



MEDICAL CLUB

G U I D E T O

PHYSICAL EXAMINATION

Internal Medicine

النادي الطبي
جامعة العلوم
والتكنولوجيا الأردنية



INDEX

<i>How to use this guide</i>	<i>Page 2</i>
<i>General Examination</i>	<i>Page 4</i>
<i>CVS Examination</i>	<i>Page 5</i>
<i>RS Examination</i>	<i>Page 11</i>
<i>GIS Examination</i>	<i>Page 16</i>
<i>Neck Examination</i>	<i>Page 21</i>
<i>Lymph node examination</i>	<i>Page 22</i>
<i>Thyroid examination</i>	<i>Page 23</i>
<i>If you find a mass</i>	<i>Page 25</i>
<i>Lower Limb Examination</i>	<i>Page 26</i>



How to use this guide

- 1) Watch Macleod's physical examination video for the section you want to study

<https://www.youtube.com/playlist?list=PLr3TTVw39f8 - xKHNIy9ccbDnQPUhG1mp>

OR

Read it from Macleod's clinical examination textbook

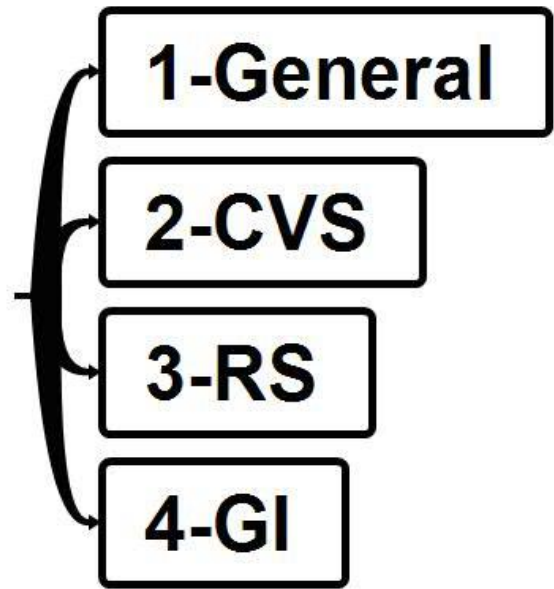
OR

Do both (NERDS ONLY)

- 2) Study and Memorize the section from this guide
- 3) Practice what you've learned on patients (keep the guide with you to correct yourself or ask one of your colleagues to correct you)
- 4) Repeat, in physical examination the more you practice the better you become (as simple as that!)



Internal Medicine Examination



Medical Protocol (always do before you start examination)



1-General

Conscious / Alert / Oriented

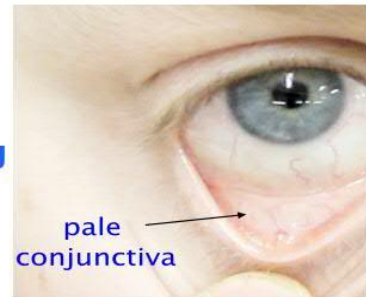
Well Or Ill Looking

In Pain

Breathless , Respiratory Disturbed

Sweaty Or Dehydrated

Pallor Or Flushing



Color → Cyanosis



Jaundice



Cachectic Or Obese

Position (setting / Lying In Bed)

Clues Around The Patient (inhalers , O2 Mask , Canula)

