

CLINICAL EXAMINATION LONG CASE: HIP

By

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HIP PATHOLOGY: 1. Presenting Complaint

- PAIN
- SWELLING
- LIMP
- LIMITATION OF MOVEMENT
- DEFORMITY/SHORTENING OF LIMB



-Site/Side
-Duration

e.g. Pain in Rt. Hip for 03 months (in chronological order)

HIP PATHOLOGY: 2. History of Present Illness



❖ **SITE (Lt/Rt or B/L)**

❖ **Duration**

❖ **Onset (Sudden/Insidious)**

❖ **SEVERITY (Mild/Moderate/Severe)**

❖ **CHARACTER (Dull aching/Sharp shooting/Throbbing...)**

❖ **RADIATION**

❖ **TIMING (Intermittent/Continuous/At start of Movement/After Exertion...)**

❖ **DIURNAL VARIATION (Night/Day/Night Cries/Morning Stiffness)**

❖ **AGGRAVATING FACTORS**

❖ **RELEIVING FACTORS**

❖ **PROGRESSION OVER TIME**

❖ **PRESENT STATUS**

❖ **FUNCTIONAL DISABILITY (due to pain)**

HIP PATHOLOGY: 2. History of Present Illness



Negative Points in Pain History (must say):

- TRAUMA**
- MORNING STIFFNESS**
- PAIN IN OTHER JOINTS**
- CONSTITUTIONAL SYMPTOMS**
- LOSS OF APPETITE/WT-LOSS**

e.g. No history of trauma/morning stiffness/pain in other joints/loss of wt ...

Or, history of loss of loss of appetite/wt-loss (if present)

HIP PATHOLOGY: 2. History of Present Illness



→ SITE (Lt/Rt or B/L)

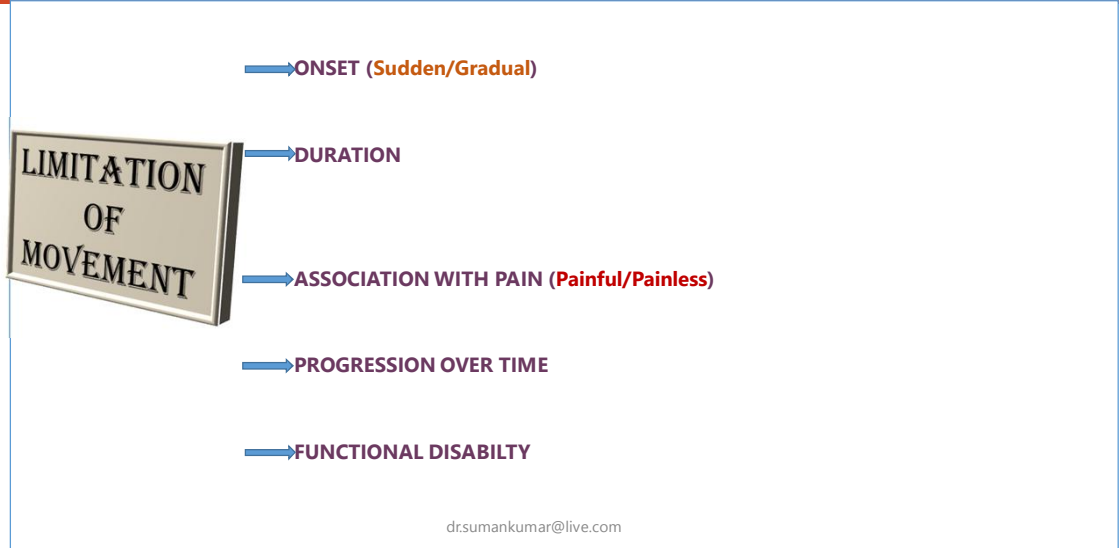
→ ONSET (Sudden/Insidious)

→ DURATION


→ ASSOCIATION WITH PAIN (Painful/Painless)

