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These slides accompany the
OMS PE Review Course
videos here:



For the complete course, including quizzes and clarifications, visit mokingren.sg. Please fill up the guestbook and provide your feedback too! 😊

Ortho Made Simple - Shoulder PE

<h2><u>1. Inspection</u></h2> <ul style="list-style-type: none"> Expose Patient (Must offer) Walk around patient <ul style="list-style-type: none"> Front - be deliberate to look for asymmetry Sides Back - for wasting of Rotator cuff muscles In general, look for scars, deformity, swellings, erythema, wasting 	<h2><u>2. Range of Motion</u></h2> <ul style="list-style-type: none"> Stand in front of the patient and ask patient to follow you. Compare both sides <ul style="list-style-type: none"> Flexion Abduction External Rotation - tuck elbows in Internal Rotation - using thumb to compare level If any AROM limited, check PROM <p>* No need to check extension</p>	<h2><u>3. Palpate</u></h2> <ul style="list-style-type: none"> 4 Bony Prominences <ul style="list-style-type: none"> Sternoclavicular Joint Along Clavicle Acromioclavicular Joint Spine of Scapula 2 Soft tissue <ul style="list-style-type: none"> Rotator Cuff Muscles (~ 1 cm distal to acromion) Biceps Tendon in groove (optional) <p>* Palpate only the affected side unless asked to compare</p>	<h2><u>4. Power</u></h2> <ul style="list-style-type: none"> Rotator Cuff Muscles. [Compare both sides] <ul style="list-style-type: none"> Supraspinatus - Empty can test (flex shoulder to 90, in plane of scapula) Infraspinatus - External rotation against resistance Subscapularis - Belly Press (check one side at a time) Teres Minor - Hornblower [Post grad] Biceps (double as special tests while look for pain in bicipital groove) [Do affected side only] <ul style="list-style-type: none"> Speed's Yergason's
<h2><u>5. Special Tests</u></h2> <p>[Do affected side only unless asked to compare]</p> <ul style="list-style-type: none"> Rotator Cuff Impingement <ul style="list-style-type: none"> Neer's Hawkin's Acromioclavicular Joint Pathology <ul style="list-style-type: none"> Scarf's Test SLAP Tears [Post Grad] <ul style="list-style-type: none"> O'Brien's Test Instability Tests [For young patients with no positive exam findings so far, consider shoulder instability as a likely diagnosis.] <ul style="list-style-type: none"> Sulcus Anterior Apprehension Beighton's (> 5 is +ve in adults) 	<h2><u>6. Neurovascular</u></h2> <ul style="list-style-type: none"> Radial pulse Median nerve - OK sign Ulnar nerve - criss cross fingers Radial nerve - thumbs up 	<h2><u>7. Function (if asked)</u></h2> <ul style="list-style-type: none"> Touch Hair Touch Mouth Touch back pocket 	<h2><u>8. Complete/ Offer</u></h2> <ul style="list-style-type: none"> Can offer to examine Cervical spine if shoulder pain If not, just offer to take history <hr/> <p>Quick Interpretation after History and PE</p> <ul style="list-style-type: none"> Stiff & Strong = Frozen Shoulder or 1° Arthritis Stiff & Weak = RC Arthropathy (2° Arthritis) Weak only = RC Tear Impingement + only = RC Tendonitis/ Bursitis Scarf's test + only = ACJ Pathology Loose = Shoulder instability <p>**Pain messes up everything</p>

