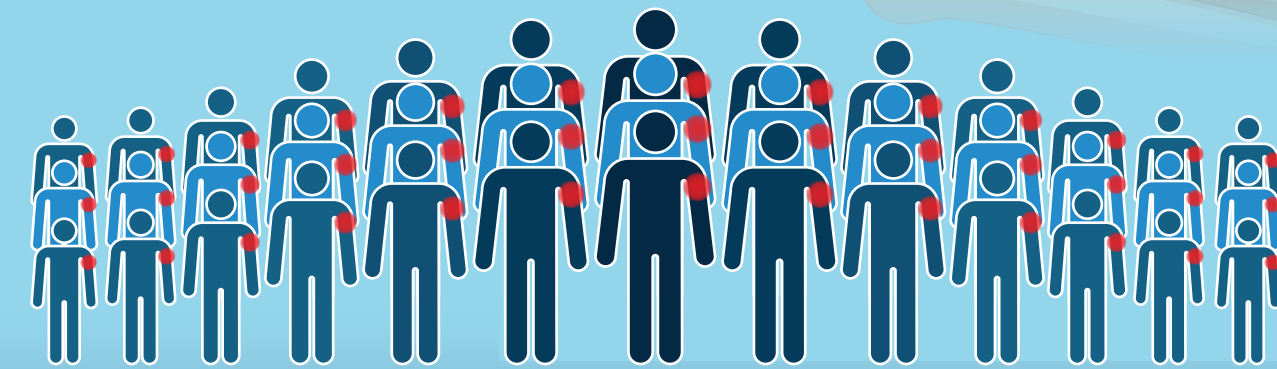
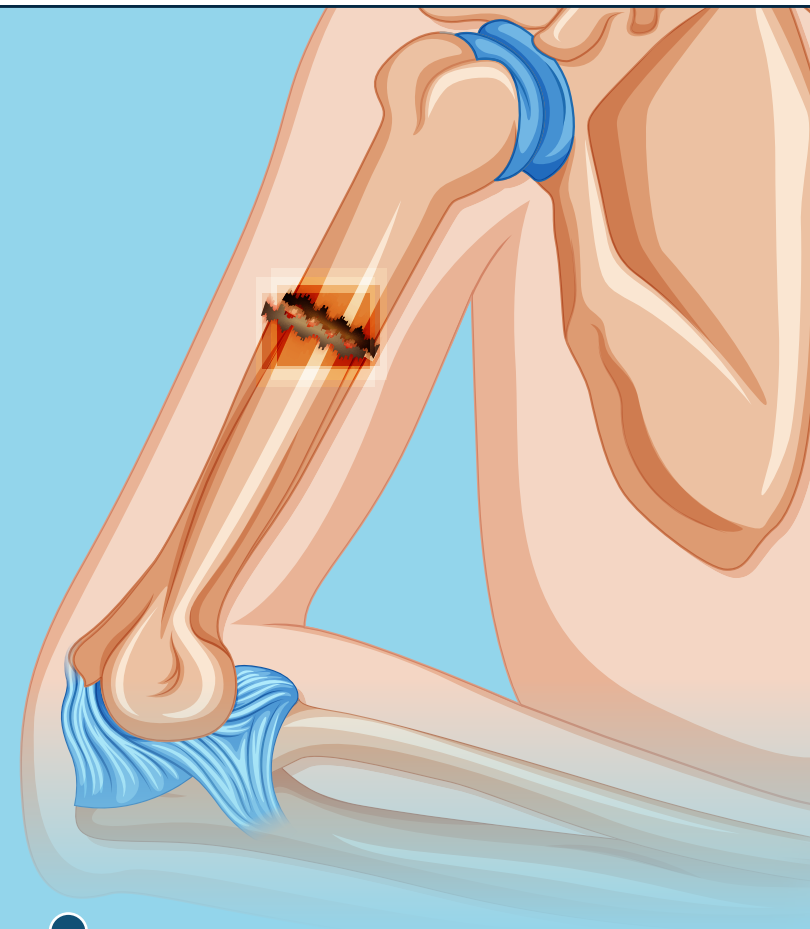


Recalcitrant Humeral Shaft Nonunions: Risk Factors, Treatment, and Outcomes

Plate fixation with or without graft augmentation is commonly used for the treatment of humeral shaft nonunions

However, the outcomes are unknown

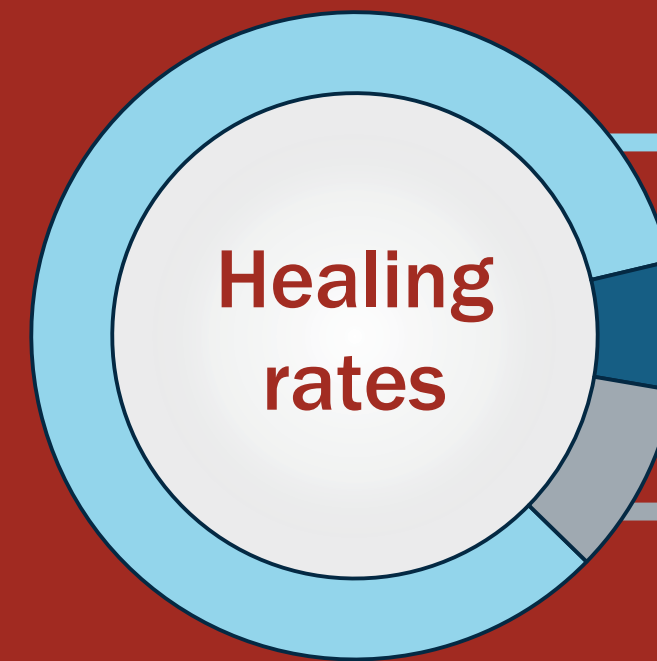


Retrospective analysis of 125 humeral shaft nonunions over 25 years

Open reduction and plate fixation by a single surgeon

Healing rates

Risk factors for the development of recalcitrant nonunion



84.0%

Healing after first procedure

6.4%

Healing after one or more secondary interventions

9.6%

No healing even after secondary interventions

Recalcitrant nonunions

No significant differences in healing rates between...



...type of plate



...type of bone graft



...plate fixation of acute fracture



...history of deep infection



...≥2 prior surgical procedures

Plate fixation with or without graft augmentation remains the gold standard for the treatment of humeral shaft nonunions

Healing the Index Humeral Shaft Nonunion: Risk Factors for Development of a Recalcitrant Nonunion in 125 Patients

Wiss et al (2020)

DOI: 10.2106/JBJS.19.01115

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