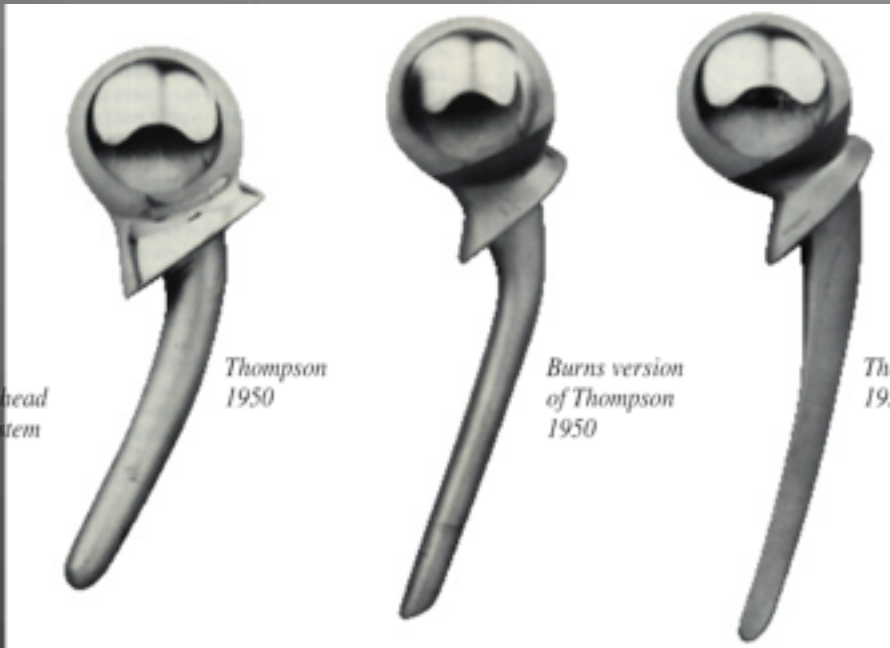
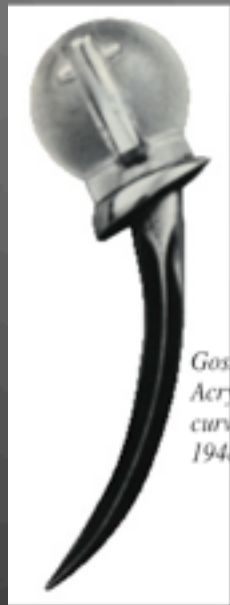
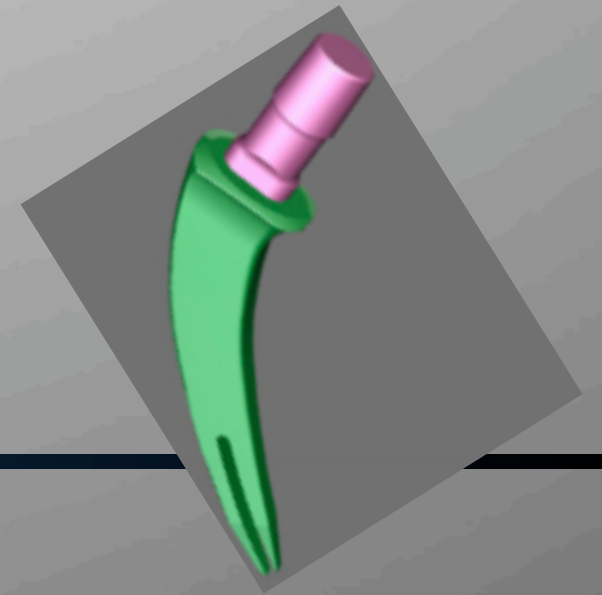
ARC™ & MSA™ Stems
licensed TSI™ technology patents pending