Ortho Made Simple - Elbow PE

<p><u>1. Inspection</u></p> <ul style="list-style-type: none"> Expose Patient (Must offer) Begin with patient's arms straight with palms facing you Look for cubitus varus/ valgus Bring hands up to sky - look for cubital tunnel release scars 	<p><u>2. Range of Motion</u></p> <ul style="list-style-type: none"> Start with arms horizontal, parallel to the ground. <ul style="list-style-type: none"> Flexion Extension Tuck in elbows, Give 2 pens (or use thumbs) <ul style="list-style-type: none"> Pronation Supination <i>If any AROM limited, check PROM</i> 	<p><u>3. Palpate</u></p> <ul style="list-style-type: none"> Demonstrate isosceles triangle relationships of tip of olecranon, medial epicondyle (ME) and Lateral epicondyle (LE) Palpate medially <ul style="list-style-type: none"> Medial Epicondyle pain for Golfer's Elbow Ulnar nerve for subluxation (flex and extend elbow with finger over ME to feel for subluxation) Palpate laterally <ul style="list-style-type: none"> Lateral Epicondyle pain for Tennis Elbow Radial head - pronate/ supinate elbow to feel radial head rotating 	<p><u>4. Power</u></p> <ul style="list-style-type: none"> 4 Muscle groups <ul style="list-style-type: none"> Flexion (biceps, brachialis) Extension (triceps) Pronation (pronator teres, quadratus) Supination (biceps, supinator)
<p><u>5. Special Tests (Targeted)</u></p> <p><i>*Most important to master</i></p> <ul style="list-style-type: none"> Tennis Elbow tests <ul style="list-style-type: none"> Passive Wrist Flexion (Mill's) Resisted Wrist Dorsiflexion (Cozen's) Resisted Middle Finger Extension (Maudsley) Golfer Elbow <ul style="list-style-type: none"> Passive Wrist extension Resisted Wrist Flexion Distal biceps rupture - hook test Instability tests Post Grad 	<p><u>6. Neurovascular</u></p> <ul style="list-style-type: none"> Radial pulse Median nerve - OK sign Ulnar nerve - criss cross fingers Radial nerve - thumbs up 	<p><u>7. Function (if asked)</u></p> <ul style="list-style-type: none"> Touch Hair Touch Mouth Touch back pocket 	<p><u>8. Complete/ Offer</u></p> <ul style="list-style-type: none"> Just offer to take history

OMS - 3-Step Hand Screen + Function

<p><u>1. Screen - Static Inspection</u></p> <ul style="list-style-type: none"> Palms Down <ul style="list-style-type: none"> Wasting of 1st web spaces (Ulnar)/Guttering (Ulnar) Scars Deformities - OA, RA Palm Up <ul style="list-style-type: none"> Wasting - thenar (median), hypothenar (ulnar) Scars Attitude - Flexed (trigger, dupuytren's), Clawing (Ulnar), Wartenberg's (Ulnar) Deformities - RA <p><u>Specific RA Song</u></p> <p>"I see multiple deformities affecting multiple joints with symmetrical involvement. This is consistent with an inflammatory arthritis of which RA is most common. I will continue to screen for nerve involvement"</p> <ul style="list-style-type: none"> Palms Down <ul style="list-style-type: none"> Ulna caput deformity Radial deviation at wrist Ulnar deviation at MCPJ Volar subluxations at MCPJ Look at nails for pitting - "no pitting of nails to suggest psoriatic arthritis" Palms Up <ul style="list-style-type: none"> Boutonniere, Swan neck deformities Attitude - Flexed (trigger) Scars - CTS release 	<p><u>2. Screen - Active Inspection</u></p> <ul style="list-style-type: none"> Ask patient lift up her hand, open and close fingers, turn around and repeat, look for - <ul style="list-style-type: none"> Triggering, contractures Mannerfelt syndrome in RA (FPL rupture) Dorsiflex wrist, look for - <ul style="list-style-type: none"> Drop fingers (especially in RA due to tendon ruptures), Dropped wrist Evaluate wrist ROM <ul style="list-style-type: none"> Dorsiflexion Palmar flexion Look at elbows <ul style="list-style-type: none"> Scars - cubital tunnel (Ulnar) Distal humerus scars (Radial) Rheumatoid nodules Gouty tophi 	<p><u>3. Screen - Nerve Screen</u></p> <ul style="list-style-type: none"> Check motor <ul style="list-style-type: none"> Median nerve - OK sign (Thumb abduction is also acceptable) Ulnar - Criss-cross Radial - Thumbs up Check sensation <ul style="list-style-type: none"> Median nerve - Thumb tip Ulnar nerve - Little finger tip Radial nerve - First web space <p><u>Suggest Diagnosis + Pause</u></p> <ul style="list-style-type: none"> "In my Screening, I have found signs suggestive of <u>xxx</u> as seen from <u>yyy</u> and <u>zzz</u>. I would like to <u>confirm</u> this by evaluating further" Pause for possible correction by examiner 	<p><u>7. Hand Functional Assessment</u></p> <p>You need a key and a pen with you.</p> <p>"I will now go on to assess the function of the hand". Just start doing and examiner may stop you halfway.</p> <p>[Tool] Test (Grip being tested)</p> <ol style="list-style-type: none"> [Key] Pick up this key with 2 fingers (Dexterity grip) [Key] Pick up with key with 3 fingers (Chuck grip) [Key] Turn the key (Key pinch) [Pen] Write with this pen (Pen grip) [Forearm] Grab my forearm (Grasp) <p>Right after these 5 tests, ask the patient "Can you tell me if there is anything that you wish to do but cannot do with your hands?" - this is to demonstrate that you know function is not just defined by these grips but also his/her ADLs.</p>
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Ortho Made Simple - Median Nerve PE