Vital Signs

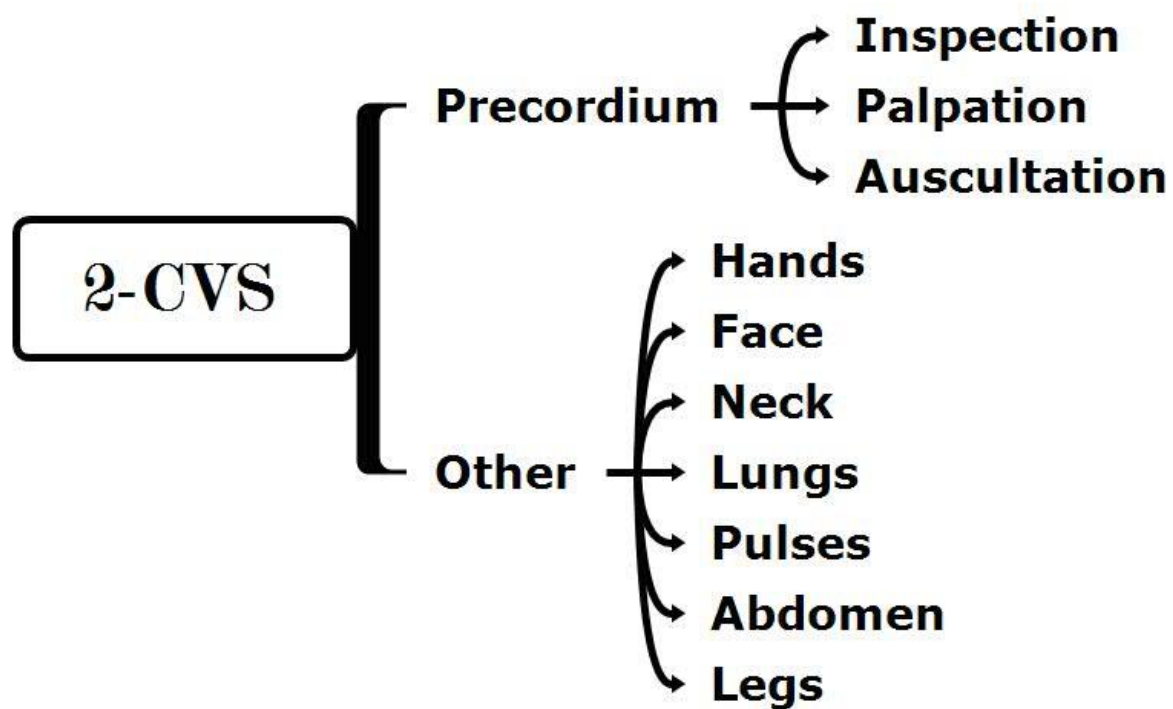
Heart Rate

Respiratory Rate

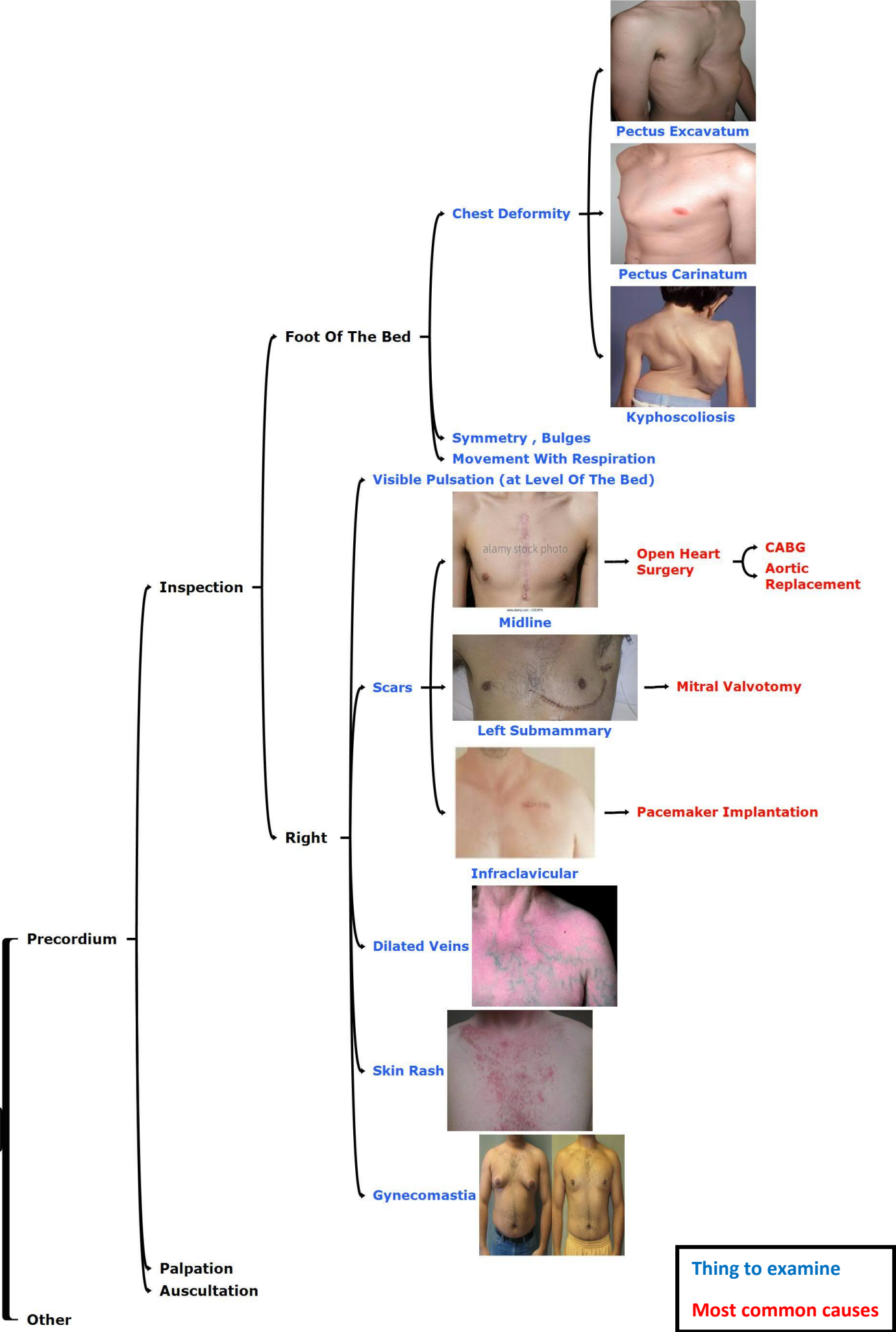
Temperature

Blood Pressure

O2 Sat



2-CVS



2-CVS

Precordium

Other

Inspection

Chest Tenderness

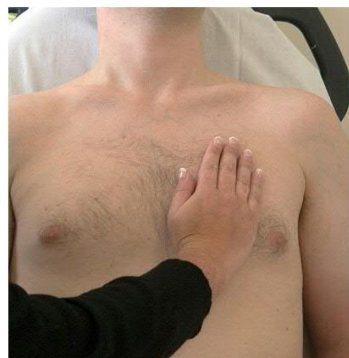


Apex Beat (4th Ics In <5y)

Palpation



Thrills



Parasternal Heaves

Auscultation

Thing to examine

Most common causes

Inspection
Palpation

Precordium

Auscultation

Other

How

- 1) Listen With Diaphragm and Bell on the 4 Heart Valves Sites
Mnemonic: "All Patients Trust Me"
- 2) Listen Over Carotid And Left Axilla For Radiation Of Murmur
(if You Heard One Only)

3) Do Maneuvers



Roll On Left (to Detect Mitral Stenosis)



Lean Forward (to Detect Aortic Regurgitation)

Heart Sounds

Normal : S1 And S2

S3 → Because Of Rapid Ventricular Filling

S4 → Forceful Atrial Contraction

Added Sounds

Opening Snap → Mitral Stenosis

Ejection Click → Aortic Stenosis

Mechanical Valve Sound → Valve Replacement

Pericardial (friction) Rub → Pericarditis

Murmurs

Timing → Systole
Diastole

Duration

Character And Pitch

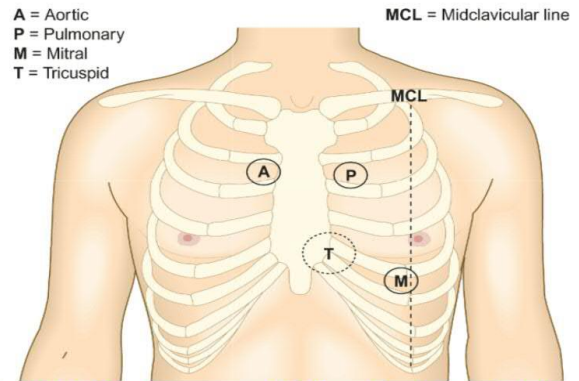
Intensity

Location

Radiation To

Left Axilla → Mitral Regurgitation

Carotid Artery → Aortic Stenosis



Thing to examine

Most common causes

2-CVS



Thing to examine
Most common causes

2-CVS

Precordium

Hands

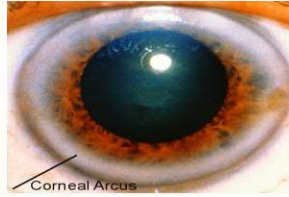
Central Cyanosis

Conjunctival Petechial Hemorrhages → Infective Endocarditis



Xanthelasma

→ Hyperlipidemia



Corneal Arcus

→ Hyperlipidemia



Malar Flush

→ Mitral Stenosis

Face

Neck

Jugular Venous Pressure (<4cm) → Increased In Heart Failure

Carotid Bruit

Lungs

Auscultate Lung Bases For Crackles → Pulmonary Edema

Other

Pulses

Arteries

Radial
Brachial
Femoral
Carotid

Rate

Rhythm

Regular
Irregular

Volume

High → HTN
Aortic Regurgitation
Low → Left Heart Failure
Hypovolemia

Character

Collapsing → Aortic Regurgitation
Slow Rising → Severe Aortic Stenosis
Pulsus Bisferiens → Aortic Regurgitation
Pulsus Alternans → Advanced Heart Failure
Pulsus Paradoxus → Cardiac Tamponade
Constrictive Pericarditis

