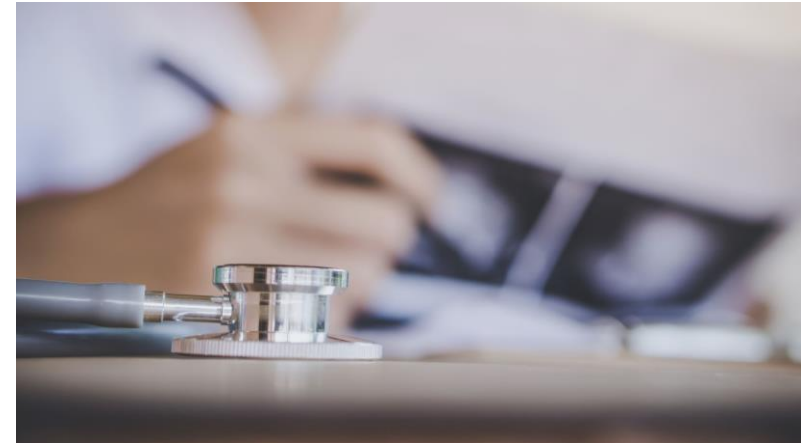


# Introduction to Medical History & Clinical Examination



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# History and Examination

- History = symptoms
- Symptoms are subjective information delivered by the patient so need more clarifying
- Examination = signs
- Signs are objective information obtained by clinician need assistant tools, instruments and maneuvers

# History and Examination

- Symptoms and signs should be consistent and if not, recheck
- Symptoms + Signs = differential diagnoses
- Symptoms and signs = relevant investigations request
- Symptoms + Signs + Investigations = diagnosis

# Why history & examination is important?

1. Reaching the diagnosis to prescribe treatment or take management decision?
2. Medical reporting
  - i. Follow-up the case
  - ii. Medicolegal issues
    - Insurance companies
    - Police records
3. Formation of summary for the case (consultation)
4. To pass the clinical examination
  - Long case scenario
  - Short case scenario (OSCE station)

# History and Examination interpretation

- History should precede examination
- History directs the examination focusing
- History should be consistent with examination findings
- If they are not consistent you have to take history and repeat examination and try to find explanation

# History Components

1. Establishing a good relationship with the patient (introduction& Permission)
2. Personal Data
3. Chief Complaints or presenting symptom
4. History of Present Illness
5. Review of systems
6. Past medical and surgical history
7. Family history
8. Drug & Allergy history
9. Social history
10. Behavioral history
11. Summery of the History

# 1. Establishing a good relationship with the patient (introduction& Permission)

1. Who are you , introduce yourself ?
2. Why you are here for , explain your purpose?
3. Politely, ask for permission to take history and examination
4. Ensure privacy by closing the door or down the curtains
5. Sit beside the patient to be on the patient's eye level
6. Don't be fast
7. Address the patient respectfully, use his name or title
8. Little chatting about general issues may be helpful to warm up the interview.

## 2. Personal Data

1. Name
2. Age
3. Gender
4. Occupation
5. Marital status

### 3. Chief Complaint/s or Presenting Symptom

- The main complaint causes patient seeking medical care
- Write them in patients' word → don't use medical terms
- Ask about duration of the complaint
- (chronic → months or years)(subacute → weeks or days )  
(acute → days or hours)
- When the last time you were well or free of this complaints?

## 4. History of present illness (HPI)

- The backbone and guidance for the history
- Utilize most time in this part
- Narrative, time sequenced writing interrupted by open questions
- After the patient takes time to tell story , close this session by asking direct closed questions to fill gaps in the story.
- Try as you can to avoid using the medical terms when you write the story.
- Many patients have their own hypothesis regarding their symptoms and disease, don't be leaded.

## 4. History of present illness (HPI)- cont....

- Analysis of the chief complaint/s
- mnemonic **SOCRATES**

**Site** → Ask where the symptom is exactly and whether it is localized or diffuse. Ask the patient to point to the actual site on the body.

**Onset** → does the symptom came on rapidly , gradually or instantaneous and how it goes is it continuously or intermittently

**Character** → ask the patient what is meant by the symptom. If there is pain, is it sharp, dull, stabbing, boring, burning or cramp-like?

**Radiation (pain or discomfort)**

**Alleviating factors**

**Timing** → duration

**Exacerbating factors**

**Severity** → you can use scale (0 to 10)

- Complete reviewing of the target system in this part.

