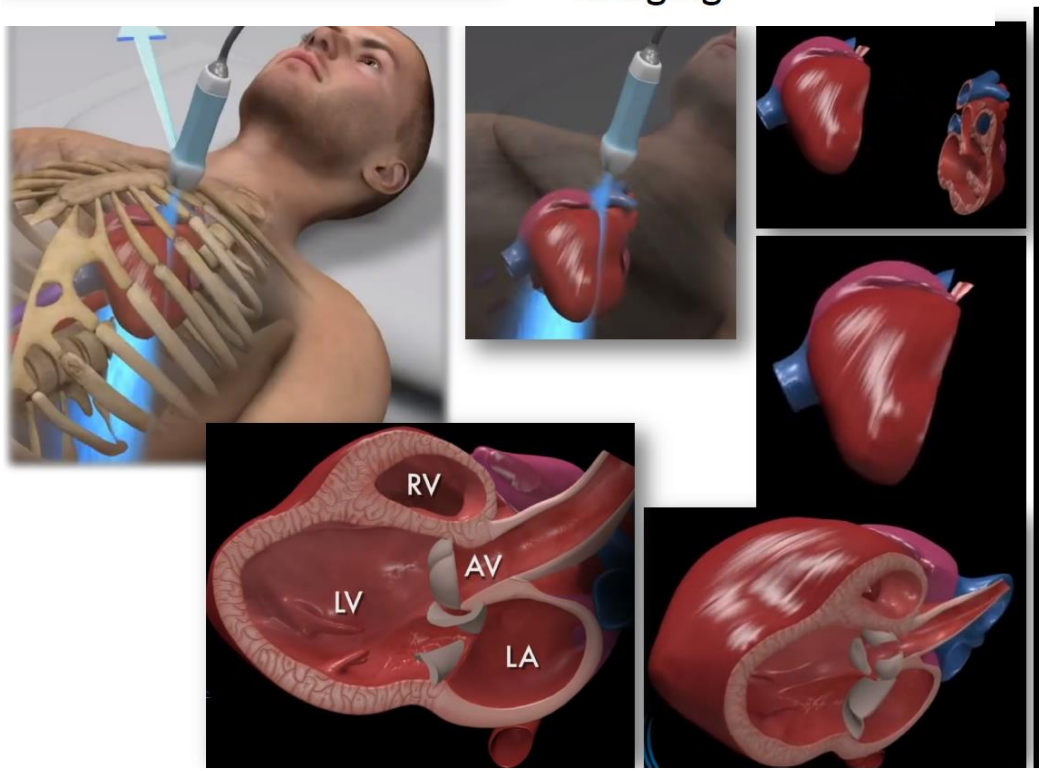
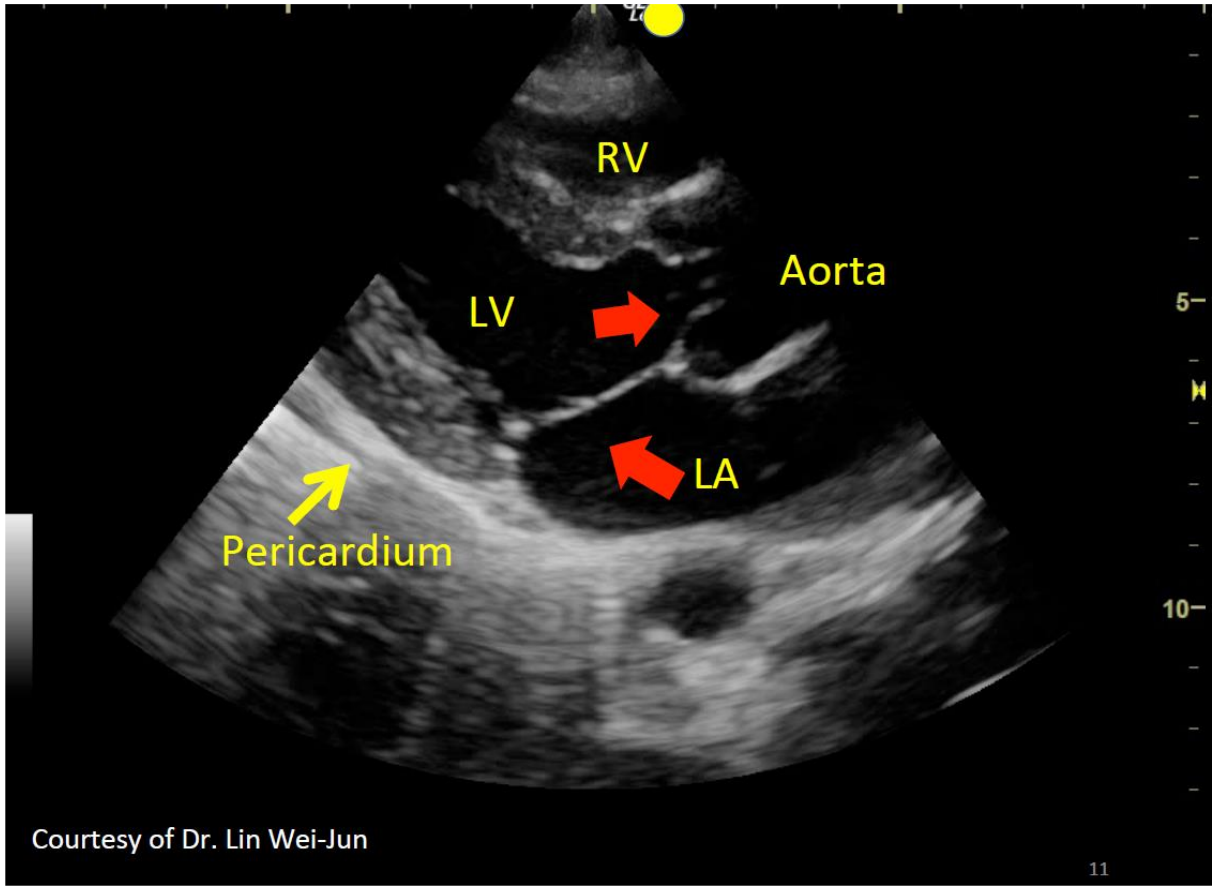
Parasternal Long