Radio-femoral Delay → Coarctation Of The Aorta

Abdomen

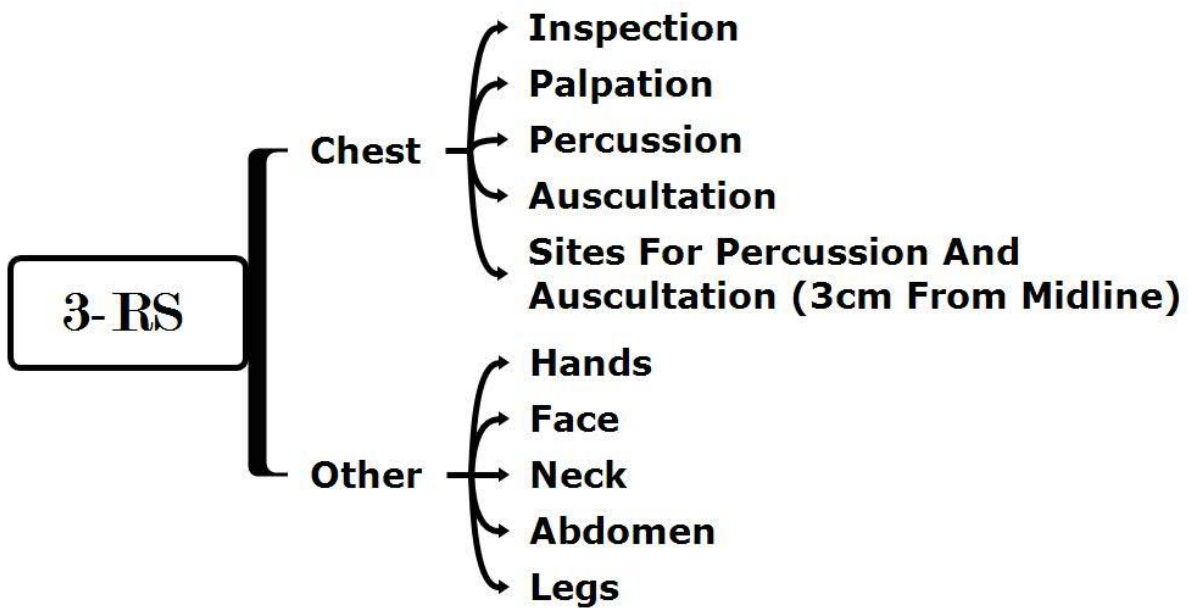
Liver Span → Hepatomegaly
Ascites
AAA
Sacral Edema

