Common Orthopedic Conditions

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Common Orthopedic Conditions

1. Ankle Sprain
2. Plantar Fasciitis
3. Tennis Elbow
4. ACL Tear
6. Meniscus Tear
7. Rotator Cuff Tear
8. Carpal Tunnel Syndrome
9. Distal Radius Fracture
Ankle Sprain

- Ligament injury
- Ankle pain, tenderness, swelling

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Ankle Sprain
Ankle Sprain

- R.I.C.E.
- Rehabilitation
- Anti-inflammatory
- Brace

- Recurring problem
  - Adequate healing time
  - Rehabilitation
  - Surgery

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Plantar Fasciitis

- Microtears of plantar fascia
- Painful heel
- Unrelated to “heel” spur on xray
Plantar Fasciitis

- Tape heel, arch
- Customized orthotics
- Stretching
- Massage
- Exercises
Plantar Fasciitis - Treatment

- Warm up well before sports or activities
- Ice heel, 20-30 minutes after sports or stretching (freeze Styrofoam cups)
- Anti-inflammatory agents
- Night splint
- Massage
Plantar Fasciitis

- Prepare before running
- Wear good, supportive shoes
- Arch support
- Keep feet strong
- Avoid activities that cause heel pain
- If pain persists
  - Corticosteroid injection
  - Surgical referral
Tennis Elbow

Lateral epicondyle
Tennis Elbow

- Pain just distal to bony ridge
- Extensor muscle origin
- Avoid with: warm up
- Avoid with: stretch before play
- Correct, well maintained equipment
- Condition beforehand
- Evaluate cause
ACL Injury

- Direct blow to knee
- Non-contact injury, with foot planted and an attempted change in direction – pivot or cut
- Landing on straight leg
- Making abrupt stops
ACL Tear

Normal anatomy

- Anterior cruciate ligament
- Patella
- Tibia
- Fibula

Hyperextension

- Anterior cruciate ligament tears
- Femur slips

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ACL Tear

- Treatment – aggressive rehab and potential surgical reconstruction
- Incidence of ACL much higher among female athletes
  - Combination of causal factors
ACL Tear - Prevention

- Land safely from jumps
- Practice cutting maneuvers
- Use little steps to stop
- Strengthening exercises
Meniscus Tear

- Helps knee joint carry weight, glide, and turn
- Twisting injury
- Football and other contact sports
- Subset of Degenerative Tears occurring in MA
Meniscus Tear

- Pain
- Giving way
- Locking
- Clicking
- Swelling
Meniscus Tear

Normal meniscus  Torn meniscus
Rotator Cuff Tear
Rotator Cuff Tear

- Shoulder pain
- Worse at night
- Weakness
- Catching
- Limited motion
Rotator Cuff Tear

- **Treatment**
  - Rest
  - Cold & heat
  - Sling
  - Physical Therapy
  - NSAIDS
  - Injection
  - Surgery
Rotator Cuff Tear

Prevention

Avoid repetitive activities with the arm at shoulder level or higher
Carpal Tunnel Syndrome

- Median nerve
- Transverse carpal ligament
- Flexor tendons
- Compressive neuropathy of the median nerve

Common in:
- Pregnancy
- Diabetes
- Thyroid dysfunction
Carpal Tunnel Syndrome

Numbness
Tingling
Pain
Clumsiness
Carpal Tunnel Syndrome

- Splint or brace at night (neutral position)
- Ergonomic/work evaluation
- Cortisone injections
- Anti-inflammatories
- Surgery to release ligament if unresponsive
Distal Radius Fracture

- Wrist fracture
- Fall onto outstretched hand (FOOSH)
- Snowboarders, skaters, elderly
- Nondisplaced - cast
- Displaced – reduction possible surgery, ?
  Intra- or extra-articular
Normal Wrist

Normal wrist:
15° radial deviation
11° volar or palmar tilt
Distal Radius Fracture
Wrist Fracture – Cast Care

- Keep it dry
- Don’t pull out the padding
- Don’t stick objects inside
- Keep dirt, sand & powder out
- Don’t break off or trim edges
Overuse Injuries

- Change
- **Intensity**
- **Duration**
- **Frequency**

- Common issue in the aging population
Overuse Injuries & Boomeritis®

Training errors

Improper technique

Less-than-optimal environment
Acute vs. Overuse Injuries

- **Acute** - sudden trauma such as sprains, strains, bruises, and fractures

- **Overuse** - series of repeated small injuries
Boomeritis®

- Exercise - key, but . . .
- Bike accidents prevail
- Mortality > children
- < 50% wear helmets
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tendinitis
bursitis
sprains
strains
Treatment

- R.I.C.E.
- Modify or stop sports activities
- 90% of these issues can be addressed with conservative/nonsurgical measures
- Physical therapy & medication
- Surgery may be warranted in rare situations
Preventing Sports Injuries

- Know and abide by rules
- Wear appropriate protective gear
- Know how to use equipment
- Never “play through pain”
Preventing Sports Injuries

Warm up & stretching are two separate steps!

Dynamic stretch
Combine the 2 into One activity
Overuse Injuries

10% Rule
Don’t Increase Activity by More Than 10% Per Week