

# Bending, breaking, splinting



## Ulnar gutter splint

Typically used for boxer's fractures and injuries to the 5th finger/ metacarpal

- Splint from the proximal forearm to slightly beyond the fourth and fifth finger DIP joints
- Leave thumb, index and middle fingers freely mobile
- Wrist should be in slight extension
- MCP joint should be in 75-90 degrees of flexion
- PIP and DIP joints should be in 5-10 degrees of flexion



## Thumb spica splint

Typically used for the thumb and first metacarpal, scaphoid, trapezium and lunate injuries

- Splint from the thumb to mid-forearm
- Non-thumb digits should remain freely mobile
- Thumb should remain in a normal resting anatomic position



## Volar resting splint

Typically used for Colles fracture, distal radius fracture, metacarpal and carpal fractures

- Splint from the proximal forearm to the distal palmar crease, taking care to splint the joint above and below the suspected fracture



## Long arm posterior splint

Typically used for distal humerus fractures, radial head and neck fractures, olecranon fractures and elbow injuries

- Splint from the axillary crease to just superior to the MCP joint
- Splint should cover the posterior surface of the arm behind the elbow
- Position the elbow at 90 degrees
- Neutral forearm and wrist positioning



## Intrinsic plus splint

Typically used for finger/metacarpal injuries; considered to be the safest hand position for inflammation and stiffness

- MCP joints in 75-90 degrees of flexion
- IP joints in full extension
- Thumb in fist projection
- Wrist in slight extension



## Sugar tong splint

Typically used for forearm and complete distal radius and ulna fracture (not buckle fractures)

- Splint from palmar crease around the posterior elbow to just superior to the MCP joint
- Position the elbow at 90 degrees
- Neutral forearm and wrist positioning



**Coaptation splint**

Typically used for humeral shaft fractures. Note: for proximal humerus fractures, a shoulder immobilizer alone is sufficient

- Splint from the axillary crease to the acromion
- Position the elbow at 90 degrees of flexion
- Forearm positioning should be neutral
- Patient should be placed in a sling for support



**Long leg stirrup**

Typically used for proximal tibia fractures, tibia shaft fractures and distal femur metaphyseal fractures

- Splint from just inferior to the groin on the medial aspect to the same height on the lateral aspect
- Knee should have 10-15 degrees of flexion
- Ankle in a dorsiflexed to neutral position



**Short leg stirrup**

Typically used for severe ankle sprains, ankle dislocations and distal tibia and fibula fractures

- Splint from just inferior to the fibular head on the lateral side to an equal height on the medial side
- Foot in a dorsiflexed to neutral position



**General splinting tips**

- Ensure bony prominences are well padded.
- Avoid use of short leg posterior splint due to risk of skin breakdown and pressure sores
- Use minimal tension when placing elastic bandages, as swelling will increase through days three and four
- Trim or fold edges of fiberglass, so that all edges are covered by padding

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