Weightlifter’s Shoulder

- RCT
- Overhead and flexion
- Impingement

Thrower’s Shoulder

- Posterosuperior Impingement
  - Of
    - Undersurface rotator cuff
  - Between
    - Labrum
    - Humeral head
  - With
    - Abduction
    - External rotation
  - Causing
    - Labral tear
    - Undersurface RCT

Slot Machine Tendinitis

- Tenderness of the shoulder from playing slot machines.
- Tender over biceps in bicipital groove
- Rx – win early

Trap Shooter’s Shoulder

- Stress fracture of coracoid
- Occ. Poor technique acute injury

Little Leaguer’s Shoulder

- Overuse fatigue
- Proximal humeral physis
- “Salter Harris 1”
- Widened and irregular physis
- Compare with contra
Little Leaguer’s Shoulder

- Torsional overload
  - 11-16 boys
  - 83% pitchers


Blocker’s Arm

- Blocker’s or Tackler’s Exostosis
- Anterolateral humerus
- Distal to shoulder pads
- Heterotopic ossification
- Myositis ossificans
- Periosteal damage
- Grows by accretion

- Blocker’s or Tackler’s Exostosis
  - Anterolateral humerus
  - Distal to shoulder pads
  - Heterotopic ossification
  - Myositis ossificans
  - Periosteal damage
  - Grows by accretion

- Sport related myositis ossificans
  - Single direct blow
  - Repeated minor trauma
    - Adductor longus-Rider’s bone
    - Brachialis-Fencer’s bone
    - Soleus-Dancer’s bone
    - Blocker’s arm

Tennis Elbow

- Coined in the 1880’s
- 10-50% of players
- Backhand stroke
- Rare in double handers
- Lateral epicondylitis
  - (no itis)
  - Angiofibroblastic tendinosis
- Common extensor origin
  - ECRB tendinosis
  - ED communis also common

- Risk factors
  - >30 years
  - Improper grip size
  - Metal racket
  - >2hrs per day
  - Tight strings
  - Snapping wrist backhand
  - XS motion, vibration, string tension
  - Fatigue
Tennis Elbow

- DDX
  - Radiohumeral osteochondral injury
  - Recurrent radial nerve entrapment
  - Supinator syndrome
  - Epicondylar apophysitis in adolescents
  - C6 root injury or stinger

Tennis Elbow

- Radiographic findings
  - STS
  - Calcification 20-30%

Hooker’s Elbow

- Painful elbow swelling suffered by fishermen repeatedly jerking upwards on a fishing line.

- Lateral epicondylitis


Resistant Tennis Elbow

- Radial collateral ligament rupture.

- Radial tunnel syndrome
  - Posterior interosseous branch of radial n.
  - Fibrous arch of supinator (Arcade of Frohse)
  - Distally through supinator

Medial Tennis Elbow

- Medial tennis elbow
  - Lateral:Medial 7:1
  - From acceleration during serving

Medial Epicondylitis

- Baseball pitchers
  - Little league elbow
- Golfer’s elbow
- Medial Tennis elbow
- Javelin, Racquetball, Squash, Swimmer’s

- Epicondylitis 10X more common laterally
- Disruption more common medially
Medial Epicondylitis

- Tendon degeneration - Tendinosis
- Partial tear
- Tendon disruption
- Muscle strain

Golf Elbow

- Medial epicondylitis
- Overuse of FCR / pronator muscle mass
- Valgus stress at top of back swing to point of impact
- Associated Ulnar neuropathy
- Medial laxity

Little Leaguer’s Elbow

- Purists
  - 9-12Y
  - Throwers
  - Medial traction apophysitis / epicondylitis
  - Repetitive valgus stress
  - Hypertrophy of medial epicondyle
  - Microtearing of flexor / pronator group
  - Fragmentation of medial epicondylar apophysis

Little Leaguer’s Elbow

- Panners disease
  - 5-10Y Boys
  - Osteochondrosis of the capitulum
  - Trauma history
  - Fissuring and increased density
  - Decreased size, fragmentation, resorption

Dog Walker’s Elbow

- Pain caused by constant tension and tugs from a dog leash.
  - Medial or lateral epicondylitis depending on dog

Climber’s Elbow

- Brachialis tendinosis
Gymnast’s Wrist

- "Salter Harris 1"
- Repetitive strain
- Distal radial physsis

Intersection Syndrome
Oarsmen’s / Bugaboo wrist

- Oarsmen’s wrist
- Crossover syndrome
- Squeakener’s wrist
- Bugaboo forearm
- Peritendinitis crepitans
- Subcutaneous perimyositis
- Abductor pollicis longus bursitis
- Abductor pollicis longus syndrome

