

### Cardiovascular Exam

Sequence	To Examine
<b>Position</b>	Lying at 45 degrees
<b>General inspection</b>	Temperature Syndromes - Marfan's, Turner's, Down's Dyspnea Rheumatological disorders (eg. Ank spond)
<b>Hands</b>	Radial pulses - bilateral, collapsing Radiofemoral delay Clubbing Cyanosis Stigmata of infective endocarditis Xanthomata
<b>Blood pressure</b>	
<b>Face</b>	Malar flush (MS, PS) Eyes <ul style="list-style-type: none"> <li>• Sclerae - pallor, jaundice</li> <li>• Pupils - Argyll Robertson (AR)</li> <li>• Xanthelasma</li> </ul> Mouth - cyanosis, high-arched palate, dentition
<b>Neck</b>	JVP - height, waveform (large v waves) Carotids - pulse character
<b>Precordium</b>	Inspect <ul style="list-style-type: none"> <li>• Scars, deformity</li> <li>• Pacemakers</li> <li>• Apex beat - position, character</li> <li>• Abnormal pulsations</li> </ul> Palpate <ul style="list-style-type: none"> <li>• Apex beat - position, character</li> <li>• Thrills</li> <li>• Abnormal impulses</li> </ul>
<b>Auscultate</b>	Heart sounds Murmurs Positioning <ul style="list-style-type: none"> <li>• Left lateral position</li> <li>• Sitting forward</li> </ul> Dynamic auscultation <ul style="list-style-type: none"> <li>• Respiratory phases</li> <li>• Valsalva</li> <li>• Isometric exercise (eg. Handgrip)</li> </ul>
<b>Back</b>	Inspect - scars, deformity Palpate - sacral edema Percuss - pleural effusion Auscultate - LVF
<b>Abdomen</b>	Liver, spleen, aorta Percuss for ascities Femoral arteries - palpate, auscultate
<b>Lower limbs</b>	Peripheral pulses Signs of peripheral vascular disease - colour, temp, trophic changes, ulceration Edema Calf tenderness
<b>Other</b>	Urinalysis - hematuria Fundi

### Respiratory Exam

Sequence	To Examine
<b>Position</b>	Sitting up over side of bed (if not acutely ill); Undress to waist
<b>General inspection</b>	Temperature Sputum - volume, pus, blood Cough - loose / dry / bovine Breathing - rate, pattern, dyspnea Accessory muscle use Cachexia Stridor Hoarseness
<b>Hands</b>	Clubbing Cyanosis Nicotine staining Wasting, weakness
<b>Wrist and arms</b>	Pulse - tachycardia, pulsus paradoxus (BP) Wrist tenderness (HPO) Flapping tremor
<b>Face</b>	Facial plethora / cyanosis - smoker, SVC obstruction Eyes - Horner's, anemia Mouth - central cyanosis
<b>Trachea / Neck</b>	Tracheal deviation, tug JVP
<b>Chest posterior</b>	Inspect <ul style="list-style-type: none"> <li>• Chest shape and symmetry</li> <li>• Spine kyphosooiosis</li> <li>• Scars</li> </ul> Palpate <ul style="list-style-type: none"> <li>• Cervical nodes</li> <li>• Expansion - upper lobes and lower lobes</li> </ul> Percuss Auscultate <ul style="list-style-type: none"> <li>• Breath sounds</li> <li>• Vocal resonance</li> </ul>
<b>Chest anterior</b>	Inspect <ul style="list-style-type: none"> <li>• Deformity</li> <li>• Radiotherapy marks</li> <li>• Scars</li> </ul> Palpate <ul style="list-style-type: none"> <li>• Apex beat displacement, RV heave</li> <li>• Subcutaneous emphysema</li> <li>• Supraclavicular nodes</li> <li>• Expansion</li> </ul> Percuss <ul style="list-style-type: none"> <li>• Supraclavicular, clavicle, axillae</li> <li>• Cardiac dullness</li> </ul> Auscultate <ul style="list-style-type: none"> <li>• Heart sounds (P2)</li> <li>• Breath sounds and resonance</li> </ul>
<b>Liver</b>	Ptosis (liver dullness, palpation), hepatomegaly
<b>Lower limbs</b>	Edema Cyanosis, clubbing Signs of DVT
<b>Dynamic maneuvers / other</b>	Forced expiratory time PEFR / Spirometry Pemberton's sign (1 min)

### Gastrointestinal System

Sequence	To Examine
<b>Position</b>	Lying flat
<b>General inspection</b>	Jaundice Weight / cachexia Temperature Pigmentation (HFE) Mental state
<b>Hands</b>	Nails - clubbing, leuconychia Palms - palmar erythema, anemia, Dupuytren's
<b>Arms</b>	Hepatic flap Spider naevi Bruising Scratch marks
<b>Face</b>	Eyes <ul style="list-style-type: none"> <li>• Sclerae - jaundice, anemia, iritis</li> <li>• Cornea - Kayser-Fleischer rings</li> </ul> Parotids Mouth <ul style="list-style-type: none"> <li>• Feter hepaticus</li> <li>• Dentition</li> <li>• Stomatitis, pigmentation, telangiectasia</li> <li>• Leucoplakia, glossitis, ulcers</li> </ul>
<b>Neck</b>	Cervical (esp L supraclavicular) / axillary lymph nodes
<b>Chest</b>	Gynaecomastia Spider naevi
<b>Abdomen</b>	Inspect from standing <ul style="list-style-type: none"> <li>• Scars</li> <li>• Distension</li> <li>• Prominent veins</li> <li>• Striae</li> <li>• Bruising</li> </ul> Inspect from squatting <ul style="list-style-type: none"> <li>• Localised masses</li> <li>• Hepatic, splenic, gallbladder outlines</li> </ul> Palpate (ask if pain anywhere first) <ul style="list-style-type: none"> <li>• Superficial - tenderness, rigidity, outline of any mass</li> <li>• Deep - organomegaly (liver, spleen, kidney), define any mass</li> </ul> Percuss <ul style="list-style-type: none"> <li>• Liver, spleen</li> <li>• Ascites - shifting dullness</li> </ul> Auscultate <ul style="list-style-type: none"> <li>• Bowel sounds</li> <li>• Bruits, hums, rubs</li> </ul>
<b>Groin</b>	Testes Lymph nodes Hernial orifices (standing and cough)
<b>Lower limbs</b>	Bruising Edema Neurological signs (alcohol)
<b>Other</b>	Rectal exam Urinalysis (bile) Vomitus, feces Cardiovascular exam - JVP, cardiomyopathy, cardiac failure, constrictive pericarditis Sacral edema Pleural effusion

