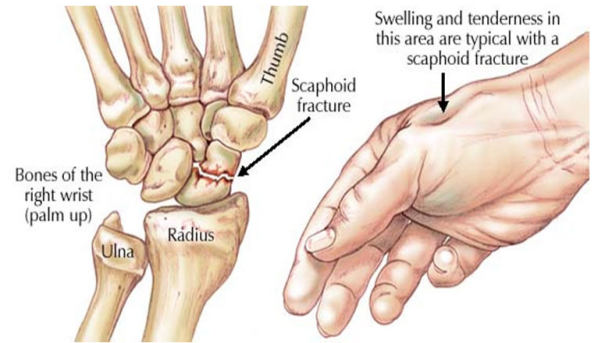


Children's Bone and Spine Surgery

Scaphoid Fracture

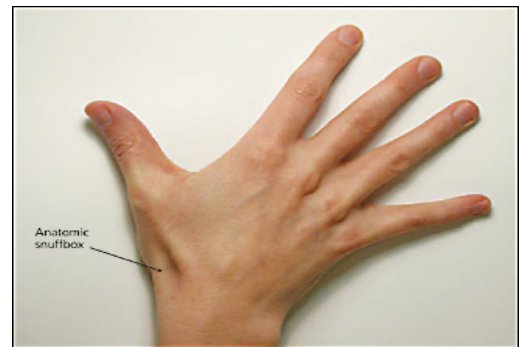
What is a Scaphoid Fracture?

- A scaphoid fracture, also known as the carpal navicular, is the most common type of carpal bone fracture. Scaphoid fractures usually cause pain at the base of the thumb and is accompanied by swelling in the same area. A common mechanism of injury is landing on an outstretched arm and typically occurs in contact sports. Most physicians approach a scaphoid fracture with a conservative approach. Due to inefficient blood supply to this bone, increases the high risk nature of this fracture.



Signs and Symptoms:

- Patient's that have sustained a scaphoid fracture can experience:
 - Diffuse wrist pain
 - Snuffbox tenderness
 - Scaphoid tubercle tenderness
 - Pain with pronation in wrist range of motion



Imaging:

- Radiographs of the wrist with a scaphoid view is recommended.
 - If radiographs are negative and there is high clinical suspicion, repeat films should occur in 14-21 days. In addition, immobilization is recommended via thumb spica casting.
- Bone scan
 - Effective when diagnosing occult fractures
 - Occult- Condition with clinical signs of a fracture, but no radiographic evidence of fracture.
- MRI
 - The most sensitive imaging when diagnosing occult fracture
 - Immediate identification of ligament and fracture injuries
 - Assessment of vascular status of bone
- CT
 - Can be used to evaluate location of fracture, size of fragment, extent of collapse, and progression of nonunion after surgery
 - Less effective than bone scan and MRI to diagnose occult fracture

Treatment:

- Conservative Approach:
 - Thumb spica cast immobilization for stable, non-displaced fractures.
 - Duration of casting is determined by location of fracture
 - Start immobilization early due to non-union rates increase with delayed immobilization of >4 weeks after injury.
- Surgical Intervention:
 - Surgical intervention is recommended for unstable fractures and scaphoid waist fractures.