## 5. Review of Systems (ROS)

- Ask direct questions about the main symptoms for each system, except the C/O system:
- CNS: headache, dizziness , blurring of vision , ??
- Musculoskeletal system: joints pain or swelling, muscular pain or atrophy??
- Cardiopulmonary : palpitations, shortness of breathing, cough , chest pain
- GIT: weight loss, loss of appetite, abdominal pain , nausea, vomiting
- Urogenital system: burning micturition , urine retention, incontinence, urethral discharge
- Integumentary system: pruritus , discoloration,

## 6. Past medical and surgical history

- If he had any past medical problem , analyze it regarding symptoms, treatment
- History of hospitalization , cause and days of stay
- Surgical history , indications, complications

## 7. Family History

1. Ask about any disease runs in his family
2. Ask about similar disease in the family
3. If yes , what is the degree of relationship

## 8- Drug & Allergy history

- List of all drugs , topical, systemic , herbals
- Do you allergic to any certain drugs or foods

## 9. Social History:

- Ask about :
  1. Socioeconomic level
  2. Housing setting
  3. Occupation
  4. Travelling history
  5. Hobbies

## 10. Behavioral History

1. Smoking
2. Drinking
3. Drugs (narcotics)
4. Sexual relations

- Conclude the interview by asking the patient
- Do you have any thing you want to ADD?

# 11. Summarization

- Write down all the positives and the most important negatives information in points formatting.
- Why summarization is important?

1. Consultation

2. Follow-up

3. Examination

# Examination Components

- A. General Examination
- B. Systems Examinations
  - 1. Respiratory system
  - 2. Cardiovascular system
  - 3. Gastrointestinal system
  - 4. Musculoskeletal system
  - 5. Integumentary system
  - 6. Nervous system
    - i. CNS
    - ii. PNS

## The importance of general examination:

- Helps to determine the most body system should be stressed during systems examination.
- With proper history the general examination may be enough to obtain the diagnosis OR a short list of diagnoses.

# A. General Examination Components

1. General patient condition
2. Face
3. Fever
4. Pallor
5. Jaundice
6. Cyanosis
7. Lymph nodes enlargement
8. Hands , Digits & Nails
9. Mouth , Oral cavity & Tongue
10. Temperature
11. Pulse rate
12. Blood pressure
13. Respiratory rate

# 1. The general condition of the patient

- Well
- unwell
- ill
- In pain
- cachexic
- Consciousness level
- delirium
- orientation

## 2. Face

- A specific diagnosis can sometimes be made by inspecting the face

1. Acromegalic
2. Down Syndrome
3. Cushingoid
4. Parkinsonian

## 2. Fever

- High grade fever
- In history if it is there should be analyzed regarding its course (continuous, intermittent, remittent) , association (rigors, sweating), timing (nocturnal) , reliving factors (antipyretic drugs)

### 3. Pallor

- Skin , mucous membranes
- Indicates anemia (low hemoglobin concentration)

## 4. Jaundice

- Yellowish discoloration of the sclera of the eyes, mucous membrane , and skin
- Types of jaundice ?
  1. Prehepatic
  2. Hepatic
  3. Post hepatic
- If it is associated with pallor → indicates prehepatic
- if it is associated with pruritus → indicates post hepatic
- If it is associated with fever → may indicates hepatic (viral hepatitis )

## 5- Cyanosis

- Bluish discoloration of the extremities and tongue
- If more than 5g/dl of deoxygenated hemoglobin is present in the capillary blood, the skin will have a bluish tinge.
- If the tongue is involved → central (cardiopulmonary) cyanosis
- If the digits only involved → peripheral (vasoconstriction) cyanosis
- Raynaud's phenomena → connective tissue diseases
- Can cyanosis and pallor concomitant together in the same patient?

## 6- Lymphadenopathy

- Complete examination of all LN groups
  1. Localized
  2. Generalize
  3. Discrete or Matted
  4. Tender
- If it is generalized and associated with pallor → may indicates lymphoma
- If it is tender → may indicates infections

## 7- Hands, Digits and Nails

### 1- Tremors

- i. Fine of stretched hands → hyperthyroidism
- ii. Rest tremors → Parkinsonism
- iii. Intention tremors → cerebellar ataxia

2- Sweating and erythema → hyperthyroidism

## 7- Hands, Digits and Nails, cont.....

- 3- Digits bluish discoloration and ulcers → Raynaud's phenomenon as part of scleroderma
- 4- Nail changes may indicate dermatological or systemic diseases
  - Dermatological changes might be due nail infection as onycholysis or a part of generalized dermatological diseases as psoriasis or lichen planus
- 5- Clubbing fingers → chronic diseases (pulmonary , hepatic ,cardiac )