Oarsmen’s / Bugaboo wrist

- Overuse syndrome of the distal forearm
- Heavy and repetitive use of the wrist and thumb
- Wringing, grasping, turning and twisting motions
- Secretaries, carpenters, maintenance, filing workers
- Athletes involved in weightlifting, rowing or canoeing
- Rice-harvesting workers in Thailand

Oarsmen’s / Bugaboo wrist

- Inflammation at the intersection of the first dorsal extensor tendon compartment and second dorsal extensor compartment (DETC)
- Friction of the muscle bellies of the 1st DETC with the tendon sheath of the 2nd DETC
- Entrapment from stenosis of the 2nd DETC

39yo male with knot over left forearm with grinding and popping

Ax T2FS
Ax T1

Tennis Wrist

- Tenosynovitis (Tenovaginitis) of the tendons of the wrist in tennis players.
**Racket Player’s Pisiform**

- Repetitive strain on Pisiform.

**Boxer’s Knuckle**

- Longitudinal tear of ED communis at MC heads
- 3rd MCPJ

**Boxer Knuckle**

- Damage to the sagittal bands of the extensor hood.
- At MCP - extensor tendon stabilized over dorsum of metacarpal head by the extensor hood.
- Sagittal bands
  - Transversely oriented ligaments, main component of the extensor hood.
  - Start at the volar plate and has a dorsal tendinous point of insertion
  - Glides with the extensor mechanism as the digit moves.
  - Stabilize the extensor hood during joint motion

**Boxer’s Fracture**

- Saturday night Fx
- 5th MC neck Fx
- Watch for associated base of 4th MC Fx

**Boxer Knuckle**

- S & Sx
  - Pain, swelling, loss of full joint extension
  - Ulnar or radial subluxation of the extensor tendon
  - Subluxation most reliably detected at palpation of flexed joint (difficult with marked swelling).

**Rugger Jersey finger**

- Avulsion of FDP
- Jersey grabbing tackle
- Ring > Middle
Climber’s Finger
- Partial or complete rupture of A2 pulley
- Crimp or pocket grip
- 2nd or 3rd digit
- May extend to A3 and A4 pulleys
- Localized fluid
- Increased distance between tendon and phalanx

Wellie Thrower’s Finger
- Injury to finger joints sustained in wellie throwing contests.
- Volar plate Fx

Baseball Finger
- Mallet finger
- Ball or other object striking the end or back of the finger
- Resulting in rupture of the attachment of the extensor tendon.
- Bony or tendon

Skier’s Thumb
- AKA Gamekeeper’s thumb
- Thumb abduction
- MCP-UCL proper sprain/tear
- Accessory UCL, volar plate and dorsal capsule add stability
- X-ray prior to stress
- Stress in 20-30 degrees of flexion
- 10-20 degrees laxity worse than contra
- 30-35 degrees of absolute laxity

Skier’s Thumb
- Stener lesion
- Adductor aponeurosis interposed
- >2-4 mm displaced avulsion
- MRI or US to see
- Need operative repair
Skier’s Thumb
Stener lesion
- Entrapment of adductor aponeurosis

Ping Pong Fracture
- Depressed skull fracture usually seen in young children, resembling the indentation that can be produced with the finger in a ping-pong ball; when elevated it resumes and retains its normal position.

Boxer’s Jaw
- Who caused this?
  - Ken Norton
- What year?
  - 1973
- What town?
  - San Diego
- Which round?
  - 1st
- Who won?
  - Norton in 12th

Spear Tackler’s Spine
- A clinical entity that constitutes an absolute contraindication to participation in tackle football and other collision activities that expose the cervical spine to axial energy inputs.
- 1) developmental narrowing (stenosis) of the cervical canal
- 2) persistent straightening or reversal of the normal cervical lordotic curve on erect lateral roentgenograms obtained in the neutral position
- 3) concomitant preexisting posttraumatic roentgenographic abnormalities of the cervical spine
- 4) documentation of having employed spear tackling techniques

Rebounder’s rib
- 1st ribFx
- Muscular exertion
- Scalenes pull up
- Intercostals pull down
Poker back - Poker spine

- Not related to the game of poker
- Rather a stiff fire-poker
- Sign of ankylosing spondylitis

Rugger Jersey Spine

- Renal osteodystrophy
- Osteomalacia
- Secondary hyperparathyroidism

Jet Ski Open Book Pelvic Fracture

- Striking the steering column during rapid deceleration

Sprinter’s Fracture

- Fracture of the anterior superior or inferior spine of the ilium
- Fragment of the bone being pulled off by muscular violence, as at the start of a sprint.

