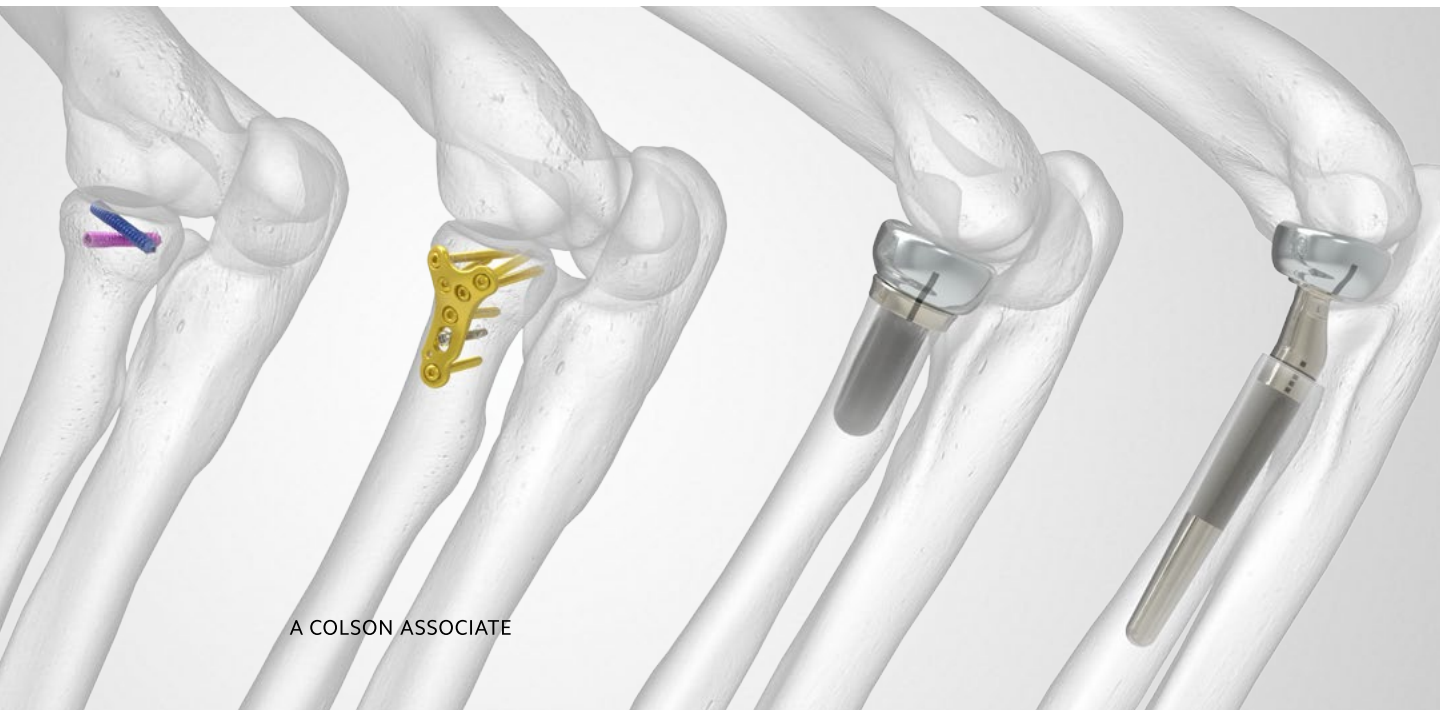




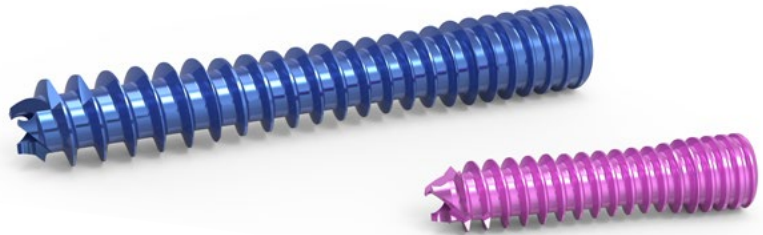
Anatomic Radial Head Solutions

Treatment Options for Simple to Complex Fractures

## Product Overview



A COLSON ASSOCIATE

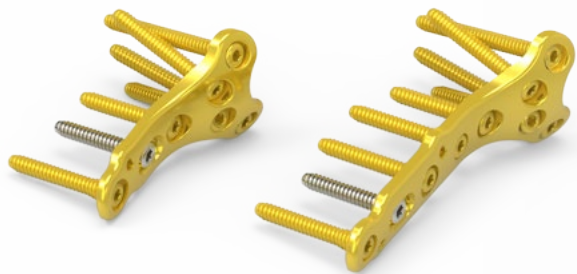


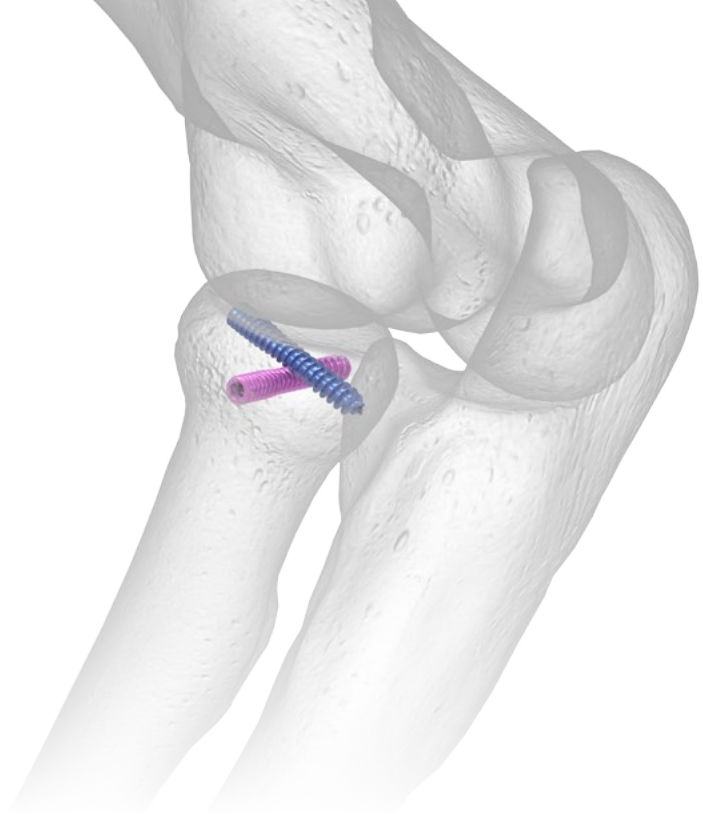
## Anatomic Radial Head Solutions

### Treatment Options for Simple to Complex Fractures

From plating a fractured radial head to replacing it with an anatomic implant, Acumed offers comprehensive solutions for a variety of elbow fractures. Acumed created the first anatomically shaped radial head on the market and has continued to evolve that system, replacing broaches with reamers, adding long stems, and enhancing the instrumentation.