Corin



Curved stem feature



Long history of curved devices

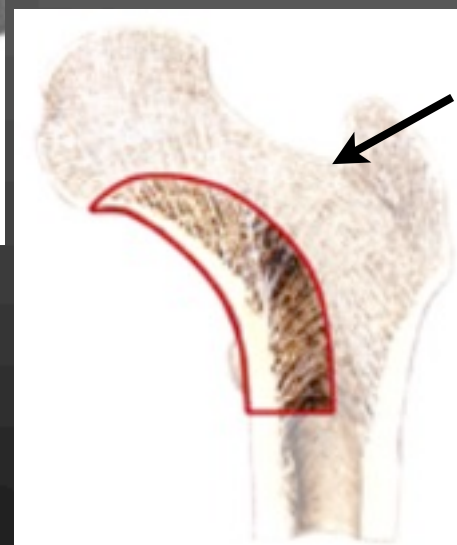
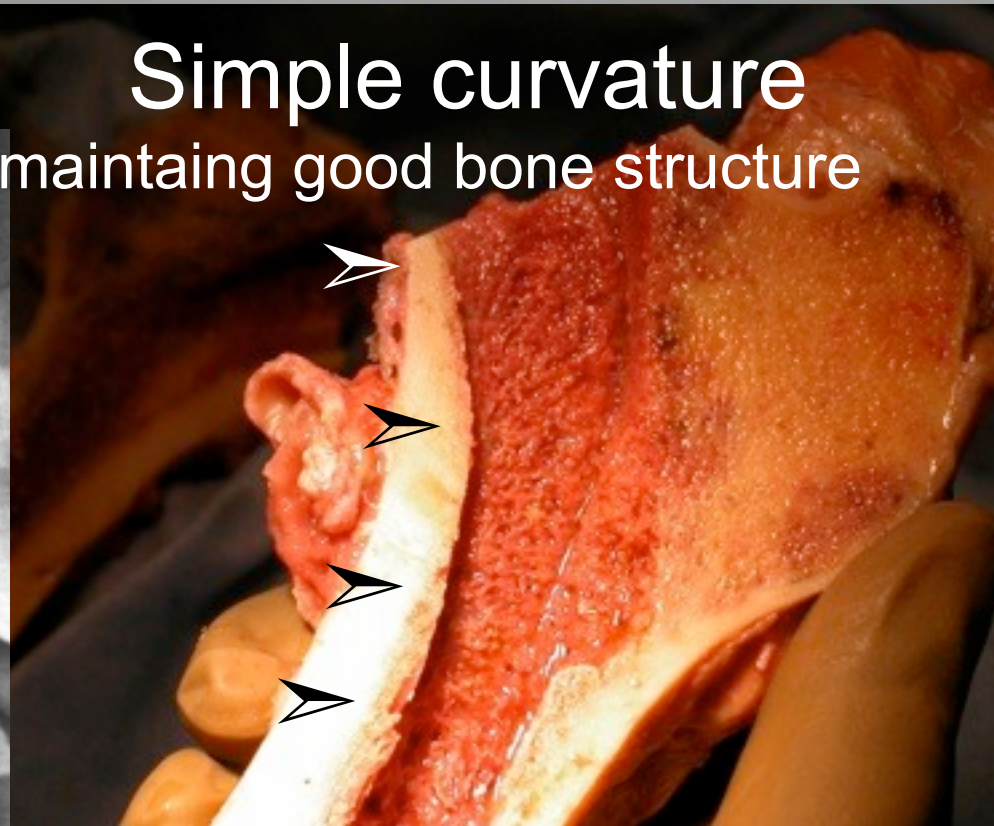
- Often the stem style and application of use was wrong but the shape of the curve was and is anatomy friendly.



