

AMSSM Sample Sports Ultrasound Objective Structured Clinical Exam (OSCE)
Revised 2020

Date: _____

Examinee: _____

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GENERAL PRINCIPLES

- Transducer selection
- Image optimization (presets, depth, focus, gain, etc.)
- Appropriate use of transducer movement to fully evaluate structures and reduce anisotropy
- Use of Doppler imaging
- Ergonomics
- Patient comfort (transducer pressure, appropriate draping, positioning, etc.)

TRAUMA

- eFAST (extended Focused Assessment of Sonography in Trauma)
 - Hepatorenal recess
 - Perisplenic recess
 - Retro-vesicular or retro-uterine pouch
 - Subxiphoid pericardial space
 - Lung sliding

SHOULDER

- Biceps tendon including evaluation for instability
- Subscapularis
- Acromioclavicular joint
- Infraspinatus muscle and tendon
- Teres minor muscle and tendon
- Glenohumeral Joint recess (posterior)
- Spinoglenoid notch
- Supraspinatus muscle and tendon
- Subacromial/Subdeltoid bursa
- Coracoacromial ligament
- Dynamic evaluation of impingement

ELBOW

- Anterior
 - Brachialis muscle and tendon
 - Brachial artery and vein
 - Median nerve
 - Pronator teres muscle and tendon
 - Radial nerve (including posterior interosseous nerve and superficial radial nerve)
 - Brachioradialis muscle
 - Anterior humeroradial joint and recesses
 - Anterior humeroulnar joint and recesses
 - Biceps tendon and muscle
- Medial
 - Common flexor/pronator tendon and muscles

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- Ulnar collateral ligament including dynamic valgus stress views as indicated
- Humeroulnar joint
- Ulnar nerve including assessment of instability with flexion/extension views
- Lateral
 - Common extensor tendon and muscles
 - Radial collateral ligament
 - Humeroradial joint
 - Radial nerve from mid-arm to the bifurcation
 - Posterior interosseus nerve through supinator muscle
 - Brachioradialis
 - Extensor carpi radialis longus
- Posterior
 - Triceps tendon and muscles
 - Olecranon fossa and posterior joint recess
 - Olecranon process
 - Olecranon bursa
 - Ulnar nerve including assessment of instability with flexion/extension views

WRIST/HAND/FINGER

- Volar wrist
 - Carpal tunnel including dynamic evaluation of tendon and nerve motion
 - Flexor retinaculum/Transverse carpal ligament
 - Median nerve
 - Flexor pollicis longus tendon
 - Flexor digitorum profundus and superficialis tendons
 - Palmaris longus tendon
 - Flexor carpi radialis longus tendon
 - Radial artery
 - Joints (radiocarpal, ulnocarpal, midcarpal, carpometacarpal) including assessment of volar ganglion cyst
 - Ulnar nerve within Guyon's canal
 - Ulnar artery
 - Flexor carpi ulnaris tendon
- Dorsal Wrist
 - Extensor tendons and muscles (6 dorsal compartments)
 - Dynamic assessment of extensor carpi ulnaris instability
 - Extensor retinaculum
 - Dorsal scapholunate ligament including dynamic stress views
 - Joints (radiocarpal, ulnocarpal, midcarpal, carpometacarpal) including evaluation of dorsal synovial recesses and assessment of dorsal ganglion cyst
 - Superficial radial nerve
- Hand and finger
 - Metacarpophalangeal (MCP) and interphalangeal joints
 - Volar plates
 - Collateral ligaments
 - Flexor tendons and sheaths

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- A1 and A2 pulleys
- Extensor tendons
- Ulnar collateral ligament of 1st MCP joint including dynamic stress views

HIP/PELVIS

- Anterior
 - Femoral head, neck, capsule, and anterior synovial recess
 - Hip joint assessment for effusion
 - Anterior labrum
 - Femoral vessels and nerve
 - Iliopsoas muscle, tendon, and bursa
 - Sartorius and tensor fascia latae tendons and muscles
 - Rectus femoris tendon(s) and muscles
 - Dynamic scanning for snapping hip
- Medial
 - Adductor muscle origins (Adductor longus/brevis/magnus and gracilis) and tendons
 - Pubic bone and symphysis including dynamic assessment as indicated
 - Pectineus muscle
 - Distal rectus abdominis muscle and tendon
 - Rectus abdominis-adductor longus aponeurosis
 - Obturator nerve (including anterior and posterior branches)
- Lateral
 - Greater trochanter of femur (including identification of anterior, lateral, posterior, and superoposterior facets)
 - Gluteus minimus tendon and muscle
 - Gluteus medius tendon and muscle (anterior and posterior bands)
 - Greater trochanteric (subgluteus maximus) bursa
 - Superficial arch at greater trochanter (Gluteus maximus muscle – iliotibial band – tensor fasciae latae muscle)
 - Dynamic scanning for snapping hip
- Posterior
 - Gluteus maximus muscle and insertion onto iliotibial band
 - Piriformis muscle and tendon
 - Quadratus femoris muscle
 - Proximal hamstring tendon complex (conjoint tendon and semimembranosus)
 - Proximal biceps femoris, semimembranosus, and semitendinosus muscles
 - Ischial tuberosity and bursal region
 - Sciatic nerve
 - Posterior hip joint

THIGH

- Anterior
 - Anterior thigh muscles
 - Rectus femoris
 - Vastus medialis
 - Vastus lateralis

