



BSSH

The British Society for
Surgery of the Hand

Splinting Workshop

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Horder Centre

AO AF/ BSSH Hand Trauma Workshop
26-30th March 2019

What is the purpose of your splint?

- Pain Relief – Acute Or Chronic
- Support/Position During Function
- Protection/Immobilisation
- Prevention/Correction of Deformity
- Oedema Control
- Maintenance/Restoration of ROM
- Scar Remodeling



POP Classification

- Slab



- Cast



- Brace



Application of POP

- Apply required length of stockinette
- Padding- placed distal to proximal with 50% overlap
- Plaster- Cold water will maximise moulding time 4inch, 2inch
- Apply one joint above and below
- Not too tight not too loose
- Dip POP vertically in water until bubbles cease
- Uniform thickness



Position of safe immobilisation (POSI)

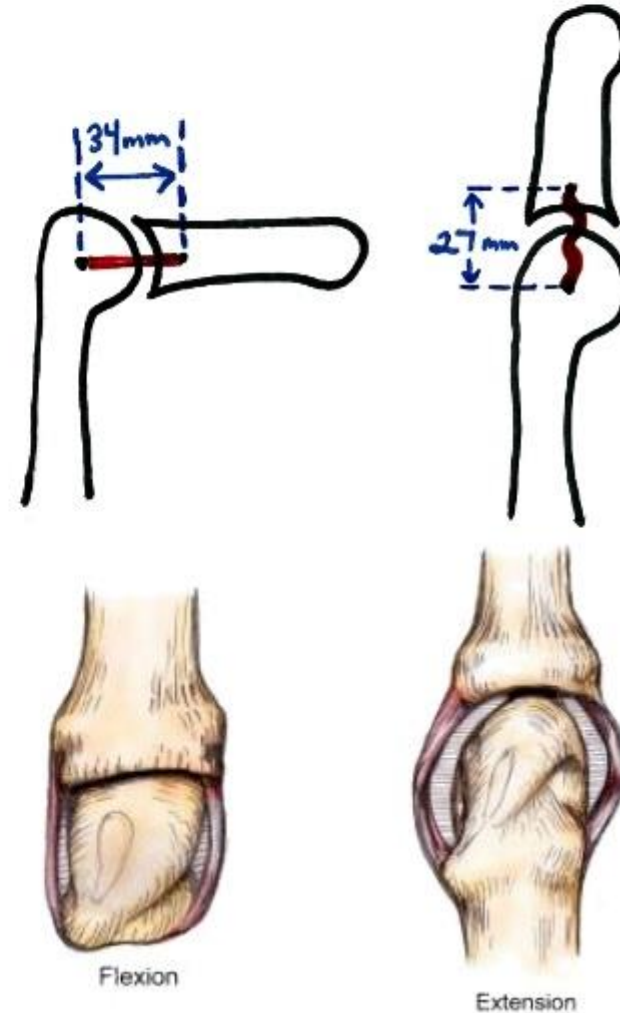
- Wrist: **20-30° extension**
- Finger MCPJS: **70-90° flexion**
- Finger PIPJS/DIPJS: **NEUTRAL** –
watch for pipj flexion deformity
(also swan neck deformity when 10-20° flexion is advised)
- THUMB: **maintain 1st web** 'c' shape - mid circumduction, no mcpj hyperextension



The Hand

Position of Safe Immobilization (POSI)

