

LITERATURE REVIEW

## Clinical Review of Low Complication Rates in Olecranon Fracture Fixation With Dual Plating<sup>1</sup>

**CLINICAL ISSUES:**

- Prominent hardware leading to irritation and secondary hardware removal procedure.
- Stiffness, leading to a reduced range of motion.

**MEDARTIS SOLUTION:**

The APTUS 2.8 Olecranon Double Plates provide the following clinical benefits:

- Low plate profile and high rotational stability due to biomechanically favorable posterolateral and posteromedial plate position.
- Plates can be covered with soft tissue, thereby reducing the occurrence of wound healing problems and the likelihood of hardware removal.<sup>2,3</sup>
- High number of screw options enables stable fixation, particularly of small proximal fragments.<sup>2</sup>



**APTUS 2.8 Olecranon Double Plates**

**LITERATURE REVIEW:**

Brown et al. retrospectively reviewed 42 closed olecranon fractures in 41 patients where ORIF was performed using the APTUS 2.8 Olecranon Double Plates with a mean follow-up of 8.7 months (3-36 months).

1. Two patients (4.8%) reported symptomatic hardware irritation. One case resolved by 3 months, and the second case was not bothersome enough to warrant removal.
2. One hardware removal was performed during an irrigation and debridement reoperation subsequent to a fall that resulted in wound dehiscence.
3. Five patients (11.9%) had at least one postoperative complication.

Brown et al. observed 4.8% symptomatic hardware and 2.4% hardware removal with Medartis Double Plates. The authors discuss that their findings are “substantially different from what appears in the literature for dorsal plating. In a large, multicenter study of 182 patients across a broad range of olecranon fractures treated with posterior plating, De Giacomo et al<sup>4</sup> found a symptomatic hardware rate of 31% with a resultant removal rate of 15% at 1 year.”

**KEY TAKEAWAY:**

The authors conclude, “Double plating provides a reliable method of fixation, helps recreate native anatomy, and has a low complication rate compared with results reported after dorsal plating.”

Scan the QR Code to read this study and learn more about the specific methods and results from this study.



**REFERENCES:**

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2. Hackl M, Mayer K, Weber M, Staat M, van Riet R, Burkhart KJ, Müller LP, Wegmann K. Plate Osteosynthesis of Proximal Ulna Fractures-A Biomechanical Micromotion Analysis. *J Hand Surg Am*. 2017; 42(10):834.e1-834.e7.
3. Ellwein A, Argiropoulos K, Dey-Hazra RO, Pastor MF, Smith T, Lill H. Clinical evaluation of double-plate osteosynthesis for olecranon fractures: A retrospective case-control study. *Orthop Traumatol Surg Res*. 2019; 105(8):1601-1606.
4. De Giacomo AF, Tornetta P 3rd, Sinicrope BJ, Cronin PK, Althausen PL, Bray TJ, Kain MS, Marcantonio A, Sagi C, James CR. Outcomes after plating of olecranon fractures: A multicenter evaluation. *Injury*. 2016; 47(7):1466-71.