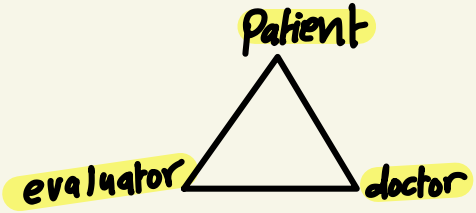
General physical examination
Dr. Waleed

* In practice :



* Three types of question :
  1- open Q
  2- close Q
  3- leading Q (يوحي للمريض بالإجابة) ⬅️ أكيد انت ما وقفت الدوا ؟

* General appearance : 1- general look (ill, well, very ill ...)

Look at the patient's general appearance. Do they look unwell, frightened or distressed? Are there any signs of breathlessness or cyanosis? Is the patient overweight or cachectic? Are there any features of conditions associated with cardiovascular disease such as Marfan's (p. 30), Down's (p. 36) or Turner's syndrome (p. 36), or ankylosing spondylitis (p. 262)?

Conclude by examining the entire skin surface for petechiae, checking the temperature (p. 345) and performing urinalysis (p. 246). Fever is a feature of infective endocarditis and pericarditis, and may occur after myocardial infarction. Urinalysis is necessary to check for haematuria (endocarditis, vasculitis), glucosuria (diabetes) and proteinuria (hypertension and renal disease).

Looks very well ☺

Patient (looks very sick)

اللهم إن نعمك كثيرة علينا لا نحصيها ولا نحصي ثناء عليك ولا نقدر وأنت سبحانك كما أثنيت على نفسك وأنت سبحانك غني عن العالمين 💙

2- GCS Glasgow Coma Scale (GCS) score.

* assessing 3 things

1- eye opening
أقصى نقاط 4

2- motor function
أقصى نقاط 5

3- verbal commands
أقصى نقاط 6

The Glasgow Coma Scale (GCS) is more sensitive to changes in a patient's conscious level but is more complex. It measures eye opening, vocal and motor responses (Box 18.5). The GCS was initially validated as a measure of conscious level in patients with traumatic brain injury. Its use has been extrapolated to many situations of altered consciousness and it may not always perform as intended.

The GCS should always be reported in its component parts – for example, E4 V5 M6 – and it can be useful to describe each mental function

highest score → أعلى نقاط 15 ← (fully conscious alert) * أعلى إشي

lowest score → 3 not 4 !!

* أقل إشي ← أقل score لكل واحد 1 (not zero)
, so 1+1+1 = 3 نقاط

deep coma (المريض يكون في غيبوبة تامة)

3 → deep coma , unresponsive

4-8 → severe

9-13 → moderate

13-14 → mild (cognitive) , high mental function

15 → full conscious ✔

للترتيج فقط

18.5 Glasgow Coma Scale (GCS)

Eye opening (E)	
4	Spontaneously
3	To speech
2	To pain
1	No response
Best verbal response (V)	
5	Orientated
4	Confused
3	Inappropriate words
2	Incomprehensible sounds
1	No verbal response
Best motor response (M)	
6	Obeys commands
5	Localises painful stimulus
4	Normal flexion
3	Abnormal flexion
2	Extends to painful stimulus
1	No response

Reproduced from Teasdale G, Jennett B. Assessment of coma and impaired consciousness: a practical scale. The Lancet 1974; 304(7872):81–84, with permission from Elsevier Ltd.

* orthopnea → Common in Pericarditis التهاب غشاء التامور

3 – body built (under weight , normal , obese) BMI

BMI = (weight / height2)

3.7 The relationship between body mass index (BMI), nutritional status and ethnic group

Nutritional status	BMI non-Asian	BMI Asian
Underweight	< 18.5	< 18.5
Normal	18.5–24.9	18.5–22.9
Overweight	25–29.9	23–24.9
Obese	30–39.9 or 30 - 35	25–29.9
Morbidly obese	≥ 40 or ≥ 35	≥ 30

