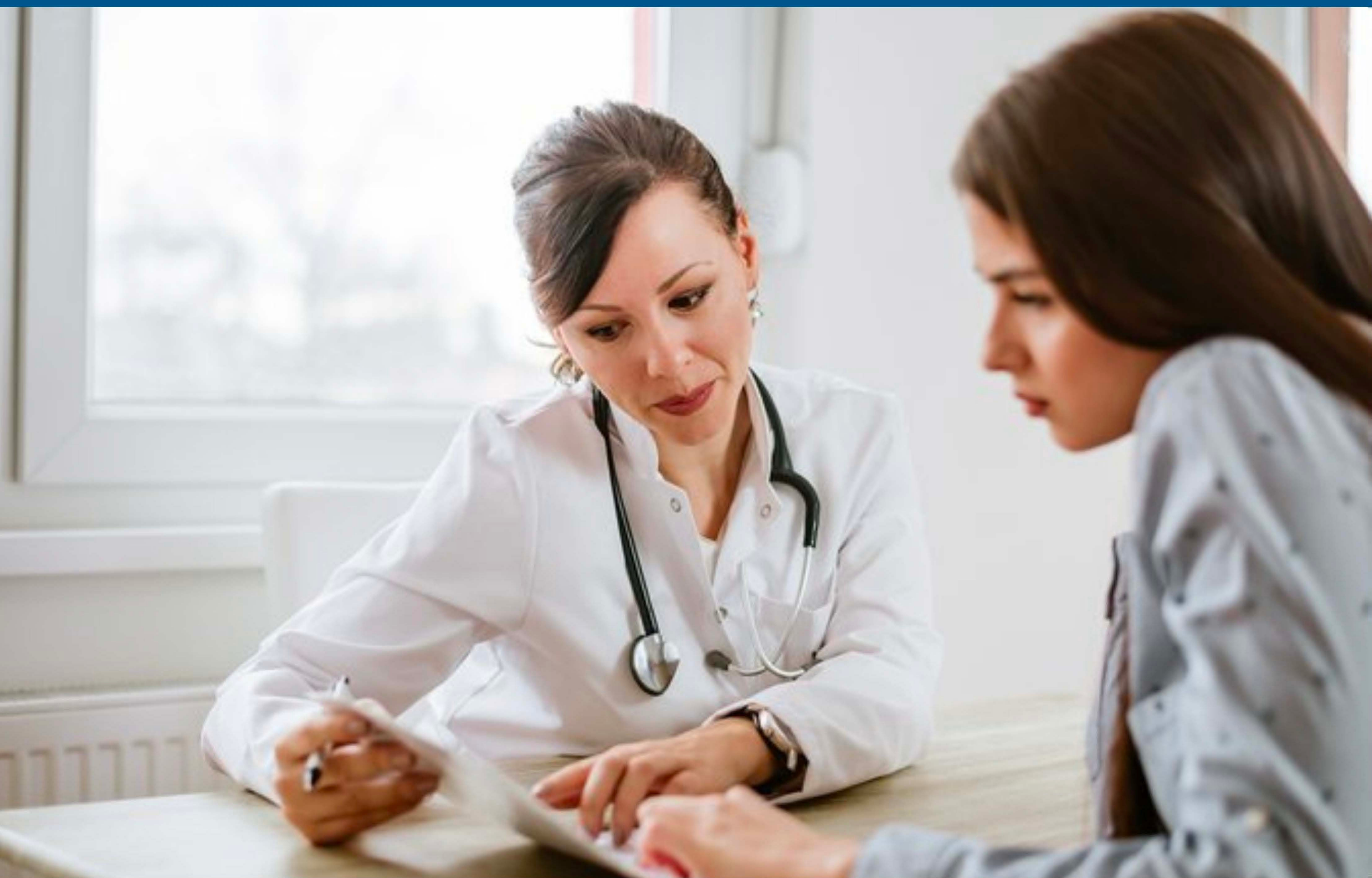


CLINICAL SKILLS & EXAMINATION

TAILORED FOR MEDICAL STUDENTS, USMLE, PLAB, PA & NURSING



4th EDITION



MedicalNote.in



166 PAGES

THE MUSCULOSKELETAL EXAMINATION

THE MUSCULOSKELETAL EXAMINATION

Musculoskeletal History:

- PC – Injury/Pain/Stiffness/Movement Limitation.
- HxPC:
 - Acute or Chronic problem?
 - **Mechanism of injury – Utmost Importance!!**
 - Problems experienced:
 - Pain Vs Tenderness. (+ Be mindful of referred pain)
 - NILDOCARF
 - Movement limitation
 - Pain:
 - Tendinopathy
 - Impingement
 - Sprain
 - Labral
 - Mechanical Block:
 - Stiffness/Creakiness + Time of day & Duration
 - Labral
 - Frozen shoulder
 - Instability (clicking/clunking)
 - Joint swelling
 - Night pain? (Lying on affected joint)
 - Eg: Rotator cuff
 - Eg: AC joint injury
 - Eg: Collateral Knee Ligaments
 - Eg: Bone Cancers
 - Associated Rheumatologic Symptoms:
 - Fever, Weakness, Fatigue, Weight Loss, Conjunctivitis/Iritis.
 - Progression with time (Trending Better/worse/same)
- PmHx, Meds, FamHx, SocHx, Systems Review
- **Red Flags? (Ie: Things that if you miss → mortality/morbidity)**
 - Open fractures
 - Neurovascular compromise
 - Cauda equina syndrome
 - Infections (Joints/Bones)
 - Acute Compartment Syndrome
 - Cancer
 - Temporal arteritis (high risk in pts with PMR – polymyalgia rheumatica)
 - Serious/life-threatening conditions that present with symptoms mimicking muscular pain (Eg: MI)
- **Yellow Flags – Conditions ‘masquerading’ as musculoskeletal conditions:**
 - Eg: Psychological – depression & back pain.

GALS Screen (Gait, Arms, Legs, Spine):

- **Introduction, Wash Hands, Consent,**
- **Adequate Exposure!!! (Remove Shirt, Pants & Shoes)**
- **Gait – (Observe for Fluidity, Symmetry, Limp, Compensation, Foot Drop[L4,L5]):**
 - Walk to the other side of the room, Turn around, and walk back to me.
- **Arms:**
 - **Shoulder & Elbow:**
 - Raise hands up to the ceiling, then down behind your head. Push your shoulders backwards.
 - Touch your fingers on your shoulders, and raise your elbows as high as you can.
 - Lock your elbows into your side, and turn your arms outward as far as you can. (External Rotation)
 - Run your thumb up the middle of your back. (Internal Rotation)
 - Push your hands as far back behind you as you can. (Extension)
 - Touch your left thigh with your right hand (and Vice Versa) (Adduction)
 - Supinate & Pronate your Hands
 - **Hands & Fingers:**
 - Splay your fingers wide + **Resist me squeezing them.**
 - Fingers together + **Resist me pulling them apart.**
 - Grip my fingers as hard as you can + **Assess Grip Strength**
 - Make a fist
 - Touch each of your fingers with your thumb.
 - **+ Metacarpophalangeal Squeeze Test (For Tenderness)**
- **Legs:**
 - **3x Half Squats** (Patellofemoral Joint)
 - **1x Full Squat** (Knee Joint Proper)
 - Ankle Eversion & Inversion
 - Dorsiflexion & Plantarflexion
 - Splay Toes & Scrunch Toes.
- **Spine:**
 - (Feet shoulder-width apart)
 - Observe for Lordosis, Kyphosis, Scoliosis.
 - Bend from Lumbar Spine and reach for your toes
 - Bend from Lumbar Spine and look at the ceiling
 - Bend Sideways & Slide your hand down your thigh
 - Neck Flexion (Chin on chest)
 - Neck Extension (look at ceiling)
 - Lateral Neck Flexion (Ear on Shoulder)
 - Neck Rotation (Look to the side)
- **Reporting on a GALS Screening.**
 - G – Normal/Abnormal + Comments on Findings
 - A – Normal/Abnormal + Comments on Findings
 - L– Normal/Abnormal + Comments on Findings
 - S– Normal/Abnormal + Comments on Findings
 - (Eg: Abnormal Arm (limited abduction of the shoulder to ?degrees))
- **“Thankyou that concludes my examination”**