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- Vastus intermedius
- Sartorius
- Femoral nerve
- Femur
- Medial
 - Medial thigh muscle bellies and tendons
 - Adductor longus
 - Adductor brevis
 - Adductor magnus
 - Gracilis
 - Sartorius
 - Femoral nerve
 - Obturator nerve
 - Femur
- Posterior
 - Posterior thigh muscles
 - Biceps femoris
 - Semitendinosus
 - Semimembranosus
 - Adductor magnus
 - Sciatic nerve
 - Femur

KNEE

- Anterior
 - Distal quadriceps muscles
 - Quadriceps tendon
 - Suprapatellar recess of knee joint
 - Patella and prepatellar bursa
 - Patellar tendon and tibial tubercle
 - Hoffa's fat pad
 - Superficial infrapatellar bursa
 - Deep infrapatellar bursa
 - Vastus medialis and medial retinaculum including the medial patellofemoral ligament and dynamic assessment of stability
 - Vastus lateralis and lateral retinaculum
 - Trochlear cartilage
 - Anterior horns of medial and lateral menisci
- Medial
 - Medial collateral ligament (superficial and deep portions) with valgus stress testing
 - Medial meniscus (anterior and posterior horns)
 - Tibiofemoral joint space
 - Pes anserine tendons and bursa
 - Medial patellar retinaculum and medial patellofemoral ligament
 - Medial patellofemoral joint
- Lateral

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- Iliotibial band
- Lateral synovial recess of the knee
- Lateral meniscus anterior and posterior horns
- Tibiofemoral joint space
- Lateral collateral ligament with varus stress testing
- Biceps femoris tendon and muscles
- Popliteus tendon and muscle
- Lateral patellar retinaculum
- Lateral patellofemoral joint
- Proximal tibiofibular joint including assessment of instability
- Common fibular nerve at fibular tunnel
- Posterior
 - Popliteal artery and vein
 - Semimembranosus, semitendinosus, and biceps femoris (long and short heads) muscles and tendons
 - Medial & lateral gastrocnemius muscles and tendons
 - Evaluation for Baker's cyst at interval between semimembranosus and medial gastrocnemius
 - Sciatic, tibial, and common fibular nerves
 - Posterior horns of medial and lateral menisci
 - Posterior tibiofemoral joint
 - Posterior cruciate ligament
 - Popliteus muscle

LEG AND ANKLE

- Anterior
 - Anterior leg compartment muscles and tendons (tibialis anterior, extensor digitorum longus, extensor hallucis longus, peroneus tertius)
 - Anterior tibiotalar joint
 - Talar dome cartilage
 - Sinus tarsi
 - Anterior inferior tibiofibular ligament including dynamic assessment
 - Superficial fibular nerve at exit from crural fascia through division into medial and intermediate dorsal cutaneous nerves
 - Deep fibular nerve
 - Distal anterior tibial artery and dorsalis pedis artery
- Medial
 - Medial gastrocnemius muscle
 - Soleus muscle
 - Flexor retinaculum
 - Deep posterior compartment muscles (tibialis posterior, flexor digitorum longus, and flexor hallucis longus)
 - Deltoid ligament
 - Medial tibiotalar joint
 - Medial aspect of posterior subtalar joint
 - Tarsal tunnel (tibial, medial plantar, and lateral plantar nerves)

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- Posterior tibial artery and veins
- Lateral
 - Lateral gastrocnemius muscle
 - Soleus muscle
 - Fibularis longus and brevis muscles and tendons
 - Superior fibular retinaculum
 - Dynamic assessment for fibular subluxation/dislocation
 - Fibular trochlea (peroneal tubercle)
 - Fibula for acute traumatic or stress fracture
 - Anterior talofibular ligament including dynamic stress views
 - Calcaneofibular ligament including dynamic stress views
 - Anterior tibiofibular ligament including dynamic stress views
 - Lateral recess of tibiotalar joint including dynamic assessment of impingement
 - Lateral recess of posterior subtalar joint
 - Sinus tarsi
 - Sural nerve and lateral calcaneal nerve
- Posterior
 - Medial and lateral gastrocnemius muscles
 - Soleus muscle
 - Achilles tendon and paratenon
 - Retrocalcaneal bursa
 - Retro-Achilles/Superficial/Subcutaneous bursa
 - Plantaris tendon
 - Posterior tibiotalar joint
 - Posterior subtalar joint

FOOT

- Hindfoot
 - Plantar fascia (central and lateral cords)
 - Plantar fat pad including dynamic assessment of compression
 - Tarsal tunnel (tibial, medial plantar, and lateral plantar nerves)
 - Sural nerve and lateral calcaneal nerve
 - Achilles tendon and paratenon
 - Plantaris tendon
 - Retro-Achilles/Superficial Achilles/Subcutaneous bursa
- Midfoot
 - Talonavicular joint
 - Calcaneocuboid joint
 - Tarsometatarsal joints
 - Dorsal Lisfranc ligament including dynamic assessment of stability
 - Deep fibular nerve
 - Anterior tibialis tendon insertion
 - Posterior tibialis tendon insertion
 - Spring ligament
 - Flexor digitorum longus and flexor hallucis longus at the Knot of Henry
 - Medial plantar nerve

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- Plantar fascia lateral cord insertion at 5th metatarsal base
- Fibularis brevis insertion at 5th metatarsal base
- Forefoot
 - Metatarsophalangeal and interphalangeal joints
 - Metatarsals and phalanges for acute traumatic or stress fracture as indicated
 - Metatarsal interspace evaluation for Morton's neuroma and intermetatarsal bursitis
 - Plantar plate including dynamic assessment
 - Flexor tendons
 - Great toe sesamoids including dynamic assessment

Signature (completed and reviewed)

Fellow

Faculty evaluator