### Groin Examination

Sequence	To Examine
<b>STANDING</b>	
<b>Inspection from front</b>	Exact site Shape Extension into scrotum
<b>Palpation from front</b>	Examine scrotum and contents Differentiate from scrotal lump (can get above this)
<b>Palpation from side</b> <ul style="list-style-type: none"> <li>Stand on affected side</li> <li>1 hand supports small of back</li> <li>Examining hand parallel to inguinal ligament</li> </ul>	Lump characteristics <ul style="list-style-type: none"> <li>Position</li> <li>Tenderness</li> <li>Size and shape</li> <li>Tension</li> <li>Composition</li> </ul> Expansile cough impulse Reducibility
<b>Percuss and auscultate lump</b>	
<b>Palpation from other side</b>	Cough impulse
<b>LYING DOWN</b>	
<b>Abdomen</b>	Causes of raised intra-abdominal pressure <ul style="list-style-type: none"> <li>Ascites</li> <li>Large bladder</li> <li>Chronic intestinal obstruction</li> <li>Pregnancy</li> </ul>
<b>Other</b>	Cardio-respiratory exam for fitness for surgery

### Gait Examination

Sequence	To Examine
<b>Position</b>	Standing (legs fully exposed)
<b>General inspection</b>	Deformity Diagnostic facies Upper limb lesions Wasting Fasciculations Abnormal movements
<b>Walk the patient</b>	Walk normally and turn around quickly (abnormal gait) Heel-toe walking (midline cerebellar lesion) Walk on toes (S1 lesion) Walk on heels (L4 or L5 lesion)
<b>Squat</b>	Squat / sit then stand up (proximal myopathy)
<b>Romberg's sign</b>	Feet together with: <ul style="list-style-type: none"> <li>Eyes closed (posterior columns)</li> <li>Eyes open (cerebellar disease)</li> </ul>
<b>Lower limbs</b>	Tone Power Coordination Reflexes Sensation

### Cranial Nerve Exam

Sequence	To Examine
<b>Position</b>	Sit over edge of bed
<b>General inspection</b>	Craniotomy scars, neurofibromas Facial asymmetry Ptosis Proptosis Eye deviation, anisocoria
<b>I</b>	“Coffee smell like coffee?”
<b>II</b>	VA - chart, counting fingers, hand movements, light perception VF Fundoscopy
<b>III, IV, VI</b>	Pupils <ul style="list-style-type: none"> <li>• Direct and consensual light reflex</li> <li>• Afferent pupillary defect</li> <li>• Accommodation</li> </ul> Eye movements <ul style="list-style-type: none"> <li>• Failure of movement</li> <li>• Diplopia</li> <li>• Nystagmus</li> </ul>
<b>V</b>	Corneal reflex Sensory - pinprick, light touch Motor - masseter, pterygoids Jaw jerk
<b>VII</b>	Look up Close eyes tightly Puff out cheeks Show teeth
<b>VIII</b>	High-pitched “68” Low-pitched “100” Weber and Rinne test (256Hz tuning fork)
<b>IX, X</b>	Uvular displacement “Ah” Gag reflex Cough Hoarseness
<b>XII</b>	Wasting, fasciculations Deviation
<b>XI</b>	Shrug shoulders - feel trapezius Turn head either side - feel contralateral sternomastoids
<b>Other</b>	Carotid bruits

### Upper Limb and Lower Limb Exams

Sequence	Upper limbs	Lower limbs
<b>General inspection</b>	Wasting Fasciculations Tremor Pseudoathetosis Skin - scars, neurocutaneous stigmata	Stance and gait Urinary catheter Wasting Fasciculations Skin - scars, neurocutaneous stigmata
<b>Specific for limbs</b>	Upper arm drift <ul style="list-style-type: none"> <li>• Cerebellar - drift upwards</li> <li>• UMN - drift downwards</li> <li>• Proprioception loss - pseudoathetosis</li> </ul>	Gait <ul style="list-style-type: none"> <li>• Walk normally</li> <li>• Heel-to-toe</li> <li>• Walk on toes</li> <li>• Walk on heels</li> </ul> Squat and stand Romberg test
<b>Tone</b>	Palpate muscle bulk and tenderness Wrists and elbows	Palpate muscle bulk and tenderness Knees and ankles Clonus
<b>Power</b>	Shoulders - abduction, adduction Elbows - flexion, extension Wrists - flexion, extension Fingers - grip, extension, abduction, adduction  As indicated: <ul style="list-style-type: none"> <li>• Froment's sign</li> <li>• Pen-touching test</li> </ul>	Hips - flexion, extension, abduction, adduction Knees - flexion, extension Ankles - dorsiflexion, plantar flexion Tarsal joints - inversion, eversion
<b>Coordination</b>	Finger-nose test Diadochokinesis Rebound	Heel-shin test Toe-finger test Diadochokinesis
<b>Reflexes</b>	Brachioradialis (C5,6) Biceps (C5,6) Triceps (C7,8)	Knee (L3,4) Ankle (S1,2) Plantar response (L5,S1,2)
<b>Sensation</b>	Fit into: dermatomal (cord or nerve root), peripheral nerve, peripheral neuropathy, hemisensory (cortical or cord)	
	Pinprick Vibration (128Hz) Proprioception Light touch	Pinprick Vibration (128Hz) Proprioception Light touch
<b>Other</b>	Thickened nerves Neck Axillae  Rest of neuro exam Urinalysis	Perianal tone and sensation Back - scars, deformity, neurofibromas, tenderness SLR  Rest of neuro exam Urinalysis