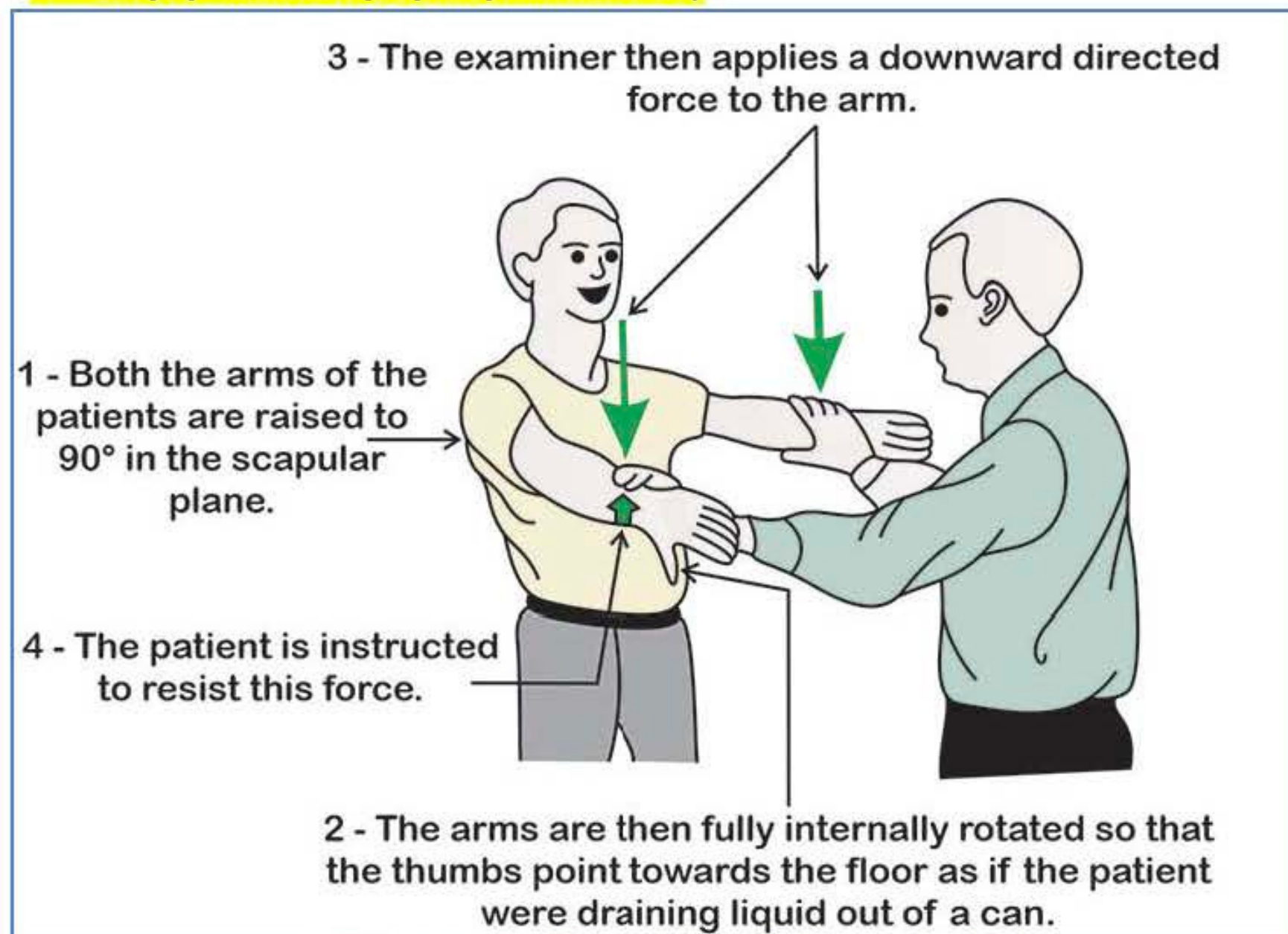
Focussed Joint Exam Algorithm (Shoulder or Knee):

- **Look (Visual Inspection)**
 - Symmetry? (Size, Shape, Position, Height)
 - Scars
 - Redness
 - Bruising
 - Lumps
 - Atrophy
 - Swelling
- **Feel (Palpate Relevant Anatomy for Tenderness, Heat, Swelling, Crepitus):**
 - **Objective Findings:**
 - Tenderness
 - **Subjective Findings:**
 - Warm (Inflammation, Trauma, Infection, Tumour)
 - Swelling (Effusion, Tumour)
 - Crepitus (Osteoarthritis, Tendinopathy, Fracture)
- **Move (Active +/- Passive if Required):**
 - Symmetry?
 - **Active Movement in All Planes:**
 - Range of Movement
 - Fluidity
 - Pain with Movement
 - If a pt can't do something, ask them why? (Blockage/weakness/Neuro)
 - (Passive – Only for Movements that were Limited)
- **Measure (Range of Movement):**
 - Done at the same time as "Move"
 - Compare with opposite side (ballpark – doesn't have to be objective)

+/- Special Tests:

