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Standard Form 298 (Rev. 8/98)
Prepared by ANSI Std. 239.18
Adobe Professional 7.0
Thumb Spica

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The views expressed are those of the presenter(s) and do not reflect the official views or policy of the Department of Defense or its Components.

Disclaimer
Overview

- Indications
- Cast Vs Splint
- Materials Needed
- General Principles
- Splint
- Cast
- Self Evaluation
- Points to Discuss with Patient
Indications

- Injuries to: (ex)
  - Scaphoid
  - Trapezium
  - First Metacarpal, non displaced, non angulated
  - Stable Thumb Fractures

- Can also be used for soft tissue rest
  - De Quervain Tenosynovitis
Cast Vs Splint

Casting
- Definitive Management
- Does not allow for continued swelling
- Better control of ROM

Splinting
- Acute Management
- Allows for continued swelling
- ROM limited by application and compliance
Materials Needed

- Stockinette
- Trauma Shears
- ACE Wrap
- Padding (Webril)
- Water Receptacle
- Splinting Material
  - Plaster of Paris, Pre-fabricated plaster or fiberglass (Orthoglass)
- Casting Material
  - Fiberglass
General Principles

- Measure out dry material at extremity being treated
  - Plaster shrinks slightly when wet; If too long can fold ends back
  - Can be measured on contralateral extremity
- Apply 2-3 layers of webril, avoid wrinkles, place extra padding on bony prominences and between digits if needed
- Use approximately 10-12 layers of splinting material (dependent on size of individual)
- Mold with palms of hand vs fingers
- After complete check for function, arterial pulse, capillary refill, temperature of skin, and sensation
- Plain films to evaluate injury and splint/cast
Splinting Order

Apply stockinette and/or webril first
Apply wet/prepared splinting material
Cover with webril
Secure with elastic (ACE) band
Mold splinting material as needed
Casting Order

Apply stockinette first, then webril
Apply wet/prepared initial casting material
Fold over excessive stockinette
Apply second layer of wet/prepared casting material
Mold casting material as needed
Self Evaluation

➢ Is injured extremity in desired position?
  ➢ For thumb spica its forearm in neutral position, wrist at 25 degrees and thumb in “wineglass/can holding” position
➢ Does injured extremity maintain good color, temp, and cap refill
➢ Was a long arm vs short arm thumb spica used for non displaced fractures of middle or proximal one third of scaphoid for initial management
➢ Was thermal injuries avoided by ensuring water was not hot and cast was not too thick
Patient Education

- Elevate injured extremity at home
  - Prop on pillow if needed
- Continue moving other fingers, elbow, and shoulder periodically throughout the day
- If cast feels tight despite elevation seek medical assistance
- Do not scratch under cast; do not get cast wet
- Get immediate assistance if:
  - Numbness (pins and needles) of fingers
  - Excessive swelling of fingers
  - Blueness or whiteness of fingers
  - Severe pain
Conclusion

- Indications
- Cast Vs Splint
- Materials Needed
- General Principles
- Splint
- Cast
- Self Evaluation
- Points to Discuss with Patient
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