

Clinical Practice Guideline Overview

Treatment of Clavicle Fractures

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This clinical practice guideline is intended for use in patients with an isolated clavicle fracture, it is not intended to guide the treatment of clavicle fractures in the polytraumatized patient where multiple considerations impact treatment.





Literature Review

3,280 abstracts reviewed



319 articles recalled for full text review



63
articles included
after full text review
and quality analysis



Strong and Moderate Recommendations and Limited Options*



Moderate evidence Low-intensity pulsed ultrasound (LIPUS) should not be used for nonoperative management of acute mid-shaft clavicle fracture as it does not result in accelerated healing rates of non-union.



Limited evidence Upright radiographs may be superior for demonstrating the degree of displacement in midshaft clavicle fractures when compared to supine radiographs.



Moderate evidence demonstrates that lateral locking plates may have fewer complications and better functional outcomes than hook plates for the treatment of lateral (Neer Type II) clavicle fractures in adults.



Limited evidence Increasing displacement and/ or comminution in midshaft clavicle fractures may be associated with higher rates of non-union following non-operative treatment in adults.



Moderate evidence Surgical treatment of clavicle shaft fractures with an intramedullary nail or single plate results in equivalent long-term clinical outcomes with similar complication rates. Plate fixation may be of benefit in the presence of fracture comminution.



Limited evidence In adolescent patients with displaced midshaft clavicle fractures, operative treatment may offer no benefit compared to non-operative treatment. Operative treatment is associated with similar union rates and substantial reoperation rates for implant removal.



Limited evidence The non-modifiable risk factors age and sex do not predict patient reported functional outcomes following mid shaft clavicle fracture regardless of treatment modality.



Limited evidence suggests that smoking tobacco increases the rate of non-union in clavicle fractures and leads to inferior clinical outcomes.



Limited evidence Dual plating of midshaft clavicle fractures in adults utilizing on 2.7-mm plate and a 2.7-mm or smaller plate may result in similar union rates and lower implant removal and secondary procedure rates than those seen with the use of single 3.5-mm plates.



Limited evidence Anterior inferior plating of midshaft clavicle fractures in adults may lead to lower implant removal rates compared to superior plating.



Limited evidence Surgeons may use manufacturer-contoured anatomic clavicle plates for treatment of midshaft clavicle fractures in adults as they have lower rates of implant removal or deformation compared to other plates.



Operative treatment of displaced midshaft clavicle fractures in adult patients is associated with higher union rates and better early patient-reported outcomes than non-operative treatment. However, practitioners may consider either operative or non-operative treatment as both are associated with similar long-term patient-reported outcomes and patient satisfaction.



Future Research

Consideration for future research is provided for each recommendation within this document are based on the work groups clinical experience and perceived need for better guiding data.

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* Please visit **OrthoGuidelines.org** to view the consensus options for this guideline.