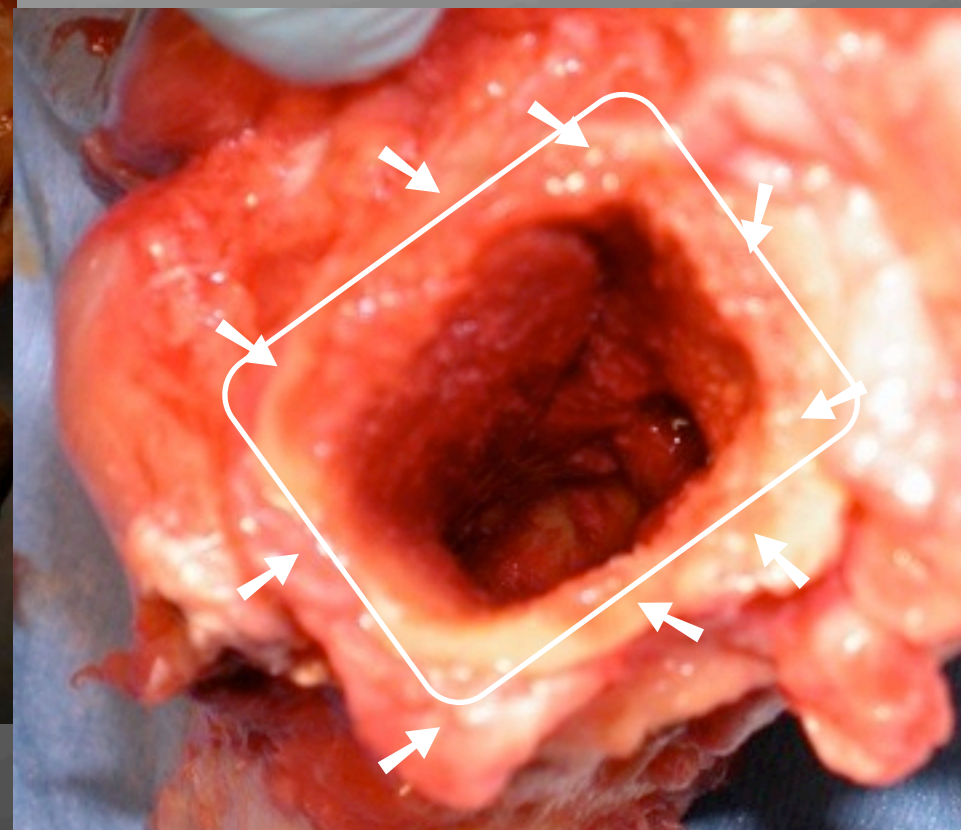
The Medial Curve



Simple curvature
maintaining good bone structure



Save all lateral
structures



- Medial bone provides support
- Intact cortical ring provides for a tension band effect and barrier to migrating particulate debris.



Porous Surface

Pure Titanium Plasma Spray Coating (0.5 mm per side)
95% Pure HA (approximately 50 micros) applied in secondary application