→ PROGRESSION OVER TIME

HIP PATHOLOGY: 2. History of Present Illness

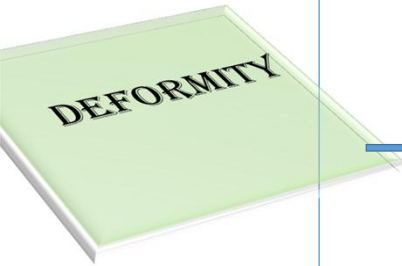


HIP PATHOLOGY: 2. History of Present Illness

- 
- ➔ **ONSET**(Acute/Chronic)
 - ➔ **DURATION**
 - ➔ **ASSOCIATION WITH PAIN**(Painful/Painless)
 - ➔ **PROGRESSION OVER TIME**
 - ➔ **WALKING**(Assisted/Non-assisted)/**UNABLE TO WALK**

- ❖ 1st Symptom to appear in TB hip
- ❖ Painless Limp e.g. DDH, Coxa vara, Dysplastic disorders, Healed disease with deformity

HIP PATHOLOGY: 2. History of Present Illness



→ e.g. SHORTENING OF LIMB/OTHER DEFORMITY

→ **DURATION** (1st noticed by Pt.)

→ **ASSOCIATION WITH PAIN**(Painful/Painless)

→ **PROGRESSIVE/NON-PROGRESSIVE**

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HIP PATHOLOGY: 2. History of Present Illness

❖ TREATMENT HISTORY OF PRESENT ILLNESS

-Any Particular Treatment, its duration & effect on symptom(s),

e.g. ATT for TB hip, Analgesics etc.

❖ ANY NEGATIVE HISTORY IF NOT ALREADY SAID

e.g. No wt. loss/ No loss of appetite/ No night cries etc.

HIP PATHOLOGY: 3.Past History

- ❑ TB (Pulmonary/Extra-Pulmonary)
- ❑ SIGNIFICANT TRAUMA
- ❑ SURGERY AROUND HIP
- ❑ DERMATOLOGICAL DISORDERS
- ❑ HEMATOLOGICAL DISORDERS
- ❑ NEUROLOGICAL DISORDERS
- ❑ CONNECTIVE TISSUE DISORDERS
- ❑ CONGENITAL & DEVELOPMENTAL DISORDERS
- ❑ ANY OTHER SIGNIFICANT MEDICAL/SURGICAL ILLNESS
- ❑ HISTORY OF STEROID INTAKE

- along with their management

HIP PATHOLOGY: 4. Personal History

- OCCUPATION & WORK-TOLERANCE
- DIET
- SMOKING/ALCOHOL/ANY OTHER ADDICTION
- SEXUAL HISTORY(MULTIPLE PARTNER/VISITS TO PROSTITUTES...)
- MENOPAUSAL HISTORY(in females)

HIP PATHOLOGY: 5. Family History

- ❖ History of Significant Illness/Disorders in Family
- ❖ E.g. Tuberculosis in close relative, Dysplasia, Inflammatory disorder, Metabolic storage disease

CLINICAL EXAMINATION

❖ GENERAL EXAMINATION

❖ LOCAL EXAMINATION

GENERAL EXAMINATION

❖ GENERAL CONDITION:

-Thin/Obese/Average built

-Consciousness; Orientation with Time , Place & Person

-Febrile/Afebrile

-Pallor/Icterus/Cyanosis/Clubbing/Edema/Lymphadenopathy

-*Vitals*: Pulse; BP; Resp. Rate

**-Skin/Hemophilia/Dysplasia/Hypermobility syndrome/Abdomen for
Psoas Abscess**

GENERAL EXAMINATION

❖ SYSTEMIC EXAMINATION:

CHEST EXAMINATION- *Chest Movement/Chest Expansion**; Air-Entry; Breath-sound/ Added Sound

CVS EXAMINATION- Heart Sounds; Additional sounds

PER-ABDOMEN EXAMINATION- soft/firm/hard; tender/non-tender;
Any palpable mass/ Ilio-psoas abscess

CNS EXAMINATION- Higher mental function/ Cranial Nerve examination/ Motor & sensory examination/ Bladder & bowel status

HIP PATHOLOGY: LOCAL EXAMINATION

1. GAIT

2. ATTITUDE

3. INSPECTION

4. PALPATION

5. DEFORMITY

6. MOVEMENTS

7. MEASUREMENTS

8. SPECIAL TESTS

9. TEST FOR INSTABILITY

10. OTHER EXAMINATION

HIP PATHOLOGY: LOCAL EXAMINATION

- ¶ Examine the Pt. from Front, Side & Back in Standing, Sitting & Lying down Positions
- ¶ Look for the Gait while Pt. is walking & see the attitude of the Pt. when he/she is standing/sitting /lying down.