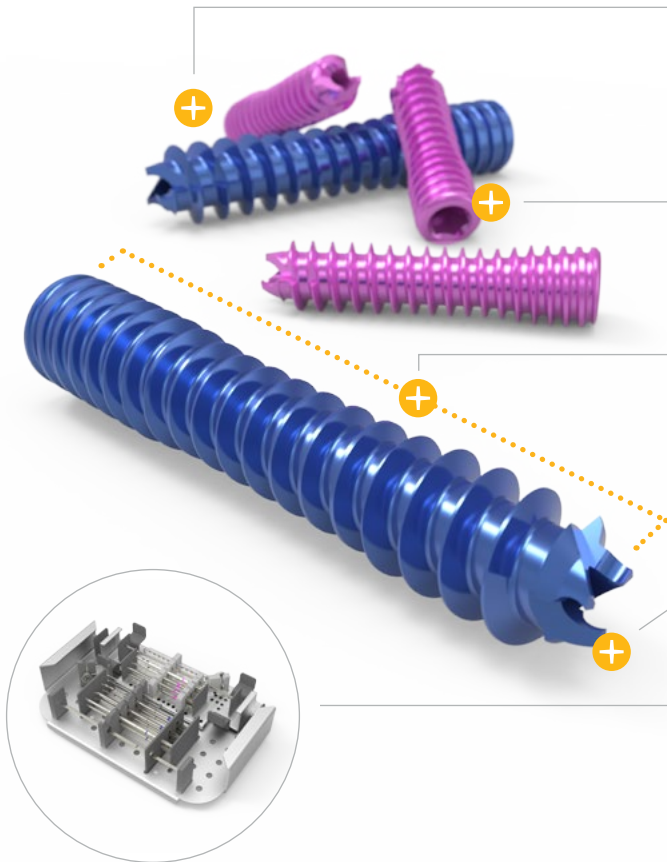
The Acutrak 2® Headless Compression Screw (Mini and Micro sizes) also adds to the surgeon's toolkit for elbow fixation.





## Acutrak 2® Headless Compression Screw

Acutrak 2 screws are designed for the fixation of small bones and fracture fragments, in place of a headed screw or an equivalent-size headless screw.



### Mini and Micro Sizes

- Acutrak 2 Mini has a 3.5 mm diameter tip and a 3.6 mm tail
- Acutrak 2 Micro has a 2.5 mm tip and a 2.8 mm tail

### Headless Screw

Headless screw design is intended to minimize soft tissue irritation

### Patented Thread Pitch

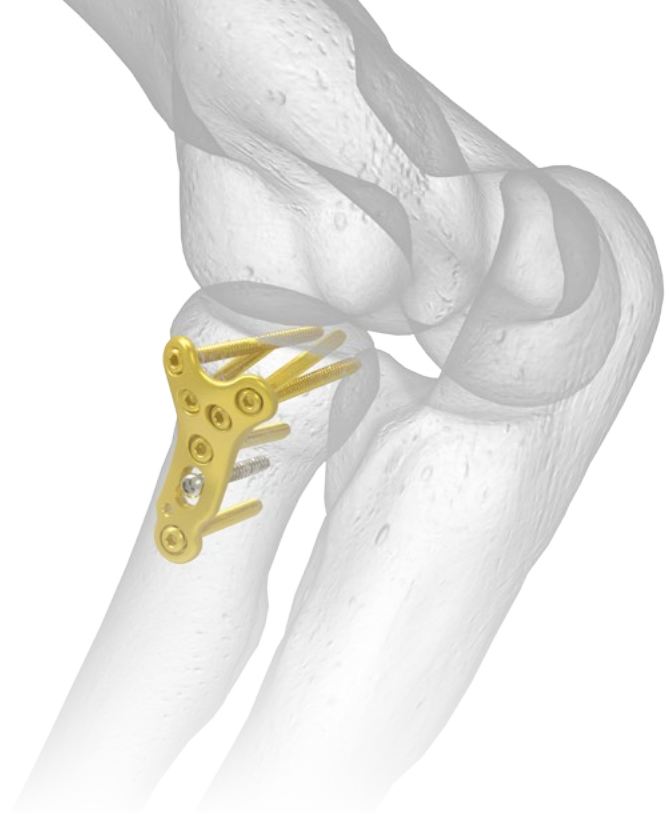
Fully threaded, continuously variable thread pitch allows each thread along the entire length of the screw to aid in the reduction and compression of the fracture

### Designed to Ease Insertion

Self-cutting and self-tapping screw is designed to facilitate insertion into hard bone

### Acutrak 2® Headless Compression Screw

Acutrak 2 Mini and Micro Instruments may be included in the base of each radial head prosthesis tray to expand the surgical options. Acutrak 2 screws are available for individual order sterile or non-sterile packed



## Radial Head Plating System

The system offers a straightforward solution when the radial head is salvageable. Two lengths and two head curvatures provide options for varying patient anatomy and fracture patterns.