Legs

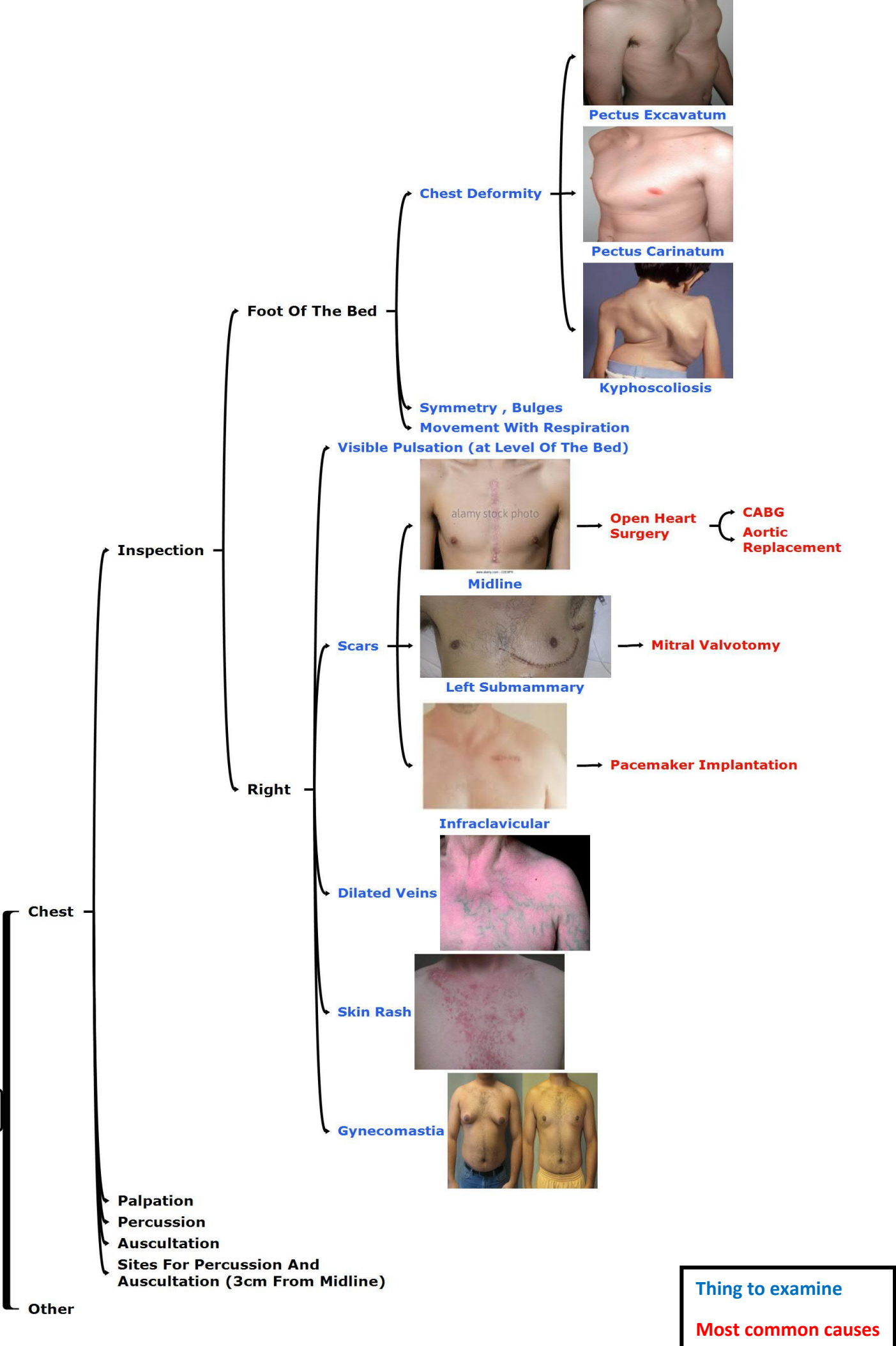
Ankle Edema
Leg Ulcers
Xanthomata

Thing to examine

Most common causes



3-RS



Chest

Inspection



Tracheal Position

Toward Lesion

Lung Collapse

Lung Fibrosis

Pneumonectomy

Away From Lesion

Tension Pneumothorax

Massive Pleural Effusion

Chest Tenderness And Subcutaneous Emphysema

Apex Beat



Palpation



Chest Expansion

Decrease In One Side

Pleural Effusion

Lung Collapse

Pneumothorax

Unilateral Fibrosis

Decrease In Both

Severe COPD

Diffuse Fibrosis

Tactile Vocal Fremitus



Percussion

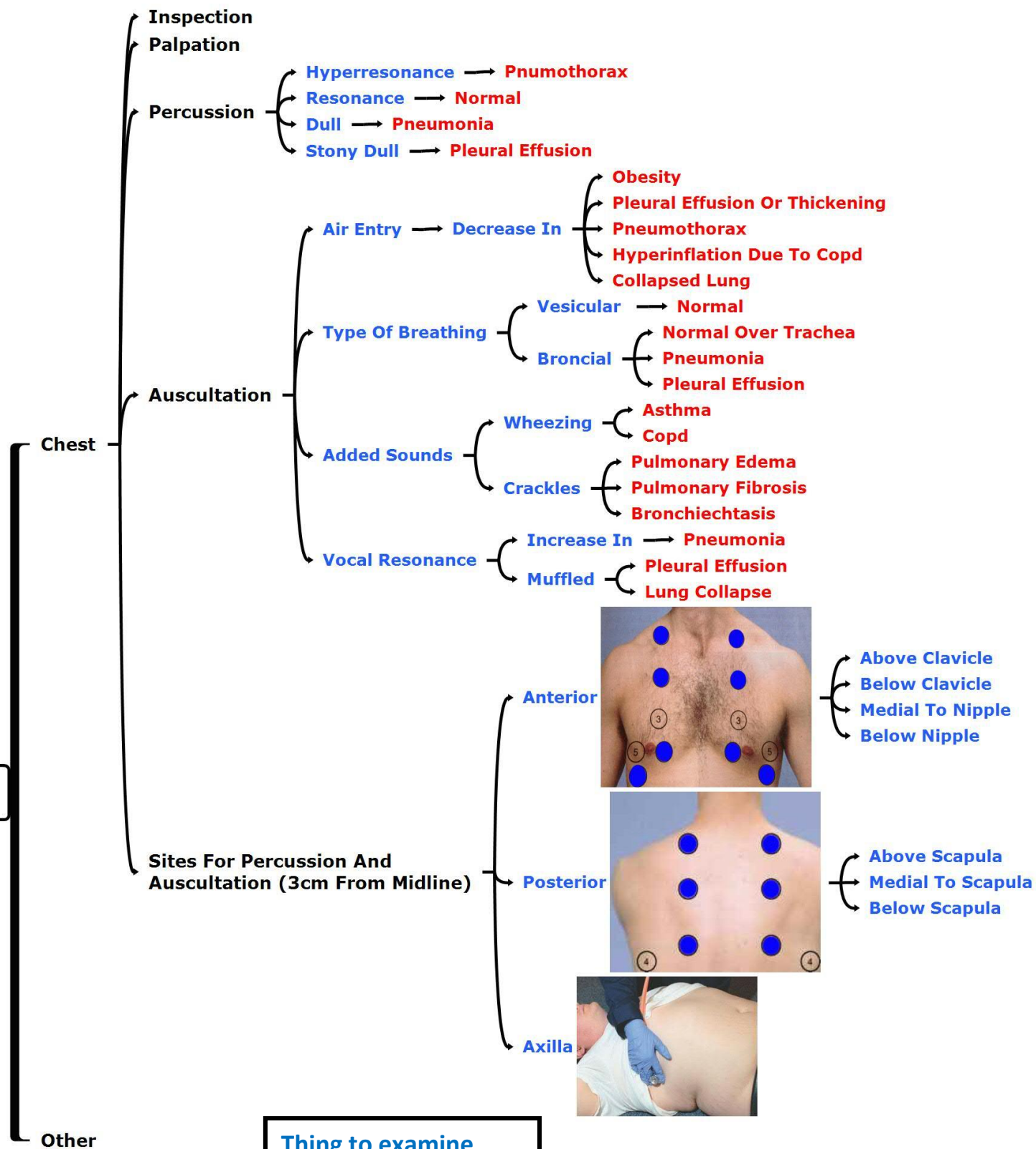
Auscultation

Sites For Percussion And Auscultation (3cm From Midline)

Other

Thing to examine

Most common causes



Thing to examine

Most common causes

3-RS

Chest

Other

Hands

Face

Neck

Abdomen

Legs



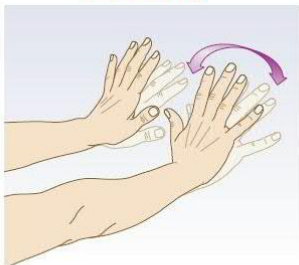
Nicotine Staining



Peripheral Cyanosis



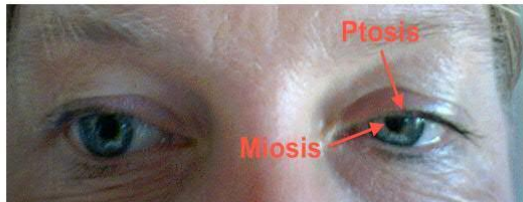
Clubbing



Flapping Tremor

Central Cyanosis

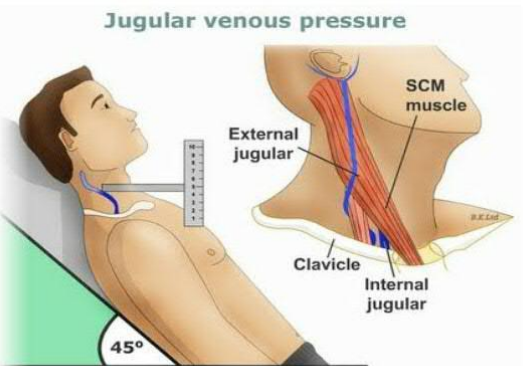
Audible Wheeze Or Stridor



Ptosis + Miosis (Horner's syndrome)

Use Of Accessory Muscles

Lymph Nodes Enlargement



Jugular Venous Pressure (<4cm)