<p><u>1. Screen - Static Inspection</u></p> <ul style="list-style-type: none"> Refer to OMS 3-step Hand Screen + Function 	<p><u>2. Screen - Active Inspection</u></p> <ul style="list-style-type: none"> Refer to OMS 3-step Hand Screen + Function 	<p><u>3. Screen - Nerve Screen</u></p> <ul style="list-style-type: none"> Refer to OMS 3-step Hand Screen + Function <p><u>Suggest Diagnosis + Pause</u></p> <ul style="list-style-type: none"> “In my screening, I have found <i>thenar wasting, loss of sensation of the thumb and weakness of thumb abduction</i>. I will now go on to elicit for more signs of <i>median nerve palsy</i> and determine if this is <i>high or low injury</i>” Pause for possible correction by examiner 	<p><u>4. Sensation</u></p> <ul style="list-style-type: none"> 2 areas to test <ul style="list-style-type: none"> Tip of thumb Thenar eminence <p><i>Some of these are tested in screening. But just for clarity, I usually just repeat and say, “just to confirm, this area is numb?”</i></p> <p><i>Quick Interpretation</i></p> <ul style="list-style-type: none"> If both loss = high median nerve If only thumb loss = low median nerve; CTS
<p><u>5. Power</u></p> <ul style="list-style-type: none"> 5 muscles to test (Proximal to Distal) <ul style="list-style-type: none"> FCR Thumb abduction Thumb opposens FPL FDP index finger <p><i>Quick Interpretation</i></p> <ul style="list-style-type: none"> If all weak = High Median nerve Only Thumb Abduction and Opposition weak = Low Median Nerve; CTS 	<p><u>6. Special Tests</u></p> <ul style="list-style-type: none"> Tinel’s Durkan's Phalen’s (Palmar flexion) Reverse Phalen (Dorsiflexion) 	<p><u>7. Hand Functional Assessment</u></p> <ul style="list-style-type: none"> Refer to OMS 3-step Hand Screen + Function 	<p><u>8. Complete/ Offer</u></p> <ul style="list-style-type: none"> Complete my examination by taking a history from this patient

Ortho Made Simple - Ulnar Nerve PE

<p><u>1. Screen - Static Inspection</u></p> <ul style="list-style-type: none"> Refer to OMS 3-step Hand Screen + Function 	<p><u>2. Screen - Active Inspection</u></p> <ul style="list-style-type: none"> Refer to OMS 3-step Hand Screen + Function 	<p><u>3. Screen - Nerve Screen</u></p> <ul style="list-style-type: none"> Refer to OMS 3-step Hand Screen + Function <p><u>Suggest Diagnosis</u></p> <ul style="list-style-type: none"> “In my screening, I have found <i>hypothenar wasting, guttering of fingers, loss of sensation of the little finger and inability to adduct fingers.</i> I will now go on to elicit for more signs of <i>ulnar nerve palsy</i> and determine if this is <i>high or low injury</i>” Pause for possible correction by examiner 	<p><u>4. Sensation</u></p> <ul style="list-style-type: none"> 2 areas to test <ul style="list-style-type: none"> Tip of Little finger Dorsal Aspect of 5th Metacarpal (DBUN) <p><i>Some of these are tested in screening. But just for clarity, I usually just repeat and say, “just to confirm, this area is numb?”</i></p> <p><i>Quick Interpretation</i></p> <ul style="list-style-type: none"> If both loss = High Ulnar nerve If only little finger loss = Low ulnar nerve
<p><u>5. Power</u></p> <ul style="list-style-type: none"> 5 muscles to test (Proximal to Distal) <ul style="list-style-type: none"> FCU - main branch Abductor digiti minimi FDP little finger First dorsal interosseous Adductor pollicis - Froment’s Test <p><i>Quick Interpretation</i></p> <ul style="list-style-type: none"> All weak = high ulnar nerve Only Abductor digiti, Adductor Pollicis and 1DI is weak = low ulnar nerve 	<p><u>6. Special Tests</u></p> <ul style="list-style-type: none"> Tinel's sign Subluxation of ulnar nerve at medial epicondyle 	<p><u>7. Hand Functional Assessment</u></p> <ul style="list-style-type: none"> Refer to OMS 3-step Hand Screen + Function 	<p><u>8. Complete/ Offer</u></p> <ul style="list-style-type: none"> Complete my examination by taking a history from this patient

