



Upper Extremity Anatomical and Diagnostic Curriculum (Example)

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1-Day Course, 7 hours of instruction

Learning Objectives

- Ultrasound physics and instrumentation
- Image artifacts and scanning technique
- Ergonomics and patient positioning
- Normal MSK anatomy for shoulder, elbow, wrist and hand
- Basic pathology

Practical Goals

- Have the skills and knowledge to scan patients in a clinical setting and gain diagnostic information immediately
- Understand sonography in a way that allows for further self-led skill development

Curriculum Outline

1. Physics and Instrumentation
 - a. 1 hour
 - b. Sound dynamics
 - c. Tissue attenuation
 - d. Basic/common artifacts
 - e. Probe choice
 - f. Basic/common machine variables
2. Shoulder
 - a. 2 hours
 - b. Patient positioning
 - c. Anatomy
 - i. Bony landmarks
 1. Humeral head and neck
 2. Bicipital groove
 3. Acromion

4. Coracoid process
5. Clavical
6. Acetabulum and labrum
- ii. Tendons
 1. Rotator cuff
 2. LH biceps
- iii. Ligaments
 1. AC
 2. Coracohumeral
 3. Coracoclavicular
 4. Transverse humeral
- iv. Muscles
 1. Rotator cuff
 2. Pecs
 3. Deltoid
 4. Biceps
 5. Triceps
 6. Latissimus dorsi
 7. Teres major
- v. Nerves
 1. Suprascapular
 2. Brachial plexus

3. Elbow

- a. 2 hours
- b. Patient positioning
- c. Anatomy
 - i. Bony landmarks
 1. Lateral epicondyle
 2. Medial epicondyle
 3. Olecranon
 4. Radial head
 - ii. Tendons
 1. Common extensor tendon
 2. Common flexor tendon
 3. Biceps
 4. Triceps
 - iii. Ligaments
 1. UCL
 2. RCL
 3. Annular
 - iv. Muscles
 1. Extensor group

2. Flexor group
3. Biceps bracci
4. Brachialis
5. Brachioradialis
6. Triceps

v. Nerves

1. Radial
2. Ulnar
3. Medial

4. Hand/Wrist

a. 2 hours

b. Patient positioning

c. Anatomy

i. Bony landmarks

1. Radius
2. Ulna
3. Carpals
4. MCP, PIP, DIP

ii. Tendons

1. Flexors
2. Extensors

iii. Ligaments

1. Radiocarpal
2. Ulnocarpal
3. Carpal
4. Retinaculum
5. *TFCC

iv. Muscles

1. Flexors
2. Extensors
3. Intrinsic

v. Nerves

1. Radial
2. Ulnar
3. Medial