Liver Span

Sacral Edema

Edema

Unilateral

Bilateral

- Lung CA
- Bronchiectasis
- Cystic Fibrosis
- ILD

Co2 Retention

- increased in Cor Pulmonale from COPD
- increased in Tension Pneumothorax

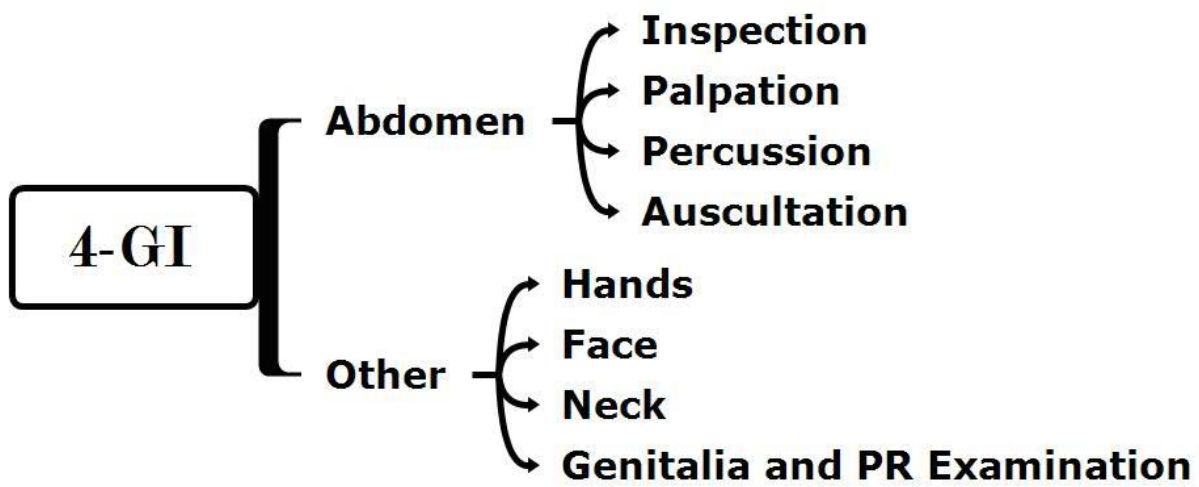
Hepatomegaly

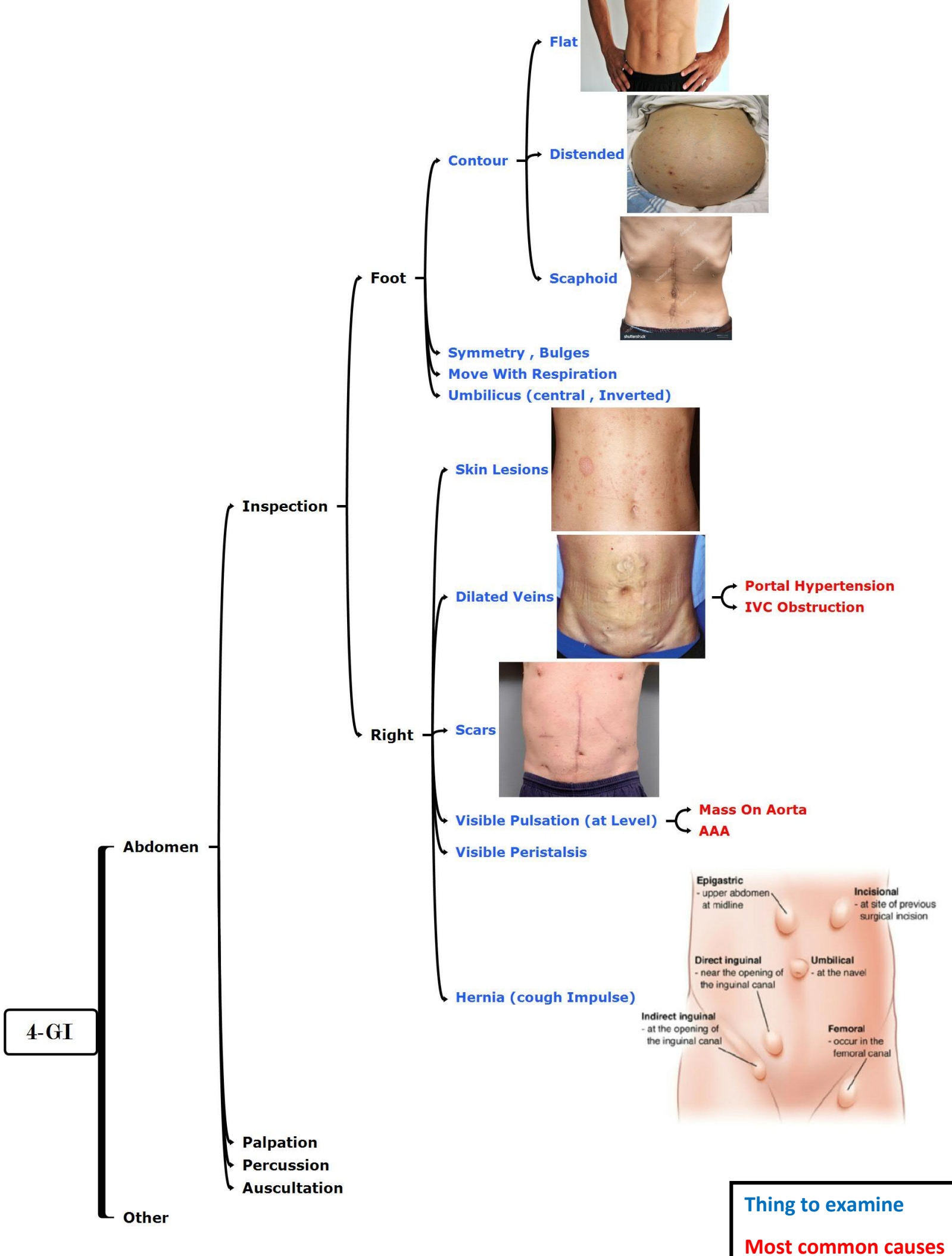
DVT

Cor Pulmonale

Thing to examine

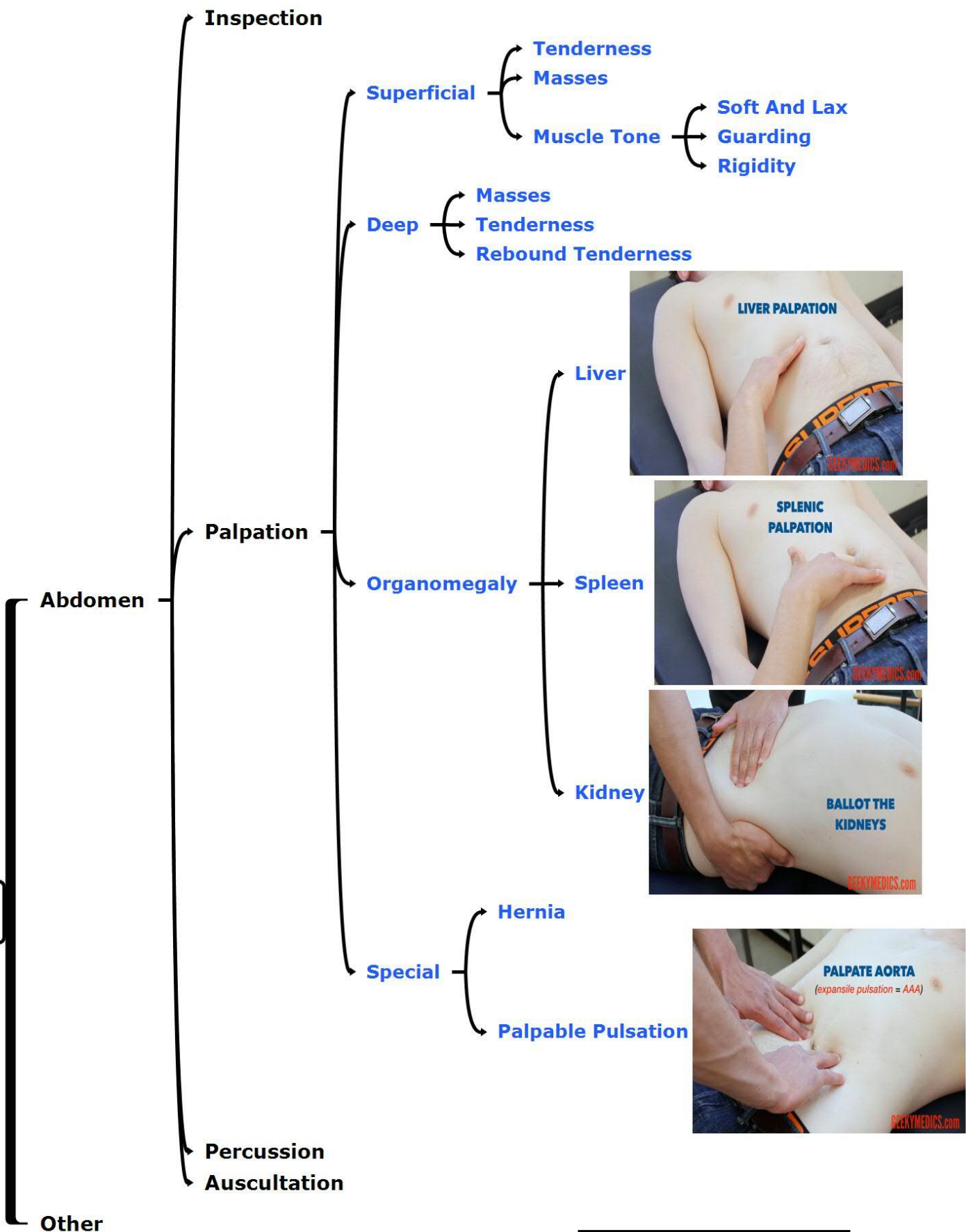
Most common causes





Thing to examine

Most common causes



Thing to examine

Most common causes



4-GI

Abdomen

Inspection
Palpation

Percussion

Auscultation

Other

Determine The Most Tympanic Area Then Go
360 Degree Around The Umbilicus

Ascites

Liver Span

Bowel Sounds

Aorta And Renal Bruit

Venous Hum (on Liver By The Bell)
Friction Rub (on Liver)

Techniques

Causes

Intra Abdominal Malignancy
Chronic Liver Disease
Severe Heart Failure
Nephrotic Syndrome

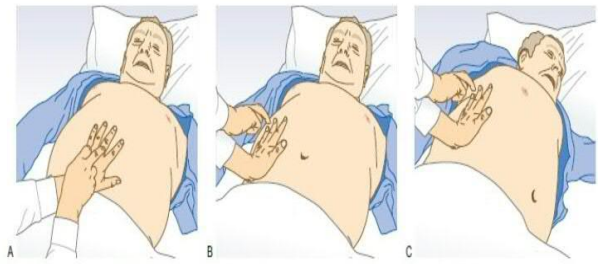