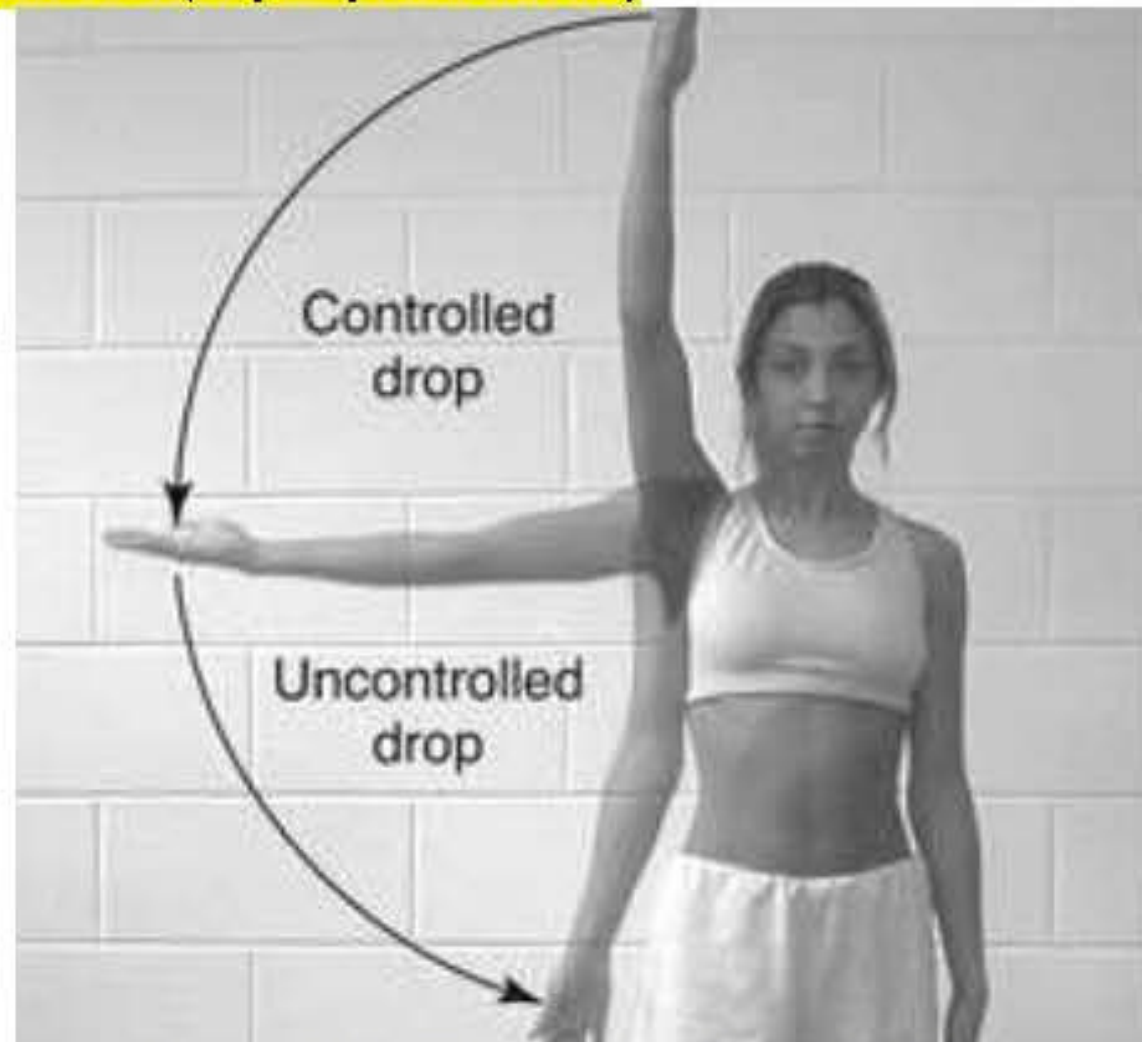
○ **Shoulder:**

▪ **Empty Can Test (Supraspinatus Tear)**



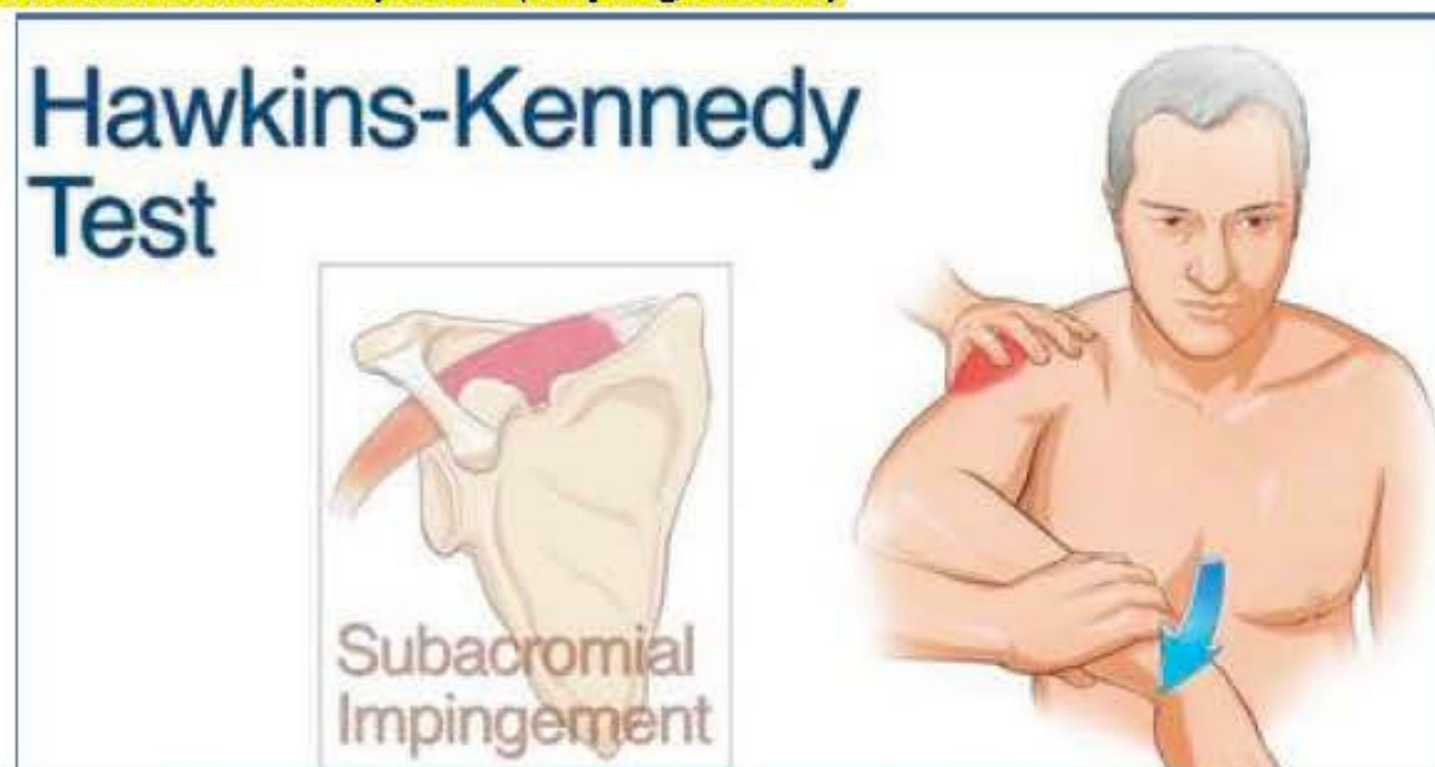
<https://physio-study.com/empty-can-test/>