### Myotomes

Joint	Movement	Muscle Group	Myotome
<b>Shoulder</b>	Abduction	Deltoid, supraspinatus	C5,6
	Adduction	Pectoralis major, latissimus dorsi	C6,7,8
<b>Elbow</b>	Flexion	Biceps, brachialis	C5,6
	Extension	Triceps	C7,8
<b>Wrist</b>	Flexion	FCU, FCR	C6,7
	Extension	Extensor carpi group	C7,8
<b>Finger</b>	Flexion	FDS, FDP	C7,8
	Extension	Extensor digitorum, indicis, digiti minimi	C7,8
	Abduction / Adduction	Dorsal and volar interossei	C8,T1
<b>Hip</b>	Flexion	Psoas, iliacus	L2,3
	Extension	Gluteus maximus	L5,S1,2
	Abduction	gluteus medius, minimus, sartorius, tensor fascia lala	L4,5,S1
	Adduction	Adductors longus, brevis, magnus	L2,3,4
<b>Knee</b>	Flexion	Hamstrings	L5,S1
	Extension	Quadiceps femoris	L3,4
<b>Ankle</b>	Dorsiflexion	Tibialis anterior, EDL, EHL	L4,5
	Plantar flexion	Gastrocnemius, plantaris, soles	S1,2
<b>Tarsal joint</b>	Inversion	Tibialis posterior, gastrocnemius, FHL	L5,S1
	Eversion	Peroneus longus and brevis, EDL	L5,S1

### Shoulder Girdle Exam

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Sequence	To Examine
Position	Standing
General inspection	Back, front, Horner's Scars Fasciculations
Palpation	Muscle bulk
<b>FROM BACK</b>	
Trapezius (XI, C3,4)	Shrug shoulders
Serratus anterior (C5-7)	Push against wall
Rhomboids (C4,5)	Pull both shoulder blades together (hands on hips)
Supraspinatus (C5,6)	Abduct arms from sides
Infraspinatus (C5,6)	External rotation
Teres major (C5-7)	Internal rotation
Latissimus dorsi (C7,8)	Cough and palpate both sides
<b>FROM FRONT</b>	
Pec major (clav head) (C5-8)	Lift upper arms above horizontal and push forward
Pec major (sc head) (C6-T1)	Adduct upper arms
Deltoid (C5,6)	Abduct arms starting 15 degrees from sides



### Cerebellar / Vertigo Exam

Sequence	To Examine
<b>Gait</b>	Stagger towards affected side Romberg's test (unsteady with eyes open)
<b>Eyes</b>	Nystagmus (increased towards side of lesion)
<b>Speech</b>	"British Constitution" or "West Register Street" (midline lesion) (Jerky, explosive, loud, irregular separation of syllables)
<b>Sitting up</b>	Truncal ataxia (fold arms and sit up) - midline lesion Pendular knee jerks
<b>Upper limbs</b>	Arm drift Test tone Finger-nose test (intention tremor or past pointing) Rapid alternating movements Rebound
<b>Lower limbs</b>	Tone Heel-shin test Toe-finger test Foot-tapping test
<b>Vertigo Exam Additions</b>	Check Ears and CN VIII (after eyes) Neck - movements, bruits Dix-Hallpikes Temperature BP
<b>Examine for possible causes</b>	Cranial nerves <ul style="list-style-type: none"> <li>• Cerebellopontine angle tumor (5th, 6th and 8th nerves)</li> <li>• Lateral medullary syndrome</li> </ul> Carotid bruits Peripheral signs of malignancy Upper motor neuron signs / Full Neuro

## Eye Exam

Sequence	To Examine
<b>Position</b>	Sitting up at eye level
<b>General Inspection</b>	Diagnostic facies Eyelids <ul style="list-style-type: none"> <li>• Ptosis</li> <li>• Xanthelasma</li> </ul>
<b>Exophthalmos</b>	From behind and above patient Then from front
<b>Cornea</b>	Corneal arcus Band keratopathy Kayser-Fleischer rings
<b>Sclera</b>	Jaundice / Blue Pallor Injection
<b>Neurological exam</b>	CN II <ul style="list-style-type: none"> <li>• VA, VF, ophthalmoscopy / fundoscopy</li> </ul> Pupils <ul style="list-style-type: none"> <li>• Shape, size, symmetry</li> <li>• Light reflex - direct and consensual</li> <li>• RAPD</li> <li>• Accommodation</li> </ul> Eye Movements (CN III, IV, VI) <ul style="list-style-type: none"> <li>• Movement, diplopia, nystagmus</li> <li>• Gaze palsies</li> <li>• Fatiguability (myasthenia)</li> <li>• Lid lag</li> </ul> Corneal Reflex (V)
<b>Orbits</b>	Palpate <ul style="list-style-type: none"> <li>• Tenderness</li> <li>• Brow for anhidrosis</li> </ul> Listen for bruit (eyes closed, stop breathing)
<b>Proceed depending on findings</b>	Other cranial nerves Long tract signs Thyroid exam Urinalysis (diabetes)  <b>HORNER'S SYNDROME EXAM</b> <ul style="list-style-type: none"> <li>• Feel brow - anhidrosis</li> <li>• CNs for lateral medullary syndrome - nystagmus, ipsi V (P&amp;T), IX, X, cerebellar, contralat P&amp;T trunk and limbs</li> <li>• Speak - hoarseness</li> <li>• Neck - LNs, thyroid, carotid aneurysm / bruit</li> <li>• Hands - clubbing, intrinsic muscle wasting</li> <li>• Respiratory - apical Ca</li> <li>• Syringomyelia - dissociated sensory loss (rare)</li> </ul>

