MSK exam: look, feel, move, special tests

Every joint: Look (SEADS: swelling/scars, erythema, atrophy/alignment, deformity, symmetry) → Feel (temp first, then name each landmark) → Move (active, then passive) → Special tests → Neurovascular · compare sides

Say first: "I would normally inspect the other side and examine the joint above and below, but in the interest of time I will focus on the ___ complaint." Tests are in position order: finish one position before the patient moves. +grey = extra. A test counts only if it reproduces their pain or differs from the other side.

Cervical spine

above/below: shoulder, T-spine

LOOK swelling only with trauma · wasting SCM, traps, deltoids, scan the arms · lordosis, forward head, head tilt · scars front/back

FEEL occiput, spinous processes · SCM, paraspinals, cervical and supraclavicular nodes, thyroid, carotid

MOVE flex 90 · ext 90 · rotation 90 · lat flex 45

SITTING

1. Spurling: extend, turn to painful side, press down → arm pain/tingling
2. Cervical distraction: lift head → arm symptoms ease

Why this order: Push, then pull: Spurling presses the head down, distraction lifts it up.

Gait: spasticity, ataxia (myelopathy) · arm neuro screen

Lumbar spine

above/below: hip, T-spine

LOOK paraspinal redness · wasting, scan legs · lordosis, scoliosis, iliac crest heights · midline scar · dysraphism (hairy patch, dimple), café-au-lait

FEEL spinous processes, iliac crests, PSIS, ischial tuberosity, greater trochanters, SI joints · paraspinals, glutes, piriformis

MOVE ext, flex, lat flex, rotation: smooth, symmetric

SUPINE

1. True (ASIS) and apparent (umbilicus) leg length
2. SLR: radicular pain below knee 30-70°
3. Bragard: lower till pain goes, dorsiflex
4. Bowstring: bend knee, press popliteal fossa
5. Crossed SLR: lift good leg → pain in bad leg
6. FABER: SI (back) vs hip (groin) +thigh thrust
7. Thomas: other thigh lifts

PRONE

8. Femoral stretch: anterior thigh pain (L2-L4)

STANDING

9. Modified Schober: <5 cm gain +Adam's bend

Why this order: Measure while the legs are straight → stretch the sciatic nerve, then confirm at the foot, knee, other leg → joints below the back (SI, hip) → flip for the femoral nerve → stand to bend forward.

Neuro incl. Babinski · saddle anesthesia, rectal tone

Shoulder

above/below: neck, elbow

LOOK swelling AC, SC, GH · deltoid squaring, supra/infraspinatus wasting · dislocation, clavicle, scapular winging · scars

FEEL temp · SC, clavicle, AC, coracoid, acromion, GH, greater tuberosity, scapular spine, inferior angle · biceps tendon, cuff bulk, axillary nodes

MOVE flex 180 · ext 50 · abd 180 · add 45 · ER 50 · IR 50 · crepitus

STANDING / SITTING

1. Painful arc: pain 60-120° abduction
2. Neer: fix scapula, lift IR arm forward
3. Hawkins: 90/90, rotate forearm down
4. Empty can (supraspinatus) +drop arm
5. Resisted ER (infraspinatus) +ER lag
6. Lift-off / bear hug (subscap) +belly press
7. Scarf: across chest → AC pain
8. Speed: arm forward, palm up, resist
9. Yergason: elbow 90°, resisted supination

SUPINE

10. Apprehension: 90° abd, ER +relocation

Why this order: The pinch (impingement), then the cuff it pinches: arm out → elbow at side → hand behind back → across the chest (scarf) → forward (Speed) → elbow at side (Yergason) → lie down.

Elbow

above/below: shoulder, wrist

LOOK loss of olecranon grooves, radial head swelling, olecranon bursa · forearm wasting · carrying angle, varus/valgus, flexion contracture · scars

FEEL temp · humerus, radial head, both epicondyles, olecranon · extensor and flexor origins, triceps insertion, MCL, LCL, ulnar nerve

MOVE ext 0-5 · flex 145 · pronation 90 · supination 90

SITTING

1. Valgus (MCL) / varus (LCL) at 20-30°
2. Tennis elbow: resisted wrist ext, then stretch
3. Golfer's elbow: resisted wrist flex, then stretch
4. Tinel at cubital tunnel → ring, little finger

Why this order: Ligaments → tendons, lateral then medial → the ulnar nerve sits right behind the medial epicondyle, where your finger already is.

