Imaging of Common Injuries Encountered in Sports Medicine
History & Physical

- Type of activity
- Mechanism of injury
- Pain?
- Swelling?
- Duration of symptoms
History & Physical

- **Inspection** – ecchymosis, edema, joint effusions
- **Movement** – range of motion
- **Palpation** – tenderness, instability
- **Tests** – injury specific based on findings
- **Imaging** – also depends on suspected injury
Rotator Cuff

MRI normal shoulder
Rotator Cuff

Rotator cuff tear
Labrum

SLAP tear
Acromioclavicular Joint

Rockwood Classification:
- **type I:**
  - sprain of joint with out a complete tear of either ligament
- **type II:**
  - tear of AC ligaments w/ coracoclavicular ligaments intact;
  - will not show marked elevation of lateral end of clavicle;
- **type III:**
  - in this injury both AC & CC ligaments are torn;
  - > 5 mm elevation of AC joint w/o weights is consistent w/ severe type II or a type III injury;
  - need to distinguish this from type III clavicular fracture
- **type IV:**
  - distal clavicle impaled posteriorly into trapezial fascia;
- **type V:**
  - distal end of clavicle displaced inferiorly
AC Joint

Type III separation
AC Joint
Clavicle

Fracture of middle 1/3 of clavicle
Shoulder Dislocation

Anterior dislocation
Knee

- ACL
- PCL
- MCL
- LCL
- Meniscus
Anterior Cruciate Ligament

MRI normal ACL
Anterior Cruciate Ligament

MRI ACL tear
Anterior Cruciate Ligament

MRI ACL tear
Anterior Cruciate Ligament

“Bruise” in bone with ACL tear
Segond Fracture

Associated with ACL tear
Posterior Cruciate Ligament

MRI normal PCL
Posterior Cruciate Ligament

MRI PCL tear
Posterior Sag Sign

Sign of PCL rupture
Medial Collateral Ligament

MRI normal MCL
Medial Collateral Ligament

MRI MCL tear
Lateral Collateral Ligament

MRI normal LCL
Meniscus

MRI normal meniscus
Meniscus

MRI meniscus tear
Meniscus

MRI meniscus tear
Bucket Handle Tear

Double PCL sign
Bucket Handle Tear

Frontal view of bucket handle tear
Meniscus Tears

- Parrot-beak tear
- Transverse tear
- Vertical tear
- Flap tear
- Peripheral tear sutured (by conventional arthrotomy)
- Peripheral tear
- Bucket-handle tear
- Discoid meniscus; degeneration and tear
- Complex tear
Others

- Ankle – Achilles tear, tendonitis
- Leg – stress fractures
- Foot – fractures
- Elbow – Ulnar collateral ligament
- Spine – spondylolysis, spondylololysthesi
Achilles Tendon

MRI normal calcaneal tendon
Tibial Stress Fracture
Fibular Stress Fracture
Metatarsal Stress Fracture

Periosteal reaction
Metatarsal Stress Fracture
Metatarsal Stress fracture
Jones Fracture
Jones Fracture

After surgical repair
Ulnar Collateral Ligament

MRI UCL tear
Spondylolysis
Spondylolysis
Spondylolisthesis