How should the examining doctor prepare before commencing an examination?

- **Mnemonic WIPER**

• Wash hands, remove all jewelry and watches and expose arms above elbows.

• Introduce yourself.

• Purpose and Permission: explain purpose and gain verbal consent (permission) to proceed with the examination.

• Expose the patient appropriately for the examination you are about to perform.

• Recline: position the patient appropriately

General Examination Consist of :

A-General Look (Eagle Eye)

B-Regional Examination (head to toe including JACCOL)

JACCOL (Jaundice, Anemia, Clubbing,Cyanosis, Oedema, Lymph-adenopathy)

A-General Look

1. AGE OF THE PATIENT
2. SEX OF THE PATIENT
3. AWARENESS OR LEVEL OF CONSCIOUSNESS
4. DECUBITUS OF THE PATIENT IN THE BED
5. STATE OF COMFORTABILITY
6. BODY BUILT (PHYSIQUE)
7. DYSPNOEA and TACHYPNEA
8. MEDICAL ACCESSORIES :

odor
Sound
Color

B-Regional Examination

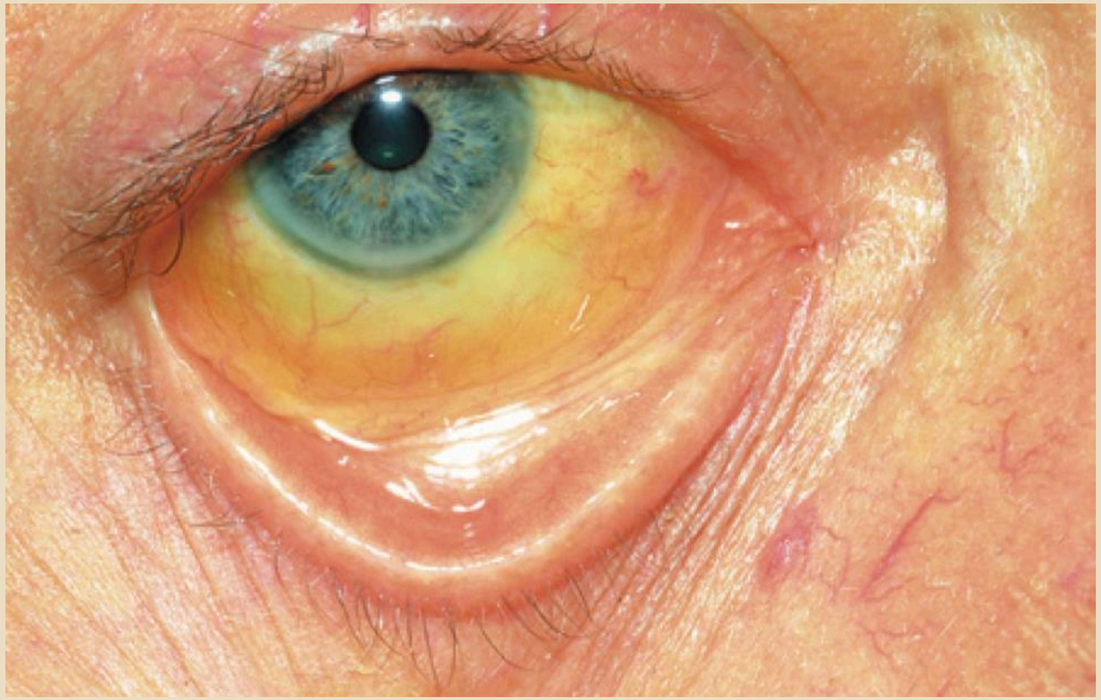
- **A quick method for remembering the signs of systemic disease before starting the regional examination is (JACCOL) :**

- we can use **JACCOL** Mnemonic :

Jaundice, **A**naemia, **C**lubbing, **C**yanosis, **O**edema, **L**ymphadenopathy

Jaundice

- Jaundice is an abnormal yellow discoloration of the skin, sclera and mucous membranes. It is usually detectable when serum bilirubin concentration rises above 50 µmol/L (3 mg/dL)



Examination sequence of jaundice

1. examine the eyes for jaundice using the following steps :

a. Ask the patient to turn his/her head into natural light (in ward, the day light is obtained through windows). because jaundice that is obvious in daylight may be undetected in artificial light .

b. Raise the upper eye lid using the thumb of your left hand to inspect upper sclera meanwhile the patient is looking to your right hand moving downwards .