T- 1 mm per side
for additional
surface area and
stability

Proximal 1/3
Porous coated

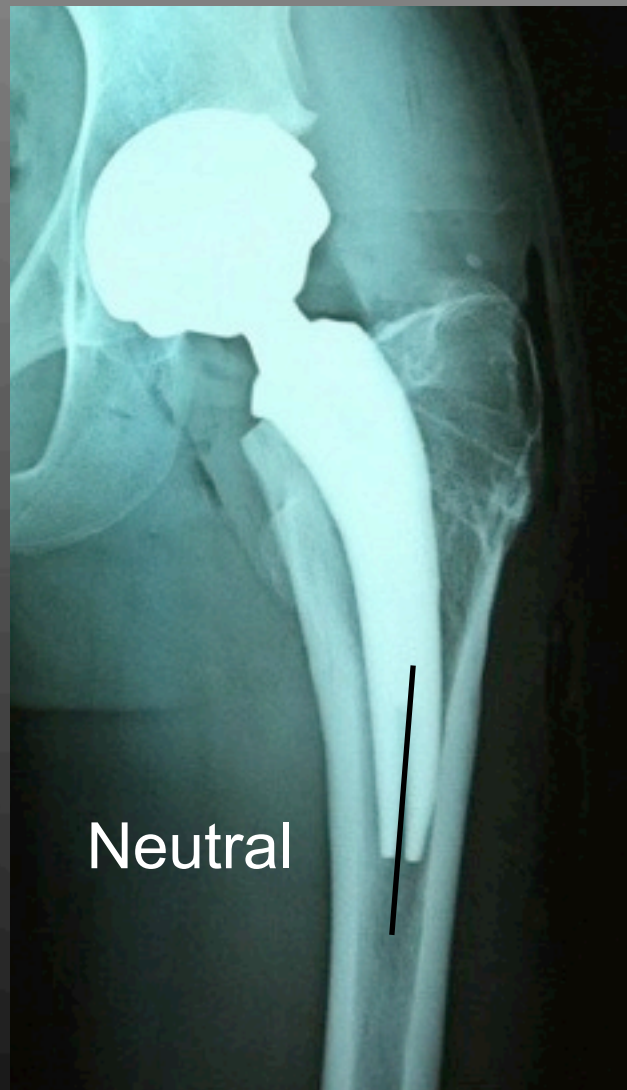
Distal 2/3
light matte finish

Distal sagittal slot
lateral leg angled in at 11°

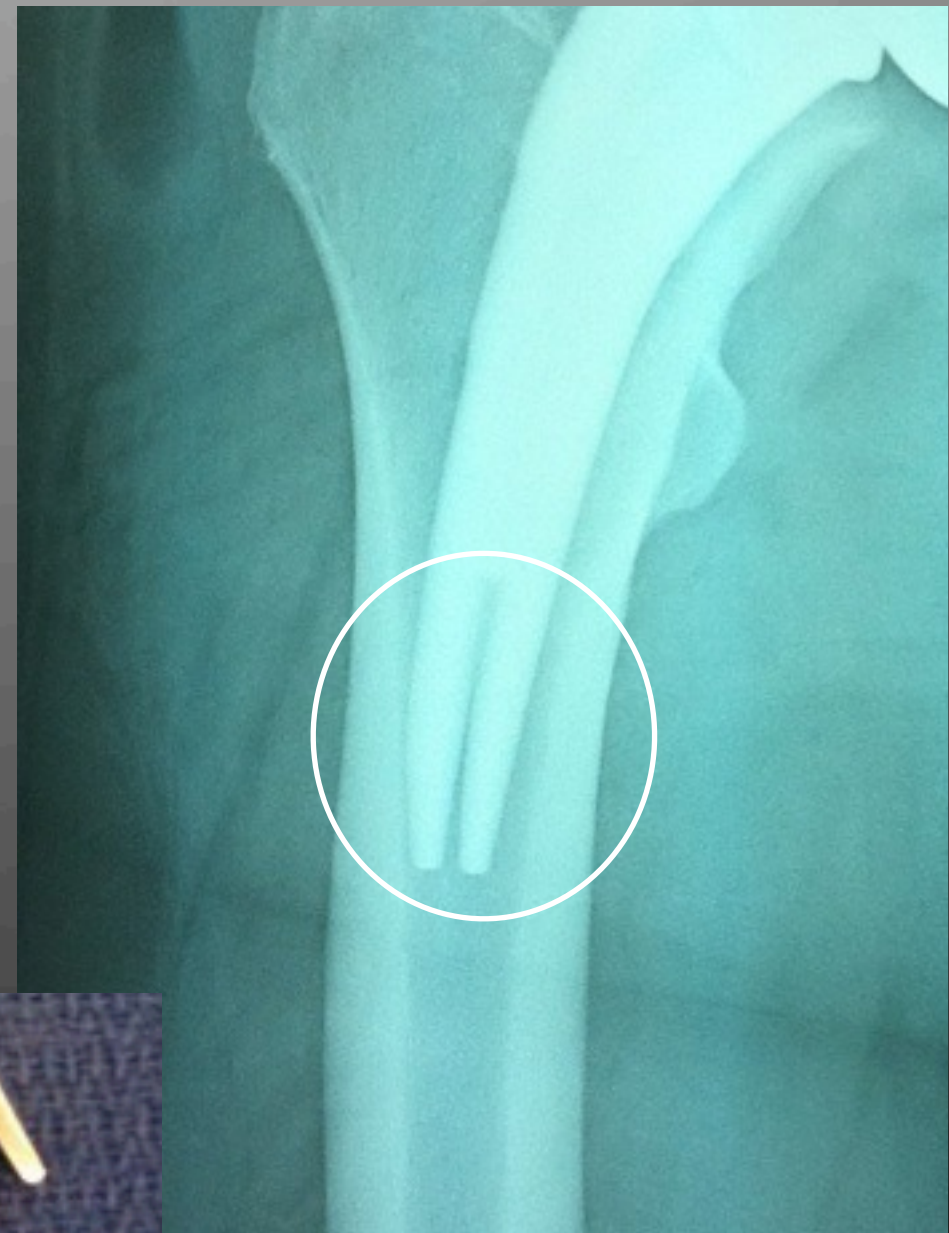
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Distal Stem Features

- Short curved stems don't seem as sensitive to stem position as standard cementless or cemented stems



