

High Impact Rheumatology
*Joint Examination and Injection
Techniques Part 1: Upper Extremities*

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

- 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

Anterior Shoulder Exam



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

Rotator Cuff Exam



- Supraspinatus tendon
- Infraspinatus tendon
- Teres minor tendon

Shoulder Joint Injection



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

Subdeltoid Bursa Injection



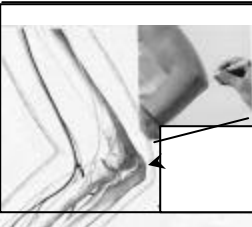
- Localize lateral midpoint of acromion
- Insert 1 cm distal
- Angle needle upward

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

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

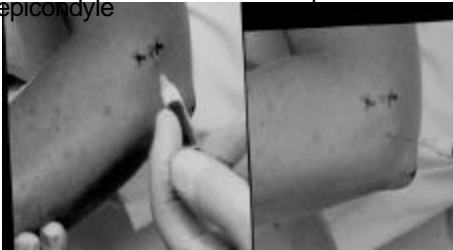
Olecranon Bursa



- Palpate over proximal ulna

Elbow Injections

- Lateral epicondyle
- Elbow joint

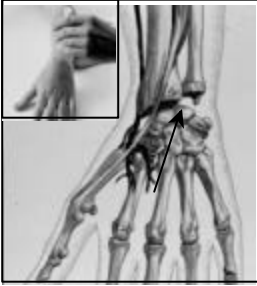


Wrist Exam



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

Wrist Injection



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

Metacarpophalangeal Joints



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

Finger Exam

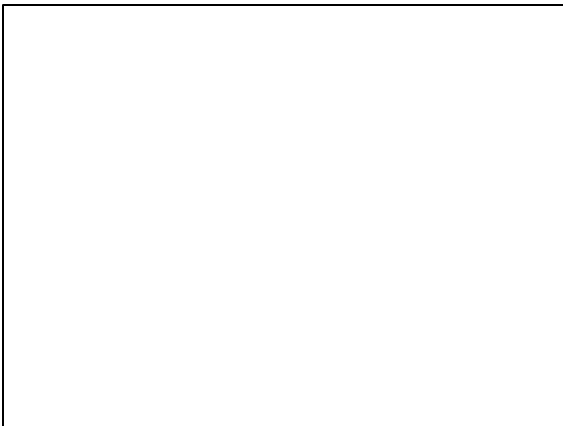


- Palpate both lateral joint lines with thumb and index finger while palpating volar and palmar sides with opposite thumb and finger

Finger Joint Injection



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



High Impact Rheumatology

*Joint Examination and Injection
Techniques Part 2: Lower Extremities*



AMERICAN COLLEGE OF RHEUMATOLOGY

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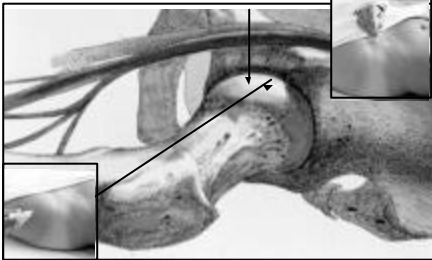
Hip Region Exam

- Trochanteric bursa
- Femoral-acetabular joint



Hip Joint Injection

- Direct injection



- Lateral approach to hip

Knee Joint Exam

- Palpate synovial reflection at inferomedial and inferolateral margins of patella



Prepatellar Bursa

- Palpate anterior surface of patella



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

Ankle Joint Injection



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

Lateral Foot Exam



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

Medial Foot Exam



- Palpate talonavicular joint 2 cm anterior to distal medial malleolus

Metatarsophalangeal Exam



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

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