2. Examine the sublingual mucosa \ look for jaundice in the sublingual mucosa after asking the patient to open his/her mouth and raise tongue .

3. Inspection of skin \ Scratch marks could be Additional sign for examining jaundice in case of obstructive jaundice .

6.6 Common causes of jaundice

Increased bilirubin production

- Haemolysis (unconjugated hyperbilirubinaemia)

Impaired bilirubin excretion

- Congenital:
  - Gilbert's syndrome (unconjugated)
- Hepatocellular:
  - Viral hepatitis
  - Cirrhosis
  - Drugs
  - Autoimmune hepatitis
- Intrahepatic cholestasis:
  - Drugs
  - Primary biliary cirrhosis
- Extrahepatic cholestasis:
  - Gallstones
  - Cancer: pancreas, cholangiocarcinoma

Anemia

Anaemia can cause pallor, in which there is a reduction in circulating oxyhaemoglobin in the dermal and subconjunctival capillaries,

The best sites to assess for the pallor of anaemia are :

1. the conjunctiva (specifically the anterior rim)

2.**Examin the sublingual blood vessels** \ look for pallor in the sublingual blood vessels after asking the patient to open his/her mouth and raise tongue

3. **the palmar skin creases** \ The palmar creases turned pale (in comparison with your palm) when the hemoglobin is less than 7 g/dL

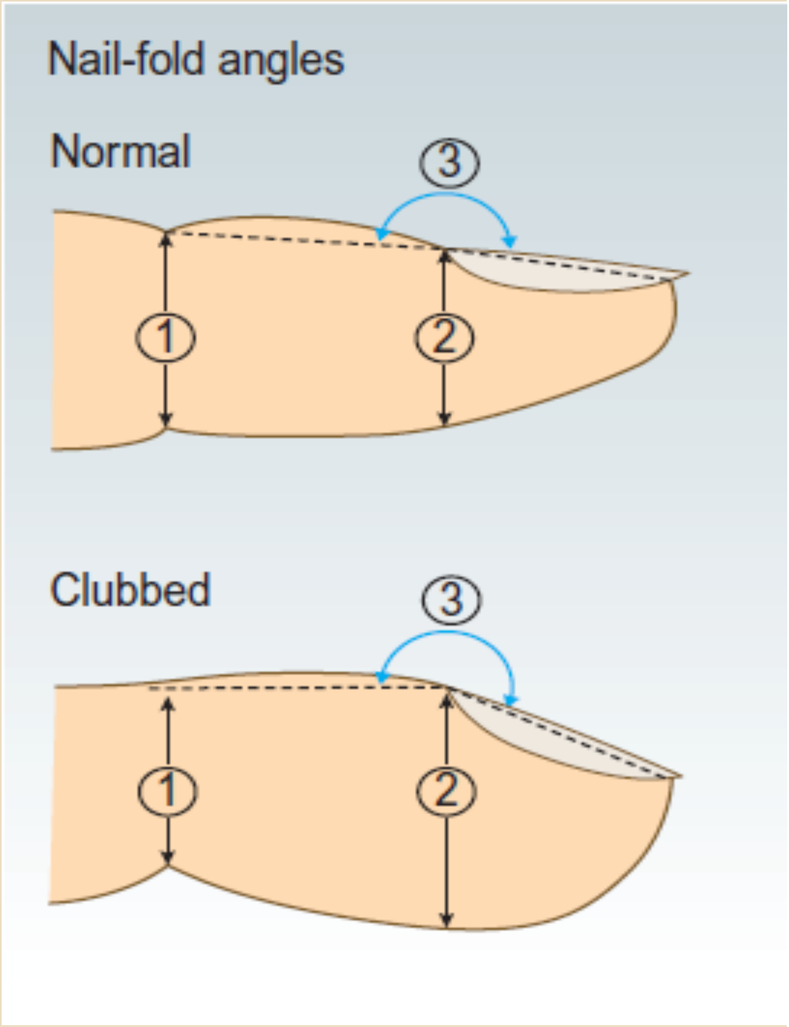
Finger clubbing

- Finger clubbing describes painless soft tissue swelling of the terminal phalanges and increased convexity of the nail. Clubbing usually affects the fingers symmetrically.