Swollen joint can't straighten; a bursa doesn't limit movement · think C-spine

Wrist and hand

above/below: elbow, neck

LOOK swelling DIP, PIP, MCP, CMC, wrist, tendons · thenar/hypothenar wasting · Heberden, Bouchard, ulnar drift, swan neck, boutonnière, Z-thumb · carpal tunnel scar

FEEL temp · ulnar styloid, DRUJ, scaphoid (snuffbox), hook of hamate, metacarpals · EPB/APL, palmar flexor tendons

MOVE ext 80 · flex 80 · pro/sup 90 · ulnar dev 30 · radial dev 20 · full fist, full extension

SITTING

1. Tinel at carpal tunnel (+ at elbow) +Phalen 60 s
2. 1st CMC grind: push and rotate
3. Finkelstein: thumb in fist, ulnar deviate

Why this order: Middle of the wrist (carpal tunnel) → thumb base → thumb tendons.

Numb thumb/index may be C6, not carpal tunnel

Hip

above/below: low back, knee

LOOK groin swelling only · trochanteric redness · gluteal wasting · flexion contracture, lordosis, pelvic tilt · lateral scar

FEEL greater trochanter, pubic symphysis, iliac crest, ASIS, PSIS, sacrum, SI joint, ischial tuberosity · inguinal nodes, femoral artery, glutes, IT band

MOVE flex 135 · ER 45 · IR 35 (lost first) · abd 45 · add 20

SUPINE

1. True and apparent leg length
2. Thomas: other thigh lifts
3. Stinchfield: resisted SLR 30° → groin pain
4. FABER / FADIR (labrum, FAI) +thigh thrust

SIDE-LYING

5. Ober: leg stays up (tight IT band)

STANDING

6. Trendelenburg: pelvis drops on lifted side

Why this order: Measure first, then bend the hip more each time: knee to chest → straight leg up → bent hip twisted out and in → roll to the side → stand.

True hip pain is in the groin

Knee

above/below: hip, ankle

LOOK loss of peripatellar grooves, suprapatellar fullness, Baker's cyst, prepatellar bursa · quad wasting · varus/valgus, flexion contracture, recurvatum · scars

FEEL temp · femoral condyles, joint lines, patella, fibular head, tibial tubercle · MCL, LCL, popliteal fossa, pes anserine, IT band, quad and patellar tendons

MOVE full extension to 135 flexion

SUPINE

1. Wipe (small) / ballottement (large effusion)
2. Patellar apprehension +patellar grind
3. Valgus / varus at 0° and 30°
4. Lachman at 20-30° +posterior sag
5. Anterior / posterior drawer at 90°
6. McMurray: painful click on joint line

STANDING

+Thessaly, +crouch (duck walk)

Why this order: Outside in: fluid → kneecap → side ligaments → cross ligaments → meniscus. The knee bends more at each step, from straight to fully bent.

Ankle and foot

above/below: knee, low back

LOOK MTP swelling, dactylitis, ankle, tendons · lateral bruising · intrinsic wasting · hallux valgus, claw/hammer toes, too many toes, hindfoot valgus/varus, pes planus/cavus · scars

FEEL MTPs, navicular, 5th MT base, distal tibia/fibula, malleoli, fibular head · deltoid, ATFL, CFL, PTFL, plantar fascia, Achilles, tib post, peroneals

MOVE PF 50 · DF 20 · inv 35 · ev 20 · 1st MTP flex 45, ext 70 · can they bear weight?

SITTING / SUPINE

+Passive ER (high ankle sprain)

1. Anterior drawer: pull heel forward (ATFL)
2. Lateral ligament stress / talar tilt (CFL)
3. Homan's: dorsiflex → calf pain (weak test)
4. Ottawa: malleoli back edge/tip, 5th MT base, navicular, walk 4 steps
5. Metatarsal squeeze (Morton's)

PRONE

6. Thompson: squeeze calf, no plantar flexion

Why this order: Start at the sprain (lateral ligaments) → same grip pulling the foot up, add a calf squeeze (Homan's) → hands already on the malleoli (Ottawa) → slide to the forefoot → flip for the Achilles.

Neuro screen **C5** shoulder abd · biceps **C6** wrist ext · brachioradialis **C7** elbow ext · triceps **C8** finger flex **T1** finger abd **L2-3** hip flex **L4** dorsiflex · knee **L5** big toe ext **S1** plantar flex · ankle **Gait:** antalgic · Trendelenburg · foot drop · ataxic