- **Drop Arm Test (Supraspinatus Tear)**



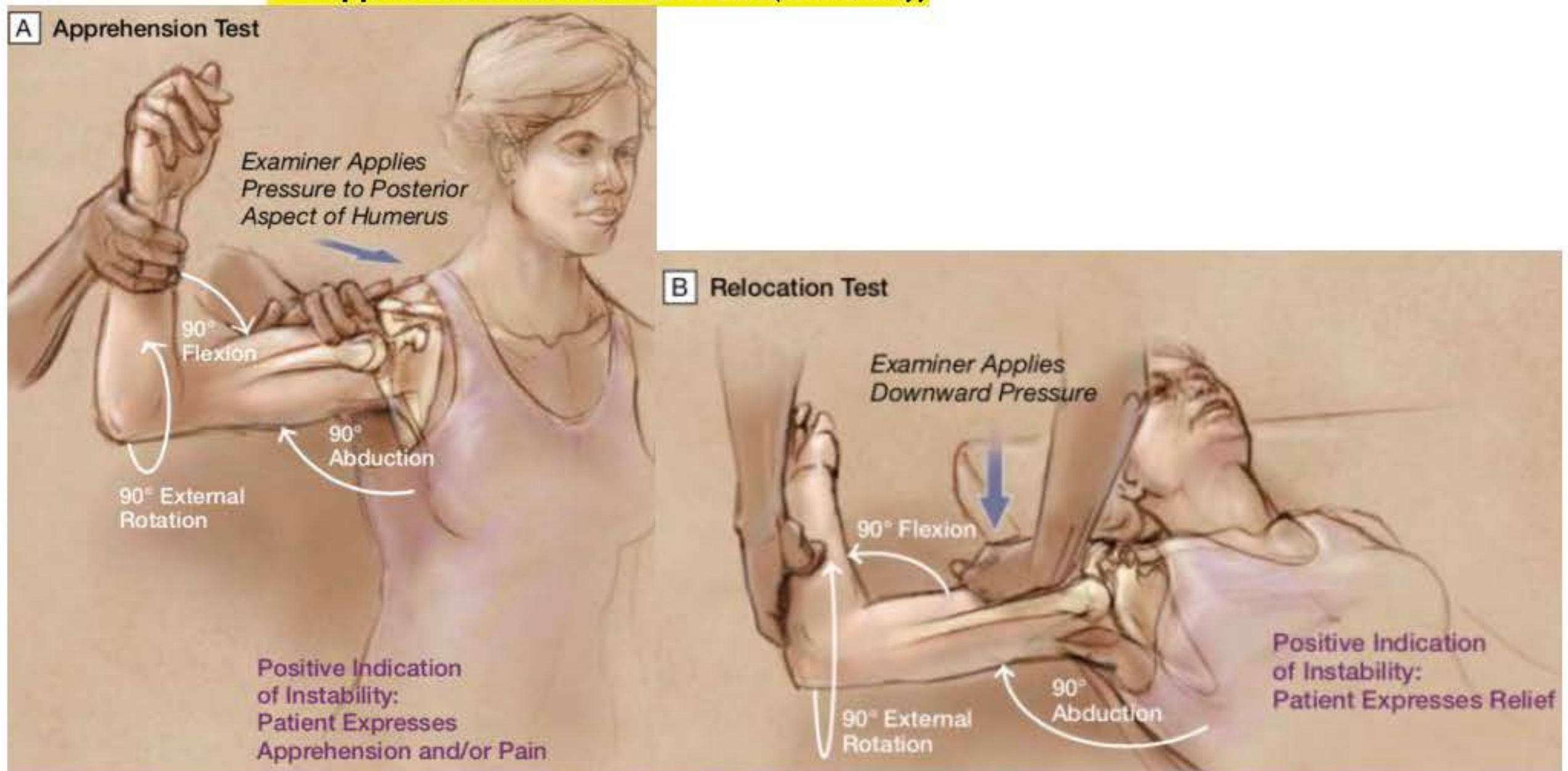
<https://medical-dictionary.thefreedictionary.com/drop+arm+test>

- **Hawkin's Kennedy Test (Impingement)**



<https://www.youtube.com/watch?v=hgzQcLuaFLw>

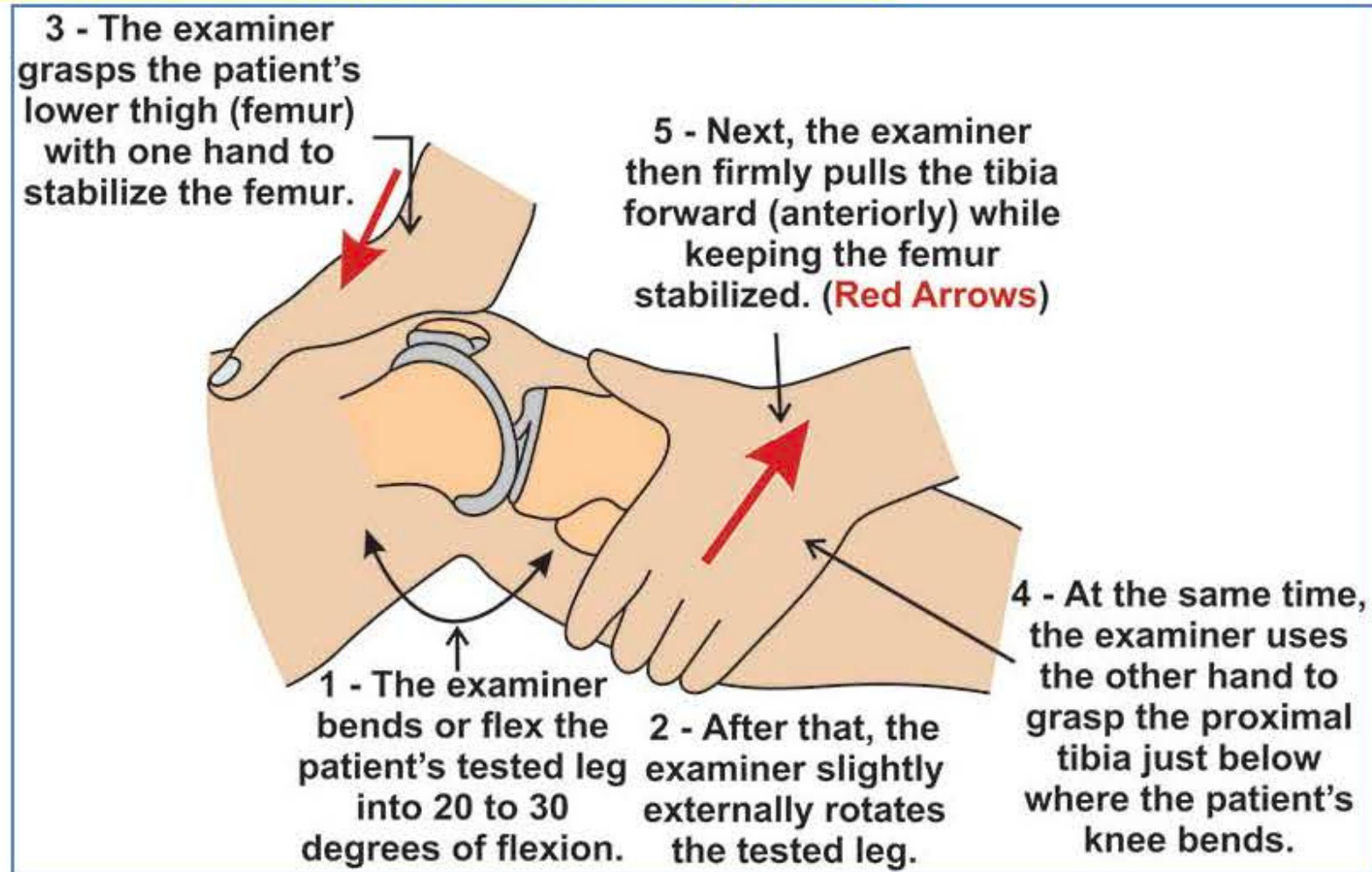
- **Apprehension & Relocation Test (Instability)**



<https://stanfordmedicine25.stanford.edu/the25/shoulder.html>

○ Knee:

▪ Lachman's Test (Anterior Cruciate Ligament)