Finger clubbing stages and examination sequence

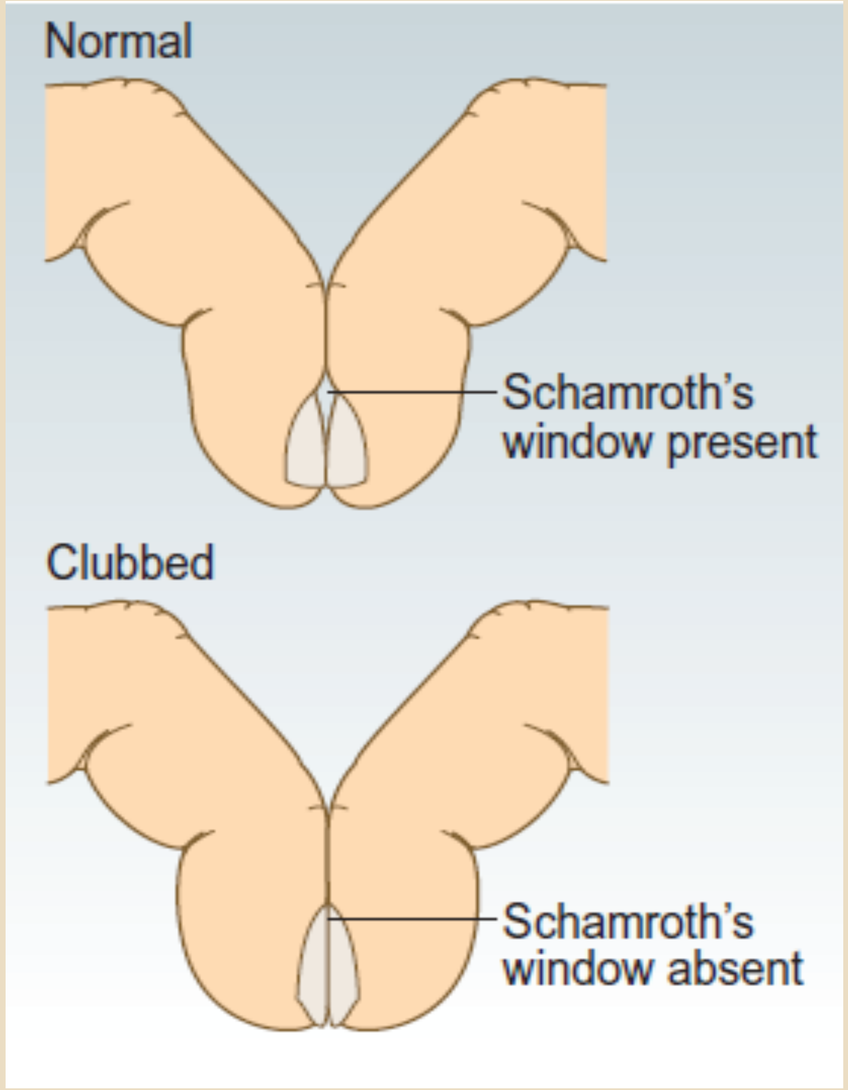
Stage 1: increase nail bed angle

Look across the nail bed from the side of each finger,
Assess the nail-bed angle.