### Higher Centres Exam

Sequence	To Examine
<b>Position</b>	Lying or sitting
<b>General Inspection</b>	Diagnostic facies Obvious CN or limb lesions Shake hands Ask about handedness
<b>Orientation</b>	Time, place, person (ask patient's name, present location and date)
<b>Speech</b>  (Assess dysarthria, dysphonia, dysphasia)	Nominal dysphasia (watch, pen) Fluency (describe room, clothes, job or daily activities) Comprehension (1- and 2-step commands "touch your chin, then your nose") Repetition ("no ifs, ands or buts") "British Constitution"
<b>Parietal lobes</b>	Dominant (ALF or Gerstmann's syndrome) <ul style="list-style-type: none"> <li>• Acalculia (serial 7s))</li> <li>• Agraphia (ask patient write)</li> <li>• Left-right disorientation ("touch your left ear with your right hand" and vice versa)</li> <li>• Finger agnosia (name fingers)</li> </ul> Both <ul style="list-style-type: none"> <li>• Sensory inattention</li> <li>• Visual inattention + VF</li> <li>• Cortical sensory loss</li> <li>• (agraphaesthesia, astereognosis, loss of 2-point discrimination and proprioception)</li> <li>• Constructional apraxia (draw clock face)</li> </ul> Non-dominant <ul style="list-style-type: none"> <li>• Dressing apraxia (turn pyjama top inside out and ask patient to put it on correctly)</li> </ul>
<b>Temporal lobe</b>	Short-term (3 flowers: rose, orchid, tulip "ROT") - repeat immediately Long-term (WW II end)
<b>Frontal lobe</b>	Reflexes (normally not present in adults) <ul style="list-style-type: none"> <li>• Grasp (run fingers across patient's palm, patient grasps fingers)</li> <li>• Pout (stroking above upper lip causes pouting)</li> <li>• Palmomental (contraction of orbicularis oris when thenar eminence stroked)</li> </ul> Proverb interpretation ("A rolling stone gathers no moss") Smell Fundi (rare Foster Kennedy syndrome - ipsilat optic atrophy, contralat papilloedema) Gait apraxia
<b>Other</b>	Visual fields Bruits BP Recall 3 flowers

### Speech Exam

Sequence	To Examine	Differential Diagnosis
<b>Determine if:</b> <ul style="list-style-type: none"> <li>Dysphasia, dysarthria or dysphonia</li> </ul>	Ask name, age and present location Say "British Constitution"	
<b>Dysphasia</b>	Fluent speech <ul style="list-style-type: none"> <li>Name objects</li> <li>Repetition</li> <li>Comprehension</li> <li>Reading</li> <li>Writing</li> </ul>	Receptive, conductive or nominal <ul style="list-style-type: none"> <li>Poor with all of above</li> <li>Poor with conductive and receptive</li> <li>Poor with receptive</li> <li>Poor with conductive and receptive</li> <li>Conductive (dysgraphia), receptive (abnormal content)</li> </ul>
	Non-Fluent speech <ul style="list-style-type: none"> <li>Name objects</li> <li>Repetition</li> <li>Comprehension (verbal and written)</li> <li>Writing</li> <li>Hemiparesis</li> </ul>	Usually expressive dysphasia (frustrated) <ul style="list-style-type: none"> <li>Poor (may be better than spont speech)</li> <li>Poor or possible with great effort</li> <li>Near normal</li> <li>May have dysgraphia</li> <li>UL &gt; LL</li> </ul>
<b>Dysarthria</b>	Say <ul style="list-style-type: none"> <li>"British Constitution"</li> <li>"West Register Street"</li> <li>"Me Me Me"</li> <li>"Lah Lah Lah"</li> </ul> Proceed depending on findings: <ul style="list-style-type: none"> <li>Cerebellar exam</li> <li>Lower cranial nerves (nb. Jaw jerk)</li> <li>Inspect mouth for lesions</li> </ul>	Cerebellar <ul style="list-style-type: none"> <li>Scanning (irreg and staccato) or slurred</li> </ul> Pseudobulbar palsy <ul style="list-style-type: none"> <li>Slow, hesitant, hollow-sounding speech</li> <li>Harsh, strained voice</li> </ul> Bulbar palsy <ul style="list-style-type: none"> <li>Nasal speech, imprecise articulation</li> </ul> Extrapyrmidal disease Myopathies Local mouth lesions (eg. Ulcers)
<b>Dysphonia</b>	Husky voice Quality of cough	Laryngeal disorder Recurrent laryngeal nerve palsy Focal dystonia

### Parkinson's Disease Exam

Sequence	To Examine
<b>General Inspection</b>	Mask-like facies (lack of facial expression) Flexed posture Few spontaneous movements
<b>Gait and movements</b>	Rise from chair, walk, turn quickly, stop and start <ul style="list-style-type: none"> <li>• Shuffling</li> <li>• Festination (hurries)</li> <li>• Difficulty stopping</li> <li>• Lack of normal arm swing</li> </ul>
<b>Tremor and bradykinesia</b>	Resting tremor (pill-rolling) - often asymmetrical Reduces with finger-nose testing Bradykinesia <ul style="list-style-type: none"> <li>• Finger tapping</li> <li>• Twiddling</li> </ul>
<b>Tone</b>	Cogwheel or lead pipe rigidity
<b>Face</b>	Titubation (tremor) of the head Absence of blinking Dribbling Glabellar tap Autonomic dysfunction <ul style="list-style-type: none"> <li>• Brow sweatiness or seborrhea</li> </ul> Isolated weakness of upward gaze
<b>Speech</b>	Monotonous, soft, faint Palilalia
<b>Writing</b>	Micrographia
<b>Other</b>	Postural BP Frontal lobe reflexes Higher centres exam