HIP PATHOLOGY: LOCAL EXAMINATION



GAIT

- Bipedal/Unipedal**
- Unassisted/assisted**
- Antalgic/Short Limb/
Trendelenberg/Waddling/Circumduction...**

HIP PATHOLOGY: LOCAL EXAMINATION

ATTITUDE

- ❖ ***In Standing:*** Head- central/deviated to side; Level of Shoulders, Scapula, Nipples; Spine-curved Limbs- Hip/Knee in flexion, Ankle in equinus
- ❖ ***On Lying Down:*** Both upper limbs by the side of the trunk; Lower Limbs- parallel/Externally or Internally Rotated; Patella facing towards ceiling/outward/inward ; hip/knee in flexion; ankle-equinus

HIP PATHOLOGY: LOCAL EXAMINATION

INSPECTION

- ❖ **ASIS**
- ❖ **Swelling/Scar/Sinus/Ulcer/Venous Dilatation over Scarpa's Triangle & other area near hip joint**
- ❖ **Inguinal/Gluteal fold/bulge**
- ❖ **Dimple of Venus**
- ❖ **Deformity/Exaggerated Lumbar Lordosis**
- ❖ **Wasting of Thigh/Calf/Gluteal area**
- ❖ **Visible Contracture/Abnormal Skin condition**

HIP PATHOLOGY: LOCAL EXAMINATION



PALPATION

All Findings of Inspection- confirmed by Palpation

- **Temperature:** local rise of temperature
- **Tenderness:** Joint-line tenderness (anterior* & posterior**); Tenderness over GT, ASIS, Pubic Symphysis, PSIS, SI joint, Ischial tuberosity
- **Femoral Pulse:** at the base of Scarpa's Triangle- Narath sign
- **Deep Palpation of GT-** smooth/irregular/broadening
- **Digital Palpation to look for** Proximal Migration of GT

* 2 cm below & lateral to mid-inguinal point

** A point at the jn of medial 2/3rd & lateral 1/3rd of line joining PSIS to GT

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HIP PATHOLOGY: LOCAL EXAMINATION

- ❑ FIXED FLEXION DEFORMITY: U/L-measured by **THOMAS TEST**
B/L- by Prone position
- ❑ FIXED ABDUCTION/ADDUCTION DEFORMITY: by **Squaring the Pelvis**
- ❑ FIXED EXT. ROTATION/INT. ROTATION DEFORMITY: by **Goniometer**



DEFORMITY



DEFORMITY

HIP PATHOLOGY: LOCAL EXAMINATION

-Free, painless /Associated with pain, spasm, crepitus/Terminal movement painful

✓FLEXION: 0-90 with Knee in extension
0-130 with Knee fully flexed

✓EXTENSION: 0-20

✓ABDUCTION: 0-45

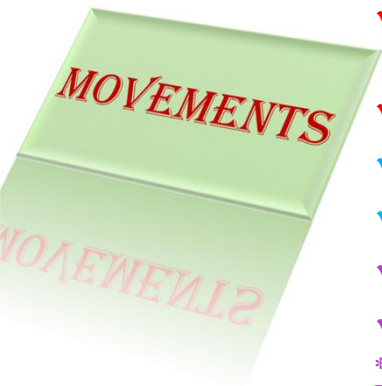
✓ADDUCTION: 0-35

✓EXT. ROTATION*: 0-40

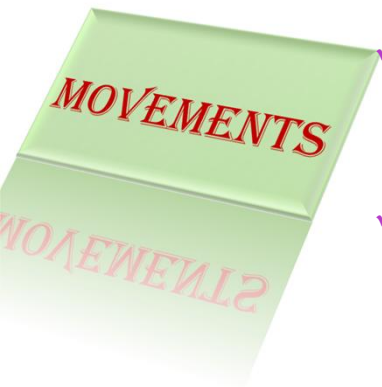
✓INT. ROTATION*: 0-30

*both Internal & External rotation to be measured with Hip & Knee in Extension, & hip & knee in 90 degree flexion