obese Man

very thin

4 - Connections → more sick كل ما كان المريض connections كل ما زادت ال

↳ catheter

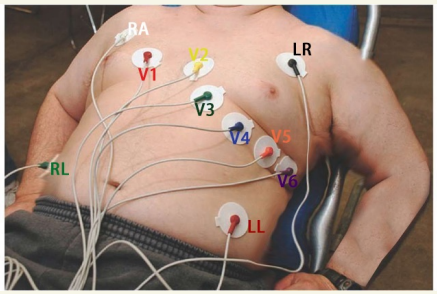
↳ Respiratory tube

↳ Pulse oximeter

↳ Oxygen

↳ IV infusion

nasal cannula



ECG leads

Tracheostomy

"نستخدمها غالباً مع حالات Tracheal Stenosis"

procedure to help air and oxygen reach the lungs by creating an opening into the trachea from outside the neck

urine bag

* A Medic Alert bracelet or necklace highlights important medical conditions and treatments.

* Vital signs

Vital signs

Physiological observations are monitored routinely in patients who are admitted to hospital. The vital signs that are measured include heart rate, blood pressure, respiratory rate, oxygen saturations, temperature and level of consciousness. Additional monitoring may include urine output, pain assessment and blood glucose testing.

1- Pulse :

< 60 bpm	Bradycardia
60-100 bpm	Normal pulse rate
> 100 bpm	Tachycardia

2- Temperature : oral

< 36°C	Hypothermia
36°C-37.2°C	Normal
> 37.2°C	Hyperthermia
> 38°C	High grade fever

Low grad fever ←

Axillary → Lower than oral by 0.5°

rectal → higher than oral by 0.5° (Most accurate)

3- Respiratory Rate :

< 12	Bradypnoea
12 - (20 - 4)	Normal
> 20	Tachypnoea

15 → normal
17 → normal

4- blood Pressure :

$BP = \frac{\text{systolic}}{\text{diastolic}} = \frac{120}{80}$

	Normal	Prehypertention	Hypertension
Systolic	90 - 129	130 - 139	> 140
Diastolic	60 - 79	> 80	> 90

$< \frac{90}{60}$ → hypotension

→ after vital signs, we start examination : from upper to lower

(finger → hands → arms → head & neck → lower parts) ?

we start from hair → head → forehead → face →
hair: alopecia...
forehead: hair loss
face: tightening, cushing

SLE / malar rash → cheeks & bridge of the nose

not Photosensitive Rash → whole face

Alopecia

one 1/3

frontal bone baldness

hypothyroidism → loss of hair & loss of lateral eyebrow

tightening of skin

يكون الوجه مشدود كثير ←

there is :

- no wrinkles
- no sweating

Cushing , moon face
obese

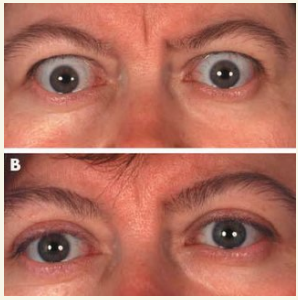
* exophthalmus (Proptosis)

normally → eyelid cover just one third of eye

Eyes

Examination sequence

- Look for periorbital puffiness or oedema, and lid retraction (this is present if the white sclera is visible above the iris in the primary position of gaze; see Fig. 10.2A).
- Examine for features of Graves' ophthalmopathy, including exophthalmos (look down from above and behind the patient), lid swelling or erythema, and conjunctival redness or swelling (chemosis). → العينين كأنه مدمع
- Assess for lid lag: ask the patient to follow your index finger as you move it from the upper to the lower part of the visual field. Lid lag means delay between the movement of the eyeball and descent of the upper eyelid, exposing the sclera above the iris.



Lid retraction
(supply Levator palpebra superioris muscle) innervated by oculomotor & sympathetic

→ let Patient follow my finger when move it from above to down.

فتبقى ال eyelid ثابتة ← بتنزل العين وما بتنزل ال eyelid

lag → تأخر

Causes :

1- hyperbilirubinemia
2- Alcohol
3- carotenemia

Jaundice

Pale hands

Fig. 3.18 cyanosis of the lips.