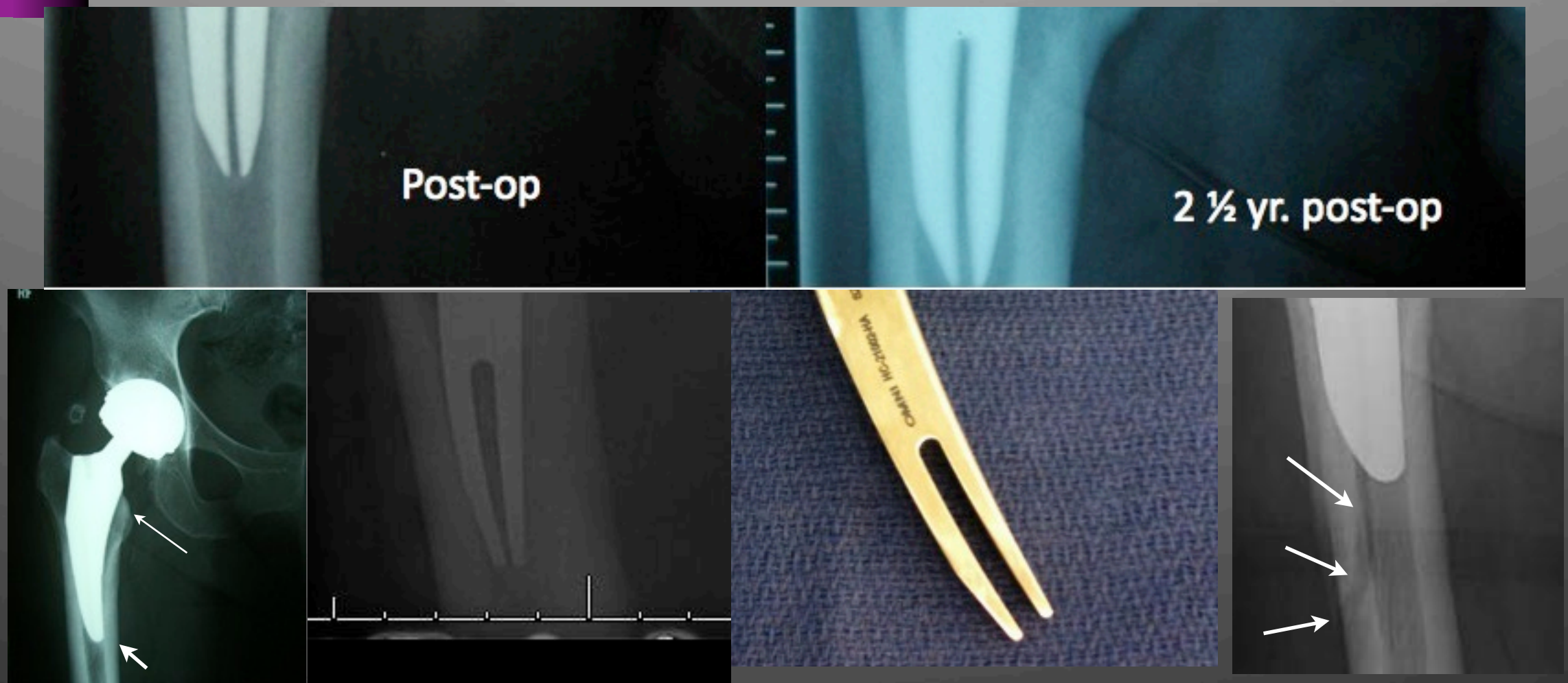
Distal tip angle reduces edge contact



11° angle



Sagittal Distal Slot



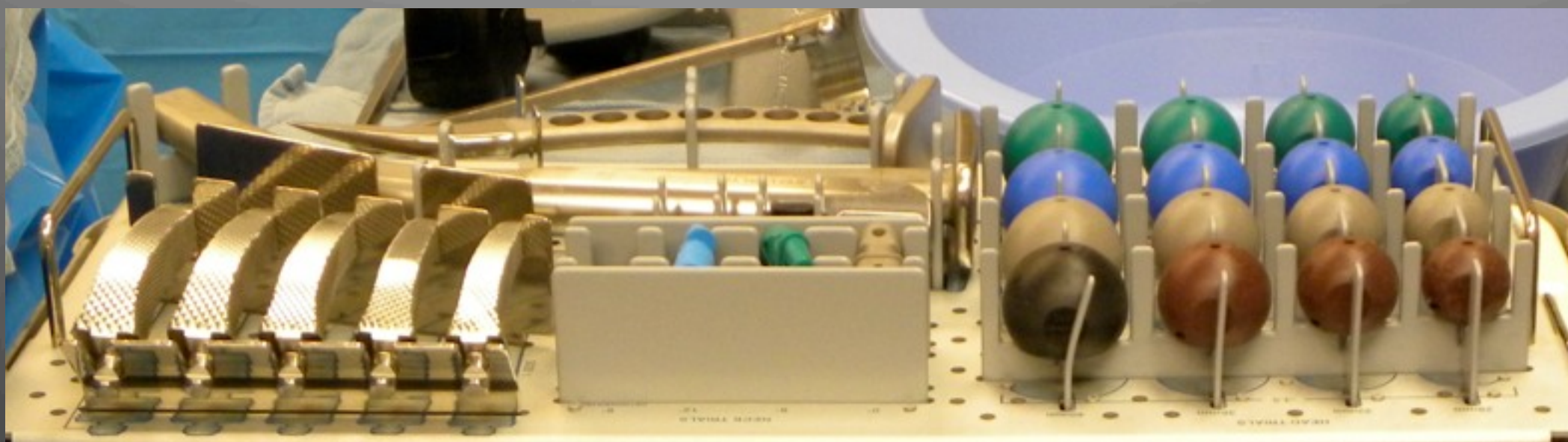
Reduces bending stiffness reducing distal load transfer and reduces hoop tension reducing potential distal fx.