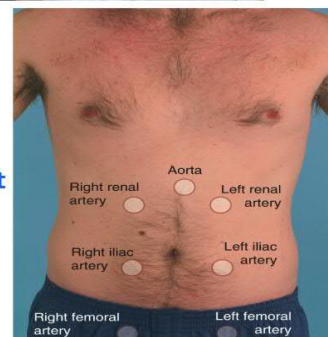
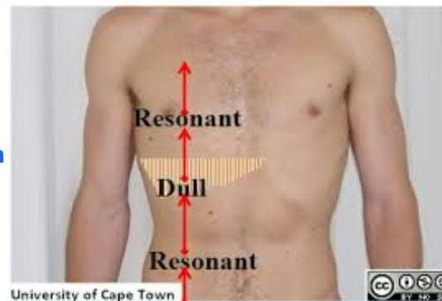
Fig. 8.19 Percussing for ascites. (A and B) Percuss towards the flank from resonant to dull. (C) Then ask the patient to roll on to his other side. In ascites, the note then becomes resonant.

Shifting Dullness



Fig. 8.20 Eliciting a fluid thrill.

Transmitted Thrill



Thing to examine

Most common causes

4-GI

Abdomen



Clubbing

Liver Cirrhosis
IBD
Celiac Disease



Koilonychia

Hypoalbuminemia
Malabsorption (celiac Disease)



Leukonychia

Liver Disease



Palmar Erythema

Liver Disease



Flapping Tremor

Hepatic Encephalopathy

Pallor Or Jaundice



Mouth Ulcers

IBD
Celiac Disease

Face



Angular Cheilitis

Iron Deficiency Anemia



Atrophic Glossitis

Iron Deficiency Anemia

Neck

Fetor Hapaticus → Liver Failure

Lymph Nodes Enlargement

Genitalia and PR Examination

Thing to examine

Most common causes

Sources:

Macleod's
Clinical
Examination 13th
Edition / Chapter
6,7,8

2-Neck

General Inspection

Lymph Nodes

Thyroid

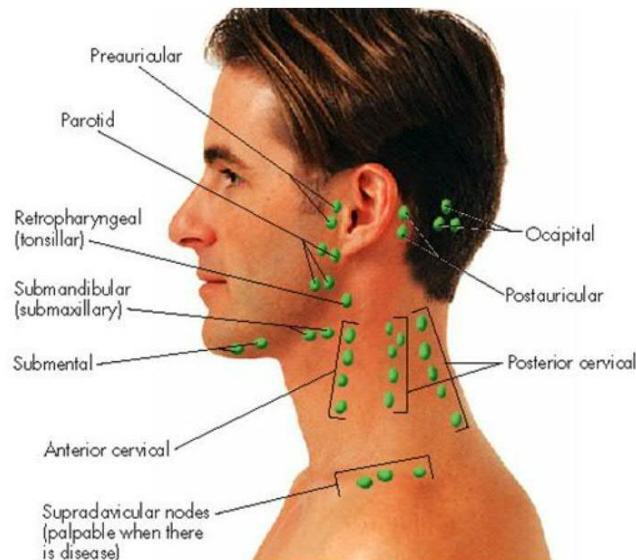
**If you find a Mass
(SPACES PIT)**



Ask The Patient To Extend His Neck

General Inspection

- Symmetry
- Scars
- Visible Veins
- Skin Changes
- Carotid Pulsation
- Tracheal Position
- Visible Masses



Palpate The

Look For

- Size
- Shape
- Consistency
- Mobility
- Tenderness

- Occipital
- Posterior Auricular
- Preauricular
- Parotid
- Submandibular
- Submental
- Anterior Cervical
- Posterior Cervical
- Deep Cervical Chain
- Supra Clavicular

Lymph Nodes

Thyroid

**If you find a Mass
(SPACES PIT)**

Thing to examine

Most common causes

2-Neck

2-Neck

General Inspection

Lymph Nodes

General

Agitation / Nervousness → **Thyrotoxicosis**

Lethargy / Weakness → **Hypothyroidism**

Hands

Sweating → **Thyrotoxicosis**

Tremor → **Thyrotoxicosis**

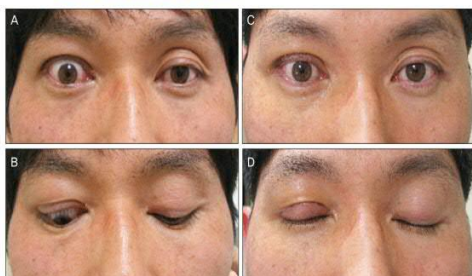
Pulse → Tachycardia → **Thyrotoxicosis**

Pulse → Bradycardia → **Hypothyroidism**



the upper eyelid is higher than normal

Lid Retraction



the upper lid does not keep pace with the eyeball as it follows a finger moving from above downwards

Lid Lag

Eyes



Sclera becomes visible below the lower edge of the iris (because of oedema and cellular infiltration)

Exophthalmos

Ophthalmoplegia → weakness of the ocular muscles



swelling of the conjunctiva (red eye)

Chemosis

Neck

If you find a Mass (SPACES PIT)

Thing to examine

Most common causes

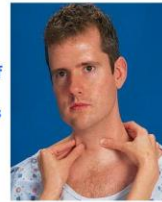
General Inspection

Lymph Nodes

General
Hands
Eyes

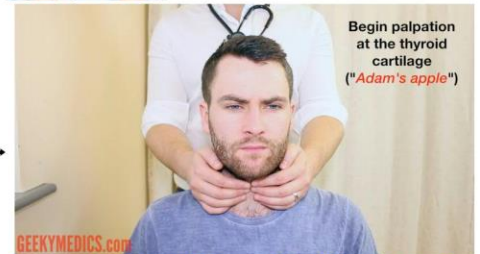
1- Inspect the neck from front while the patient is swallowing

2- Palpate from front; Stand in front of the patient and by the fingers of your left hand push the thyroid gland to the right, then insert the fingers of your right hand between trachea and SCM muscle, then ask the patient to extend his neck & swallow; you should feel the thyroid move up & down as he swallows



Thyroid

A- Place your thumbs on the ligamentum nuchae and tilt the patient's head slightly forwards to relax the anterior neck muscles



B- Place the 3 middle fingers of each hand along the midline of the neck below the chin



C- Locate the upper edge of the thyroid cartilage "Adam's apple"

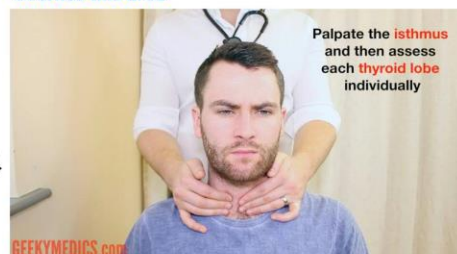
D- Move inferiorly until you reach the cricoid cartilage / ring



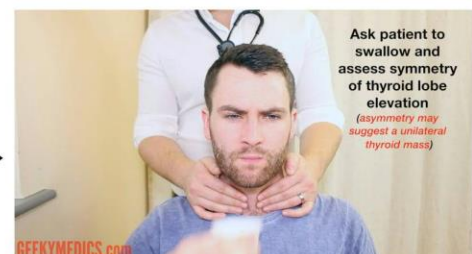
E- The first 2 rings of the trachea are located below the cricoid cartilage and the thyroid isthmus overlies this area



F- Palpate the thyroid isthmus using the pads of your fingers (not the tips)



G- Palpate each lobe of the thyroid in turn by moving your fingers out laterally from the isthmus



H- Ask the patient to swallow some water, while you feel for symmetrical elevation of the thyroid lobes



4- Auscultate over the thyroid for any bruits

If you find a Mass
(SPACES PIT)

2-Neck

2-Neck

General Inspection

Lymph Nodes

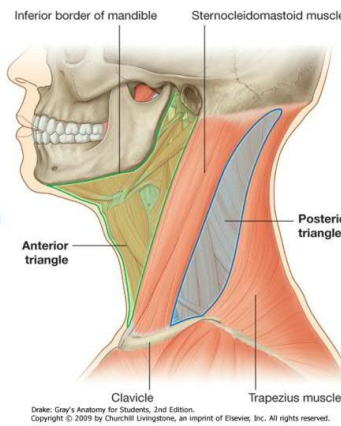
Thyroid

DDX

- Thyroid**
 - Adenoma
 - Carcinoma
 - Multinodular Goiter
 - Simple Cyst
- Thyroglossal Cyst
- Cystic Hygroma
- Carotid Body Tumor
- Lymphadenopathy
- Sternomastoid 'tumour
- Pharyngeal Pouch

Size

Position



Anterior Triangle

- Thyroid
- Thyroglossal Cyst
- Branchial Cyst
- Carotid Body Tumor
- Sternomastoid 'tumour

Posterior Triangle

- Cystic Hygroma
- Pharyngeal Pouch

If you find a Mass (SPACES PIT)

