stryker

ReUnion® S

Designed to be the ideal length stem

Bone Preservation. Alignment. Stability.

ReUnion S data driven length

Current short stem designs have presented higher rates of humeral stem complications such as bone resorption and radiolucencies. This may be due to over shortening, increased proximal bulk, and poor implant alignment.[1,2]

The ReUnion S stem is designed to be the ideal length stem, optimizing bone preservation, alignment, and stability.

1 Bone preservation

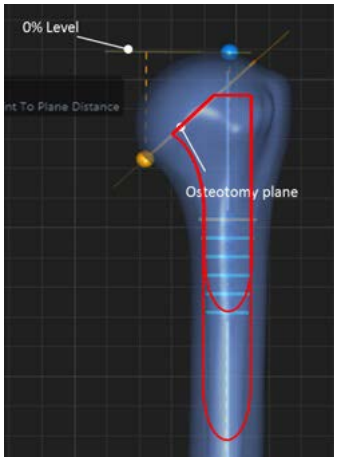
ReUnion S preserves more bone mass proximally and distally compared to competitive stems. By keeping the wedge shape proximal body, soft tissue management preference is that of the user, not limited by the stem design. Reduced stem length was determined through our SOMA analysis; identifying a humeral transition point and alignment length.[3]

2 Alignment

By extensively studying the cross-sectional geometry of the humeral canal with SOMA, a unique transition point was identified where the flare of the metaphysis tapers to the more regular, cylindrical shape in the diaphyseal region. With the transition point identified, our target alignment zone was identified to avoid varus/ valgus placement of the stem.[4]

3 Stability

The enhanced medial sweep of the stem avoids distal engagement while the alignment focused length and incremental distal sizing options prevent canal migration. The S stem is designed to retain the alignment and stability benefits of a longer humeral stem prosthesis.



SOMA

The Stryker Orthopaedics Modeling and Analytics (SOMA) technology, is Stryker's proprietary database of 3D CTA Scans and software. Prior to SOMA, implant design was more subjective, with limited cadaveric trials. Today, over 19,500 bones from all ethnicities are in the SOMA database, allowing for the design of a better fitting implant.

The three propriety software tools of SOMA are:

- Bone database management tool: Provides ability to research gender, ethnicity, and/or patient age.
- Stryker Anatomy Analysis Tool: allows the ability to analyze shape variation of bones, and to capture geometrical measurements such as bone density.
- Stryker Implant Fitting Tool: allows for automatic analysis of how well the implant design fits within or on the bone.

1. Gilot G, Alcareaz-Pinzon AM, Wright TW, Flurin PH, Krill M, Routman HD, Zuckerman JD. The incidence of radiographic aseptic loosening of the humeral component in reverse total shoulder arthroplasty. J Shoulder Elbow Surg. 2015 Oct;24(10):1555-9. Epub 2015 May 7
2. Morwood MP, Johnston PS, Garrigues GE. Proximal ingrowth coating decreases risk of loosening following uncemented shoulder arthroplasty using mini-stem humeral components and lesser tuberosity osteotomy. J Shoulder Elbow Surg 2017;26:1246-52
3. Internal document: A0042705
4. RU-WP-3: Analysis of humeral morphology as it relates to stem length

Trauma & Extremities

Content ID: RU-SS-12, 03-2019