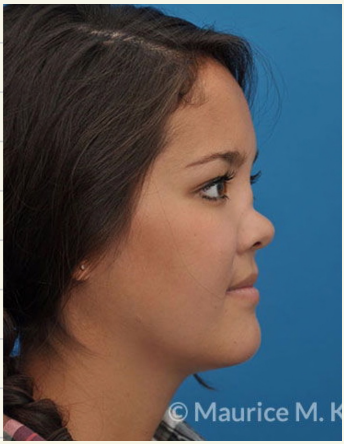
central Peripheral

Nasal deformity

The most common cause of nasal deformity is trauma, resulting in swelling, bruising and deviation of the nose. The swelling following trauma will settle over a couple of weeks but residual deviation may remain if the nasal bones were fractured and displaced. It is important to establish the impact of the nasal injury on function (nasal breathing, sense of smell) and cosmetic appearance.

Nasal septal destruction or perforation can result in 'saddle deformity' of the nasal bridge. Causes include granulomatosis with polyangiitis, trauma, cocaine abuse, congenital syphilis and iatrogenic factors (septal surgery, Fig. 9.14B).

The nose can appear widened in acromegaly or with advanced nasal polyposis (Fig. 9.14C). Rhinophyma can also result from chronic acne rosacea of the nasal skin (Fig. 9.15).



Saddle nose

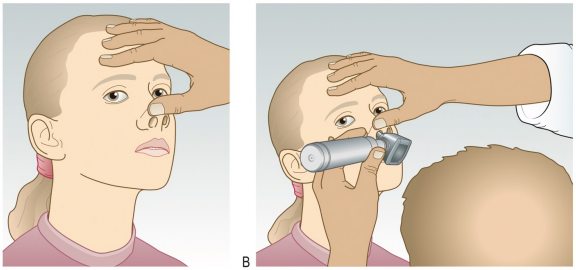
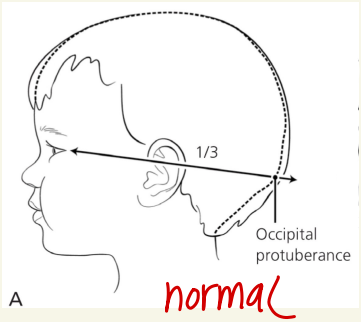


Fig. 9.16 Nasal examination. A Elevation of the tip of the nose to give a clear view of the anterior nares. B Anterior rhinoscopy using an otoscope with a large speculum.

aphthous Ulcer

Aphthous ulcers are small, painful, superficial ulcers on the tongue, palate or buccal mucosa. They are common and usually heal spontaneously within a few days. Oral ulcers can be caused by trauma, vitamin or mineral deficiency, cancer, lichen planus or inflammatory bowel disease.

Low set ears



normal

* neck
  - thyroid, lymph nodes, Trachea, carotid, JVP

1- Thyroid: in lower anterior neck
examine it from behind

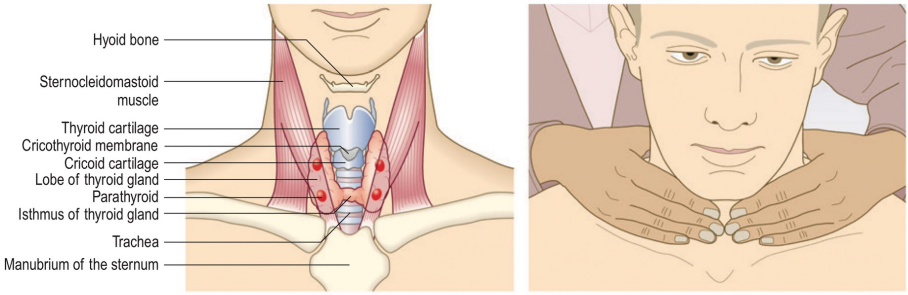


Fig. 10.1 The thyroid gland. A Anatomy of the gland and surrounding structures. B Palpating the thyroid gland from behind.

2- Lymph nodes: 10 groups
- circular group
- ant. & post. cervical
- supraclavicular

A B C

Fig. 3.27 Palpation of the cervical glands. A Examine the glands of the anterior triangle from behind, using both hands. B Examine for the scalene nodes from behind with your index finger in the angle between the sternocleidomastoid muscle and the clavicle. C Examine the glands in the posterior triangle from the front.