Probe

- Screen indicator on R side
- **Just** left to sternum
- 3rd-4th ICS
- Probe marker → R shoulder
- L decubitus may help imaging





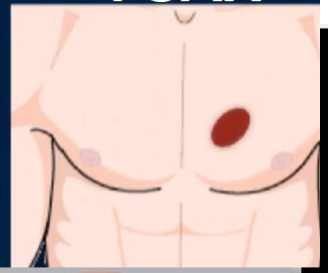
- Chamber size
  - RV : Aortic root : LA=1:1:1 (2 cm, < 3cm)
  - LV= 4 cm, < 5 cm
- Pericardial effusion or pleural effusion
- Septal or LV inferolateral wall thickening (>1 cm)

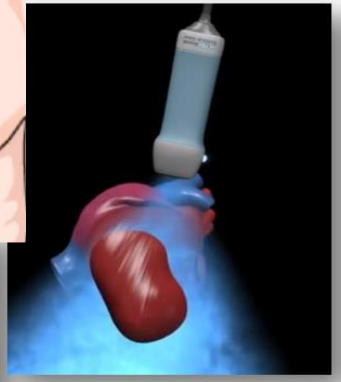
PARASTERNAL SHORT AXIS

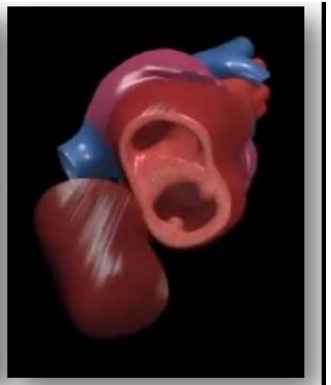
PSAX

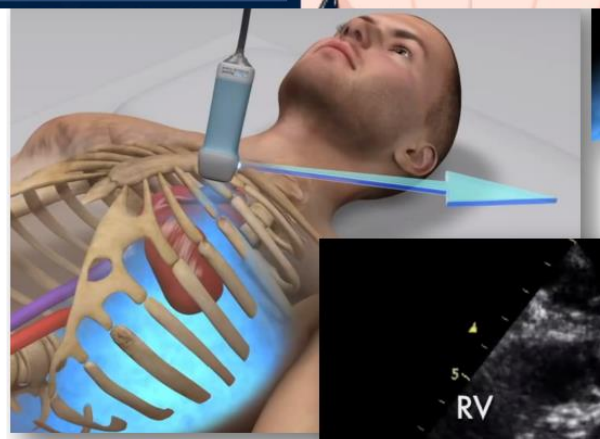
Parasternal Long

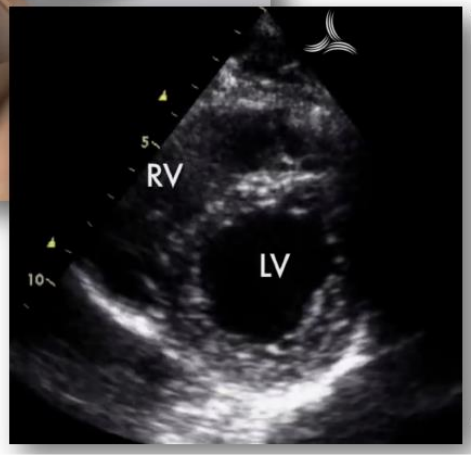
Clockwise rotation
45° → descending thoracic aorta
90° → PSAX