Ortho Made Simple - Radial Nerve PE

<p><u>1. Screen - Static Inspection</u></p> <ul style="list-style-type: none"> Refer to OMS 3-step Hand Screen + Function 	<p><u>2. Screen - Active Inspection</u></p> <ul style="list-style-type: none"> Refer to OMS 3-step Hand Screen + Function 	<p><u>3. Screen - Nerve Screen</u></p> <ul style="list-style-type: none"> Refer to OMS 3-step Hand Screen + Function <p><u>Suggest Diagnosis + Pause</u></p> <ul style="list-style-type: none"> “In my screening, I have found wrist drop, loss of sensation over first web space and inability to extend thumb. I will now go on to elicit for more signs of radial nerve palsy and determine the level of injury.” Pause for possible correction by examiner 	<p><u>4. Sensation</u></p> <ul style="list-style-type: none"> 1 areas to test <ul style="list-style-type: none"> SRN at first webspace <p><i>Some of these are tested in screening. But just for clarity, I usually just repeat and say, “just to confirm, this area is numb?”</i></p> <p><i>Quick Interpretation</i></p> <ul style="list-style-type: none"> If intact = PIN Palsy If loss = Radial nerve proper palsy or SRN palsy (if no weakness) 	
<p><u>5. Power</u></p> <ul style="list-style-type: none"> 5 muscles to test (Distal to Proximal) <ul style="list-style-type: none"> EPL Retropulsion EDC ECRL BR Triceps 	<p><u>6. Special Tests</u></p> <ul style="list-style-type: none"> Tinel's sign along the course of the radial nerve (especially along posterior humerus scar if any) 	<p><u>7. Hand Functional Assessment</u></p> <ul style="list-style-type: none"> Refer to OMS 3-step Hand Screen + Function 	<p><u>8. Complete/ Offer</u></p> <ul style="list-style-type: none"> Complete my examination by taking a history from this patient 	
<p><i>Quick Interpretation</i></p>	<p>Weak Elbow Ext. (Triceps)</p>	<p>Wrist Drop (ECRL, BR)</p>	<p>Finger Drop (EDC, EPL)</p>	<p>Sensory Loss</p>
<p>Crutch Palsy</p>	<p>✓</p>	<p>✓</p>	<p>✓</p>	<p>✓</p>
<p>Radial Groove (Sat. Night Palsy/ Shaft #)</p>	<p>✗</p>	<p>✓</p>	<p>✓</p>	<p>✓</p>
<p>PIN Palsy</p>	<p>✗</p>	<p>✗</p>	<p>✓</p>	<p>✗</p>
<p>SRN Palsy (Wartenberg Syndrome)</p>	<p>✗</p>	<p>✗</p>	<p>✗</p>	<p>✓</p>

