

## High Impact Rheumatology

### *Joint Examination and Injection Techniques Part 1: Upper Extremities*

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### Injections

- Steroids, soluble and insoluble
  - Triamcinolone hexacetonide (Aristospan)
  - Triamcinolone acetonide (Kenalog)
  - Methylprednisolone acetate (DepoMedrol)
  - Dexamethasone (Decadron)
- Local anesthetics
  - Bupivacaine (Marcaine)
  - Lidocaine (Xylocaine)

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### Cautions About Injections

- Disinfect injection site
- Wear gloves for your own protection
- Don't inject through cellulitis or psoriatic skin lesion
- Use a large-gauge needle to aspirate an inflamed or infected joint
- Use small-gauge needle and hold pressure over injection site if patient is anticoagulated
- Do not inject the same joint more than 3 to 4 times a year
- Some steroid will be absorbed systemically and can worsen CHF, HTN, and DM

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### Anterior Shoulder Exam



- Sternoclavicular joint
- Acromioclavicular joint
- Glenohumeral joint
- Biceps tendon

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### Rotator Cuff Exam



- Supraspinatus tendon
- Infraspinatus tendon
- Teres minor tendon

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### Shoulder Joint Injection



- Insert needle 1 cm below coracoid process
- Medial to humeral head

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### Subdeltoid Bursa Injection



- Localize lateral midpoint of acromion
- Insert 1 cm distal
- Angle needle upward

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### Elbow Exam



- Lateral epicondyle at insertion of common extensor tendon
- Olecranon bursa
- Lateral joint line between humerus and proximal ulna for synovial swelling or effusion

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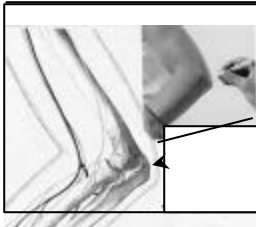
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### Elbow Joint Injection



- Midpoint of line between lateral epicondyle and tip of the olecranon
- Angle needle toward middle of antecubital fossa
- Keep elbow at 90 degrees

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### Olecranon Bursa



- Palpate over proximal ulna

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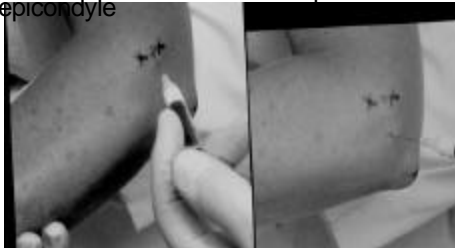
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### Elbow Injections

- Lateral epicondyle
- Elbow joint



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### Wrist Exam



- Support wrist in 15-degree flexion
- Palpate radiocarpal joint and ulnocarpal joint
- Keep extensor tendons relaxed

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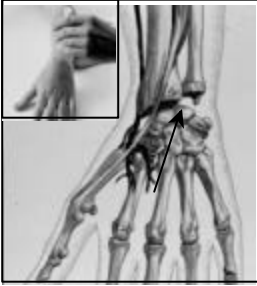
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### Wrist Injection



- Wrist in 15-degree flexion
- Insert needle next to extensor tendon of the thumb
- Angle slightly toward distal ulna

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### Metacarpophalangeal Joints



- Support palm of hand
- Palpate both sides of the joint line with thumbs

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### Finger Exam



- Palpate both lateral joint lines with thumb and index finger while palpating volar and palmar sides with opposite thumb and finger

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### Finger Joint Injection



- 15-degree flexion
- Insert needle at "2 o'clock" just into the capsule

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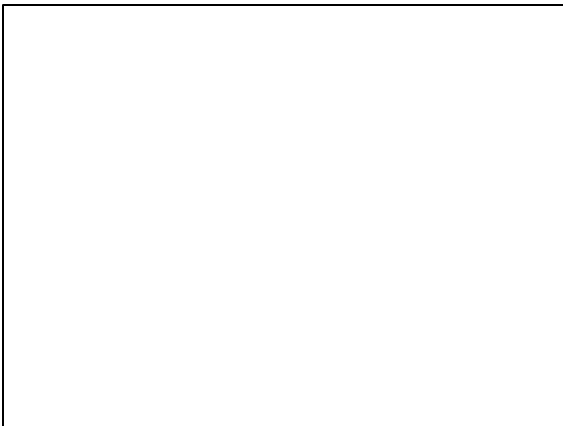
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High Impact Rheumatology  
*Joint Examination and Injection  
Techniques Part 2: Lower Extremities*



AMERICAN COLLEGE OF RHEUMATOLOGY

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## Hip Region Exam

- Trochanteric bursa
- Femoral-acetabular joint



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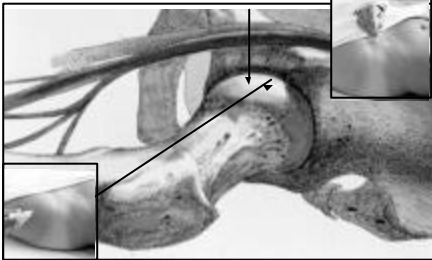
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## Hip Joint Injection

- Direct injection



- Lateral approach to hip

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## Knee Joint Exam

- Palpate synovial reflection at inferomedial and inferolateral margins of patella



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## Prepatellar Bursa

- Palpate anterior surface of patella



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## Knee Injection



- Knee fully extended
- Junction upper third and lower two thirds of the patella
- Insert needle under patella and aim superiorly

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## Ankle Exam



- For tibiotalar joint, palpate 1 cm anterior to distal medial malleolus just medial to extensor tendon and palpate anterior to distal fibula

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## Ankle Joint Injection



- Insert needle 1 cm anterior to distal medial malleolus, just medial to dorsalis pedis pulse and extensor tendon of great toe

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### Lateral Foot Exam



- Calcaneocuboid joint is 2 cm distal to fibula and 1 cm anterior

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### Medial Foot Exam



- Palpate talonavicular joint 2 cm anterior to distal medial malleolus

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### Metatarsophalangeal Exam



- Palpate MTP joint with second and third fingers on plantar surface while stabilizing joint with thumb on anterior surface

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### Interpharyngeal Joints of Toes



- Palpate lateral sides of joint line with thumb and index finger
- Palpate anterior and plantar surfaces with thumb and index finger of opposite hand

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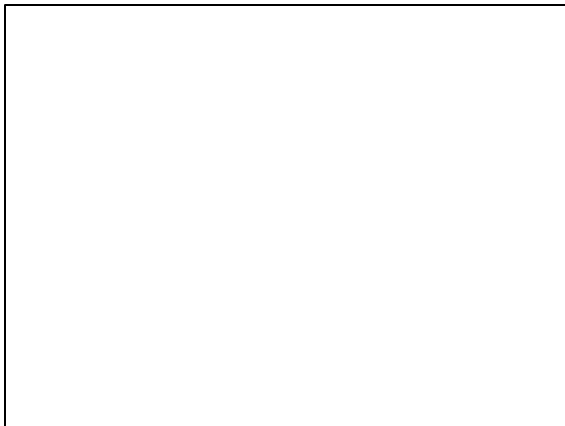
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