

# Fractures of the proximal humerus in adolescents do not benefit from x-ray follow-up

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## Background

Pediatric proximal humeral fractures have traditionally been treated conservatively due to the marked remodelling capacity of the proximal physis. Recent reports indicate rising relative and absolute numbers of operative interventions in most pediatric fractures, proximal humerus fractures included. There is consensus on conservative treatment of these fractures in children younger than 10 years, whereas published contemporary evidence to guide treatment in adolescent patients is scarce.

## Aims

To review outcomes of surgical and conservative treatment and thereby the natural history of proximal humeral fractures in the adolescent population. We sought to clarify the stability of the fractures, and to determine the need for routine follow-up, customary to most clinics.

## Methods

A short-term retrospective study of all children aged 10-16 treated for proximal humeral fractures during 1995-2005 in Hospital for Children and Adolescents in Helsinki. Cases were evaluated for clinical and radiologic outcomes.

## Results

230 fractures (in 229 patients) were identified, 46 underwent operative and 184 conservative treatment. All patients were followed until consolidation. None of the x-rays led to an intervention during follow up and none of the 472 follow-up visits changed the initial treatment plan based on new information gained from the x-rays.

## Conclusions

Proximal humeral fractures in adolescents are stable, benign fractures. Intervention is rare after possible initial reduction. We see no need for increasing operative treatment in this patient group. Radiological follow-up does not contribute to management and should not be routinely used.