

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

Corneal Arcus: Lipid deposits that appear as rings on the outer region of the cornea

Examination of Eyes: (cont)

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. *Patient must be placed at 45°*
Must remember to add 5cm to measured distance above sternal angle.

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. *In patients over 50 you should listen for carotid bruits first.*

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

Physically feel for the heart at apex Normally 5th intercostal space, left midclavicular line

Palpate for heaves (using heel of hand) and thrills (finger pads)

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.

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