Ortho Made Simple - Hip PE

<h2><u>1. Inspection</u></h2> <ul style="list-style-type: none"> Expose to underwear (must offer) On Standing <ul style="list-style-type: none"> Walk around patient Look for scars, erythema, pelvic obliquity, obvious LLD On Walking (Gait) <ul style="list-style-type: none"> Comment on presence/ use of walking aid Type of gait - antalgic, Trendelenburg, stiff hip, short leg gait, foot drop <p>Interpretation: ALLD = 0, TLLD = 0 → No LLD ALLD = 0, TLLD = x → Complete compensation ALLD = x, TLLD = x → No Compensation ALLD < TLLD → Incomplete compensation ALLD > TLLD → Shortening + Ipsilateral Adduction contracture</p>	<h2><u>2. Special Tests I</u></h2> <ul style="list-style-type: none"> Standing - Trendelenburg Test (*Know causes) <ul style="list-style-type: none"> Demonstrate and explain to patient before execution (to flex the knee backwards) Squat in front of patient, hold ASIS and iliac crest with both thumbs, ask patient to hold your forearms Benefit: 3 point assessment: visual, pressure tactile on forearm and tactile on thumb Interpretation: Hip will droop on contralateral side Lie Patient down - Limb Length Measurement Sequence <ul style="list-style-type: none"> <i>“While patient is in his natural lying state, I will check for Apparent Limb length Discrepancy (ALLD) first”</i> Check ALLD from Xiphisternum to tip of medial malleolus (MM) Regardless of ALLD, square the pelvis and place contralateral limb in same position. <i>“I will now check for True LLD (TLLD)”</i> Check TLLD from ASIS to MM <ul style="list-style-type: none"> If No TLLD → End. Proceed to ROM If TLLD Present → Proceed to evaluate site of shortening 	<h2><u>2. Special Tests I (Cont'd)</u></h2> <ul style="list-style-type: none"> Site of Shortening Evaluation <ul style="list-style-type: none"> Start with Galeazzi - be intentional in aligning heels, look at the side. <ul style="list-style-type: none"> If tibia shortening → End. Proceed to ROM If femur shortening → Proceed with Bryant’s Triangle to evaluate if shortening is proximal or distal to Trochanters Bryant’s triangle - Thumb at ASIS, Index Finger drop perpendicular from ASIS, Middle Finger at GT. Compare distance between Index and Middle fingers. <ul style="list-style-type: none"> If no difference → Shortening is distal to GT e.g. shaft If shorter → Shortening is proximal to GT e.g. neck 	<h2><u>4. Range of Motion</u></h2> <ul style="list-style-type: none"> Passively extend knee to full - comment <i>“No Fixed Flexion Deformity in knee”</i> <ul style="list-style-type: none"> If Knee FFD present, hang leg off the bed for Thomas Test Do Thomas test to evaluate FFD at hip <ul style="list-style-type: none"> Hand under lumbar spine Flex both hips till lordosis obliterated Ask patient to assist in holding the knee of the normal side (can ask examiner to assist if patient is frail) → This fixes the pelvis Extend leg that you are checking With lordosis still obliterated (i.e. Pelvis is still fixed), if thigh of affected leg is elevated off the couch (not full extension) = FFD present Check Flexion - flex hip while holding <i>ipsilateral</i> ASIS Check Abduction and Adduction while holding <i>contralateral</i> ASIS Check Internal and External Rotation <p><i>*Examine only affected side unless asked to compare</i></p>
<h2><u>5. Power</u></h2> <ul style="list-style-type: none"> NIL 	<h2><u>5. Special Tests II</u></h2> <ul style="list-style-type: none"> Hip impingement tests <ul style="list-style-type: none"> FABER (Groin pain) - Flex, Abduction, ER FADIR (Groin pain) - Flex, Adduction, IR 	<h2><u>6. Neurovascular</u></h2> <ul style="list-style-type: none"> DP and PT pulses Dorsiflex foot against resistance to evaluate for foot drop 	<h2><u>8. Complete/ Offer</u></h2> <ul style="list-style-type: none"> Lumbar Spine Examination

Ortho Made Simple - Knee PE

<h2>1. Inspection</h2> <ul style="list-style-type: none"> Expose, on Standing - Walk around the patient <ul style="list-style-type: none"> Front - Varus/ Valgus/ Scars, Patella squint Side - Flexion deformities Back - Popliteal swelling On Walking (Gait) <ul style="list-style-type: none"> Comment on presence/ use of walking aid Type of gait e.g., varus thrust, antalgic 	<h2>2. Special Tests I</h2> <ul style="list-style-type: none"> On Sitting at edge of bed [Do only in young patient suspecting patella instability] <ul style="list-style-type: none"> J-sign (individually) Feel for Crepitus when returning to flexion On lying Supine <ul style="list-style-type: none"> Temp/ Warmth [Compare to other leg] Knee Effusion Tests in sequence <ul style="list-style-type: none"> Fluid bulge test [If -ve, comment "will not proceed with Cross fluctuance and Patella tap] Cross fluctuance Patellar tap Patella OA tests - Medial and lateral facet tenderness, Crepitus if not done, Patella grind and Clark's Test [offer as painful] Apprehension test [In young patients suspecting patella instability] 	<h2>3. Range of Motion</h2> <ul style="list-style-type: none"> Ask patient to do a Active Straight Leg Raise - look at side for flexion deformity <ul style="list-style-type: none"> If not full extension, extend Passively for patient <ul style="list-style-type: none"> If still cannot extend fully = "Fixed Flexion Deformity" (FFD) If can extend fully passively = "extension lag" With knee extended, flex knee to check Flexion At the end of flexing knee, do a Hip screen by internally and externally rotate the hip and ask for pain. "Hip is non tender on screening" 	<h2>4. Palpation</h2> <ul style="list-style-type: none"> Put knee back to 90 deg on couch and place other knee in same position <ul style="list-style-type: none"> Be deliberate in aligning heels Look from side while holding on to the foot in position - comment on posterior sag Sit on both feet Palpate knee systematically with one finger <ul style="list-style-type: none"> Tibial Tuberosity → Patellar tendon → Patella → Superior Pole → Medial and Lateral joint Line → Gerdy's Tubercle → Fibula Head
<h2>5. Power</h2> <ul style="list-style-type: none"> NIL 	<h2>6. Special Tests II</h2> <ul style="list-style-type: none"> Knees still bent while you are sitting on the feet <ul style="list-style-type: none"> Medial tibial step off (loss = PCL tear) Posterior Drawer Test (Do first to prevent false positive anterior drawer test) Anterior Drawer Test Leg in Extension <ul style="list-style-type: none"> Lachman at 30 deg MCL at 0 and 30 degrees LCL at 0 and 30 deg If ACL/ PCL tests positive (Postgrad) <ul style="list-style-type: none"> Recurvatum Test Turn Prone for Dial Test 	<h2>7. Neurovascular</h2> <ul style="list-style-type: none"> DP and PT pulses Ask patient to dorsiflex foot against you, comment "no foot drop" 	<h2>8. Complete/ Offer</h2> <ul style="list-style-type: none"> Hip examination

