

Upper and Lower Extremity Radiograph Interpretation

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Objectives

1. Describe the important components in interpretation of upper and lower extremity radiographs.
2. List findings to accurately identify common fractures involving extremities.
3. Describe findings to identify common dislocations involving extremities.

Outline

Approach to reading plain radiographs

Description of x-rays

Alignment

Open vs. closed fractures

Complete vs. incomplete

Direction of fracture lines

Transverse

Spiral

Oblique

Comminuted

Location of fracture

Midshaft

Head

Neck

Shaft

Shortening or Angulation

Dorsal

Volar

Radiographic Anatomy

Epiphysis

Metaphysis

Diaphysis

Salter Harris Classification

Salter I – V

Hand Injuries

Volar fractures

Dorsal fractures

Intra-articular fractures

Bennet's fracture

Gameskeeper's thumb

Trigger thumb

Mallet finger

Swan neck deformity

Subungual hematoma

Boutonniere deformity

Boxer fracture

Wrist injuries

Anatomy of the wrist

Physical exam

Mechanism of injury

Common fractures of the wrist

-Colles fracture

- Smith fracture
- Barton fracture
- Chauffeur (Hutchinson) fracture
- Ulnar styloid fracture

Forearm

Galleazzi

Monteggia

Ulnar fractures

Radius fractures

Elbow

Anatomy of the elbow

Physical exam

Mechanism of injury

Common fractures of the elbow

-supracondylar fracture

-radial head fracture

-olecranon fracture

Shoulder

Humeral fractures

Dislocations

Clavicle

Scapula

Hip

Classification of hip fractures

Subcapital

Transcervical

Trochanteric

Femur

Shaft

Proximal & distal femur

Knee

Patellar fractures

Bipartite patella

Subluxations

Dislocations

Tibial plateau

Fractures of the Tibia & Fibula

Proximal tibia

Proximal fibula

Maisonneuve fractures

Fractures of the tibia and fibular shaft

Fractures of the ankle

Malleolar fractures

Bimalleolar fractures

Trimalleolar fractures

Fractures of the foot

Calcaneal fractures

Talar fractures

Navicular fractures

Cuboid and cuneiform fractures

Tarsometatarsal fractures

LisFranc fractures

Metatarsal fractures

Sesamoid fractures

Phalangeal fractures