<https://physio-study.com/lachman-test/>

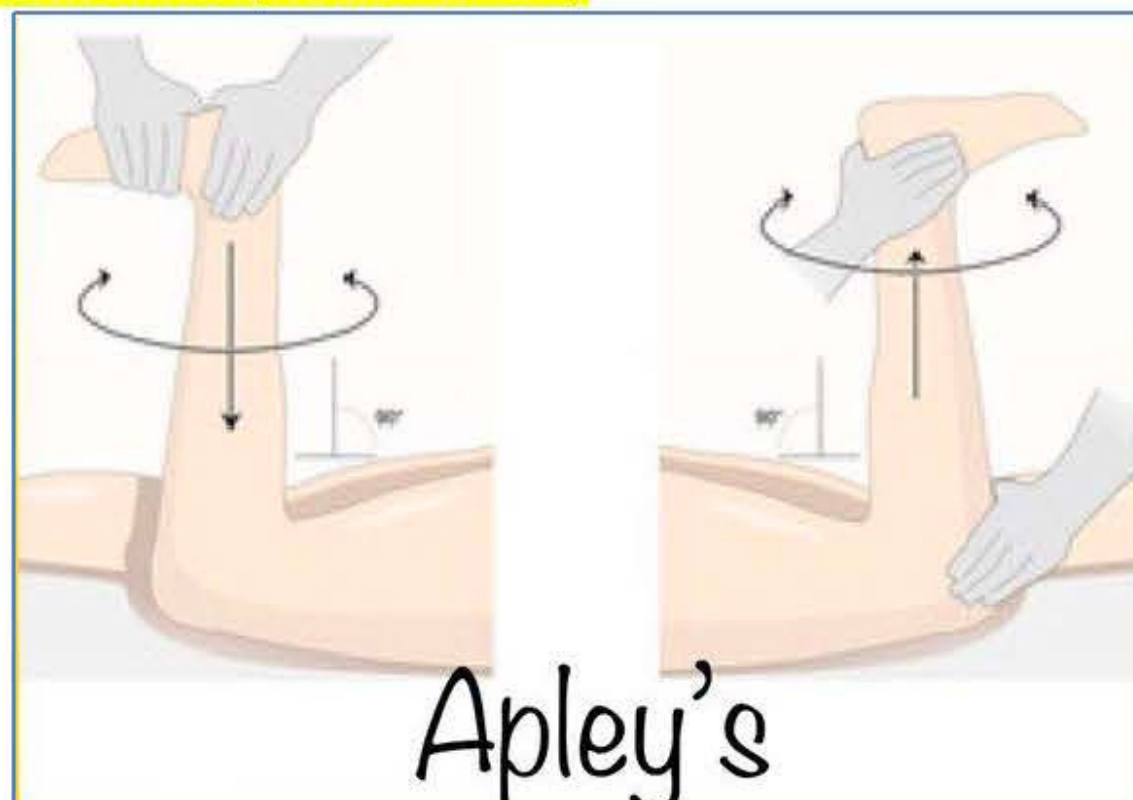
▪ Thessaly Test (Meniscal Tear)



Figure 2. The Thessaly test.

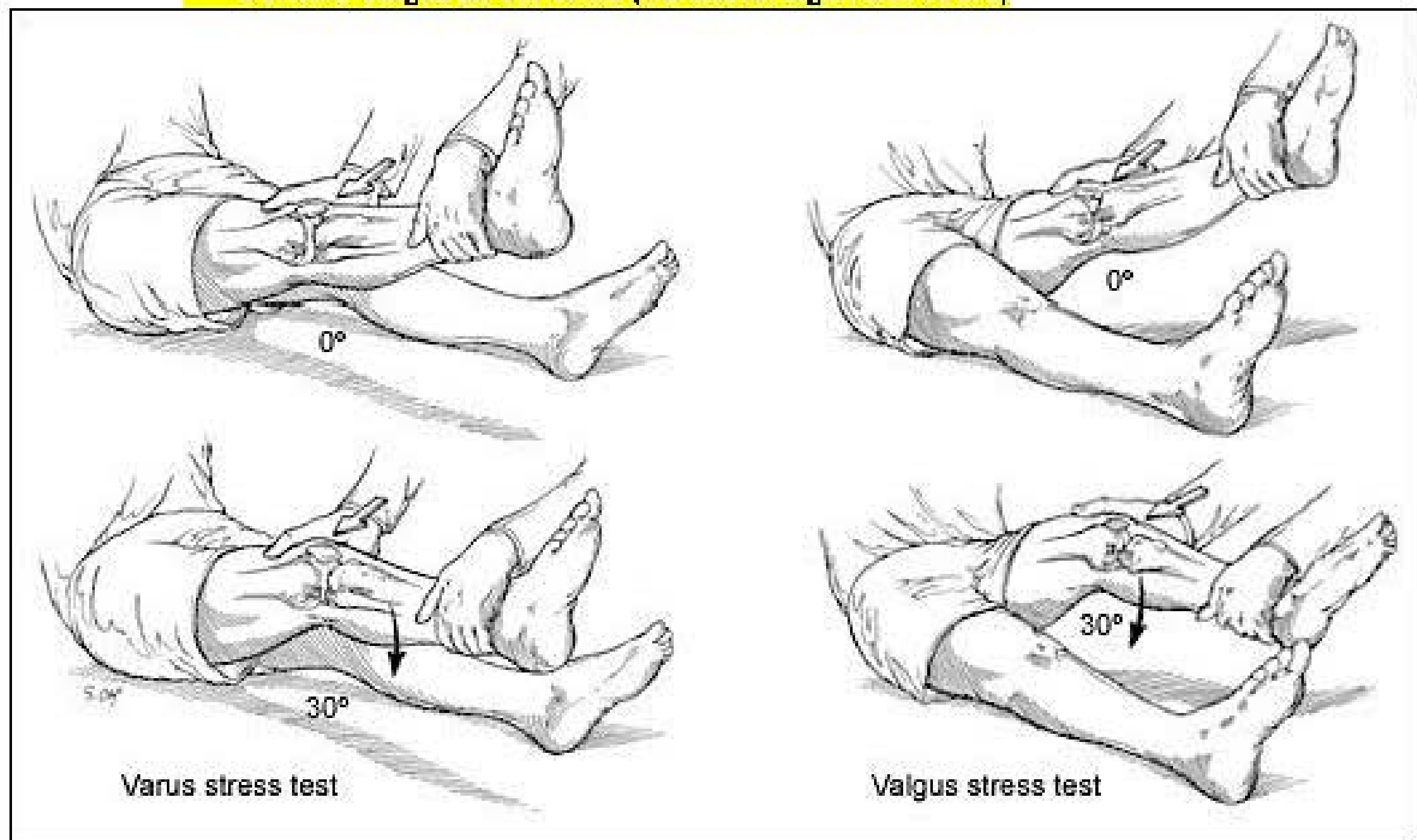
<https://www.aafp.org/afp/2018/1101/p576.html>

▪ Apley's Grind Test (Meniscal Tear)



https://twitter.com/peds_sports_med/status/1041163674436730881?lang=ca

- **Varus & Valgus Stress Tests (Collateral Ligament Tears)**



Am Fam Physician. 2003 Sep 1;68(5):907-912. <https://www.aafp.org/afp/2003/0901/p907.html>

- **Half Squats (For Patellofemoral Maltracking Syndrome)**

Focussed Shoulder Examination:

- **1: EXPOSE THE PATIENT FULLY!!**
- **Look (Visual Inspection)**
 - Symmetry? (Size, Shape, Position, Height)
 - Scars
 - Redness, Bruising
 - Lumps, Swelling
 - Atrophy
- **Feel (Palpate Relevant Anatomy for Tenderness, Heat, Swelling, Crepitus):**
 - Palpate BOTH joints (Say you'd like to examine the other side)
 - Palpate Definite Anatomical Structures for Tenderness:
 - Sterno-clavicular Joint
 - Clavicle
 - Acromio-clavicular Joint
 - Gleno-humoral Joint Line
 - Spine of Scapula
 - Edges of the Scapula
 - Feel for Heat, Swelling, & Crepitus
 - Eg: "Non tender to firm palpation"
- **Move (Active +/- Passive if Required):**
 - Symmetry?
 - Active Movement in All Planes:
 - Range of Movement
 - Fluidity
 - Pain with Movement
 - If a pt can't do something, ask them why? (Blockage/weakness/Neuro)
 - (Passive – Only for Movements that were Limited)
 - Eg: "Symmetrical and full ROM in all planes"
- **Measure (Range of Movement):**
 - Done at the same time as "Move"
 - Compare with opposite side (ballpark – doesn't have to be objective)
 - "Limited active extension of l-elbow to 150deg"
- **(Clinical Presentations Requiring Special Tests):**
 - Tears – Eg: Supraspinatus Tear:
 - Special Tests:
 - "Drop Arm Test" – Passive abduction of patient's arm → let go and get them to lower arm as slow as possible. Arm Drops at around Parallel = Positive.
 - "Empty Can Test" – Passive abduction of Patient's arm with full internal rotation (le: Emptying can). Push down and get them to resist your movement. Pain &/or Weakness = Positive.
 - Impingement – Eg: Of Subacromial Contents:
 - Subacromial contents get squashed between the humeral head and the acromion. (Eg: Supraspinatus, Subacromial Bursa)
 - Special test:
 - "Hawkins test" - Pain = Positive, No Pain = Negative
 - Passive Internal Rotation of Shoulder with elbow in 90deg and humerus at parallel to the ground.
 - Instability – Eg: Anterior Instability of Shoulder (le: Post dislocation)
 - Eg: Dislocation/Post Dislocation/Stretch of Anterior Capsule of the Shoulder
 - Special Test:
 - "Apprehension & Relocation Test" – Apprehension (not pain) in 1; Less apprehension in 2 = Positive
 - 1: Patient lies on bed while you Abduct & Externally Rotate their arm to precipitate apprehension (le: High five position)
 - 2: Same thing, but with pressure on the anterior capsule. (This should be much more bearable for the patient.)

Focussed Knee Examination:

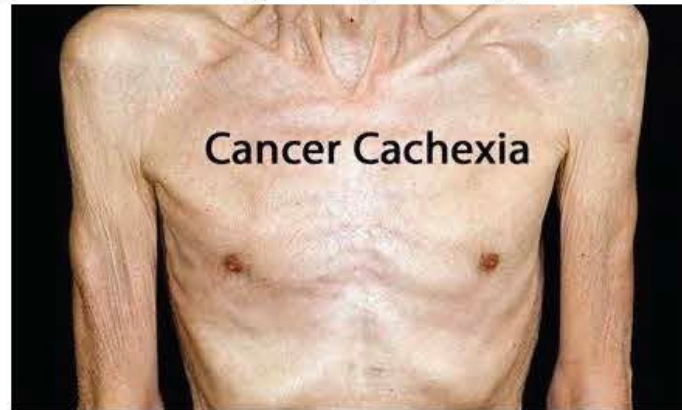
- **1: EXPOSE THE PATIENT FULLY!!**
- **Look (Visual Inspection)**
 - Symmetry? (Size, Shape, Position)
 - Scars
 - Redness, Bruising
 - Lumps, Swelling
 - Atrophy/Wasting
- **Feel (Palpate Relevant Anatomy for Tenderness, Heat, Swelling, Crepitus):**
 - Palpate BOTH Knees (Say you'd like to examine the other side)
 - Palpate Definite Anatomical Structures for Tenderness:
 - Quadriceps Tendon
 - Patella (+ Patella "Tap" test for Effusion)
 - Patella Tendon
 - Tibial Tuberosity
 - Joint Line
 - Collateral Ligament Attachments.
 - Feel for Heat, Swelling, & Crepitus
 - Eg: "Non tender to firm palpation"
- **Move (Active +/- Passive if Required):**
 - Symmetry?
 - 3x Half Squats (Patellofemoral Joint)
 - 1x Full Squat (Knee Joint Proper)
 - Range of Movement
 - Fluidity
 - Pain with Movement
 - If a pt can't do something, ask them why? (Blockage/weakness/Neuro)
 - (Passive – Only for Movements that were Limited)
 - Eg: "Symmetrical and full ROM in all planes"
- **Measure (Range of Movement):**
 - Done at the same time as "Move"
 - Compare with opposite side (ballpark – doesn't have to be objective)
 - "Limited active extension of l-elbow to 150deg"
- **(Clinical Presentations Requiring Special Tests):**
 - Acute Knee pain:
 - Cruciate Ligament Tear ("went to change direction, felt something pop, and was swollen within hours" = ACL)
 - Lachman's Test – Pt supine, examiner's knee under patient's knee, stabilise femur with one hand, move tibia ant-&-post firmly. Positive if displacement > other side.
 - Anterior Drawer – (Note: Only really useful in an anaesthetised, paralysed pt. NB. A conscious pt will guard). Pt supine, knee bent to 90degrees. Sit on patient's foot. With 2 hands apply anterior force to the tibial head. Positive if Anterior Displacement is > than other side.
 - Meniscal Tear
 - **Thessaly Test (For Meniscal Tear) – Hold hands standing. Stand on 1 foot. Bend the weight-bearing leg 20°. Do the Twist. Pain = Positive. (Note: Pt must point to source of pain – same place both times)
 - Collateral Ligament Sprains/Tears
 - Valgus & Varus Stress Tests –Pt supine, support knee from below, 30deg flexion & apply valgus & varus stresses. (Positive = Laxity/gaping.)
 - Patellofemoral Mal-Tracking Syndrome. Tracking of the Patella through its groove isn't right; or groove isn't straight; or vastus medialis isn't working properly.
 - → Pain with stairs/squatting
 - Half squats - Good indication of patella-femoral function

THE HAEMATOLOGICAL (HEMATOLOGICAL) EXAMINATION

THE HAEMATOLOGICAL (HEMATOLOGICAL) EXAMINATION

FULL HAEMATOLOGY EXAM:

- **Introduction, Wash Hands, Consent,**
- **General Inspection:**
 - Wasting, Cachexia (Malignancy)



- - Mediterranean Origin & Frontal Bossing (Thalassaemia)
 - African Origin (Sickle Cell Anaemias)
 - Gross Pallor (Anaemia & All Haem Malignancies)
 - Jaundice & Scratch Marks (Haemolytic Anaemia)
 - Cyanosis
 - Facial Plethora (Polycythaemia, SVC obstruction from Lymphoma)
 - Bruising, Bleeding, Petechiae, Purpura (Thrombocytopenia, Haemophilia & All Haem Malignancies)
 - Neck Swellings (Lymphoma & All Haem Malignancies)
 - Abdominal Distension (Organomegaly due to Infection & All Haem Malignancies)
- **Vital Signs:**
 - **Pulse:**
 - Tachycardia (Infection, Anaemia)
 - **Blood Pressure:**
 - Postural Hypotension (Anaemia)
 - **Respiratory Rate:**
 - Tachypnoea (Anaemia)
 - **Temperature:**
 - Fever (Malignancy, Infection)
- **Hands:**
 - Warm/Well Perfused + CRT
 - Palmar Crease Pallor (Anaemia)
 - Peripheral Cyanosis
 - Koilonychia (Spoon Nails) and Pale Nails (Iron Deficiency Anaemia)



- - Palmar Erythema (Polycythaemia, Chronic Leukaemias)
 - Blue Lunulae (Wilson's Disease)