Stem Sizes

Addresses +90% of Patients

- Five presently



5 4 3 2 1

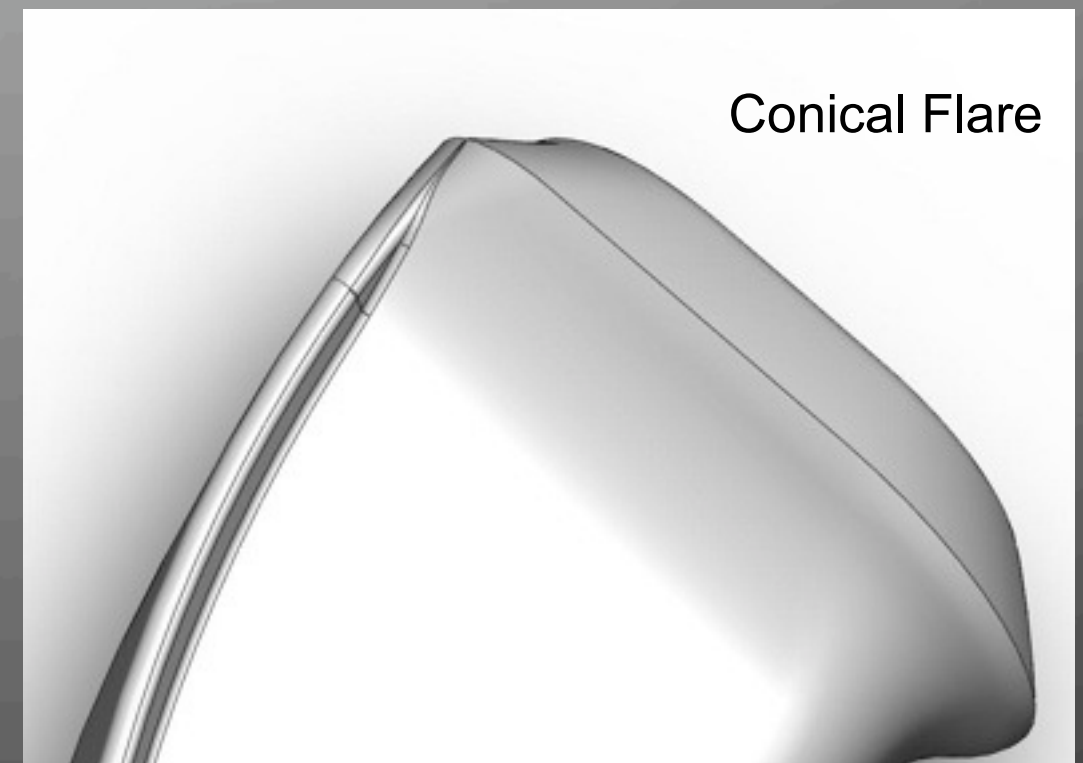
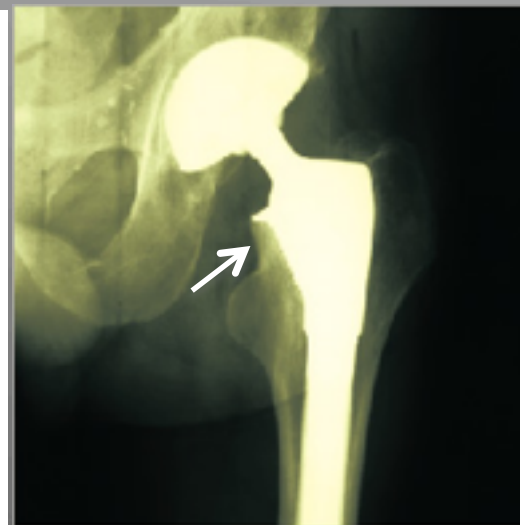
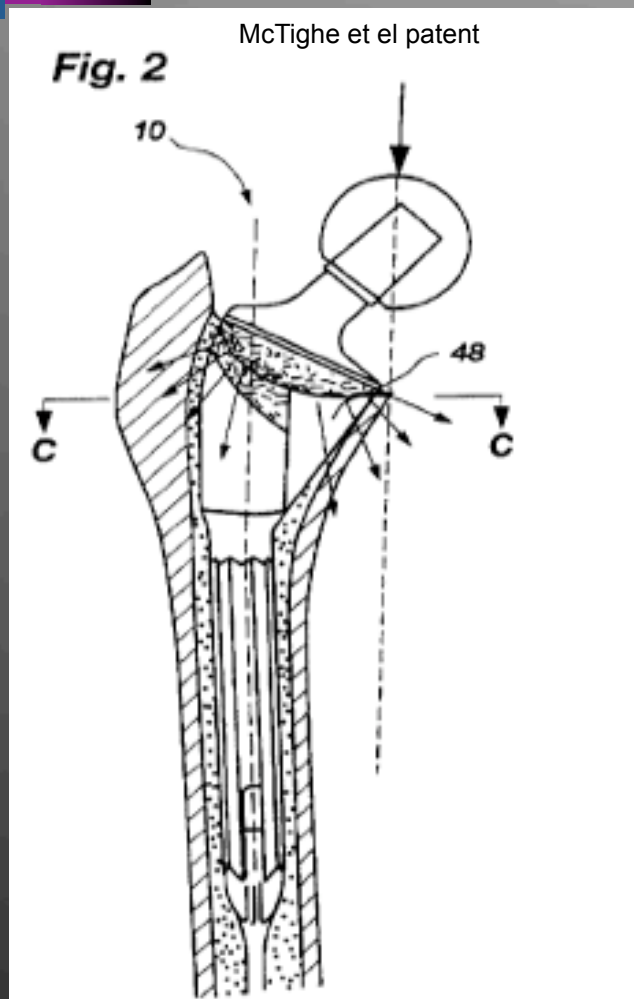
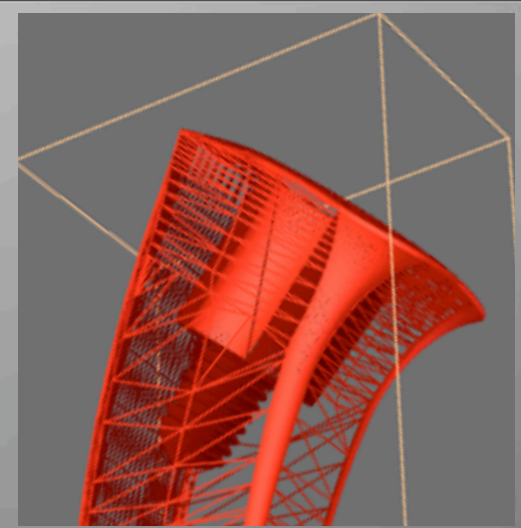


