

Volar Hinge Osteotomy With Ulnar Shortening for Dorsal Extra-Articular Malunion of the Distal Radius

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This video shows the technique for a plate-assisted volar hinge osteotomy with ulnar shortening to manage extra-articular dorsal malunion after distal radius fracture. The indications and contraindications for osteotomies in patients with a distal radius malunion are reviewed. Various techniques for and the advantages and disadvantages of distal radius osteotomies are discussed. The technique for a volar hinge osteotomy with ulnar shortening is shown using illustrations and a surgical technique video, which details the surgical approach, the key steps involved in performing the osteotomies, and the technique for plate-assisted correction. The postoperative outcomes of two patients who underwent the technique and the results of a series of 19 patients are reviewed. Union was achieved in all the patients, with restoration of radiographic parameters. Considerable improvements in range of motion (except wrist extension); grip strength; and Disabilities of the Arm, Shoulder and Hand questionnaire scores were noted. Similar results, which have been previously published, also are discussed.