- - Digital Infarcts & Raynaud's (Rheumatoid, Multiple Myeloma)
 - Arthropathy (Rheumatoid, Connective Tissue Disease, Haemophilia)
 - Gouty Tophi (↑ Cell Turnover in Malignancy, Myeloproliferative Diseases & Hb Disorders)
 - Dupuytren's Contracture (B12 Deficiency, Alcoholism & Megaloblastic Anaemia)

- **Arms:**

- Bruising, Petechiae, Purpura (Haemophilia, Thrombocytopenia & All Haem Malignancies)



- Scratch Marks (Jaundice – Haemolytic Anaemia)
- Epitrochlear & Axillary Lymph Nodes (All Haem Malignancies)
 - Supraclavicular, Infraclavicular, Parasternal, Subpectoral, Subscapular, Central, Lateral

- **Face:**

- Conjunctival Pallor, **Angular Stomatitis**, **Atrophic Glossitis** (Anaemia)



- Scleral Icterus
- Central/Peripheral Cyanosis
- Facial Plethora (Polycythaemia)
- Pemberton's Sign (SVC Obstruction due to Lymphoma)



- Buccal Petechiae (Thrombocytopenia, Haemophilia, Bleeding Disorders & All Haem Malignancies)
- Candidal Mouth Infections (All Haem Malignancies)
- **Gum Hypertrophy + Bleeding (AML - Acute Myeloid Leukaemias)**



- **Gum Hypertrophy (Methotrexate Chemotherapy)**
- **Enlarged Tonsils (MALT Lymphoma)**
- Wasting (All Haem Malignancies)

- **Neck:**
 - Cervical Lymph Nodes (Submental/Submandibular/Pre/Post-Auricular/Occipital/Jugular/Post-Triangular) (In All Haem Malignancies)
 - Firm, Non-Tender, Immobile = Malignancy
 - Tender, Mobile = Infection
 - Site
 - Size (>1cm)
 - Consistency (Hard – Carcinoma; Rubbery – Lymphoma)
 - Tenderness (Infection)
 - Mobility (Fixed if Malignant)
 - Neck Swellings/Masses
 - ****Check for Dysphagia/Odynophagia (Plummer Vinson Oesophageal Web from Iron def. Anaemia)**
 - **Thyroid Examination (As Hypothyroidism can → menorrhagia → anaemia)**
 - BCC/SCCs from Immunosuppression (Chemotherapy)
 - Radiotherapy Tattoos
- **Chest:**
 - Bruising, Petechiae, Purpura (Bleeding Disorders, Haemophilia, Thrombocytopenia & All Haem Malignancies)
 - Chest Infections (Immunosuppression)
 - **Systolic Flow Murmur (Severe Anaemia)**
 - *****Bony Tenderness (ALL Haematological Malignancies) - Ribs, Clavicles, Spine, Hips.**
- **Abdomen:**
 - Bruising, Petechiae, Purpura (Bleeding Disorders, Haemophilia, Thrombocytopenia & All Haem Malignancies)
 - Hepatomegaly, Splenomegaly (All Haem Malignancies)
 - Para-Aortic Lymph Nodes
 - **Ascites**
 - **Per Rectal Examination – Blood on Stool**
 - **Palpate Kidneys (Signs of Renal Failure → Anaemia of Chronic Disease)**
- **Inguinal:**
 - **Inguinal Lymph Nodes** (All Haem Malignancies)
 - **Testicular Masses in Children (ALL – Acute Lymphoblastic Leukaemia)**
 - **DRE (Lymphoma)**
- **Legs:**
 - Bruising, Petechiae, Purpura (Bleeding Disorders, Haemophilia, Thrombocytopenia & All Haem Malignancies)
 - Scratch Marks (Haemolytic Jaundice)
- **Feet:**
 - Peripheral Perfusion & CRT
 - Koilonychia & Pale Nails (Iron Deficiency Anaemia)
 - Sole Erythema (Polycythaemia)
 - Gouty Tophi (↑ Cell Turnover in Myeloproliferative Diseases & Hb Disorders)



- **Thank patient “that concludes my examination”, I’ll go organise further tests.**

Focussed Anaemia Examination:

- **Introduction, Wash Hands, Consent,**
- **General Inspection:**
 - Alert & Oriented
 - Racial Origin (African = Sickle Cell Anaemia; Mediterranean = Thalassemia)
 - Gross Pallor (Anaemia), Jaundice (Haemolytic Anaemia), or Cyanosis.
 - Scratch Marks (Jaundice from Haemolytic Anaemia)
 - Bruising, Petechiae, Purpura (Thrombocytopenia any Haem Malignancies)
- **Vital Signs:**
 - **Pulse:**
 - Tachycardia
 - **Blood Pressure:**
 - Postural Hypotension
 - **Respiratory Rate:**
 - Tachypnoea
 - **Temperature:**
 - Normal
- **Hands:**
 - Warm & Well Perfused + CRT
 - Koilonychia (Iron Deficiency Anaemia)
 - Pale Nails (General Anaemia)
 - Leukonychia (Chronic Kidney Disease → Hypoalbuminaemia)
 - Palmar Crease Pallor
 - Dupuytren's Contracture (Megaloblastic Anaemia from Alcoholism)
- **Arms:**
 - Bruising/Petechiae/Purpura (Thrombocytopenia due to Myelosuppression which also → Anaemia)
 - Scratch Marks (Haemolytic Jaundice → Anaemia)
- **Face:**
 - Conjunctival Pallor
 - Scleral Icterus (Haemolytic)
 - Central/Peripheral Cyanosis
 - Angular Stomatitis (General Anaemia)
 - Atrophic Glossitis (General Anaemia)
 - Gum Bleeding (AML → As a cause of Iron Deficiency Anaemia)
 - Buccal Petechiae/Purpura (Thrombocytopenia due to Myelosuppression which also → Anaemia)
- **Neck:**
 - Cervical Lymphadenopathy (Because All Haem Malignancies cause Anaemia)
 - ****Check for Dysphagia/Odynophagia (Plummer Vinson Oesophageal Web from Iron def. Anaemia)**
 - Thyroid Examination (As Hypothyroidism can → menorrhagia)
- **Chest:**
 - Bony Tenderness (All Haem Malignancies)
 - Systolic Flow Murmurs (hyperdynamic circulation)
- **Abdomen:**
 - Cullen's/Grey Turner's Signs of Haemoperitoneum (Haemorrhagic Anaemia)
 - Tenderness (Peptic Ulcer Disease, Cohn's, Ulcerative Colitis)
 - Hepatomegaly & Splenomegaly (All Haem Malignancies cause Anaemia)
 - **Per Rectal Examination – Blood on Stool**
 - Palpate Kidneys (Signs of Renal Failure → Anaemia of Chronic Disease)
- **Legs:**
 - Peripheral Perfusion
- **Feet:**
 - Peripheral Perfusion + CRT
 - Koilonychia (Iron deficiency Anaemia)
 - Pale Nails (General Anaemia)
- **Thank patient "that concludes my examination", I'll go organise further tests.**

Focussed Leukaemia Examination:

- **Introduction, Wash Hands, Consent,**
- **General Inspection:**
 - Alert & Orientated?
 - Wasting, Weight Loss
 - Gross Pallor (Marrow Overcrowding - All Haem Malignancies)
 - Lethargy
 - Obvious masses (Neck/Abdomen)
 - Bruising, Bleeding, Petechiae, Purpura (Thrombocytopenia - All Haem Malignancies)
- **Vital Signs:**
 - **Pulse:**
 - Normal
 - Tachycardia (If Anaemia)
 - **Blood Pressure:**
 - Normal
 - Postural Hypotension (if Anaemia)
 - **Respiratory Rate:**
 - Normal
 - Tachypnoea (If Anaemia)
 - **Temperature:**
 - Febrile (All Haem Malignancies, Infection)
- **Hands:**
 - Peripheral Perfusion + CRT
 - Pale Nails & Palmar Crease Pallor (Marrow Overcrowding Anaemia)
 - **Palmar Erythema (Chronic Leukaemias)**
 - **Gouty Tophi (High Turnover in Myeloproliferative)**
- **Arms:**
 - Bruising, Petechiae, Purpura (Marrow Overcrowding Thrombocytopenia)
 - Epitrochlear & Axillary Lymph Nodes (All Haem Malignancies)
 - Supraclavicular, Infraclavicular, Parasternal, Subpectoral, Subscapular, Central, Lateral
- **Face:**
 - Gross/Conjunctival Pallor (Marrow Overcrowding Anaemia)
 - Central/Peripheral Cyanosis
 - Gum Hypertrophy & Bleeding (Acute Myeloid Leukaemia)
 - Gum Hypertrophy (Methotrexate Side Effect)
 - Candidal Mouth Infections (Neutropenia - All Haem Malignancies)
- **Neck:**
 - Cervical Lymphadenopathy (All Haem Malignancies)
 - Meningism (Due to CNS Infiltration – esp. ALL)
- **Chest:**
 - Bruising, Petechiae, Purpura (Thrombocytopenia)
 - Bony Tenderness (Bony Infiltration - All Haem Malignancies)
 - Chest Infections (Immunocompromise – From Chemo or Neutropenia)
- **Abdomen:**
 - Bruising, Petechiae, Purpura (Thrombocytopenia - All Haem Malignancies)
 - Distension
 - Hepatomegaly, Splenomegaly (All Haem Malignancies)
 - Para-Aortic Lymph Nodes
- **Legs:**
 - Inguinal lymph Nodes
 - Testicular Masses (Acute Lymphoblastic Leukaemia)
 - Bruising, Petechiae, Purpura (Thrombocytopenia - All Haem Malignancies)
- **Feet:**
 - Peripheral Perfusion + CRT
 - Pale Nails (Anaemia)
- **Thank patient “that concludes my examination”, I’ll go organise further tests.**

Focussed Lymphoma Examination:

- **Introduction, Wash Hands, Consent,**
- **General Inspection:**
 - Alert & Orientated
 - Wasting, Weight Loss
 - Neck Swellings
 - Facial Plethora (SVC Obstruction)
 - Gross Pallor (Marrow Infiltration)
 - Bruising, Petechiae, Purpura (Marrow Infiltration)
- **Vital Signs:**
 - **Pulse:**
 - Normal
 - Tachycardia (if Anaemia due to BM Infiltration)
 - **Blood Pressure:**
 - Normal
 - Postural Hypotension (if Anaemia due to BM Infiltration)
 - **Respiratory Rate:**
 - Normal
 - Tachypnoea (If Anaemia due to BM Infiltration)
 - **Temperature:**
 - Fever
- **Hands:**
 - Peripheral Perfusion + CRT
 - Peripheral Cyanosis
 - Palmar Crease Pallor (Anaemia of BM Infiltration)
 - Pale Nails (Anaemia of BM Infiltration)
 - Scratch Marks (Pruritis of Lymphoma)
- **Arms:**
 - **Epitrochlear Lymph Nodes** (All Haem Malignancies)
 - **Axillary Lymph Nodes** (Supra/Infraclavicular/Parasternal/Pectoral/Subscapular/Central/Lateral)
 - *Painful
- **Face:**
 - Conjunctival Pallor (Anaemia of BM Infiltration)
 - Scleral Icterus
 - Wasting
 - Central/Peripheral Cyanosis
 - **Enlarged Tonsils** (MALT Lymphoma)
 - **Candidal Mouth Infections** (Immunocompromise - All Haem Malignancies)
- **Neck:**
 - **Painful Cervical Lymphadenopathy** (All Areas)
- **Chest:**
 - Chest Infections (Immunocompromise - All Haem Malignancies)
 - Systolic Flow Murmurs (if Anaemia of BM Infiltration)
 - Bony Tenderness (Bony Infiltration - All Haem Malignancies)
- **Abdomen:**
 - Hepatomegaly (All Haem Malignancies)
 - Splenomegaly (All Haem Malignancies)
 - Para-Aortic Lymphadenopathy
 - Abdominal Masses (MALT Lymphoma)
 - Bruising, Petechiae, Purpura (Thrombocytopenia of BM Infiltration)
- **Legs:**
 - Bruising, Petechiae, Purpura (Thrombocytopenia of BM Infiltration)
- **Feet:**
 - Peripheral Perfusion + CRT
 - Fungal Nail Infections (Pancytopenia of BM Infiltration)
- **Thank patient “that concludes my examination”, I’ll go organise further tests.**

Focussed Multiple Myeloma Examination:

- **Introduction, Wash Hands, Consent,**
- **General Inspection:**
 - Wasting, Weight Loss
 - Pallor (Anaemia of BM Infiltration)
 - Bruising, Petechiae, Purpura (Thrombocytopenia of BM Infiltration)
 - Abdominal Masses (Hepatomegaly +/- Splenomegaly)
- **Vital Signs:**
 - **Pulse:**
 - Tachycardia (Anaemia of BM Infiltration)
 - **Blood Pressure:**
 - Postural Hypotension (Anaemia of BM Infiltration)
 - **Respiratory Rate:**
 - Tachypnoea (Anaemia of BM Infiltration)
 - **Temperature:**
 - Fever (Due to Infection/Malignancy)
- **Hands:**
 - Peripheral Perfusion + CRT
 - Raynaud's Phenomenon & Digital Infarcts (Blood Hyperviscosity)
 - Palmar Crease Pallor & Pale Nails (Anaemia of BM Infiltration)
- **Arms:**
 - Bruising, Petechia, Purpura (BM Infiltration → Thrombocytopenia)
 - Epitrochlear Lymphadenopathy (All Haem Malignancies)
 - Axillary Lymphadenopathy (All Haem Malignancies)
- **Face:**
 - Conjunctival Pallor
 - No Central or Peripheral Cyanosis
 - Mucosal Candida Infections (Immunocompromise & Neutropenia)
- **Neck:**
 - Cervical Lymphadenopathy (All Haem Malignancies)
- **Chest:**
 - **BONY TENDERNESS (Especially in Ribs & Lumbar Spine)**
 - Bruising, Petechiae, Purpura (BM infiltration → Thrombocytopenia)
- **Abdomen:**
 - Bruising, Petechiae, Purpura (BM infiltration → Thrombocytopenia)
 - Massive Hepatomegaly +/- Splenomegaly
 - Signs of Renal Failure (Due to Ig-Deposition in Kidneys) → Ascites, Uraemic Fetor, etc
- **Legs:**
 - Peripheral Neuropathy (Due to Spinal Cord Compression)
 - Bruising, Petechiae, Purpura (BM infiltration → Thrombocytopenia)
 - Oedema (If Renal Failure)
- **Feet:**
 - Peripheral Perfusion + CRT
 - Peripheral Neuropathy (Due to Spinal Cord Compression)
 - Fungal Nail Infections (Immunocompromise)
- **Thank patient "that concludes my examination", I'll go organise further tests.**