### Hand and Wrist Exam (Rheumatological)

Sequence	To Examine
<b>Position</b>	Sitting up, hands on pillow (Expose up to elbows)
<b>General Inspection</b>	Cushingoid Weight Eyes - iritis, scleritis Obvious other joint disease
<b>Look - Dorsal aspect</b>	<p><b>Wrists</b></p> <ul style="list-style-type: none"> <li>• Skin - scars, redness, atrophy, rash</li> <li>• Swelling</li> <li>• Deformity</li> <li>• Muscle wasting</li> </ul> <p><b>MCP joints</b></p> <ul style="list-style-type: none"> <li>• Skin</li> <li>• Swelling - distribution</li> <li>• Deformity - ulnar deviation, volar subluxation</li> </ul> <p><b>PIP and DIP joints</b></p> <ul style="list-style-type: none"> <li>• Skin</li> <li>• Swelling - distribution</li> <li>• Deformity - swan necking, boutonniere, Z, Heberden's and Bouchard's nodes</li> </ul> <p><b>Phalanges</b></p> <ul style="list-style-type: none"> <li>• Sausage-shaped (psoriasis, ank spond, Reiter's)</li> <li>• Arthritis mutilans (psoriasis)</li> </ul> <p><b>Nails</b></p> <ul style="list-style-type: none"> <li>• Psoriatic - pitting, ridging, onycholysis, discolouration</li> <li>• Periungual telangiectasia (SLE, scleroderma, dermatomyositis)</li> </ul>
<b>Look - Palmar aspect</b>	<p>Skin</p> <ul style="list-style-type: none"> <li>• Scars</li> <li>• Palmar erythema</li> <li>• Palmar creases (anemia)</li> </ul> <p>Muscle wasting</p>
<b>Feel and Move Passively</b>	<p><b>Wrists</b></p> <ul style="list-style-type: none"> <li>• Synovitis / Effusions</li> <li>• ROM (flexion, extn, radial / ulnar deviation)</li> <li>• Crepitus</li> <li>• Ulnar styloid tenderness</li> <li>• Radial styloid tenderness (de Quervain's tenosynovitis)</li> </ul> <p><b>MCP joints</b></p> <ul style="list-style-type: none"> <li>• Synovitis / Effusions</li> <li>• ROM</li> <li>• Crepitus</li> <li>• Subluxation</li> </ul> <p><b>PIP and DIP joints</b></p> <ul style="list-style-type: none"> <li>• As above</li> </ul> <p>Palmar tendon crepitus and trigger finger Carpal tunnel syndrome tests</p>
<b>Move Actively</b>	<p>Wrist - flexion / extension Thumb - extension / abduction / adduction / opposition with little finger MCP and IP joints</p> <ul style="list-style-type: none"> <li>• Screen - make fist and straighten fingers</li> <li>• Fingers indiidually +/- FDP and FDS if active flexion abnormal</li> </ul>
<b>Hand Function</b>	<p>Grip strength Key grip Opposition strength (with all fingers) Practical ability (undo button or write with a pen)</p>
<b>Other</b>	<p>Elbows</p> <ul style="list-style-type: none"> <li>• SC nodules</li> <li>• Psoriatic rash</li> </ul> <p>Other joints Signs of systemic disease</p>

### Hand and Wrist Exam (Orthopedic)

Sequence	To Examine
<b>Position</b>	Sitting up, hands on pillow Expose up to elbows
<b>Look</b>	Deformity Scars Discolouration Muscle wasting - esp thenar and hypothenar eminences, interossei Circulation - colour, ulcers, infections
<b>Feel</b>	Bony contours Tender areas Swellings Circulation - temperature
<b>Move</b> <b>(Active and Passive)</b>	Thumb CMC joint <ul style="list-style-type: none"> <li>• Flexion / Extension</li> <li>• Abduction / Adduction</li> <li>• Opposition</li> </ul> MCP joints <ul style="list-style-type: none"> <li>• Flexion / Extension</li> <li>• Abduction / Adduction</li> </ul> IP joints <ul style="list-style-type: none"> <li>• Flexion / Extension</li> </ul> Tendons
<b>Circulation</b>	Radial and ulnar pulses Cap refill Allen's test (occlude arteries for 10secs) Auscultate any abnormal areas BP both arms
<b>Nerve function</b> <b>(Sensory and Motor)</b>	Radial <ul style="list-style-type: none"> <li>• Finger extension at MCPJ</li> <li>• Sensation lateral aspect base of thumb</li> </ul> Median <ul style="list-style-type: none"> <li>• Thumb abduction</li> <li>• Sensation index finger</li> </ul> Ulnar <ul style="list-style-type: none"> <li>• Little finger abduction</li> <li>• Sensation little finger</li> </ul>
<b>Special tests</b>	
<b>Other</b>	Skin and connective tissues - Dupuytren's Wrist Elbow Shoulder Thoracic outlet Neck

### Neck / Thyroid Exam

Sequence	To Examine
Position	Sitting up
General Inspection	Thyrotoxicosis, myxedema Diagnostic facies Hoarseness
Neck	<b>Inspection (from front and sides)</b> <ul style="list-style-type: none"> <li>• Scars</li> <li>• Swelling</li> <li>• Prominent veins</li> <li>• Swallowing (glass of water)</li> </ul>
	<b>Palpation (from behind, neck flexed)</b> <ul style="list-style-type: none"> <li>• Thyroid enlargement - size, shape, consistency, borders, mobility</li> <li>• Thyroid tenderness</li> <li>• Thyroid thrill</li> <li>• Cervical nodes</li> </ul>
	<b>Palpation (from front)</b> <ul style="list-style-type: none"> <li>• Thyroid as above</li> <li>• Supraclavicular lymph nodes</li> <li>• Trachea</li> <li>• Carotids</li> <li>• Sternomastoid function</li> </ul>
	<b>Percuss (from L --&gt; R)</b> <ul style="list-style-type: none"> <li>• Upper manubrium</li> </ul>
	<b>Auscultate</b> <ul style="list-style-type: none"> <li>• Thyroid bruit</li> <li>• Carotid bruit</li> </ul>
Pemberton's Sign	
Proceed	<b>Signs of thyrotoxicosis / hypothyroidism</b> <b>Thyroidectomy scar - test for hypocalcemia</b> <ul style="list-style-type: none"> <li>• Chvostek's sign</li> <li>• Trousseau's sign</li> </ul> <b>Causes of localised cervical gland enlargement</b> <ul style="list-style-type: none"> <li>• Chest</li> <li>• Abdomen - hepatosplenomegaly</li> <li>• H&amp;N</li> <li>• Other lymph nodes</li> </ul>



### Thyroid Exam

Sequence	Thyrotoxicosis	Hypothyroidism
<b>Position</b>	Sitting up	Sitting up
<b>General Inspection</b>	Goitre Obvious eye disease Hoarseness	Goitre is unusual Hoarseness / slow speech
<b>Hands</b>	Thyroid acropachy Onycholysis Warm, sweaty skin Palmar erythema Pulse - tachycardia / AF / collapsing pulse Tremor	Peripheral cyanosis Swelling Dry, cool skin Palmar crease anemia Pulse - bradycardia Phalen's wrist flexion test (30sec)
<b>Arms</b>	Brisk arm reflexes Proximal myopathy	Biceps jerk - delayed relaxation Proximal myopathy
<b>Face</b>	Exophthalmos (sclera below cornea) Lid retraction (sclera above cornea) Lid lag Conjunctiva chemosis Eye movements Fundi - optic atrophy (late)  <b>From behind</b> Proptosis	General swelling, periorbital edema Loss of outer 1/3 of eyebrows Xanthelasma Skin <ul style="list-style-type: none"> <li>• Dry</li> <li>• Carotenemia</li> <li>• Vitiligo</li> <li>• Alopecia</li> </ul> Tongue swelling Nerve deafness
<b>Legs</b>	Pretibial myxedema Vitiligo Hyperreflexia Proximal myopathy	Ankle jerks Peripheral neuropathy Proximal myopathy
<b>Chest</b>	Gynaecomastia Heart <ul style="list-style-type: none"> <li>• ESM</li> <li>• CHF</li> </ul>	Pleural and pericardial effusions

