Foundation®
Shoulder System
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Canal Flare Index

Canal flare index has important implications in designing an anatomical humeral stem for inherent stability in rotation and bending. A ninety-three cadaver database of proximal humeri and matching scapulae were utilized to determine the optimal endosteal canal flare index of the Foundation Total Shoulder design.

Head Size Range

Fifteen CoCr neutral humeral head sizes are available representing five diameters with three standard heights for each diameter. Ten CoCr offset humeral head sizes are available allowing the surgeon unlimited options in head alignment. This comprehensive size range allows for optimum soft tissue balancing.

Larger Radius

Anatomical studies have shown that having the radius of the glenoid slightly greater than the radius of the humeral head provides advantages of allowing translation without loading the glenoid rim. Based on these studies, the radius of curvature of the Foundation glenoid component is 6mm larger in the superior/inferior dimension and 12mm larger in the anterior/posterior dimension than the corresponding humeral head.

Superior-Inferior Mismatch

A-P Mismatch

Pre-op

Post-op
Pegged and Keeled Glenoid

- All-poly (compression molded)
- Pear shaped
- Translational mismatch
- Curved medial radius
- Cement grooves
- Customizing keel grooves
- Radiographic markers
- 3-pegged design w/grooves

Humeral Heads

- Cobalt chrome alloy
- Five neutral and offset head diameters (38, 42, 46, 50, and 54mm)
- Three neutral head heights (17, 22, and 27mm)
- Two offset head heights (22 and 27mm)
- Reverse morse taper

Humeral Stems

- Titanium alloy (Ti6Al4V) (strength and Biocompatibility)
- Morse taper
- 45° head/stem angle
- Oval collar
- Rough proximal texturing
- A/P and lateral fins
- A/P, lateral, and medial suture holes
- Fluted cylindrical distal stem
- 6 stem sizes (6, 8, 10, 12, 14, and 16mm)

Fracture Shoulder

Establishing proper head height in relation to the glenoid is critical to the outcome of arthroplasty for fractures of the proximal humerus. A prosthesis placed too high or too low will cause excessive forces on the glenoid and rotator cuff. The challenge has been how to determine the proper height when the final implant is cemented. The Foundation Shoulder Fracture system provides an easy answer for this challenge.

Establishing proper head height in relation to the glenoid is critical to the outcome of arthroplasty for fractures of the proximal humerus. The Foundation Shoulder Fracture System modular trials establish a stable trial reduction without the use of an external jig simultaneously determining canal size, stem height, and stem version all in one simple step.

- Markings are present on the trial bodies so that height can be reproduced independent to the stem sizing.
- Prosthesis holes for suture attachment are available anterior, posterior, medial, and lateral.
- Anterior fin allows for anatomical reconstruction of the tuberosities.
- A guide to ensure proper restoration of head to tuberosity height.