Ortho Made Simple - Foot and Ankle PE

1. Inspection I - Standing

On Standing - need to describe a few sentences while walking around patient (front, side, back)

- **System** - Forefoot, Midfoot, Hindfoot
- **ALL** - ulcers, callus, erythema, scars
- **Pes Planus** - too many toes sign, loss of medial arch, hindfoot valgus
- **Hallux Valgus** - Big toe Lateral deviation, media deviation of MT, Varus deformity of 1 st MT, Pronation of hallux, Overriding 2nd toe, Hammer toes + **Pes Planus findings**
- **Pes Cavus** - claw toes, peek-a-boo heel, Wasting of entire unilateral limb (Polio), high arch, hindfoot varus
- **Hallux Rigidus** - Dorsal bunion
- **Charcot** - deformity e.g. rocker bottom

2. Inspection II - Gait

Comment on use of walking aid/ special boot or shoes, type of gait (observe for and comment if negative)

- **ALL** - comment on use of walking aid, special shoes, stable?, antalgic?
- **Pes Planus** - flat ground contact with loss of propulsion
- **Hallux Valgus** - look for gait a/w **pes planus**
- **Pes Cavus** - look for high steppage gait due to foot drop (polio), hands on thigh gait (polio), broad based (CMT)
- **Hallux rigidus** - walking on lateral border of foot, loss of big toe push off
- **Charcot** - broad based (Tabes)

3. Special Tests I - Standing

After patient walks back and still standing

- **Pes Planus** (Test in Sequence)
 - Double Tiptoe (Flexible vs Rigid)
 - Jack's test (Flexible vs Rigid)
 - Single Tiptoe Test (Strength of PT)
- **Hallux Valgus** - Do tests for **Pes Planus** (likely present)
- **Pes Cavus**
 - Look at back for Spinal Dysraphism
 - Coleman Block Test (Flexible vs Rigid)
- **Hallux Rigidus** - Tests for **Pes Planus** (if present)
- **Charcot** - Romberg test for tabes dorsalis

4. Inspection III - Sit + Shoes

- Sit the Patient down, you assume a squatting position
- While patient is sitting down, this is the cue to **pick up shoes** and comment on them
 - Comment on sole wear
 - Comment on presence of insoles
 - Charcot - comment on the boot (CROW)
- Lift up patient's foot, and look at the **bottom of the foot**
 - Look for callus (transfer metatarsalgia callus), ulcers, scars, open and look at web spaces

4. Palpation and Selective ROM

Palpate areas that you think are involved and painful.

