

**Percutaneous Fixation of Acute Scaphoid Waist Fractures: Long-Term Patient-Reported Functional Outcomes and Satisfaction at a Mean of 11 Years Following Surgery**

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**Purpose:** There is a paucity of literature regarding the long-term outcomes of scaphoid fractures managed with acute percutaneous fixation. The aim of this study was to report the long-term functional outcomes and complication rates following early percutaneous fixation of acute fractures of the scaphoid.

**Methods:** A trauma database was searched to identify all skeletally mature patients with a scaphoid fracture managed with early percutaneous fixation over a 13-year period from 1997 to 2010. Medical records were retrospectively reviewed, and complications documented. Long-term follow-up was by a questionnaire-based review. The Patient-Rated Wrist Evaluation (PRWE) was the primary outcome measure. Secondary outcomes included the abbreviated version of the Disabilities of the Arm, Shoulder and Hand questionnaire (QuickDASH), the EuroQol 5-Dimensions 5-Level score (EQ-5D-5L), and complications.

**Results:** During the study period, 114 patients underwent this procedure. The mean age was 28 years (standard deviation [SD] 9; range, 17-62 years) and 97 patients (85%) were male. The median time from injury to surgery was 9 days (range, 1-27; interquartile range [IQR], 5-13 days). The mean time to radiographic union was 13 weeks (SD 7; range, 5-40 weeks). 12 patients (11%) reported a complication, all of whom required repeat surgical intervention (6 revision open reduction and internal fixation for nonunion, 5 elective removal of hardware, 1 acute revision fixation due to screw impingement). Long-term outcome data was available for 77 patients (68%) at mean follow-up of 11.4 years (range, 6.4-19.8 years). The median PRWE was 0 (IQR, 0-7.5), median QuickDASH 0 (IQR, 0-4.5) and median EQ-5D-5L 1.0 (IQR, 0.837-1.0). 97% of patients (n = 74) were satisfied with their outcome.

**Conclusion:** This study has demonstrated that early percutaneous fixation of acute nondisplaced or minimally displaced scaphoid fractures results in good long-term patient-reported outcomes and health-related quality of life. High patient satisfaction, along with return to work and physical activities, were also observed, with minimal morbidity and low overall pain scores.