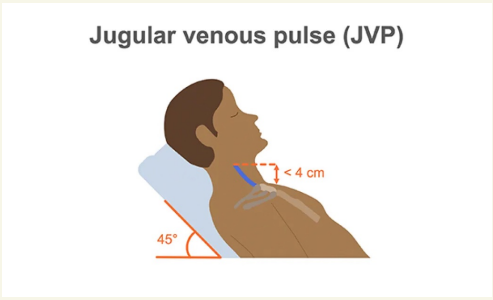
3- Trachea:
Causes of its movement: Pushing or pulling forces
- Pushing: Pneumothorax (air or fluids) / massive pleural effusion
- Pulling: fibrosis

4- JVP: Jugular venous Pressure

Jugular venous pressure and waveform

Estimate the jugular venous pressure (JVP) by observing the level of pulsation in the internal jugular vein. The vein runs deep to the sternomastoid muscle and enters the thorax between the sternal and clavicular heads. The normal waveform has two main peaks per cycle, which helps to distinguish it from the carotid arterial pulse (Box 4.15). The external jugular vein is more superficial, prominent and easier to see. It can be kinked or obstructed as it traverses the deep fascia of the neck but, when visible and pulsatile, can be used to estimate the JVP in difficult cases.

The JVP level reflects right atrial pressure (normally <7 mmHg/9 cmH_2O). The sternal angle is approximately 5 cm above the right atrium, so the JVP in health should be ≤4 cm above this angle when the patient lies at 45 degrees (see Fig. 4.15B later). If right atrial pressure is low, the patient may have to lie flat for the JVP to be seen; if high, the patient may need to sit upright (Fig. 4.14).



← Normal value of JVP: 3 cm

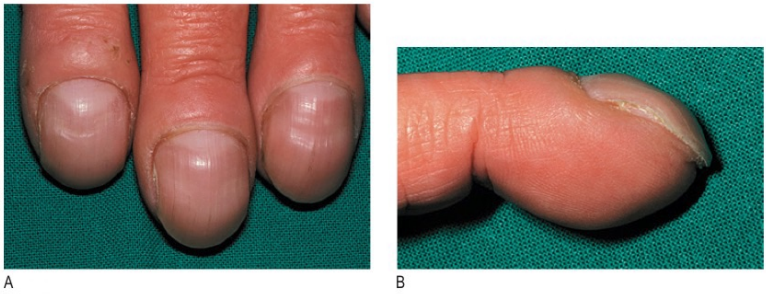


Fig. 3.8 **Clubbing.** A Anterior view. B Lateral view.

causes :
- COPD
- lung cancer
- lung abcess

, all suppurative lung diseases

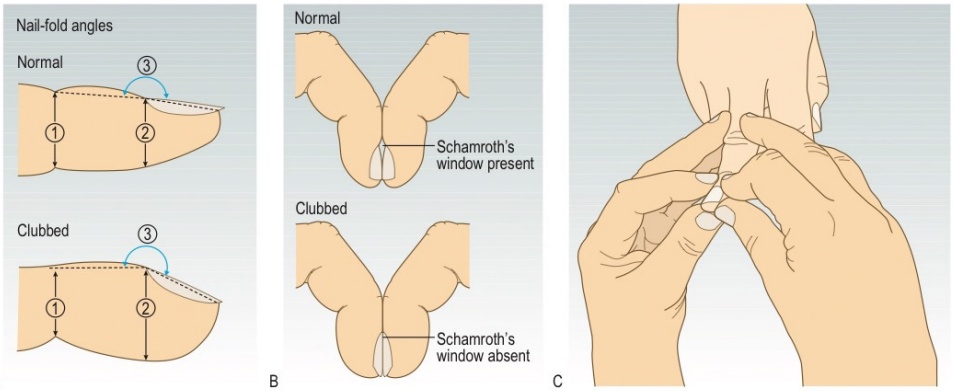


Fig. 3.9 **Examining for finger clubbing.** A Assessing interphalangeal depth at (**1**) interphalangeal joint and (**2**) nail bed, and nail-bed angle (**3**). B Schamroth's window sign. C Assessing nail-bed fluctuation.

Koilonychia (spoon shaped depression of nail plate)

Cause : iron deficiency anemia

onicholysis with Pitting in Psoriasis

* nail separates from nail bed

cause : Psoriasis

splinter hemorrhage
(small red streaks)

Fig. 3.5 Dupuytren's contracture.

in Palmar fascia

cause : Liver disease , smokers

swan neck deformity

Lower limb oedema

→ Pitting , non-Pitting

→ unilateral , ex : DVT

cause : HF , dialysis