14 y/o M fell on his L wrist presents with pain

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Buckle fracture
PA and lateral views of the left wrist showing contour abnormality of the cortex with buckling of the distal radius.
Buckle Fracture

- Incomplete fracture of the shaft of a long bone
  - Due to compression from an axial load
  - Characterized by buckling of the cortex

- Most commonly occurs at distal radius but can also occur at distal tibia, fibula, or femur

- Radiographically
  - No distinct fracture line
  - Subtle deformity or buckling of the cortex
Buckle Fracture

• Occurs in children due to the elasticity of their bones
  – Presents with tenderness over bone
  – Other symptoms of swelling, decreased ROM may be minimal

• Management:
  – Stable - tx aimed at pain relief and protection of bone from further injury
  – Splint or cast for approx. 3 weeks
  – Distinguish buckle fracture from greenstick fracture
Greenstick Fractures

• Bone that is bent with a fracture that does not extend completely through the width of the bone
  – Tension side – visible, complete fracture
  – Compression side – opposite side with a plastic deformation or buckling

• High risk for repeat fracture
  – Immobilization followed by casting for approx. 6 weeks
  – Unstable fracture and may continue to displace after casting
  – Follow with Orthopedist
References