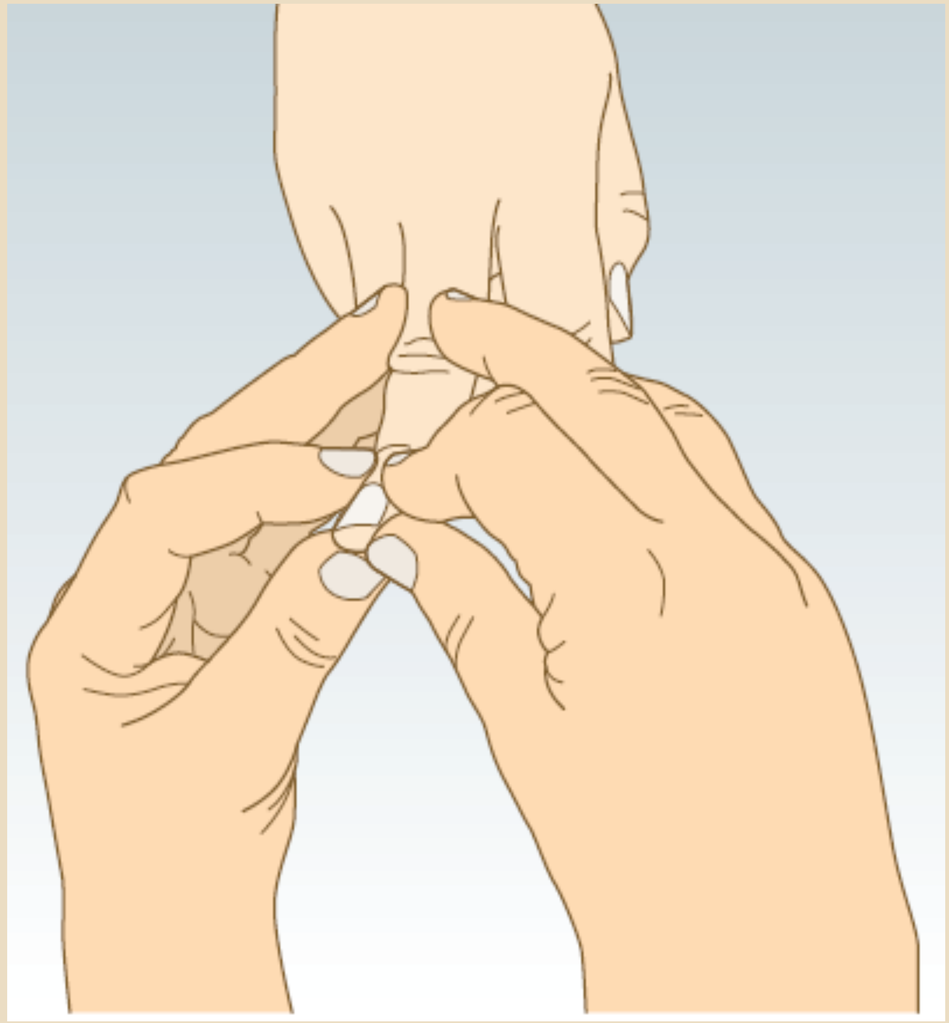
Stage 2 : abscent Schamroth's window

Ask the patient to place the nails of corresponding (ring) fingers back to back and look for the normal 'diamond-shaped' gap between the nail beds (Schamroth's window sign).



Stage 3: Increased nail-bed fluctuation

Place your thumbs under the pulp of the distal phalanx and use your index fingers alternately to see if there is fluctuant movement of the nail on the nail bed.



Stage 4 : drumstick appearance

3.5 Causes of clubbing

Congenital or familial (5–10%)

Acquired

- Thoracic (~70%):
  - Lung cancer
  - Chronic suppurative conditions: pulmonary tuberculosis, bronchiectasis, lung abscess, empyema, cystic fibrosis
  - Mesothelioma
  - Fibroma
  - Pulmonary fibrosis
- Cardiovascular:
  - Cyanotic congenital heart disease
  - Infective endocarditis
  - Arteriovenous shunts and aneurysms
- Gastrointestinal:
  - Cirrhosis
  - Inflammatory bowel disease
  - Coeliac disease
- Others:
  - Thyrotoxicosis (thyroid acropachy)
  - Primary hypertrophic osteoarthropathy