### Peripheral Vascular Exam

Sequence	To Examine
Position	Lying down
General Inspection	<p><b>Colour</b></p> <ul style="list-style-type: none"> <li>• Horizontal</li> <li>• Elevated (Buerger's angle) - normal 90 degrees; ischemic leg 15-30 degrees)</li> <li>• Dependent (capillary filling time)</li> </ul> <p><b>Pressure areas</b></p> <ul style="list-style-type: none"> <li>• Heel</li> <li>• Malleoli</li> <li>• Head of 5th MT</li> <li>• Toes - tips and in between</li> <li>• Ball of foot</li> </ul> <p><b>Venous filling</b></p> <ul style="list-style-type: none"> <li>• Guttering of veins (venous collapse in ischemic foot)</li> </ul>
Palpation	<p>Temperature</p> <p>Cap refill</p> <p>Pulses</p> <ul style="list-style-type: none"> <li>• Femoral</li> <li>• Popliteal</li> <li>• Posterior tibial</li> <li>• Dorsalis pedis</li> </ul>
Auscultation	<p>Bruits</p> <ul style="list-style-type: none"> <li>• Abdomen - aortic and renal</li> <li>• Groin</li> <li>• Thigh</li> </ul>
Muscle and nerve function	<p>Glove and stocking loss</p> <p>Dorsal columns</p>
Special tests	<p>Blood pressure UL and LL</p> <p>ABIs</p> <p>Reactive hyperemia test (takes 5 mins so just mention)</p>
Other	<p>Full cardiovascular exam</p> <p>Other signs of PVD in upper limbs</p> <p><b>SIGNS OF VENOUS INSUFFICIENCY</b></p> <p><b>Inspection</b></p> <ul style="list-style-type: none"> <li>• Site and size of visible veins</li> <li>• Edema at ankles</li> <li>• Eczema and ulceration</li> </ul> <p><b>Palpation</b></p> <ul style="list-style-type: none"> <li>• Sites of fascial defects - saphenofemoral, saphenopopliteal, medial lower leg</li> <li>• Cough impulse</li> <li>• Pitting edema, tenderness</li> <li>• Tourniquet and Trendelenburg tests</li> </ul> <p><b>Percussion</b></p> <ul style="list-style-type: none"> <li>• Percussion wave conduction</li> </ul> <p><b>Auscultation</b></p> <ul style="list-style-type: none"> <li>• Bruits (AV fistula)</li> </ul>

### Pregnant Patient Exam

Sequence	To Examine
<b>Position</b>	Lying at 45 degrees
<b>General Inspection</b>	Temperature Respiratory rate Weight Edema Bruising / petechiae
<b>Hand</b>	Palmar crease anemia Palmar erythema Pulse - tachycardia Biceps jerk
<b>BP</b>	
<b>Face</b>	Anemia Jaundice Edema Fundi - hypertensive changes, papilledema
<b>Neck</b>	JVP
<b>Chest (anterior and posterior)</b>	Heart - murmurs, CHF, PHT with PEs Lungs - infection, pulmonary infarcts
<b>Abdomen</b>	Inspect Palpate <ul style="list-style-type: none"> <li>• RUQ tenderness</li> <li>• Uterus - FH, tenderness, lie, engagement</li> <li>• Organomegaly</li> <li>• Flank tenderness</li> </ul> Percuss Auscultate
<b>Legs</b>	Edema Clonus Hyperreflexia Calf tenderness (DVT)
<b>Other</b>	Urine - proteinuria, glycosuria BSL / Polycose test Doppler for FHR PV Exam as indicated Hernias

### Developmental Assessment

Sequence	To Examine
Position	Depends on age - keep with caregiver at least initially
General Inspection	Growth parameters Dysmorphic features Ex-premature appearance Obvious neurological abnormalities <ul style="list-style-type: none"> <li>• Floppy</li> <li>• Posturing</li> <li>• Hemiplegia</li> <li>• Involuntary movements</li> </ul>
Vision	Fixing and following Visual acuity
Hearing	Initial distraction with purely visual stimulus then hidden Noise-maker brought towards each ear from behind
Fine motor	Hundreds and thousands Raisins (pincer grip) 2.5cm blocks (stacking) Beads and threads Putting the top on a pen (coordination) Plastic knife, fork and spoon set
Personal-social interaction	Simultaneously performed with the above testing Comment on <ul style="list-style-type: none"> <li>• Interaction (eg. Smiling, waving, laughing)</li> <li>• Vocalisation</li> </ul>
Language	
Gross motor (Perform on firm surface) (incorporate primitive reflexes)	<p><b>INFANT - "180 DEGREE EXAMINATION"</b></p> <p><b>Supine</b></p> <ul style="list-style-type: none"> <li>• Posture (eg. Asymmetrical tonic neck reflex ATNR)</li> <li>• Movements or paucity of</li> <li>• REFLEX - sucking, rooting (4 months); ATNR (6 months), neck-righting (6mo-2y)</li> </ul> <p><b>Draw to sitting</b></p> <ul style="list-style-type: none"> <li>• Head control / lag during pulling to sit</li> <li>• Head and trunk control</li> <li>• Ability to sit supported or unsupported</li> <li>• REFLEX - palmar grasp (3 months)</li> </ul> <p><b>Hold child up</b></p> <ul style="list-style-type: none"> <li>• Lower limb scissoring (CP)</li> <li>• Hypotonia and weakness</li> <li>• Inappropriately "advanced"</li> <li>• REFLEX - placing, stepping (6w)</li> </ul> <p><b>Ventral suspension</b></p> <ul style="list-style-type: none"> <li>• Posture of head, trunk and limbs</li> <li>• C-shaped if hypotonic</li> <li>• Exaggerated extensor with CP</li> <li>• REFLEX - Landau (1st stage 4mo, 2nd stage 9mo, gone by 2y)</li> </ul> <p><b>Prone</b></p> <ul style="list-style-type: none"> <li>• Head and trunk off bed</li> </ul> <p><b>OLDER CHILD - GAIT EXAM</b></p>
Primitive reflexes	Moro reflex (4 months) Parachute reflex (appears 9 months and persists - must be present by 12 mos) <ul style="list-style-type: none"> <li>• Move infant rapidly while prone towards floor</li> <li>• Normal response: extension of both upper limbs</li> </ul>
Other	Formal vision testing Formal audiology testing