# koilonychia



## Clinical Presentation of Moderate to Severe Fingernail Psoriasis

### Nail Matrix Features



Pitting



Leukonychia



Crumbling

### Nail Bed Features



Subungual  
hyperkeratosis



Onycholysis



Splinter  
hemorrhages



Normal angle  
of nail bed



Distorted angle  
of nail bed

Clubbed fingers



# 10- Mouth, Oral cavity & tongue

1. Angular cheilitis → anemia
2. Smooth tongue →
3. Hairy tongue →
4. Deviation of the tongue →
5. Ulcers →
6. Ulceration of the mucous membranes →
7. Dental cavities →
8. Leukoplakia →



# Angular cheilitis



# 13. Temperature

- ❑ Measure the core temperature using thermometers

1. Digital
2. Mercury

- ❑ Sites

1. Mouth → 36.8 c
2. Axilla → 36. 4 c
3. Rectum → 37.3 c

# 14. Pulse Rate

- Peripheral arteries
  - A. Carotid arteries
  - B. Upper extremities → radial , brachial
  - C. Lower extremities → femoral , popliteal , dorsalis pedis
- Use the index and middle finger , don't use thumb?
  1. Rate → normal , tachycardia or bradycardia
  2. Regular or irregular
  3. character of pulse; weak, thready ,strong , synchronize
  4. Radio femoral delay
  5. Collapsing pulse → hyperdynamic circulations (anemia, pregnancy, thyrotoxicosis )

## 15- Blood Pressure

- Using the sphygmomanometer (digital or mercury)
- Palpation method → systolic pressure
- It is better to use the two methods simultaneously start by palpation method
- Pulse pressure → systolic pressure - diastolic pressure  
< 60 mmHg

## 16. Respiratory rate

- Count it for full minute
- Count it while you are pretending taking pulse rate to reduce patient stress ?
- Comment is it normal
- Shallow , deep , apnea , regular or irregular

## 17. Neck pulsation

1. Arterial

2. Venous

How can we differentiate?

## B. Systems Examination

- **The four gold standards of clinical examinations are:**
  1. Inspection
  2. Palpation
  3. Percussion
  4. Auscultation
- The importance and application of each standard differs from one system to other

# The Importance of the Four Examination Standards in Different Systems

- General Examination → Inspection > Palpation
- CVS → Auscultation > Inspection > Palpation > Percussion
- Res → Auscultation > Percussion > Palpation > Inspection
- GIT → Palpation > Percussion > Inspection > Auscultation
- Muscle → Inspection > Palpation
- Integumentary system → Inspection > Palpation
- CNS → Inspection > Palpation

# 1. Cardiovascular System

## 1- Inspection

1. Precordium contour
2. Blood vessels
3. Chest pulsation

## 2- Palpation

1. Tenderness
2. Parasternal heaving
3. Thrill
4. Apex localization

# 1. Cardiovascular System cont.....

## 3- Percussion

- Liver expansion

## 4- Auscultation

### 1. Heart sounds →

- ✓ Normal (first & second heart sounds )
- ✓ Third & forth heart sounds

### 2. Added sounds → murmurs → timing

- ✓ Systolic murmurs → physiological and pathological
- ✓ Diastolic murmurs → always pathological

## 2. Respiratory System

### 1- Inspection

1. Respiratory rate
2. Chest contour
3. Chest movement

### 2- Palpation

1. Tenderness
2. Chest expansion

## 2. Respiratory System

### 3- Percussion

1. Resonant → air
2. Dull → fluid or mass

### 4- Auscultation

1. Breathing type → bronchial or vesicular
2. Added sounds → crepitation , wheezing

# 3. GIT (Abdominal Examination)

## 1- Inspection

1. Bulging and masses
2. Distention
3. Dilated vessels
4. Visible bowels movements
5. Scars

## 2- Palpation

1. Superficial palpation → tenderness
2. Deep palpation → organomegaly
3. Hepatojugular reflux
4. Fluid thrill
5. Description of mass

### 3- Percussion

1. Dullness
2. Hyper resonance
3. Fluid shifting
4. Shifting dullness
5. Fluid thrills

### 4- Auscultation

1. Bowel sounds
2. Venous hums
3. Bruits

# Challenges to perform proper history and examination

➤ The history taking and examination performance are mainly affected by the purpose of history taking .

1. The time challenge
2. Avenue setting (place)
3. Patient collaboration

How to overcome these obstacles ?

1. Do more and more histories and examinations
2. Take history in different settings .
3. Write down the histories & examinations in one notebook and revise them frequently.