

Predictors of outcome in distal radius fractures

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Distal radius fractures in the elderly tend to be due to low-energy mechanisms, typically a fall from standing height. These fragility fractures tend to be associated with reduced bone density and are distinct from higher energy distal radius fractures seen more frequently in physiologically younger, more active patients. Outcomes in older patients are less dependent on restoration of anatomic radiographic parameters than younger patients, likely due to their lower functional demands. Other factors predictive of outcome include carpal malalignment, other intracarpal pathologies, ulnarsided wrist pain, and wrist stiffness. For these factors also, advanced age and diminished functional demands reduce their influence on outcome. Fixation options in this population are the same as for younger patients, however, older patients are more likely to require an external fixator to supplement K-wire fixation and are more likely to require synthetic bone substitutes to address metaphyseal and epiphyseal bone voids that threaten the stability of internal fixation. Future comparative research would be more conclusive if the distinction between fragility and non-fragility fractures of the distal radius were made consistently in the inclusion criteria of investigations. The use of validated outcomes questionnaires, such as the DASH and PRWE, will also help to refine the answers emerging from new studies.