- Definitely add one size down & possible one size up to seven stems

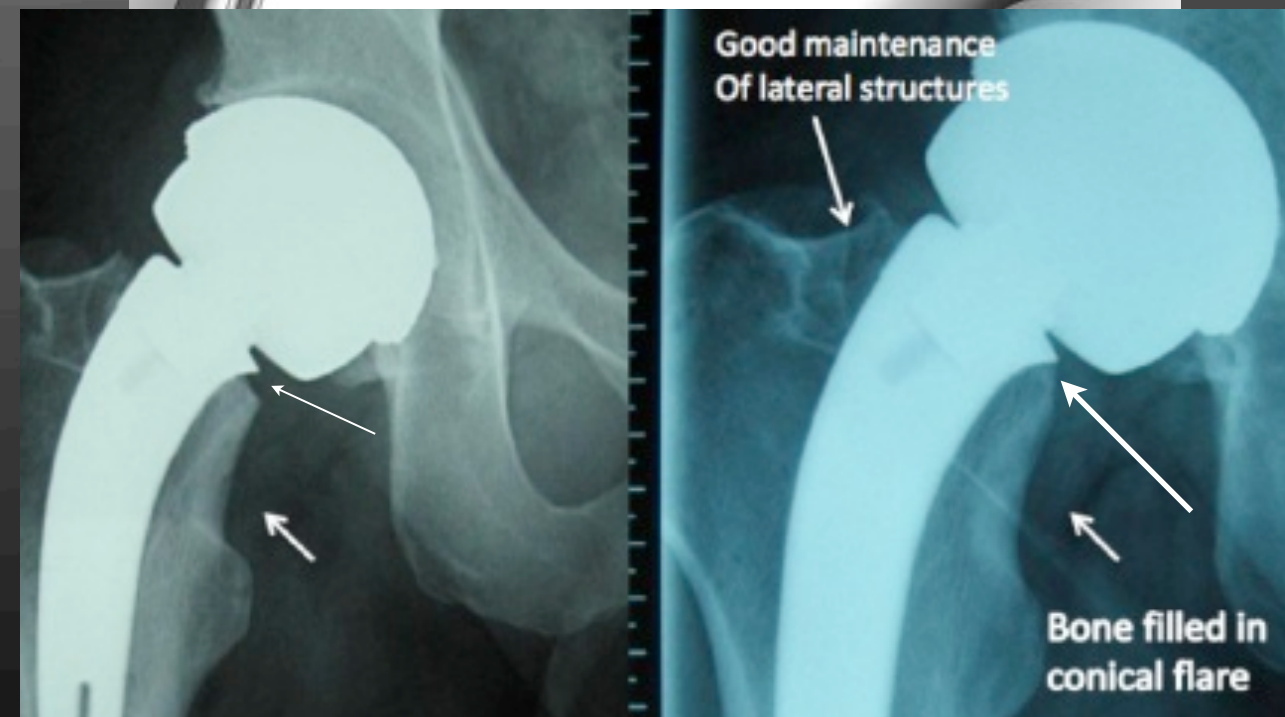


Conical Flare

Designed off Conical Collar
of 1993 design

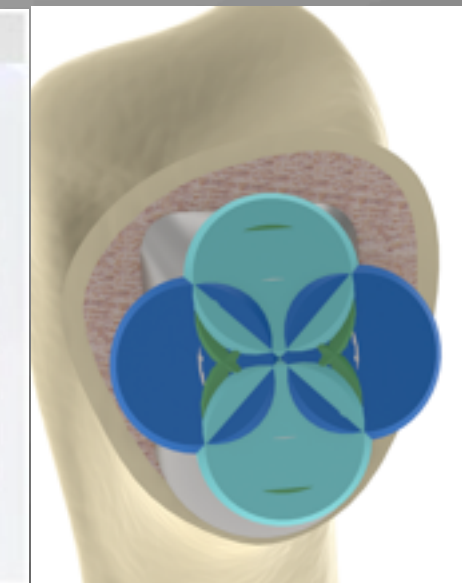


➤ Transfer of hoop tension into