### **Precontoured Plates**

Anatomically precontoured plates are designed for the fixation of radial head fractures

### **Strategic Screw Angles**

Converging and diverging locking screw angles are engineered to provide support and help capture fracture fragments

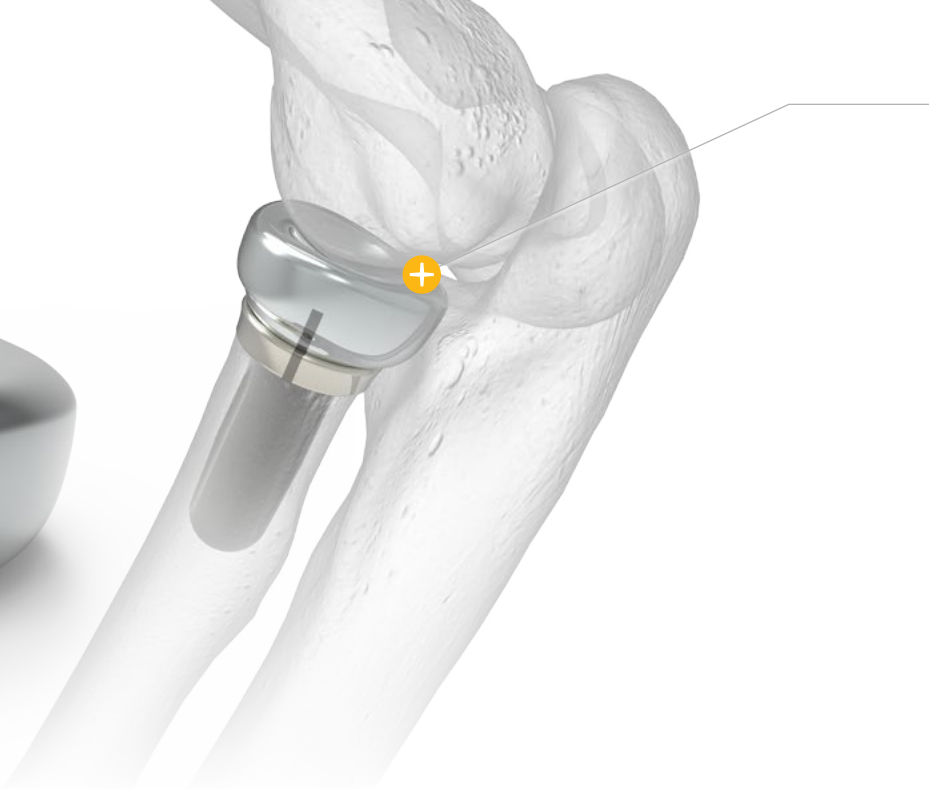


### **Innovative Instrumentation**

A radiolucent targeting guide is included to assist with threading the locking drill guide into the proximal locking holes



Second Generation Radial Head Design



## Anatomic Radial Head Solutions

Anatomic Radial Head Solutions expanded the comprehensiveness of the Anatomic Radial Head System by adding long stems, bringing the head and stem combinations to 290. The solution also replaced broaches with reamers for canal preparation.





### Radius Retractor Instrument

The addition of a radius retractor is intended to facilitate reaming, trialing, and insertion of the anatomic radial head



### Anatomic Radial Head Prosthesis

The original anatomically shaped radial head implant is designed to mimic the radiocapitellar joint contact of a native radial head, which may help avoid cartilage erosion<sup>1,2</sup>

### Long Stems Added

Long stems were added for fractures that extend distally past the radial neck and for revision following failed radial head arthroplasty

### Reamers Instead of Broaches\*

Reamers replaced broaches for canal preparation. Reamers may allow for a larger stem diameter than broaches and may decrease risk of fracture compared to broaches<sup>3</sup>

