

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

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A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. The leaf has a prominent central vein and several smaller veins branching off it. The background is a solid dark blue.

# 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

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