# *s*tryker

# Evolve® Proline Radial Head System

## 324 sizing options

- Head sizes 6 sizes ranging from 18mm to 28mm in diameter with standard, +2 and +4 height options
- ▶ Stem sizes 6 sizes ranging from **4.5mm** to **9.5mm** with **standard**, **+2** and **+4** height options



### Sizing and placement

- Select head size based on the size of the articular dish rather than the outside diameter of the head.
- When in doubt, always downsize to prevent overstuffing of the joint<sup>1</sup>
- Broach until cortical contact is made and select stem size that is one size smaller than the largest broach used.<sup>1</sup>
- Medial and lateral side of the ulno-humeral joint should be congruent
- In-situ loading tool available upon request: Evolve Locker





# Clinically proven

**Revision rates** 

24%

Competitive press-fit stems

0%

Stryker Evolve Proline stems

- Flinkkilä et al. reports a **24% revision rate** for competitive press-fit stems<sup>2</sup>
- Marsh et al. reports no required removal or revision for Evolve Proline smooth stems<sup>3</sup>
- ▶ Loosening of press-fit radial head prosthesis is common, occurs early, often leads to severe osteolysis and commonly requires removal²

## **Design features**

- Toggle of the stem within the radius designed to allow the radial head to articulate congruently with the capitellum<sup>1</sup>
- Movement of implant is designed to be guided by the annular ligament rather than by the position of the radial neck<sup>1</sup>
- Loose fit designed to allow the forearm to rotate around the stem rather than between the prosthesis and articular cartilage of the capitellum

## **Revision option**

Check out our Tornier RHS® System with stem lengths up to 60mm to help accommodate revision surgeries.





#### **Evolve Proline** Radial Head System

#### Modular vs Monobloc





Modular design

Monobloc design<sup>4</sup>

- ▶ The Evolve Radial Head systems offer modular implants allows independent sizing of the head and stem providing more options
- Some competitors offer monobloc implants head and stem size combinations are pre-determined limiting options
- The elliptical head and offset neck of the radius is difficult to accurately reconstruct with a monobloc implant<sup>2</sup>

### Kit configurations

	Evolve Proline 2499KIT1/A	Evolve Triad 4951KIT1/A
Plate options		
Screw options		•
Radial head replacement option	•	•





## **Evolve Triad** Fixation System

#### **Plating options**



#### **Radial Head Plates**

- Material: Stainless Steel
- Accepts 2.0mm locking and non-locking screws in round holes
- Sizes: 20mm, 22mm, 24mm, 26mm



#### **Radial Neck Plates**

- Material: Stainless Steel
- Accepts 2.0mm locking and non-locking screws in round holes
- Sizes: 21mm, 25mm



#### **Coronoid Plates**

- Material: Stainless Steel
- Accepts 2.0mm non-locking screws
- Sizes: 5 holes (small), 8 holes (medium), 11 holes (large)

### **Screw options**

	Size (mm)	Lengths (mm)	Drill bit	Driver
Cannulated, full thread	2.5	10-50	2.0	Т8
Locking	2.0	10-30, 35, 40	1.3	T7
Cortex, plate or bone	2.0	10-30, 35, 40	1.3	Т7
Cortex, bone	1.5	10-28	1.1	Т6

Oval holes & coronoid plates do not accept locking screws

#### References

- 1. Ring, David, and Graham King. "Radial Head Arthroplasty with a Modular Metal Spacer to Treat Acute Traumatic Elbow Instability." Journal of Bone and Joint Surgery, vol. 90, no. Supplement 2\_Part\_1, 2008, pp. 63–73., https://doi.org/10.2106/jbjs.g.01248.
- 2. Flinkkilä study SO656-812. Short to Mid-Term Results of Metallic Press-Fit Radial Head Arthroplasty in Unstable Injuries of the Elbow. J Bone Joint Surg. VOL. 94-B, No. 6, June 2012. 805-810.
- 3. Jonathan P. Marsh, Ruby Grewal, Kenneth J. Faber, Darren S. Drosdowech, George S. Athwal, Graham J.W. King. Radial Head Fractures Treated with Modular Metallic Radial Head Replacement. J Bone Joint Surg Am Apr 2016, 98 (7) 527-535.
- $4. \ \ DePuy Synthes. (2021). Radial Head Replacement System Surgical Technique. Monument, CO; DePuy Synthes. Retrieved March 7, 2022, from http://synthes.vo.llnwd.net/o16/LL-NWMB8/US%20Mobile/Synthes%20North%20America/Product%20Support%20Materials/Technique%20Guides/103666766%20Rev%20C.pdf.$

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