

Precordial Examination

Wash your hands & Introduce the exam to your patient

Positioning & Draping

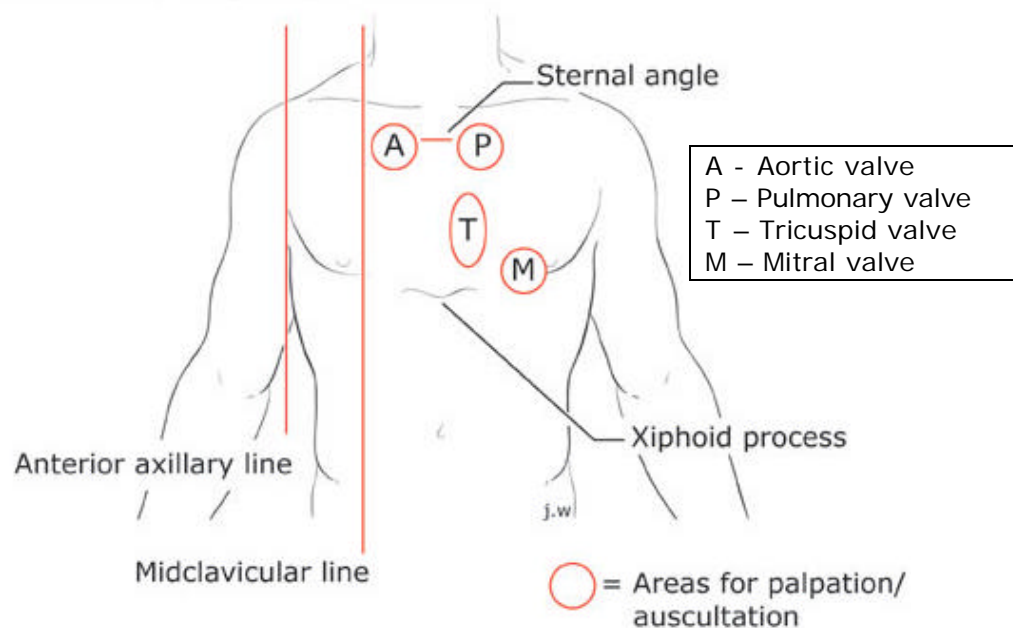
- With the patient supine:
 - uncover ? patients to the upper abdomen
 - ? patients can be uncovered intermittently as needed

Inspection

- Apex beat (aka Point of Maximum Impulse)
 - If visible, one should note its location using the chest landmarks (ie) 5th intercostal space in the mid-clavicular line
 - NB: by definition, the Apex beat can only be determined by palpation. However, inspection is useful in some instances to determine where palpation should occur.
- Inspection for pulsations (see Figure 1)
 - inspect the chest for pulsations in the areas corresponding to the Aortic, Pulmonary, Tricuspid, and Mitral valves of the heart (A, P, T, & M)

Figure 1:

Precordial exam landmarks



Palpation

- Apex beat
 - If the Apex beat is not palpable when the patient is supine, try palpating with the patient in Left lateral decubitis
 - If palpable, one should describe the apex beat in terms of 'SALID':
 - **S**ize (usually smaller than a Canadian quarter)
 - **A**mplitude (normally like a 'tap')
 - **L**ocation
 - **I**mpulse (mono- or bi-phasic)
 - **D**uration (usually less than 2/3 of systole)
- Palpate in the A, P, T, & M areas as well as down the Left sternal border
 - feel for thrills, parasternal heaves, or epigastric pulsations
 - Thrills
 - palpable vibrations caused by turbulent blood flow
 - feels like a 'purring kitten'
 - Heaves
 - large movements associated with conditions like Right Ventricular (RV) hypertrophy
 - best felt with the heel of your hand along the Left sternal border
 - Epigastric pulsations
 - aortic pulsations can be felt in the epigastrium
 - abnormally large pulsation may suggest pathology such as an abdominal aortic aneurysm (AAA)

Auscultation

- Auscultate in the A, P, T, & M areas (see Figure 1)
- Auscultation of S1 and S2
 - S1 -made by the closure of the atrioventricular (AV) valves. (ie) the Mitral and Tricuspid valves.
 - S2 -made by the closure of the Aortic and Pulmonary valves
 - to distinguish between S1 and S2, time the sounds with the radial pulse
 - you should 'hear-feel-hear' the following: "S1-pulse-S2"

- Auscultation for S3 and S4
 - S3 and S4 are low frequency abnormal diastolic sounds that occur when there is rapid ventricular filling
 - S3 occurs early in diastole. Think 'ken-TUC-ky'
 - S4 occurs as the atria contract (late in diastole). Think 'TEN-nes-see'

Proper positioning for auscultation

- S1 and S2
 - supine position
 - auscultate in all 4 areas (A,P,T, & M) using the diaphragm & bell
 - seated (upright)
 - auscultate in all 4 areas (A,P,T, & M) using the diaphragm & bell
- S3 and S4
 - Left lateral decubitus position
 - auscultate at the apex using the bell