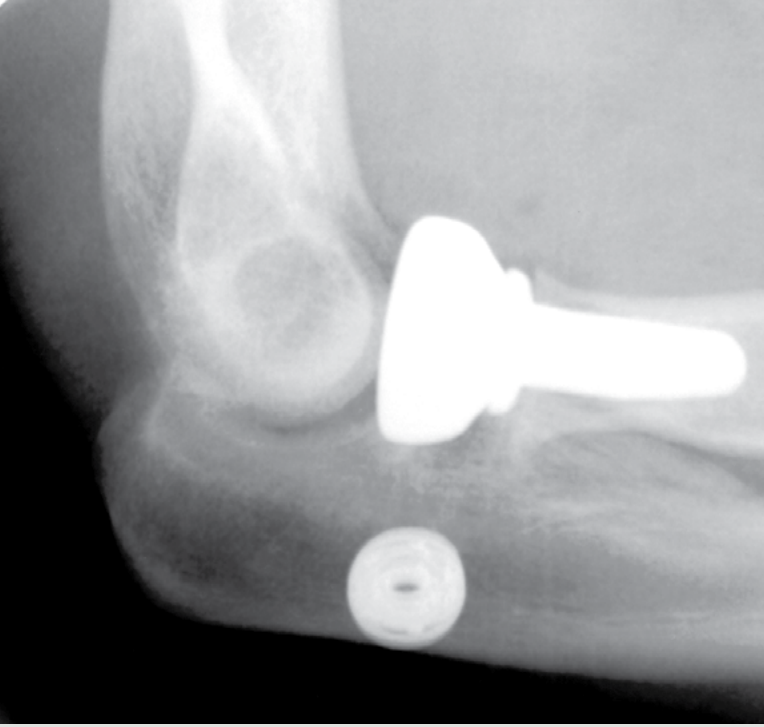
\*The original Anatomic Radial Head System with broaches is still available upon request



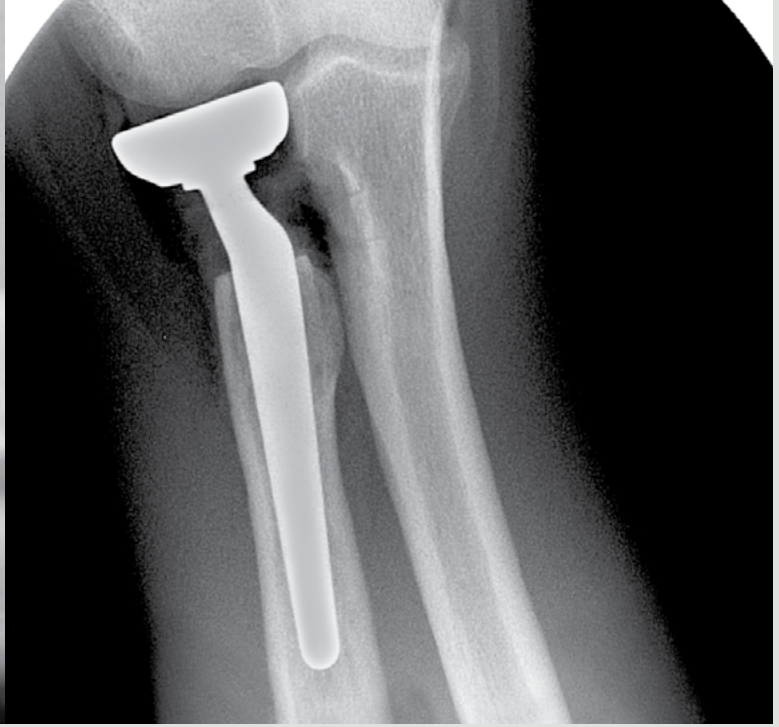
A radial head fracture has been fixed with Acutrak 2® Mini headless compression screws, designed to minimize soft tissue irritation



Screws in the Radial Head Plating System are designed to sit flush with the plate for minimized hardware prominence



The curvature in the Anatomic Radial Head prosthesis is designed to mimic the native radial head



Anatomic Radial Head Solutions includes long stems for revisions and fractures that extend distally past the radial neck