compressive loads

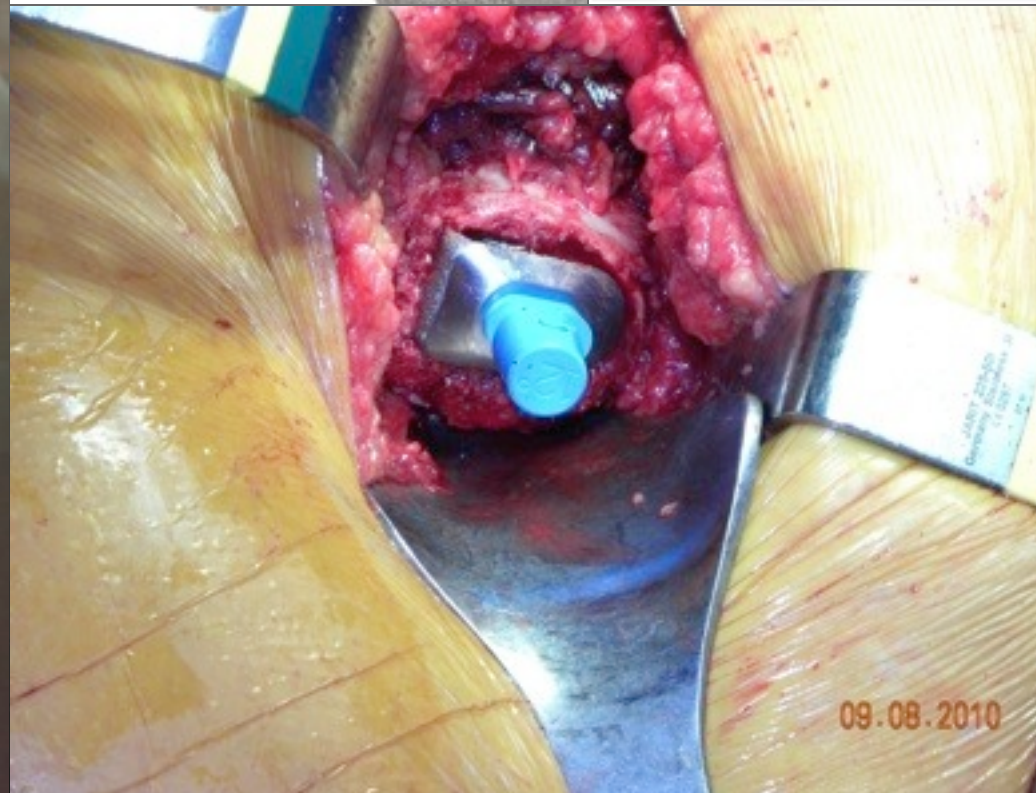


Modular Neck (c.c.)

allows for fine-tuning joint mechanics



Tkach



Surgeon Decides Bearing Material



Dual Mobility Cups



A New Approach to Stem Design for THA

-Time will tell-

