



6 Fractures of the hand

6.11 I Scaphoid fractures – Nonoperative treatment with a cast

Indication **Undisplaced fracture of the waist of the scaphoid**

1 Indications

1.1 Indications for nonoperative treatment

Nonoperative treatment for scaphoid fractures is indicated in the following circumstances:

- Tuberosity fractures
- Incomplete fractures
- Undisplaced waist fractures
- All scaphoid fractures in low-demand, or high-risk patients

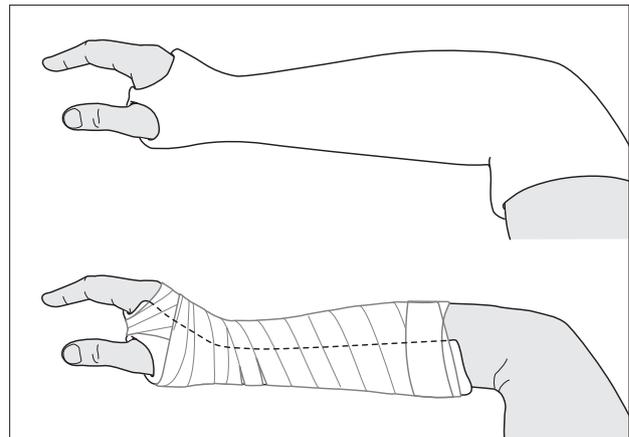
1.2 Contraindications

If treatment is delayed for 3 weeks, or longer, the risk of nonunion rises significantly. In such cases, operative treatment is the method of choice.

2 Plaster

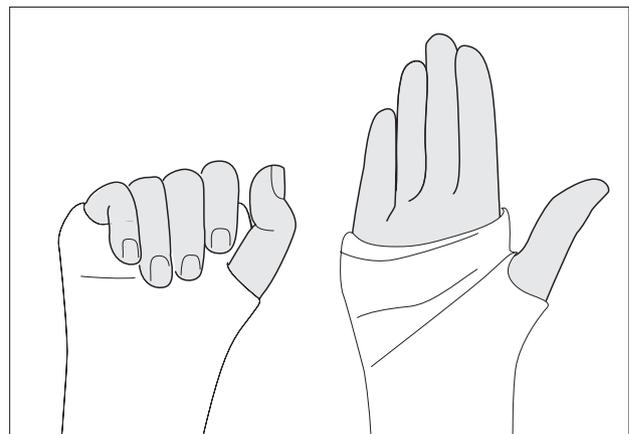
Immobilize the wrist in a well-padded, below-elbow cast, with the wrist slightly extended, and the proximal phalanx of the thumb included in a position of slight opposition (“scaphoid cast”).

An alternative is a radius plaster, the so-called “Colles” cast.



Pitfall: Impeded MCP flexion

Make sure that the plaster does not extend too far distally, both at the levels of the finger metacarpophalangeal joints (MCP) and the thumb IP joint. The cast must allow complete flexion of these joints.



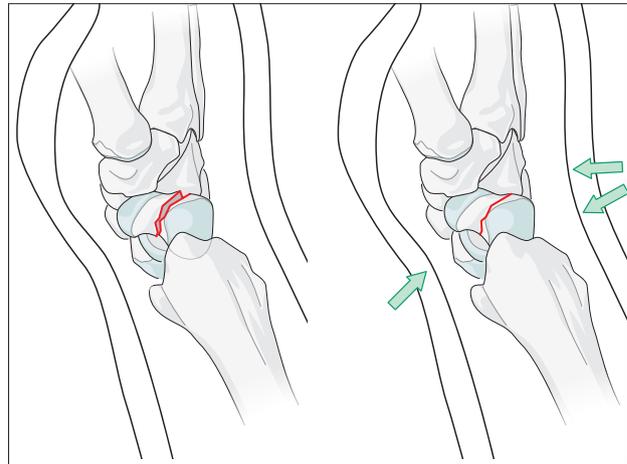


3 Closed reduction

Displacement is usually an indication for operative treatment. However, under certain circumstances (e.g. low-demand, or high-risk, patient), nonoperative treatment may be preferable. The amount of displacement can sometimes be reduced by moulding the plaster before it hardens.

Press the scaphoid tuberosity upwards from the palmar aspect. Carefully mould dorsally over the capitate to depress the distal carpal row in relation to the proximal carpal row.

Note: If displacement of the fracture persists, an above-elbow scaphoid cast with the forearm in supination and the wrist in ulnar deviation has been shown to aid reduction (*King et al, JRoySocMed, 1982*)



4 Duration of immobilization

- Tuberosity fractures: 6 weeks. At that time, check x-rays and start physiotherapy.
- Undisplaced waist fractures: 8-12 weeks. We recommend CT scan or polyaxial tomography at 8 weeks to confirm that the fracture is healed*.

If union is not achieved by this time, continue with immobilization for an extra 4 weeks. If the fracture heals during this period, start physiotherapy. Otherwise consider operative treatment.

*A clinical sign of union is the strength of the pinch of the tip of the index finger to the thumb.