Acutrak 2 Mini  
or Micro

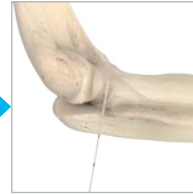


**Fracture Type**  
Salvageable Radial  
Head Fracture

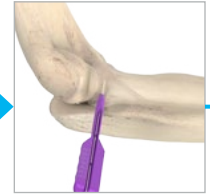
Exposure and  
Reduction



Guide Wire  
Insertion



Determine Screw  
Length



Locking Radial  
Head Plate



**Fracture Type**  
Salvageable Radial  
Head Fracture

Exposure and  
Reduction

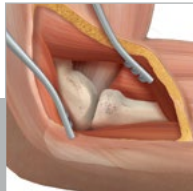
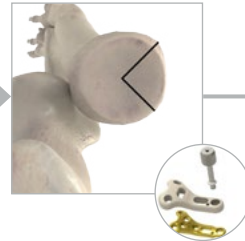


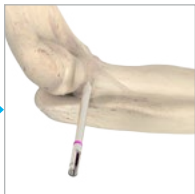
Plate Placement



Provisional Plate  
Fixation



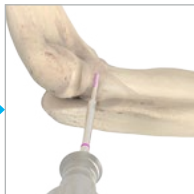
**Drill**



**Drill**



**Advance Self-Tapping Screw**



**Postoperative Protocol**



**Nonlocking Distal Screw Fixation**



**Insert Locking Screw**



**Final Screw Placement**



**Postoperative Protocol**

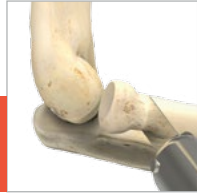


## Standard Stem



**Fracture Type**  
Nonsalvageable  
Radial Head Fracture

Radial Head  
Resection



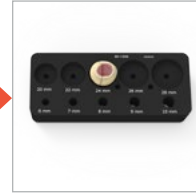
Determine Stem  
Diameter



Ream  
Collar



Determine Head  
Diameter



## Long Stem

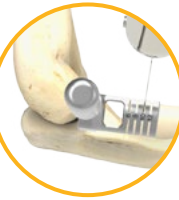
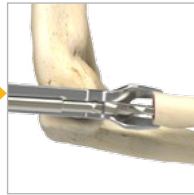


**Fracture Type**  
Nonsalvageable  
Radial Head Fracture

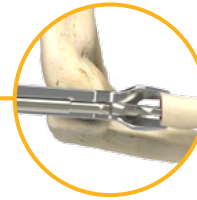
Radial Head/Neck  
Resection



Determine Stem  
Diameter

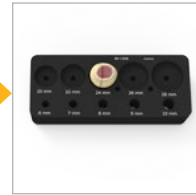


Final Resection

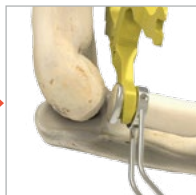


Confirm Stem  
Diameter

Determine Head  
Diameter



Determine Neck Height



Trial Implant Insertion



Implant Insertion



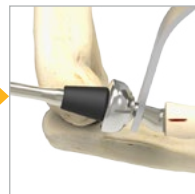
Postoperative Protocol



Trial Implant Insertion



Implant Insertion



Postoperative Protocol





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## References

1. Sahu D, Holmes D, Fitzsimmons J, et al. Influence of radial head prosthesis design on radiocapitellar joint contact mechanics. *J Shoulder Elbow Surg.* 2014;23(4):456–462.
2. Bachman DR, Thaveepunsan S, Park S, Fitzsimmons JS, An KN, O'Driscoll SW. The effect of prosthetic radial head geometry on the distribution and magnitude of radiocapitellar joint contact pressures. *J Hand Surg Am.* 2015;40(2):281–288.
3. Shukla DR, Shao D, Fitzsimmons J, et al. Canal preparation for prosthetic radial head replacement: rasping versus reaming. *J Shoulder Elbow Surg.* 2013;22(11): 1474–1479.

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