central cyanosis can be seen in the lips, tongue and buccal or sublingual mucosa

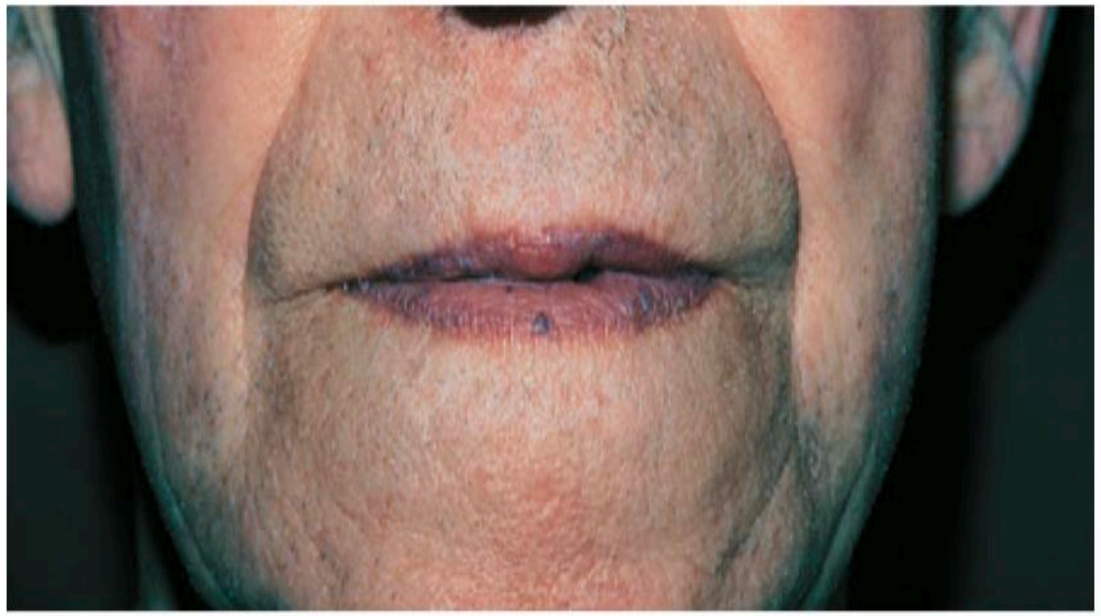
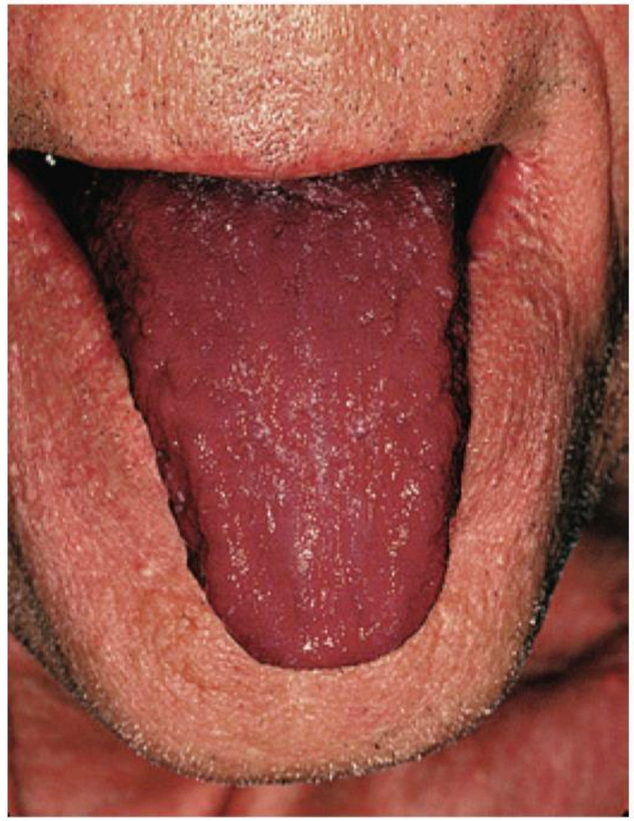


Fig. 3.18 Central cyanosis of the lips.



Central cyanosis of the tongue.