

Indications

- 1. Severe elbow injury that affects daily life;
- 2. Elbow instability due to post-traumatic injury or bone loss;
- 3. Ankylosing joints, especially bilateral ankylosing caused by reasons other than active sepsis;
- 4. Advanced rheumatoid arthritis, post-traumatic arthritis or degenerative arthritis with disabling pain;
- 5. The degree of joint or soft tissue injury leads to instability or loss of motion during bone fusion, and reliable bone fusion cannot be performed;
- 6.Acute comminuted articular fractures on the elbow surface, excluding less radical surgery, including distal humeral 13-C3 fractures;
- 7. Revision surgery.

Contraindications

- 1. Current active or recurrent local infection at the surgical site;
- 2. Paralytic or dysfunctional neuropathy involving the elbow joint;
- 3. Significant ipsilateral hand dysfunction;
- 4. Excessive scarring of the skin or soft tissue that may prevent adequate soft tissue coverage;
- 5. Daily activities that put great stress on the device (such as heavy labor, torsional stress, and/or competitive sports)

Relative contraindications

- 1.Distant infection sources (such as urogenital tract, lungs, skin [chronic lesions or ulcers] or other sites).
In the case of distant infection,the infection source should be treated before, during and after surgery;
- 2. Ancient sepsis.

Press-fit Elbow Joint Prosthesis



Upper ulna ○.

The clearance with the half-shaftsleeve (ulna pad) allows the upper end of the ulna to rotate around the cylinder of the pad, and the carrying angle can be kept within a range of $\pm 6^\circ$.



The upper end of the ulna has a curved and eccentric structure design , which conforms to the actual situation of the human ulna .

Titanium powder spraying on the neck surface , biological fixation

The upper end of the ulna is made of Ti6Al4V material. There are 6 types of models on one side according to the length and cross-sectional size, and 12 types on the left and right sides. The proximal structure adopts a curved and eccentric design, which conforms to the anatomical structure of the humerus-ulna joint of the human body. The proximal end is coated with titanium alloy powder to improve the later stability of the prosthesis.

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Distal humerus ○

The anterior wing of the lower end of the humerus and the trimmed bone piece are stuck on the outer side of the distal humeral osteotomy to prevent the prosthesis from rotating or shaking.



Titanium powder spraying on the neck surface, biological fixation

The upper end of the ulna is made of Ti6Al4V material, and is divided into 6 models according to length, width and cross-sectional size. The circular structure at the ulna junction maintains the geometry of the distal humerus, the anterior wing structure of the neck enhances the stability of the prosthesis, and the proximal end is powder-coated with titanium alloy to improve the stability of the prosthesis in the later stage.

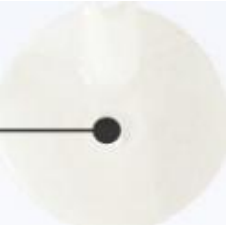
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Half axis sleeve ○
(Ulnar cushion block)

The clearance between the short cylinder and the upper end of the ulna can ensure that the carrying angle has a range of $\pm 6^{\circ}$



The round hole and the shaft have an interference fit to avoid sliding



Half axis sleeve(Ulnar cushion block))
Made of ultra-high molecular weight polyethylene, there are 2 models based on thickness; the thicker design reduces edge loads and stresses, maximizes contact area to distribute joint reaction forces; the ultra-high molecular weight polyethylene material can maximize oxidation stability, reduce wear and improve mechanical properties.

Name	MODEL	REF	Material
Half axis sleeve	#11MM	5051-00601	UHMWPE
Half axis sleeve	#12MM	5051-00602	UHMWPE
Diagram			

Half axis sleeve ○
(Humeral cushion block)

The upper end of the ulna is in contact with this curved groove, ensuring that the carrying angle has a range of ± 6 .



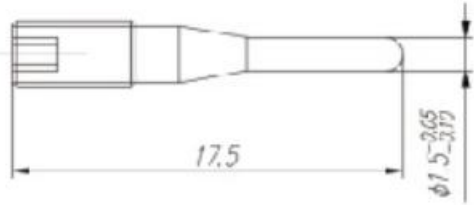
Half axis sleeve(Humeral cushion block)
Made of ultra-high molecular weight polyethylene, available in 2 different thicknesses; ultra-high molecular weight polyethylene maximizes oxidation stability, reduces wear and improves mechanical properties.

Name	MODEL	REF	Material
Half axis sleeve	#11MM	5051-00601	UHMWPE
Half axis sleeve	#12MM	5051-00602	UHMWPE
Diagram			

Fixation screw ○

The fixation screw is made of cocrmo alloy and is assembled into the threaded hole at the lower end of the humerus to clamp the two ends of the shaft to ensure the overall stability of the prosthesis assembly.



Name	MODEL	REF	Material
Fixation screw	#17.5MM	5051-00101	CoCrMo
Diagram			

Axes ○

The Axes is made of cocrmo alloy and is available in 2 different lengths. This system increases the durability of the shaft without applying compressive loads to the screw.



Name	MODEL	REF	Material
Axes	#19MM	5051-00301	CoCrMo
Axes	#20MM	5051-00302	CoCrMo
Diagram	