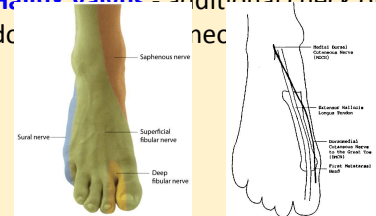
- **Pes Planus** - P. medial arch for tenderness
- **Hallux Valgus** - Palpate (P.) bunion, correctability, MTPJ ROM
- **Pes Cavus** - P. medial arch for tenderness
- **Hallux Rigidus** - P. IPJ for tenderness, MTPJ ROM, IPJ ROM
- **Charcot** - P. deformities for tenderness
- **Ankle instability** (if so far nothing at all)
 - P. for Ottawa Ankle rules
 - P. ATFL/ CFL
- **4 other ROM to check (if asked only)**
 - Tibiotalar Joint - F/E
 - Subtalar - I/E
 - Chopart joint - P/S
 - Midfoot/ Lisfranc joint - Abd, Add, PF, DF

6. Special Tests II + Selective Power

- **ALL** - Silfverskiold Test
- **Pes Planus**
 - Check PTT in PF & Inv. (weak/pain)
- **Hallux Valgus**
 - Grind Test (painful)
 - Do **Pes Planus** tests if present
- **Pes Cavus**
 - Check ATT in DF & Inv. (weak/pain)
 - Check PB in DF & Ev. (weak/pain)
- **Hallux Rigidus**
 - Grind test (painful)
- **Charcot**
 - Monofilament Test
- **Ankle Instability**
 - Anterior Drawer test
 - Talar Tilt
 - Check PL in PF & Ev. (Weak/ pain/ sublux)

7. Neurovascular

- DP and PT pulses
- **General nerves** - check and comment quickly
 - Deep Peroneal - first web space
 - Superficial Peroneal - dorsum
 - Sural - lateral foot border
 - Saphenous - Medial malleolus
- **Hallux Valgus** - additional check of distribution



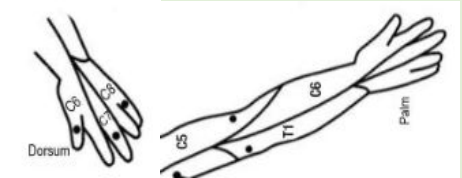
The diagram shows the distribution of nerves on the foot. On the left, a photograph of a foot highlights the locations of the Saphenous nerve (medial malleolus), Sural nerve (lateral border), Superficial Tibial nerve (dorsum), and Deep Tibial nerve (medial ball). On the right, a schematic diagram labels the Medial Nerve (Saphenous Nerve), Lateral Nerve (Sural Nerve), and Medial Nerve (Superficial Tibial Nerve).
- **Pes Cavus** - Peripheral numbness (CMT)
- **Charcot** - already done monofilament test, if not check for peripheral neuropathy.

8. Complete/ Offer

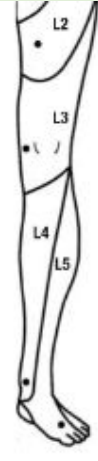
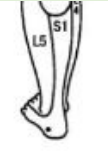
If blankout, just mention take history to assess function

- **Pes Planus** - history for function, beighton score
- **Hallux Valgus** - history for function
- **Pes Cavus** - Look at hands (for dorsal guttering in CMT), Look at hands for opponens wasting (polio)
- **Hallux Rigidus** - history to rule out gout
- **Charcot** - full neurological exam, history for DM control and other complications

Ortho Made Simple - Cervical Spine PE

<h2><u>1. Inspection</u></h2> <ul style="list-style-type: none"> Expose Patient (offer) On Standing, Walk around patient <ul style="list-style-type: none"> Front - scars Side - Kyphosis, lordosis Back - scars Generally, look for scars, erythema, sinuses, deformities and features of Ankylosing Spondylitis! On Walking (Gait) <ul style="list-style-type: none"> Comment on walking aids Broad based/ Unsteady 	<h2><u>2. Special Tests I</u></h2> <ul style="list-style-type: none"> Romberg Test <ul style="list-style-type: none"> Feet together Close eyes Be prepared to catch patient if he becomes very unsteady Tandem Gait - be prepared to catch patient if he becomes very unsteady 	<h2><u>3. Range of Motion</u></h2> <ul style="list-style-type: none"> Either sit or keep standing Check 3 movements <ul style="list-style-type: none"> Flexion/ Extension - "chin to chest" Side bending - "ears to shoulder" Side Rotation 	<h2><u>4. Palpation</u></h2> <ul style="list-style-type: none"> Palpate for central tenderness and paraspinal tenderness
<h2><u>5. Power, Sensation, Reflexes</u></h2> <ul style="list-style-type: none"> Use ASIA Score: Power <ul style="list-style-type: none"> C5 - elbow flexion C6 - wrist extension C7 - elbow extension C8 - finger flexion T1 - finger abduction Sensation (follow the dots)  <ul style="list-style-type: none"> Reflexes <ul style="list-style-type: none"> Biceps Triceps Inverted Supinator 	<h2><u>6. Special Tests II</u></h2> <ul style="list-style-type: none"> Hoffmann's <ul style="list-style-type: none"> Flick middle finger Watch for flexion of the thumb and index fingers Grip Release Test <ul style="list-style-type: none"> Check your watch for 10 seconds and count > 20 = normal Finger Escape <ul style="list-style-type: none"> Ask patient to hold both hands out with fingers extended and adducted, maintain for 30s Positive = Little finger spontaneously abducts due to weakness of intrinsic muscle 	<h2><u>7. Neurovascular</u></h2> <ul style="list-style-type: none"> Radial pulse 	<h2><u>8. Complete/ Offer</u></h2> <ul style="list-style-type: none"> Offer lumbar spine exam to look for "tandem stenosis" Offer to test function - button clothes, writing Offer Spurling's and Lhermitte's, knowing they cause pain <ul style="list-style-type: none"> Spurling = A test for radiculopathy. Axial compression, neck extension with rotation and lateral flexion to the side of the symptoms Lhermitte's = A test for myelopathy. Ask patient to flex the neck maximally. A positive test shows an electrical "type" sensation down the spine, possibly extending into the extremities near the end range of flexion. Offer to do Digital Rectal Exam (DRE)

