In patients with nonoperatively treated proximal humerus fractures, how does one week of immobilization compare to three weeks of immobilization in terms of functional outcomes and pain scores?

A randomized trial evaluating one vs. three weeks of immobilization following proximal humerus fractures was undertaken. One hundred and forty-three patients with nonoperative proximal humerus fractures were randomized to receive 1-week immobilization or 3-week immobilization. Patients generally undergo a period of immobilization in the acute healing phase. In recent trauma literature, there is a growing body of evidence that suggests that shorter periods of immobilization may result in improved functional outcomes without increasing complication rates when compared to a three week period of immobilization.

**What was the principal research question?**

What were the important study characteristics?

- **Objective:** To determine the clinical outcomes and complications of one week versus three weeks of immobilization after nonoperatively treated proximal humerus fractures.

- **Methods:** A randomized trial with a sample size of 143 patients was conducted. The primary outcome measure was Constant Shoulder Score at 2 years follow-up. Secondary outcomes included incidence of secondary displacement, stiffness, osteonecrosis, and pain. All patients were instructed to keep their shoulder immobilized for 1 week after the injury. Following this, patients underwent the progressive rehabilitation paradigm.

- **Findings:** No differences in the primary outcome measure were found between the two groups. Similarly, no differences in complications were found between the two groups. The incidence of proximal humeral fractures is increasing, particularly in older individuals. The majority of proximal humerus fractures in this study were in elderly patients (mean age 71.23%).

- **Conclusion:** One week of immobilization is as effective as three weeks of immobilization in terms of functional outcomes and pain scores, and may be associated with a lower risk of complications.

**Risk of Bias**

- **Random sequence generation (1 week vs. 3 weeks):** Yes
- **Allocation concealment:** Yes
- **Blinding:** Yes
- **Incomplete outcome data:** Yes
- **Selective outcome reporting:** No
- **Other bias:** No

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**Contributing Authors:**

- R Martinez
- F Santana
- C Torrens

**Conflict of Interest:** The contributors of this critical appraisal and ACE Report indicate no potential conflicts of interest relating to the content in the report. To listen to the full audio interview, please go to [myorthoevidence.com](https://myorthoevidence.com/AceReport/Report/13900).

**References:**