

Cardiovascular Exam

Introduce yourself. Wash your hands. Position the patient at 45 degrees.

General appearance

- Consciousness, comfort, colour, posture
- Cyanosis, dyspnoea, cachexia, rheumatological disorders, Marfan's, Down's, Turner's
- GTN spray, oxygen, IV lines etc

Nails and Hands

- Clubbing, splinter haemorrhages, cigarette staining, capillary refill, Osler's nodes, Janeway lesions, peripheral cyanosis, xanthomata, peripheral cyanosis

Pulse

- Rate and rhythm. Collapsing, pulse deficit, radial-radial delay

Blood Pressure

- Cuff width = 2/3 arm length. Bladder should not quite wrap around whole arm. A too small bladder will over estimate BP.

Face

- Eyes: anaemia, jaundice, xanthelasma
- Mitral facies/Malar flush: rose cheeks and cyanosed tongue (mitral stenosis (pulmonary HT and decreased CO) pulmonary stenosis)
- Mouth: cyanosis (lips and under tongue), mucosa for petechiae, diseased teeth (cause of infective endocarditis), palate (Marfan's)

Neck

- Carotid arteries (info about aorta and LV function): Character and volume
- JVP (info about RA and RV function): More of a sucking in than bulging out pulse, double waveform, not palpable, can be obliterated, hepatojugular reflex. Usually \uparrow with inspiration. Height (from lowest point) and waveform. NB if external can be filled and then empties JVP cannot be raised as external cannot be lower than internal.
 - Giant a wave - (\uparrow atrial contraction) - TS, pulmonary HT,
 - Cannon a wave - AV dissociation (do not occur every a wave)
 - Large v wave - TR
 - \uparrow with inspiration (Kussmaul's sign) - limited RV filling - tamponade, RV infarction.

Inspection

- Scars
- Deformity: funnel chest, pigeon chest) or kyphoscoliosis
- Pacemaker
- Pulsations: apex beat and others (eg over pulmonary artery in severe pulmonary hypertension)

Palpation

- Apex beat
 - Pressure (systolic) loaded - forceful and sustained - AS, HT

- Tapping - MS
- Double or triple - HOCM
- Dyskinetic - anterior MI, LV aneurysm
- Volume (diastolic) loaded - displaced, large area, uncoordinated - AR, MR, MI
- Parasternal impulse
- Tap of pulmonary valve closure (P2) over pulmonary areas in pulmonary hypertension
- Thrills

Auscultation

- Mitral, tricuspid, pulmonary, aortic with diaphragm and bell
- Axilla (mitral regurg) with diaphragm
- Carotid arteries for bruits and if there is a suspected aortic murmur
- Left lateral position with bell at apex and normal breathing (palpate for thrills again)
- Leaning forward on expiration with diaphragm on left sternal edge (palpate for thrills again)
- Dynamic auscultation
- S1
 - Loud - MS, ↓PR, ↑HR
 - Soft - MR, prolonged filling time (LBBB, 1st block)
- S2 (A2+P2 - ↑inspiration. Fixed splitting - ASD equalises ventricular volumes per beat. No splitting or reversed (↑expiration) in AS)
 - Loud - aortic/pulmonary HT
 - Soft - AR or calcification
- S3 (gallop - ↓ventricular compliance)
- S4 strong atrial contraction (not heard in AF)

Peripheral Exam

- Percuss and auscultate the back for pulmonary oedema and pleural effusion. Check for sacral
- oedema
- Abdomen (lying flat with one pillow): tender or enlarged liver (heart failure), pulsatile liver
- (tricuspid regurg), ascites (heart failure), splenomegaly (infective endocarditis)
- Legs: femoral pulse (auscultate for bruits), radiofemoral, oedema, wasting, pallor, cool.
- Popliteal, posterior tibial, dorsalis pedis pulses. Cyanosis and clubbing of the toes, ↓capillary refill.

Other

- Temperature chart (endocarditis), weight chart (oedema), fundi (endocarditis).