Hurdler’s Fracture

- Ischial tuberosity avulsion
- Forced flexion from hyperextension
- Also common in soccer, water skiing

Rider’s Leg

- Strain of the adductor muscles of the thigh in horseback riders.
Horse Rider’s Bone

- AKA Cavalry bone
- Localized ossification of the inner aspect of the lower end of the tendon of the adductor muscle of the thigh (adductor tubercle).

Quick-Draw Leg

- Bullet wound in leg from practicing fast draw from gun in belt holster

Cricket Thigh

- Rupture of some of the fibers of the rectus femoris, which may occur in playing cricket or football.
- Sometimes the tendon of the quadriceps or that of the patella is also ruptured.

Rectus Femoris Strain

- Grade 1
  - Few fibers torn
  - No loss of function
  - Feathery fluid signal
- Grade 2
  - Some loss of strength
  - Focal mass
  - Partial tear of myotendinous junction
- Grade 3
  - Complete rupture
  - Loss of function
  - Retraction

Breaststroker’s Knee

- Valgus strain in whip kick
- MCL stress
- PF dysfunction
- Medial synovial plica syndrome

Musher’s Knee

- Iliotibial band syndrome
- Sharp backward kicking of the leg to spur the team
**ITBFS**

- Intense activity leads to abnormal contact between the ITB and the LFC.
- Findings include edema superficial or deep to the ITB, joint effusion, fluid collection deep to the ITB or thickening of the ITB.
- Fluid is likely within an adventitious bursa.

**Football Knee**

- “A swollen, relaxed, somewhat tender condition of the knee seen in football players”
- An insertional tendinopathy
- Patellar tendinosis
- AKA jumper’s knee
- Patellar tendon into the patella (65%)
- Attachment of the quadriceps tendon to the patella (25%)
- Attachment of the patellar tendon to the tibial tuberosity (10%).

**Jumper’s Knee**

- Patellar tendinosis
- Pain and tenderness over the lower pole of the patella
- Similar to that occurring in Sindig-Larsen-Johansson disease, without radiographic changes
- So called because of its occurrence in athletes

**Rugby Knee**

- Osgood-Schlatter disease

**Genu Amoris**

- Swelling and pain in the knee from making love in an unusual position.

**Tennis Leg**

- Previously plantaris tendon rupture
- Medial head of gastrocnemius sudden rupture at MTJ
- Forced dorsiflexion
- Older persons participating in tennis and other sports.
Toddler’s Fracture

- Spiral fracture of distal tibia
- Often occult
- Can be due to NAI
- Often subtle requiring scintigraphy

Paratrooper Fracture

- Fracture of the posterior articular margin of the tibia and/or of the internal or external malleolus.

Paratrooper Fracture

- Fracture of the posterior articular margin of the tibia
- Can be due to NAI
- Often subtle requiring scintigraphy

Snowboarder’s Ankle

- Lateral process of talus Frx
- Dorsiflexion and hindfoot inversion
- Unrecognized causes subtalar OA
- CT may be required to see and classify
  - Type 1. Chip off anterior inferior
  - Type 2a. Involves talofibular joint
  - Type 2b. Involves talocalcaneal joint
  - Type 3. Comminuted Frx

Aviator’s Astragalus

- Forefoot hyperextension
- Rudder bar into instep
- Tight achilles
- Fracture of talar neck
- +/-
  - Anterior tibia injury
  - Subtalar dislocation
  - Posterior talar body dislocation

Aviator’s Astragalus

- Forefoot hyperextension
- Rudder bar into instep
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- Fracture of talar neck
- +/-
  - Anterior tibia injury
  - Subtalar dislocation
  - Posterior talar body dislocation
Dancer's Tendinitis

- FHL
- Within fibro-osseous tunnel
- Ass. Trigger toe
- Can go on to rupture

Dancer's Heel

- Posterior ankle impingement
- Medial and lateral tubercles on posterior talus
- FHL between them
- Lateral tubercle non-union = os trigonum 10%
- Bilateral 50%
- Plantar-flexion or en point
- Large posterior (Stieda) process or os trigonum
- Causes fibrosis
- Posterolateral pain

Basketball Foot

- Inversion and varus stress on landing
- Medial subtalar dislocation
- Talocalcaneal and talonavicular

March Fracture

- Metatarsal stress fracture
- Also seen in Ballet
- Middle and distal shafts 2nd and 3rd
- Periostitis
- 1st base, less periostitis