MUSCULOSKELETAL PHYSICAL EXAM

CERVICAL SPINE:

- Inspect head/neck alignment and skin (scars, discoloration)
  Positive: torticollis, step-offs, scars
- Assess active, passive, resisted ROM: flexion, extension, rotation, lateral bending
  Positive: restricted or painful motion, muscle guarding
- Perform cervical distraction and compression tests
  Positive: pain relief with distraction (nerve root compression), pain with compression (radiculopathy)
- Palpate occiput, axis, cervical spinous processes, facets
  Positive: tenderness, misalignment, step-off deformity
- Palpate cervical musculature for movement and tone
  Positive: hypertonicity, spasm, restricted motion

TMJ:

- Inspect jaw opening/closing
  Positive: deviation, restricted opening
- Palpate external auditory canal with finger while patient opens/closes slowly
  Positive: crepitus, audible clicks, asymmetric movement

SHOULDER:

- Inspect for symmetry, scapular motion, at rest vs walking
  Positive: winged scapula, asymmetry, muscle wasting
- Inspect anterior/posterior shoulder girdle, scapula, and muscles
  Positive: swelling, atrophy, deformity (step-off sign for AC separation)
- Palpate glenohumeral, sternoclavicular, acromioclavicular joints, bicipital groove, tendon capsule
  Positive: localized tenderness, effusion, instability
- Assess active, passive, resisted ROM: flexion, extension, abduction, adduction, internal/external rotation
  Positive: pain/weakness (rotator cuff pathology, impingement)

ELBOW, WRIST, HAND:

- Inspect elbow joint, wrist, and hands (palmar/dorsal surfaces)
  Positive: swelling, erythema, nodules, deformity
- Palpate olecranon, epicondyles, grooves
  Positive: tenderness (epicondylitis), effusion
- Palpate distal radius/ulna, styloid processes, snuffbox, carpals, metacarpals, phalanges
  Positive: snuffbox tenderness (scaphoid fracture), bony tenderness, joint swelling

  ROM:

  - Elbow flexion, extension, pronation, supination
    Positive: pain/limitation = arthritis, fracture, tendinopathy
  - Wrist flexion, extension, ulnar/radial deviation
    Positive: pain/instability, decreased ROM
  - Fingers flexion, extension, abduction, adduction, grip strength
    Positive: weakness, triggering, deformities
  - Thumb flexion, extension, abduction, adduction, opposition
    Positive: restricted motion, pain at base (CMC arthritis)

SPINE, HIPS, SI JOINT:

- Inspect gait and spinal curvature while walking
  Positive: scoliosis, kyphosis, lordosis, antalgic gait
- Percuss over spine
  Positive: localized tenderness (fracture, infection, tumor)
- Palpate spinous/facet joints, paraspinal musculature
  Positive: spasm, step-off, tenderness
- Palpate hip and SI joints
  Positive: tenderness, restricted motion, asymmetry

ROM:

- Thoracic spine flexion, lateral bending, rotation
  Positive: restriction, pain with movement
- Lumbar spine flexion, extension, lateral bending, rotation
  Positive: restricted range, pain reproduced
- Hip & SI flexion, extension, abduction, adduction, internal/external rotation
  Positive: pain/limitation (arthritis, bursitis, SI dysfunction)

KNEE, ANKLE, FOOT, TOES:

- Inspect knee alignment, motion, structure
  Positive: valgus/varus deformity, swelling, erythema
- Inspect toes and toenails
  Positive: ingrown toenail, fungal infection, clubbing
- Palpate bony landmarks, ligaments, patellofemoral/medial/lateral compartments, bursae
  Positive: tenderness, effusion, crepitus, instability
- Palpate anterior/posterior ankle joint, Achilles tendon, calcaneus
  Positive: tenderness (Achilles tendinopathy/rupture, calcaneal spur)
- Palpate plantar fascia, MTP joints, metatarsals
  Positive: plantar fasciitis pain, bunions, metatarsalgia

ROM:

- Ankle flexion, extension, eversion, inversion
  Positive: restriction, instability, pain
- Foot flexion, extension, inversion, eversion
  Positive: pain or weakness (ligamentous injury, arthritis)
- Toes flexion, extension
  Positive: hammertoes, claw toes, restricted motion