A ttachments

- Attached To Thyroid
 - Move With Swallowing
 - Thyroid Mass
- Attached To Hyoid Bone
 - Move With Protruding Tongue
 - Thyroglossal Cyst
- Attached To Skin

C onsistency

- Hard
- Firm
- Rubbery
- Soft

E dge

- Smooth
- Irregular

S urface and shape

- Smooth
- Irregular

P ulsation, thrills and bruits

I nflammation (redness, tenderness , warmth)

- Lymphadenopathy
- Thyroiditis

T ransillumination

- Cystic Hygroma
- Branchial Cyst

Thing to examine

Most common causes

Sources:

- Browse's introduction to the symptoms and signs of surgical disease 5th Edition
- <http://geekymedics.com/>

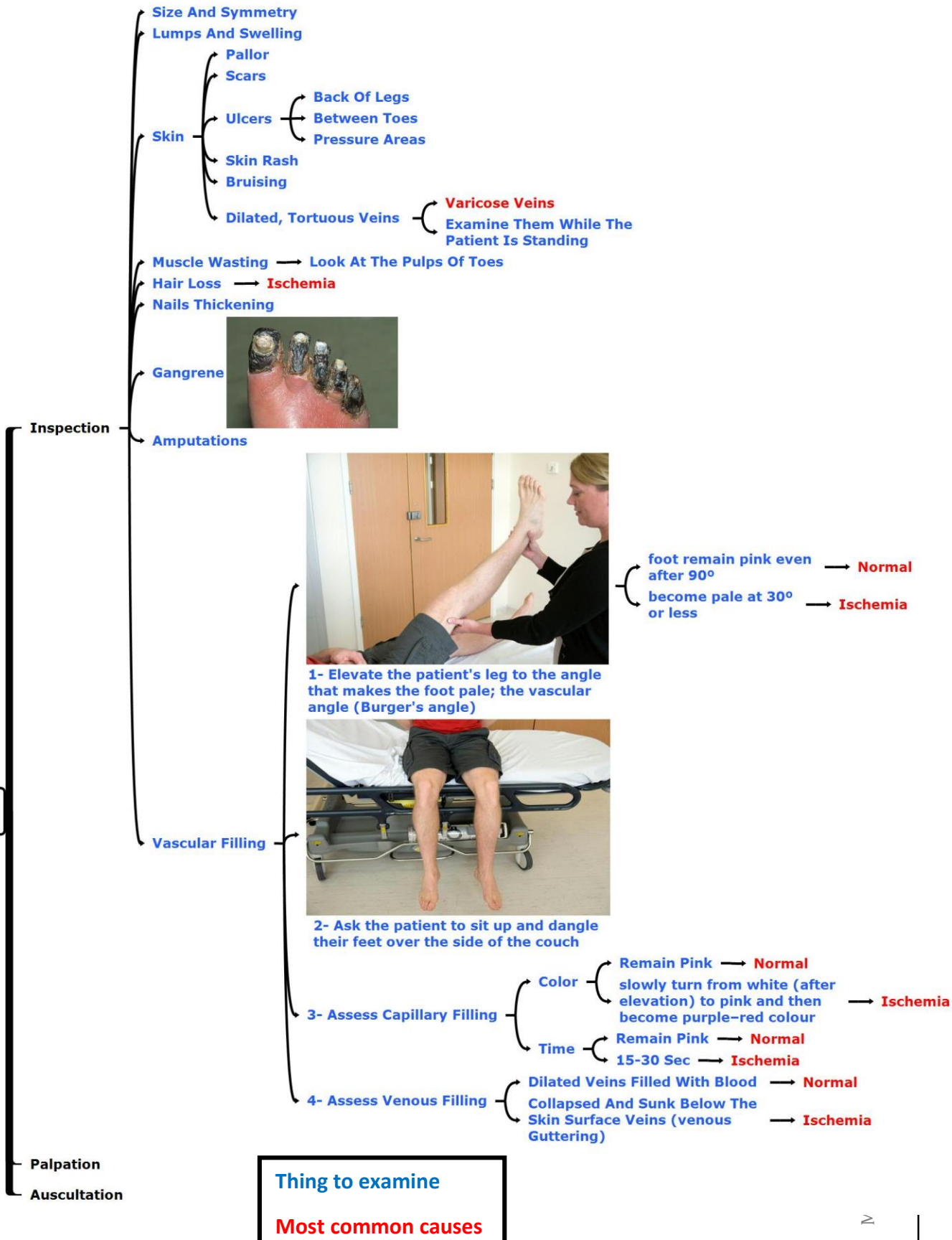
5-Lower Limb

Inspection

Palpation

Auscultation

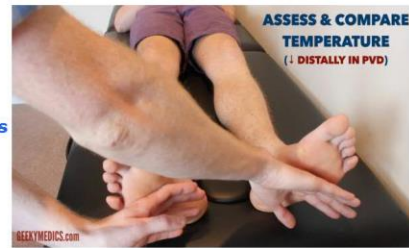
5-Lower Limb



5-Lower Limb

Inspection

Temperature → Use The Back Of Fingers



Tenderness

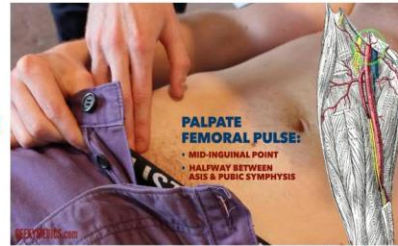
Capillary Refilling



Press on the pulp of a toe or finger for two seconds, and then observe the time taken for the blanched area to turn pink after you have stopped pressing

Palpation

Femoral



Mid-inguinal Point (halfway between Symphysis Pubis and Anterior Superior Iliac Spine)

Popliteal



extend the patient's knee fully and place both hands around the top of the calf, with the thumbs placed on the tibial tuberosity and the tips of the fingers of each hand touching behind the knee

Pulses

Posterior Tibial



1/3 of way between medial malleolus and tip of heel

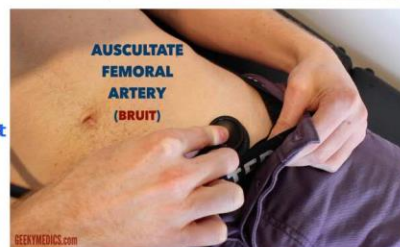
Dorsalis Pedis



lateral to extensor hallucis longus tendon

Auscultation

Femoral Bruit



Popliteal Bruit



Thing to examine

Most common causes

Done by: Anas AbuAssi

Special thanks to: Mohamad Makahleh, Moath Bataineh, Inas Alshatnawi.

