

Insufficient evidence on bone scaffolding for distal radial fractures in adults

Clinical question	How effective are bone grafts and bone substitutes for treating distal radial fractures in adults?
Bottom line	Compared to plaster cast immobilisation alone, bone scaffolding materials (bone grafts and bone substitutes) may improve anatomical outcome (anatomical restoration and residual deformity) in distal radial fractures in adults. However, there is insufficient evidence to conclude on functional outcome and safety, or on outcome for other comparisons, such as complications and patient satisfaction. There is insufficient evidence on the effectiveness of bone scaffolding supplementary to external fixation, or compared to percutaneous pinning or external fixation. Evidence is also lacking on the relative merits of alternative methods of bone scaffolding for distal radial fracture.
Caveat	Overall, the available evidence is limited in scope and quality and is of uncertain validity. Systematic bias, in the form of selection, performance, exclusion or assessment bias, or a combination of these could not be ruled out for any trial.
Context	Distal radial fractures often result from a fall onto an outstretched hand in older adults and from high-energy trauma, such as a road traffic accident, in young adults. Reduction and plaster cast immobilisation is the usual treatment but surgery may be considered for more seriously displaced fractures. This involves implantation of scaffolding materials into bony defects that may affect the stability of the fracture fragments after they have been put back into place.
Cochrane Systematic Review	Handoll HHG, Watts AC. Bone grafts and bone substitutes for treating distal radial fractures in adults. Cochrane Reviews 2008, Issue 2. Art. No.:CD006836. DOI: 10.1002/14651858. CD006836.pub2. This review contains ten trials involving 874 participants.
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