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HIP PATHOLOGY: LOCAL EXAMINATION



- ✓ **SECTORAL SIGN:** internal rotation restricted when hip flexed to 90 degree/ limb goes into external rotation
- ✓ **AXIS DEVIATION:** on full flexion of hip & knee limb directed to ipsilateral shoulder (normally directs to contralateral shoulder)
- ✓ **DESAULT SIGN:** on passive rotation of femur- Arc of rotation of GT smaller in # NOF

HIP PATHOLOGY: LOCAL EXAMINATION



MEASUREMENTS

MEASUREMENTS

1. **APPARENT LENGTH:** keeping both lower limbs parallel; from xiphisternum to lower end of medial malleolus; of both lower limbs
APPARENT SHORTENING
2. **TRUE LENGTH:** after squaring pelvis; from ASIS to lower end of medial malleolus; 1st measure affected limb; then measure normal limb by keeping it in identical position as affected limb
TRUE SHORTENING
3. **WASTING OF THIGH & CALF:** equidistant from fixed bony points at maximum girth of muscle; 1st normal side then affected side

HIP PATHOLOGY: LOCAL EXAMINATION

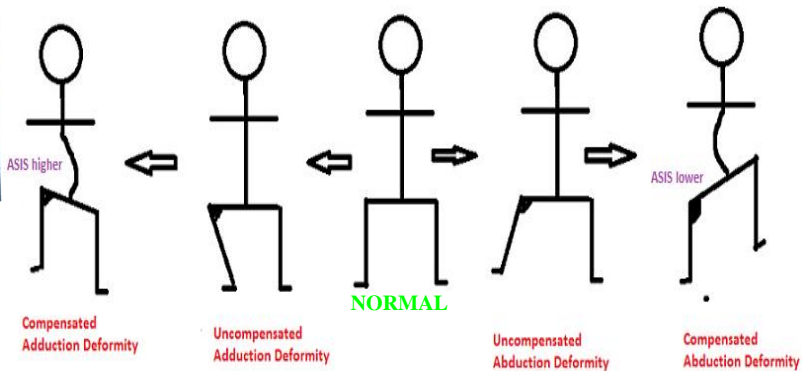
MEASUREMENTS

- ❖ **Apparent length measurement:** It is functional length which helps in assessing the extent of natural compensation developed for concealing the actual deformity/disability by tilting the pelvis sideward
- ❖ TS (True Shortening) = AS (Apparent Shortening) → No Compensation
- ❖ Apparent Length- B/L equal → Full Compensation (i.e. no apparent shortening)
- ❖ $TS > AS$ → only part of deformity compensated by tilting pelvis (Fixed Abduction Deformity)
- ❖ $TS < AS$ → Fixed Adduction Deformity with Shortening & no compensation
- ❖ 10 degree deformity \approx 1 cm
- ❖ $AS = TS +$ Adduction deformity
- ❖ $AS = TS -$ Abduction deformity

HIP PATHOLOGY: LOCAL EXAMINATION

MEASUREMENTS

MEASUREMENTS



HIP PATHOLOGY: LOCAL EXAMINATION

SPECIAL TESTS

SPECIAL TESTS

- A. BRYANT'S TRIANGLE
- B. NELATON'S LINE
- C. SHOEMAKER LINE
- D. CHIENE'S LINE
- E. MORRIS BITROCHANTERIC LINE
- F. KOTHARI'S ANGLE

HIP PATHOLOGY: LOCAL EXAMINATION

A. ACTIVE SLR

B. TELESCOPY TEST

C. TRENDELENBERG TEST

D. ORTOLANI'S TEST/SIGN

E. BARLOW'S MANEUVER



**TEST FOR
STABILITY**



**STABILITY
TEST FOR**

HIP PATHOLOGY: LOCAL EXAMINATION

- EXAMINATIONS OF OTHER JOINTS
- DISTAL NEUROVASCULAR STATUS
- PER-RECTAL EXAMINATION



OTHER
EXAMINATIONS

EXAMINATIONS
OTHER