PLAYING IN PLASTER – THE BASICS OF SPLINTING

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OBJECTIVES

- To demonstrate an increased ability in identifying various types of fractures
- Understand the various splinting options; choosing the appropriate splint for a given fracture
- Evaluate and understand splint application
- Discuss multiple medications used in treatment of orthopedic injuries
WHY SPLINT

- To stabilize a fracture
- Assist in making a patient more comfortable
- Promote vascularization
- Prevent wound or tissue compromise
- Transportation
Fractures

- **Open or Closed fracture**
  - **Open** – A fracture that breaks through the skin
    - This fracture should have immediate referral to orthopedics (may need to go to the operating room)
  - **Closed** – A fracture that is contained in the skin
    - Look for vascular compromise and skin tenting
Displaced or Non-Displaced?

- **DISPLACED**
  - DISPLACED FRACTURE

- **NON-DISPLACED**
  - NON-DISPLACED FRACTURE
Common types of fractures

- Proximal
- Middle
- Distal

- Transverse
- Spiral
- Oblique
- Comminuted
- Segmental
SPLINT TYPES

- Ulnar Gutter
- Thumb Spica
- Sugar Tong
- Finger Splint
- Dorsal Forearm
- Short Leg Splint
ULNAR GUTTER

- Ulnar Gutter Splint - is used to support, stabilize, and immobilize dislocations and fractures of the hands, fingers, or wrists.
THUMB SPICA

- Thumb Spica -- immobilize the thumb and/or wrist while allowing other digits freedom to move. It provides support for thumb injuries (ligament instability, sprain or muscle strain), gamekeeper's thumb, osteoarthritis, de Quervain's syndrome, scaphoid fracture, thumb sprains.
SUGAR TONG

- SUGAR TONG -- splinting fractures of the radius, ulna, or wrist. It prevents flexion and extension at the wrist, limits flexion and extension at the elbow, and prevents supination and pronation.
FINGER SPLINT

- FINGER SPLINT -- can be used to treat a variety of conditions from mallet finger and arthritis to swan neck deformity.
DO RSAL FO REARM

- **DO RSAL FO REARM** -- Soft tissue injuries or fractures of the hand and wrist
  - Carpal bone fractures, 2nd – 5th MC head fractures
- **Splint** - Starts in the palm at the MC heads, down the volar aspect of forearm to distal forearm
Short Leg Splint

- Severe ankle sprains
- Fractures of distal fibula and tibia
- Reduced ankle dislocations
OTHER FRACTURES:

- CLAVICLE
- HUMERUS
- FEMUR
- HIP
- ELBOW
DISCUSSION

- Concerns
  - Swelling
  - Circulation

- Alignment
  - Positioning
  - Comfort - Support

- PAIN MEDICATION
Swelling, fracture blisters - cause problems....
Pharmacological options

- Acetaminophen
- AVOID NSAIDS in acute FRACTURES
- Muscle relaxants – flexeril, skelaxin
- Narcotics – Norco, percocet, oxycodone, dilaudid, morphine
- Immediate release versus extended release
Non-pharmacological options

- Heat
- Ice
- Elevation
- Massage
- Acupuncture
- Chiropractor
SPLINTING SUPPLIES

Stockinette
Plaster of Paris
Strips or rolls (2-, 3-, 4- or 6-inch widths)
Prefabricated Splint Rolls
Plaster
Fiberglass with polypropylene padding
Padding (Webril)
Ace Wrap
Bucket/receptacle of warm water
Trauma shears
PROCEDURE
Stockinette is applied (optional)
Webril is applied
The wet plaster is positioned
Webril on outside
Elastic bandage is applied
The plaster is molded
LET'S PLAY WITH PLASTER
My Daughter Brittany 19 years
My son Jackson 16 years
So I have to do this...
REFERENCES