Common disorders of the elbow

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Anatomy

- Coronoid fossa
- Lateral epicondyle
- Capitulum
- Trochlea
- Radial head
- Coronoind process
- Radial tuberosity
- Synovium
- Medial epicondyle
- Annular ligament
- Ulnar tuberosity

- Capitellum
- Radius
- Radial head
- Ulna
Ligaments of Elbow in 90° Flexion
Lateral and Medial Views

- Humerus
- Antecubital ligament
- Radius
- Ulna
- Olecranon bursa
- Biceps brachii tendon
- Triceps brachii tendon
- Articular capsule
- Radial collateral ligament
- Ulnar collateral ligament
- Annular ligament
- Oblique cord
Elbow mechanics
Common disorders of the elbow

Overuse strains
Bursitis
Nerve entrapment syndromes
Tendonopathies
Developmental abnormalities
Arthritis
Trauma
Common disorders of the elbow

Overuse strains

Thrower’s elbow

Epicondylitis

Medial

Lateral
Thrower’s elbow

Causes

Poor technique
Inadequate conditioning
Shoulder/elbow/arm
Trunk/core
Hip/legs

Little league elbow
Thrower’s elbow

Too much repetition
Not enough rest

Prevention - Youth Pitching

- Pitch counts should be monitored and regulated in youth baseball. USA Baseball recommended limits for youth pitchers are as follows:
  - 9-10 year old pitchers:
    - 50 pitches per game
    - 75 pitches per week
    - 1000 pitches per season
    - 2000 pitches per year
  - 11-12 year old pitchers:
    - 75 pitches per game
    - 100 pitches per week
    - 1000 pitches per season
    - 3000 pitches per year
  - 13-14 year old pitchers:
    - 75 pitches per game
    - 125 pitches per week
    - 1000 pitches per season
    - 3000 pitches per year
- Pitch count limits pertain to pitches thrown in games only. These limits do not include throws from other positions, instructional pitching during practice sessions, and throwing drills, which are important for the development of technique and strength. Backyard pitching practice after a pitched game is strongly discouraged.

- http://www.asmi.org/asmiweb/usabaseball.htm
Thrower’s elbow

Chronic overuse
Common disorders of the elbow

Overuse strains

Thrower’s elbow

Epicondylitis

Medial

Lateral
Lateral Epicondylitis

“Tennis elbow”
Medial Epicondylitis

“golfer’s elbow”
Epicondylitis

Acute

Rest/immobilize
Ice
Compression
Medication
Physical therapy
Epicondylitis

Chronic

Improve technique

Physical therapy

Reduce aggravating force

Modify activity

Stretching

Strengthening
Epicondylitis

Chronic

Lateral Epicondylitis
↓ supination forearm

Medial Epicondylitis
↓ flexion wrist/elbow
Epicondylitis

Chronic
Braces
Medication

Oral Analgesics/NSAIDs
Topical
Injections
  Cortisone
  PRP
Epicondylitis

Chronic

Lithotripsy
Shock therapy
Surgery

Incidence <1/200
Common disorders of the elbow

Overuse strains

Bursitis

Nerve entrapment syndromes

Tendonopathies

Developmental abnormalities

Arthritis

Trauma
Olecranon bursitis of the elbow
Olecranon bursitis

Treatment

Protect/immobilize
Compression/pad
↓ motion/flexion
Medication
Olecranon bursitis

Treatment

Aspiration/injection
Olecranon bursitis

Treatment
Surgery
Drainage
Excision
Common disorders of the elbow

Overuse strains
Bursitis
Nerve entrapment syndromes
Tendonopathies
Developmental abnormalities
Arthritis
Trauma
Nerve Entrapment Syndromes

- Cubital tunnel syndrome
  - Ulnar nerve (“crazy bone”)
- Radial tunnel syndrome
  - Radial nerve
- Anterior interosseous nerve palsy
  - Median nerve
Cubital Tunnel Syndrome

Most common Symptoms

“Crazy bone”
Numbness
Tingling
Weakness
Cubital Tunnel Syndrome

Causes

- Local pressure
- Flexion
- Valgus
Cubital Tunnel Syndrome

Treatment

Pads

Extension

Surgery
Radial Tunnel Syndrome
Anterior Interosseous Nerve Syndrome

Median nerve
Uncommon
Trauma
Common disorders of the elbow

- Overuse strains
- Bursitis
- Nerve entrapment syndromes
- Tendonopathies
- Developmental abnormalities
- Arthritis
- Trauma
Tendonitis of the elbow

Bicipital

Triceps
Tendon ruptures of the elbow

Distal Biceps

Biceps Muscle

Proximal end

Long head

Distal head

Distal biceps tendon

Short head

Suture Anchor Repair

Tendon reattached
Tendon ruptures of the elbow

Triceps
Common disorders of the elbow

- Overuse strains
- Bursitis
- Nerve entrapment syndromes
- Tendonopathies
- Developmental abnormalities
- Arthritis
- Trauma
Osteochondritis dessicans

Symptoms
- Pain
- Stiffness
- Locking
Congenital radial head dislocation
Synovial osteochondromatosis
Common disorders of the elbow

Overuse strains
Bursitis
Nerve entrapment syndromes
Tendonopathies
Developmental abnormalities
Arthritis
Trauma
Arthritis of the elbow
Arthritis of the elbow

Surgery

Arthroscopy

Arthroplasty

Resection

Total replacement

Fusion
Common disorders of the elbow

Overuse strains
Bursitis
Nerve entrapment syndromes
Tendonopathies
Developmental abnormalities
Arthritis
Trauma
Nursemaid’s elbow
Common disorders of the elbow

Thank you