

“Our measurements show that if a variation in size is needed in the design of the prosthesis, it is the humeral component that should have **the greatest range in size.**”

*JP Iannotti, JP Gabriel, SL Schneck, BG Evans, and S Misra.
The normal glenohumeral relationships. An anatomical study of one hundred and forty shoulders.
J Bone Joint Surg Am. 1992;74:491-500.*



25 mm



30 mm



35 mm



40 mm



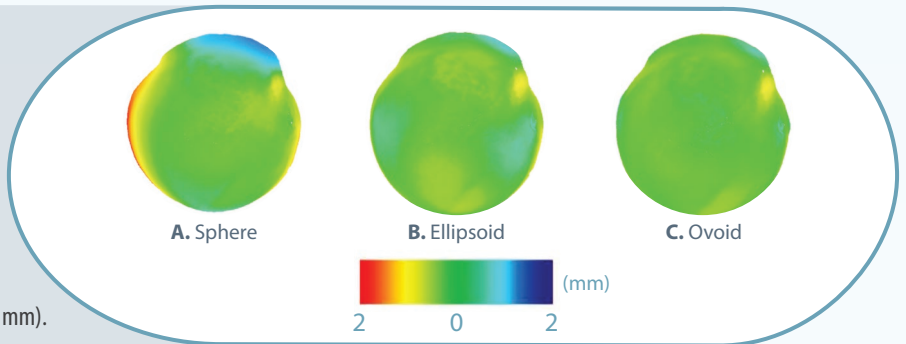
OVO / 48-58 mm

Providing Partial to **Full** Shoulder Arthroplasty *with over 40 different sizes & shapes*

- ✓ **Ovoid HemiCAP shape**
matches humeral head geometry
- ✓ **Bone & tissue sparing**
preserves future primary arthroplasty
- ✓ **Anatomic head & inlay glenoid**
provides best fit scenario

Topology of the Humeral Head Articular Surface

The ovoid matches the anatomic shape of the humeral head **more than 3 times better than a sphere.**



Non-green color mapping shows the deviation from a perfect fit (in mm).

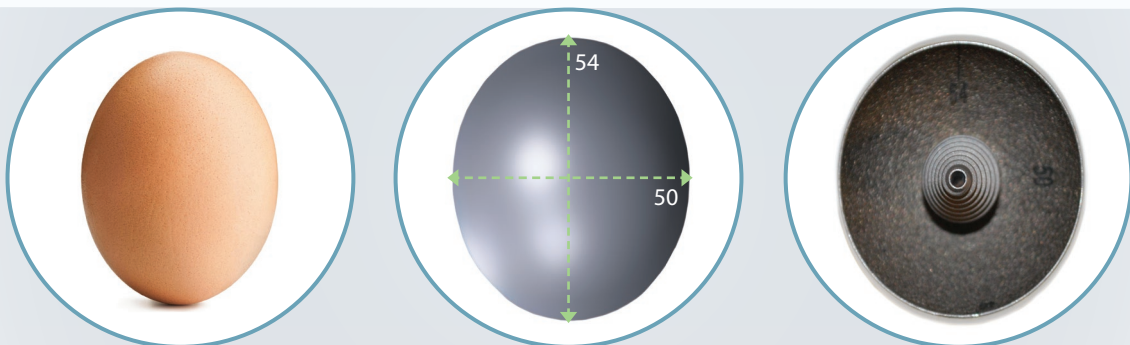


Error maps of the three spheroid shapes least-squares fit to the humeral head articular cartilage surface. **(A)** The sphere model. **(B)** The ellipsoid model. **(C)** The ovoid model. The error is measured as $|\Delta r|$, the perpendicular distance from the articular surface to the surface of the shape models. In all measures of fit, the **ovoid model best replicated the osteo and chondral surfaces** of the humeral head.

*John Phillips, PhD; Stephen D. Fening, PhD; R.J. Runciman, PhD; Anthony Miniaci, MD.
University of Guelph, Guelph, Ontario, Canada Austen BioInnovation Institute of Akron, Akron, OH Cleveland Clinic, Cleveland, OH*

Humeral Head is Ovoid not Spherical

S/I is 4 mm larger than A/P



The humeral articular surface was spherical in the center, **however, the peripheral radius was two millimeters less (or 4mm in diameter) in the axial plane than in the coronal plane...**

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