Ortho Made Simple - Lumbar Spine PE

<p><u>1. Inspection</u></p> <ul style="list-style-type: none"> • Expose Patient (offer) • On Standing, Walk around patient <ul style="list-style-type: none"> • Front - Scars • Side - Kyphosis, lordosis • Back - Scars • Generally, look for scars, erythema, sinuses, deformities • On Walking (Gait) <ul style="list-style-type: none"> • Comment on walking aids • Broad based/ Unsteady 	<p><u>2. Special Tests I</u></p> <p>NIL</p>	<p><u>3. Range of Motion</u></p> <ul style="list-style-type: none"> • While standing, Check 3 movements <ul style="list-style-type: none"> • Flexion and Extension • Side bending (touch knee at side) • Stabilize pelvis and ask patient rotate • If limited in flexion, do Schober's Test <ul style="list-style-type: none"> • Feel for PSIS, visualize horizontal line, measure 10cm above • Hold the measuring tape <i>proximally</i>, ask patient to flex • Locate the same horizontal line at level of the PSIS • If < 5cm increase, Schober is +ve 	<p><u>4. Palpation</u></p> <ul style="list-style-type: none"> • "Let me know if there is any pain" • Palpate for central tenderness/ paraspinal tenderness
<p><u>5. Power, Sensation, Reflexes</u></p> <ul style="list-style-type: none"> • Use ASIA Score, compare both sides • Power <ul style="list-style-type: none"> • L2 - Hip flexion • L3 - Knee extension • L4 - Ankle dorsiflexion • L5 - Big toe dorsiflexion • S1 - Ankle plantarflexion • Sensation (follow the dots)  • Reflexes <ul style="list-style-type: none"> • Knee • Achilles tendon • Babinski  	<p><u>6. Special Tests II</u></p> <ul style="list-style-type: none"> • Lesague's Test aka Straight Leg Raise (SLR) test (Do for both legs) <ul style="list-style-type: none"> • If Lesague's Positive → <ul style="list-style-type: none"> ■ Elicit the Bragard's sign (<i>Lower leg just below the pain threshold and the foot dorsiflexed</i>) and do ■ And Bowstring test (<i>At the point of positive SLR, slightly flex the patient's knee and apply pressure on the popliteal fossa</i>) • If Lesague's Negative → Move on • Sacroiliac Joints - do for both sides <ul style="list-style-type: none"> • FABER test looking for pain in the buttock 	<p><u>7. Neurovascular</u></p> <ul style="list-style-type: none"> • DP, PT pulses in the lower limbs (Acceptable to just feel for DP bilaterally) 	<p><u>8. Complete/ Offer</u></p> <ul style="list-style-type: none"> • Offer cervical spine exam to look for "tandem stenosis" • Offer to do Digital Rectal Exam (DRE)

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Physical examination 8-step **framework** with **explanations** and **run-through** videos for each major musculoskeletal region, complemented by textbook readings, **quizzes**, and **Q&A**



70-minute lecture video covering **X-rays** of all major musculoskeletal regions, explaining important **special views**, **lines**, and **anatomical structures**. Supplementary **quizzes** and **flashcards** for reinforcement