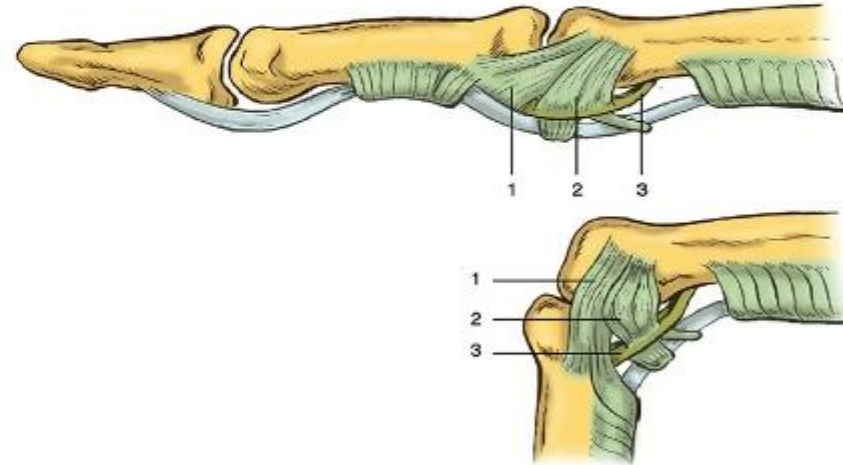
- MCP Flexion
 - Collateral ligaments are stretched and tight
 - Greater bone surface area contact causing more joint stability
- MCP Extension
 - Collateral ligaments are lax and loose
 - Less bone surface contact causing less joint stability

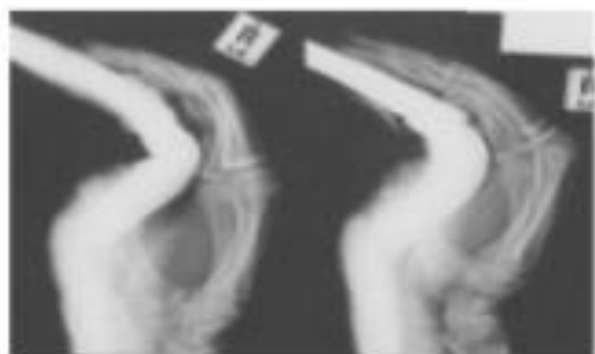
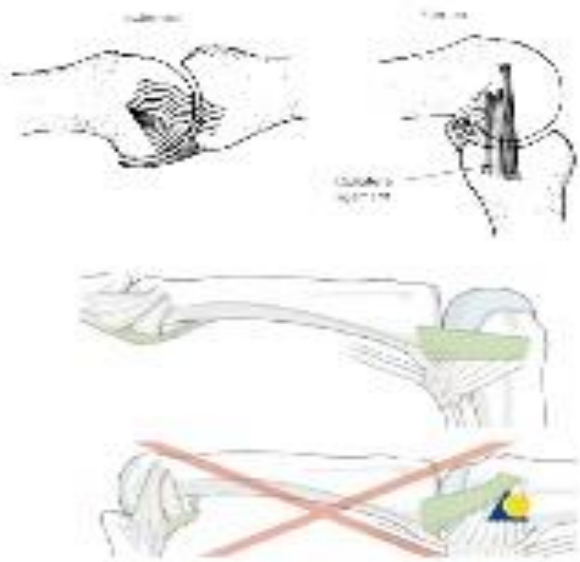


The Hand

Position of Safe Immobilization (POSI)

- IP Flexion:
 - Collateral ligaments are lax and loose
 - Fibers between the collateral ligament and palmar plate contract
- IP Extension
 - Collateral ligaments are stretched and tight
 - Volar plate is maximally stretched





Flexor Hood-Early Active Motion Regime

Apply dorsal blocking splint with

Wrist – neutral to 30 degrees

MCPJs - 30 degrees

IPJ's FULL extension



After Care of POP

- Patient education

- Excessive pain
- Excessive swelling
- Limb discolouration

- Keep cast dry

- Mobilize all joints that are free from casting

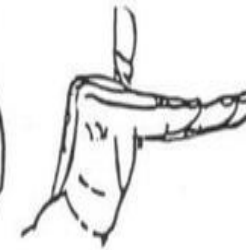
- Elevation



Straight



Hook



Duck



Straight Fist



Full Fist

Complications of POP

- Due to improper application
 - Compartment syndrome
 - Peripheral nerve injury
 - Joint stiffness
 - Blisters and sores
 - Cast breakage
- Plaster allergy dermatitis

Buddy Taping

Indication: Nondisplaced proximal or middle shaft phalanx fractures or sprains

Technique: Use ½ inch adhesive tape to bind the 2 fingers together, and place 1 piece of tape above and another piece below the affected joint

Position: Neutral

Tip: Pad between the fingers before wrapping; do not tape the fingers too tightly; note that the thumb cannot be used to splint the index finger

