Cardiovascular System

Preparation
- Wash Hands
- Introduce Self & Check Patients Identity
- Explanation & Consent
- Position Patient – Recline to 45°, hands by side and chest exposed, remove bra but do not expose chest until ready to examine

General Inspection
- Breathing Comfortably & Not In Pain
- Items Around Bed
- Colour
- Audible Prosthetic Valves or Murmurs

Hands
- General Inspection
- Radial Pulse – Rate & rhythm, feel for at least 15 seconds

Arms
- Brachial Pulse – Character & volume
- Blood Pressure

Face
- General Inspection – Mitral facies (malar flush) indicating mitral stenosis
- Eyes – Corneal arcus, xanthelasma, pale conjunctiva of anaemia
- Mouth – Central cyanosis, dental hygiene

Neck
- Jugular Venous Pulse – Measure height vertically from sternal angle, normal height is 3cm
- Carotid Pulses

Chest Inspection
- Scars
- Pacemaker
- Visual Pulsation

Chest Palpation
- A4 = 5th Intercostal, Right Sternal Edge
- A3 = 4th Intercostal, Left Sternal Edge
- Apex = Sustained Forceful Pulsation, feel with flat of hand over precordium
- Murmurs
- Carotid Bruits – Neck, ask patient to hold breath
- Lung Bases – Pulmonary oedema

Lower Limb
- Pitting Oedema – Sacrum, Tibia, Medial Malleolus
- Peripheral Pulses – Dorsalis Pedis, Posterior Tibial

Completing the Examination
- Abdominal Examination – Ascites, Hepatosplenomegaly
- Peripheral Vascular Examination
- Fundoscopy
- Bedside Investigation – Urine Dipstick, Temperature
- Cover Patient & Assist in Redressing
- Thank the Patient

Hand Signs:
- Clubbing – Many cardiovascular & respiratory diseases, chronic hypoxia
- Splinter Haemorrhage – Infective endocarditis, SLE, rheumatoid arthritis, trauma
- Anaemia – Pale palmar creases
- Peripheral Cyanosis – Blue tined fingertips
- Osler’s Nodes – Infective endocarditis; painful, raised lesions
- Janeway Lesions – Infective endocarditis; non-tender, flat lesions
- Tar Staining

Collapsing Pulse – Sign of aortic regurgitation; examined by having arm at patients side then briskly raised while feeling pulse to exaggerate, positive sign is early appearing pulse wave followed by rapid descent

Pulse Rhythms – Regular, regularly irregular or irregularly irregular
- Pulse Character – Slow rising (aortic stenosis), plateau, collapsing, bisferiens
- Pulse Volume – High volume, low volume, pulsat al, beat to beat volume variation, pulsus paradoxus (volume increases on expiration & decreases on inspiration)

Murmur Radiation Auscultation:
- Mitral Regurgitation – Left Axilla
- Mitral Stenosis – Roll Patient to Left, Mitral Area with Bell
- Aortic Stenosis – Carotids
- Aortic Regurgitation – Sit Patient Up, Hold Breath on Expiration, 5th Intercostal, Left Sternal Edge

Left sided murmurs accentuated on holding breath in expiration and right sided murmurs on holding breath in inspiration

Grading Murmurs:
- Grade 1 – Very faint
- Grade 2 – Soft
- Grade 3 – Heard easily
- Grade 4 – Loud, palpable thrill
- Grade 5 – Very loud, palpable thrill; may be heard with stethoscope partly off chest
- Grade 6 – Very loud, palpable thrill; may be heard with stethoscope entirely off chest