### Back Exam

Sequence	To Examine
<b>Position</b>	Standing initially, undressed to underpants
<b>Look</b>	From back and sides Deformity - scoliosis Loss of thoracic kyphosis and lumbar lordosis
<b>Feel</b>	Vertebral bodies - tenderness Muscle spasm
<b>Move</b>	Flexion <ul style="list-style-type: none"> <li>Schober's test (increase in distance 5cm or more is normal)</li> <li>Finger-floor distance</li> <li>Comment on curvature</li> </ul> Extension Lateral flexion (slide hand down ipsilateral leg) Rotation (fix the pelvis) Occiput-to-wall distance
<b>Lie on stomach</b>	Gluteal wasting Sacroiliac joint tenderness
<b>Lie on back</b>	Straight leg raise (normal 80-90 degrees; sciatica less than 60 degrees)
<b>Lower legs</b>	Neurological exam
<b>If spondyloarthropathy suspected</b>	LL <ul style="list-style-type: none"> <li>Examine other large joints</li> <li>Heels - Achilles tendonitis and plantar fasciitis</li> </ul> Chest <ul style="list-style-type: none"> <li>Expansion (costovertebral involvement)</li> <li>Lungs - apical fibrosis</li> <li>Heart - AR, MVP</li> </ul> Eyes - uveitis GI <ul style="list-style-type: none"> <li>Signs of IBD</li> <li>Amyloid (hepatosplenomegaly)</li> </ul> Other <ul style="list-style-type: none"> <li>Psoriasis, Reiter's syndrome</li> </ul>

### Dermatological Exam

Sequence	To Examine
<b>Rash / Skin lesions</b>	Description - type (eg. Macular, papular), colour, shape Distribution - extensor, flexors, sun-exposed Pattern - linear, annular, reticulated, serpiginous, grouped Palpate - consistency, tenderness, temperature, depth, mobility
<b>Lump</b>	Site Size Shape Signs of inflammation - redness, swelling, heat, tenderness Consistency Tenderness Tissue layer - skin, sc, muscle / tendon, nerve, bone Fluctuance Transillumination Other lumps elsewhere Regional LNs

# Specific Diseases

## Cushing's Syndrome Exam

Sequence	To Examine
<b>STANDING</b>	
<b>General Inspection</b>	Central obesity with peripheral sparing Skin <ul style="list-style-type: none"> <li>• Bruising</li> <li>• Atrophy</li> <li>• Pigmentation (suggests ACTH-secreting tumour)</li> <li>• Poor wound healing</li> </ul>
<b>Arms</b>	Purple striae Proximal myopathy
<b>Legs</b>	Striae, edema Squat (proximal myopathy)
<b>Back</b>	Buffalo hump Kyphoscoliosis Vertebral tenderness
<b>SITTING</b>	
<b>BP</b>	
<b>Face</b>	Moon-shape Plethora Hirsutism Acne Telangiectasia Eyes <ul style="list-style-type: none"> <li>• Visual fields (pituitary tumour)</li> <li>• Fundi (papilledema, atrophy, HT or diabetic retinopathy)</li> </ul> Mouth - thrush
<b>Neck</b>	Supraclavicular fat pads Acanthosis nigricans
<b>LYING FLAT</b>	
<b>Abdomen</b>	Purple striae Adrenalectomy scars Pigmentation Adrenal masses Liver - tumour deposits Genitalia <ul style="list-style-type: none"> <li>• Gynaecomastia</li> <li>• Virilisation</li> </ul>
<b>OTHER</b>	Urinalysis - glycosuria, proteinuria Signs of ectopic tumour (eg. Lung scc, carcinoid) Mental state - depression, psychosis, irritability

### Acromegaly Exam

Sequence	To Examine
Position	Sitting on side of bed
General Inspection	Diagnostic facies
Hands	Spade-like shape Coarse features Sweating and warmth Phalen's test
Arms	Ulnar nerve thickening BP Proximal myopathy
Axillae	Skin tags (molluscum fibrosum) Greasy skin Acanthosis nigricans
Face	Frontal bossing Acne Hirsutism in women Macroglossia Prognathism Splaying of teeth Hoarseness
Eyes	Visual fields Fundi - atrophy, papilloedema, angioid streaks, retinopathy Cranial nerves III, IV, VI, V
Neck	Thyroid - diffuse or multinodular goitre
CVS	CHF
Abdomen	Organomegaly Hypogonadism
Legs	Hips and knees - OA and pseudogout Foot drop (entrapment neuropathy of common peroneal nerve) Heel pad thickening
Proceed	Signs of hypothyroidism Signs of adrenocortical insufficiency
Other	Urinalysis (glycosuria) Rectal exam - colonic polyps Serial photographs Decide if acromegaly active <ul style="list-style-type: none"> <li>• Skin tag number</li> <li>• Excessive sweating</li> <li>• Glycosuria</li> <li>• Increasing VF loss or CN palsies</li> <li>• Enlarging goitre</li> <li>• HT</li> <li>• Symptoms - headache, increasing ring / shoe / denture size</li> </ul>

