

Preparation:

W Wash Hands

I Introduce Yourself + Patient's Identity

P Permission

P Patient Position + Pain

E Explanation

Patient must be placed at 45°

General Inspection:

Check visually from the end of the bed:

- Discomfort at rest
- Tachypnoea
- Pallor
- Cyanosis
- Surgical Scars
- Medical paraphernalia (e.g. IV infusions)
- Consciousness

Examination of Hands:

Clubbing: Place 2 fingernails together and look for Schamroth's sign
Chronic low blood-oxygen levels

Pale Creases

Peripheral Cyanosis

Nicotine Staining

Splinter haemorrhages: Small red lines on fingernails that look like a splinter
Tiny clots that damage small capillaries under the nails

Lesions on fingers: Tender -> Osler's Lesion (O for ouch)
Not tender -> Janeway's Lesion
Endocarditis

Vitals:

Capillary Refill: N<2secs

Radial Pulse: Identify **rate and rhythm**
Allow for at least 15 sec

Compare both radial pulses for evidence of radial delay.

Mention checking for radial-femoral delay.

Examine for collapsing pulse

Quickly raise patient's arm above their head while measuring their pulse.

Brachial pulse: Both arms

Femoral pulse: Indicated if difficulty finding radial/brachial pulse

Breathing Rate: Should be examined immediately after taking radial pulse without informing the patient

Blood Pressure: Should be measured in both the right and left arms, standing and supine.
For DEM2 you only need to offer to check BP.

Examination of the Face:

Malar Flush: Plum-red discoloration of the high cheeks
Associated with *mitral valve stenosis* due to the resulting CO2 retention and its vasodilatory effects



Examination of Eyes:

Anaemia:	Pale conjunctiva
Comeal Arcus:	Lipid deposits that appear as rings on the outer region of the cornea
Xanthelasma of hypercholesterolaemia:	Pale yellow lump near eyelid

Examination using fundoscopy should be done in patients with a history of diabetes, hypertension, or endocarditis

Examination of the Mouth:

Dental Hygiene:	Possible cause of bacterial endocarditis
Central Cyanosis:	Examine for blue tongue

Pulses:

Jugular venous pulse:	Located between the 2 heads of the SCM. Measured as cm of water above the sternal angle. Must remember to add 5cm to measured distance above sternal angle.	<i>Patient must be placed at 45°</i>
	Difficult to see, may require the use of a torch, abdomino-jugulo reflux can exaggerate the JVP in right sided heart failure.	
Carotid pulse:	Examine both, however only one at a time to avoid the patient feeling faint.	<i>In patients over 50 you should listen for carotid bruits first.</i>
	Comment on character and volume	

Chest Inspection:

Surgical scars, lift any fat/breast to check under
Check for any pacemaker, etc.
Visible apical pulsation
Audible prosthetic heart valve

Chest Palpation:

Apex Beat:	5th Intercostal space, left midclavicular line
	<i>Not always present</i>
Heaves:	Palpate using palm of hand
Thrills:	Palpate using finger tips

Chest Auscultation:

Begin at the apex (Mitral Area) and proceed towards the base of the heart.

Must be repeated with both diaphragm and bell.

S¹	Caused by the closing of the atrioventricular valves after blood has been pumped into the ventricles.
S²	Caused by the closing of the aortic and pulmonary valves after the ventricles have contracted.
S³, S⁴	Third heart sound can be normal (in a younger patient)

Fourth heart sound is **always abnormal**

Check for radiation to carotid or axilla.

Carotid bruits:	Whooshing sound in the carotid, caused by non-laminar blood flow.
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Patient should be maneuvered to accentuate murmurs:

Forward in expiration for aortic regurgitation.

Left lateral position in expiration for mitral murmurs.

Heart sounds should be timed by palpating pulse while auscultating.

The interval between S¹ and S² is systole.

The interval between S² and the next S¹ is when the ventricles relax and are filled with blood, i.e. diastole.

Back of Chest:

Inspect chest wall for deformities/incisions

Palpate for sacral oedema

Auscultate lung bases for crepitations Pulmonary Oedema

Examination of Feet:

Popliteal Pulses on both legs

Dorsalis Pedis Pulses in both feet

Posterior Tibial Pulses in both feet

Inspect for Peripheral Oedema: Press for 5sec behind the medial malleolus and feel for any indentation afterwards

Conclusion:

Thank patient and explain that the examination is finished

Sanitise Hands