### Addison's Disease Exam

Sequence	To Examine
<b>Position</b>	Sitting
<b>General Inspection</b>	Pigmentation <ul style="list-style-type: none"> <li>• Palmar creases</li> <li>• Elbows</li> <li>• Gums</li> <li>• Buccal mucosa</li> <li>• Genital areas</li> <li>• Scars</li> </ul> Vitiligo
<b>Arm</b>	Blood pressure Postural drop
<b>Other</b>	Urinalysis - glycosuria
<b>PROCEED</b>	
<b>Associated disease</b>	Hypoparathyroidism Type I DM Hashimoto's thyroiditis Graves' disease Vitiligo Alopecia Pernicious anemia Myasthenia gravis
<b>Causes of Addison's</b>	Autoimmune Polyglandular syndromes TB Infiltration - sarcoid, amyloid Metastatic malignancy Demyelinating disease Drugs Pituitary or hypothalamic disease



### Diabetes Mellitus Exam

Sequence	To Examine
Position	Lying
General Inspection	Weight - obesity Hydration Endocrine facies - Cushing's or acromegaly Pigmentation - HFE
Legs	<b>INSPECT</b> Skin <ul style="list-style-type: none"> <li>• Necrobiosis lipidica</li> <li>• Pigmented scars</li> <li>• Diabetic dermopathy</li> <li>• Ulceration</li> <li>• Infection</li> <li>• Hair loss</li> <li>• Skin atrophy</li> <li>• Injection sites</li> </ul> Quadriceps wasting
	<b>PALPATE</b> Temperature of feet Pitting edema Peripheral pulses <ul style="list-style-type: none"> <li>• Femoral (auscultate)</li> <li>• Popliteal</li> <li>• Posterior tibial</li> <li>• Dorsalis pedis</li> </ul> Capillary return
	<b>NEURO EXAM</b> Peripheral neuropathy Charcot's joints Proximal muscle weakness Reflexes
Arms	Nails - candida Injection sites Pulse BP - postural
Face	Eyes <ul style="list-style-type: none"> <li>• Fundi</li> <li>• VA</li> <li>• Cataracts</li> <li>• Rubeosis</li> <li>• CN III, IV, VI</li> </ul> Mouth and Ears <ul style="list-style-type: none"> <li>• infection</li> </ul>
Neck	Carotid arteries - palpate, auscultate
Chest	Signs of infection
Abdomen	Hepatomegaly - fatty liver, HFE Lipodystrophy of injection sites
Other	Urinalysis - glycosuria, proteinuria, ketonuria

### Scleroderma Exam

Sequence	To Examine
Position	Sitting
General Inspection	Bird-like facies Weight loss Temperature
Hands	CREST <ul style="list-style-type: none"> <li>• Calcinosis</li> <li>• Atrophy of distal tissue pulp (Raynaud's)</li> <li>• Sclerodactyly</li> <li>• Telangiectasia</li> </ul> Small joint arthropathy Tendon crepitus Fixed flexion deformity Hand function
Arms	Blood pressure Skin changes <ul style="list-style-type: none"> <li>• Skin thickening and tightening</li> <li>• Pigmentation</li> <li>• Vitiligo</li> <li>• Hair loss</li> </ul> Proximal myopathy
Head and Face	Alopecia Pigmentation Telangiectasia Eyes <ul style="list-style-type: none"> <li>• Loss of eyebrows</li> <li>• Anemia</li> <li>• Dryness (Sjogren's)</li> <li>• Difficulty closing eyes</li> </ul> Mouth <ul style="list-style-type: none"> <li>• Dryness</li> <li>• Puckered</li> <li>• Difficulty opening</li> </ul>
Dysphagia	Ask patient
Chest	Roman breast plate effect from tight skin Heart <ul style="list-style-type: none"> <li>• Pericarditis</li> <li>• Cor pulmonale</li> <li>• Pericardial effusion</li> <li>• CHF</li> </ul> Lungs <ul style="list-style-type: none"> <li>• Fibrosis</li> <li>• Reflux pneumonitis</li> <li>• Infections</li> <li>• Lung carcinoma</li> </ul>
Legs	Skin lesions Vasculitis
Other	Urinalysis - proteinuria Stool exam - steatorrhea

### Rheumatoid Arthritis Exam

Sequence	To Examine
<b>Position</b>	Sitting
<b>General Inspection</b>	Cushingoid Weight
<b>Hands</b>	Vasculitis Hand function
<b>Arms</b>	Entrapment neuropathy (carpal tunnel) Subcutaneous nodules Elbow and shoulder joint Axillary nodes
<b>Face</b>	Eyes <ul style="list-style-type: none"> <li>• Dry eyes (Sjogren's)</li> <li>• Scleritis, episcleritis</li> <li>• Scleromalacia perforans</li> <li>• Cataracts</li> </ul> Face <ul style="list-style-type: none"> <li>• Parotids (Sjogren's)</li> </ul> Mouth <ul style="list-style-type: none"> <li>• Dryness</li> <li>• Ulcers</li> <li>• TMJ crepitus</li> <li>• Hoarseness</li> </ul>
<b>Neck</b>	C-spine involvement
<b>Chest</b>	Heart <ul style="list-style-type: none"> <li>• Pericarditis</li> <li>• AR and MR</li> </ul> Lungs <ul style="list-style-type: none"> <li>• Effusion</li> <li>• Fibrosis</li> <li>• Nodules (Caplan's syndrome)</li> </ul>
<b>Abdomen</b>	Splenomegaly (Felty's syndrome) Epigastric tenderness
<b>Lower legs</b>	Hips and knees Ulceration (vasculitis) Calf swelling (ruptured Baker's cyst) Peripheral neuropathy Feet
<b>Other</b>	Urinalysis - proteinuria, hematuria Rectal exam for blood

### SLE Exam

Sequence	To Examine
Position	Sitting
General Inspection	Cushingoid Weight Mental state Temperature Skin rash
Hands	Vasculitis Rash Arthropathy
Arms	BP Livedo reticularis Purpura Proximal myopathy
Head	Alopecia Lupus hairs Eyes - scleritis, cystoid lesions Mouth - ulcers, infection Butterfly rash CN lesions
Chest	CVS - endocarditis, pericarditis Respiratory - effusion, pleurisy, fibrosis
Abdomen	Hepatosplenomegaly Tenderness
Legs	Aseptic necrosis of hips Proximal myopathy Cerebellar ataxia Hemiplegia Transverse myelitis
Other	Urinalysis - proteinuria, hematuria