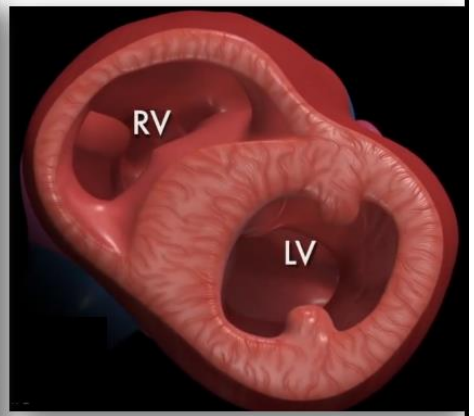




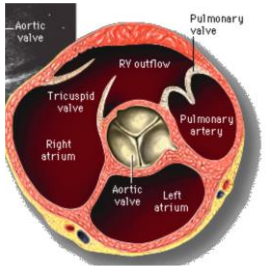


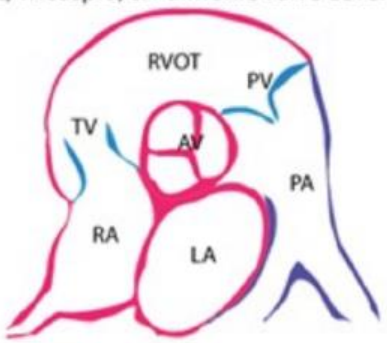






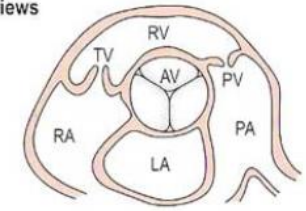
A. Aortic, Tricuspid, & Pulmonic Valve Level

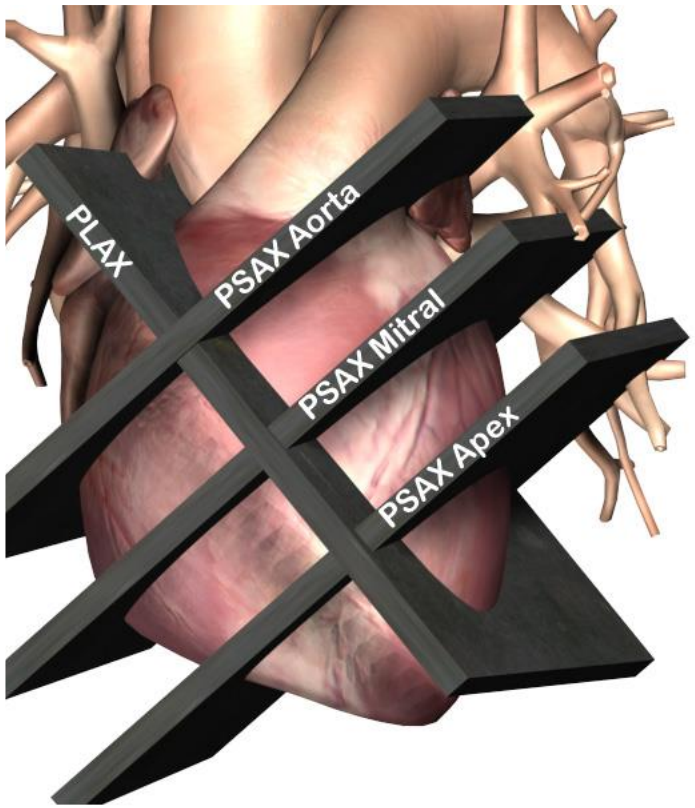




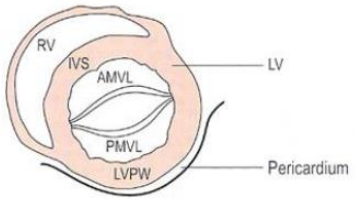
Parasternal short-axis views

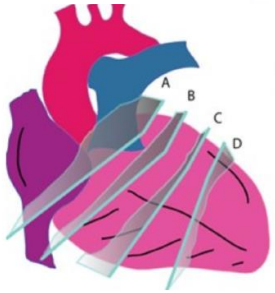
Aortic valve level



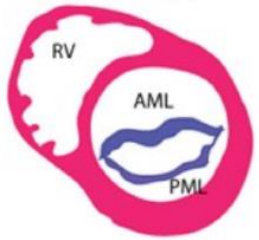


Mitral valve level

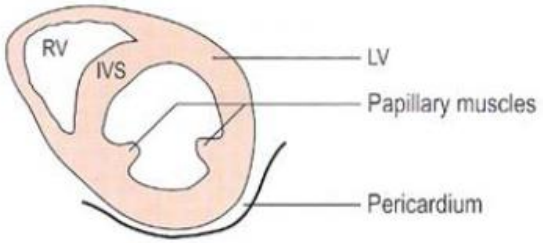




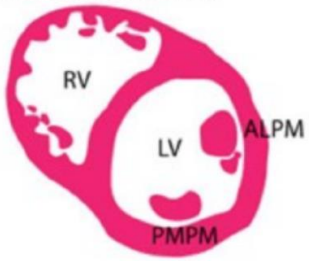
B. Mitral Valve Level



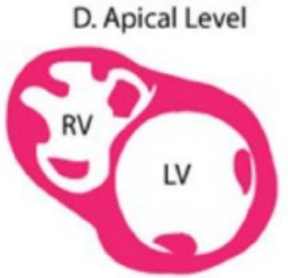
Papillary muscle level



C. Mid-Ventricular Level

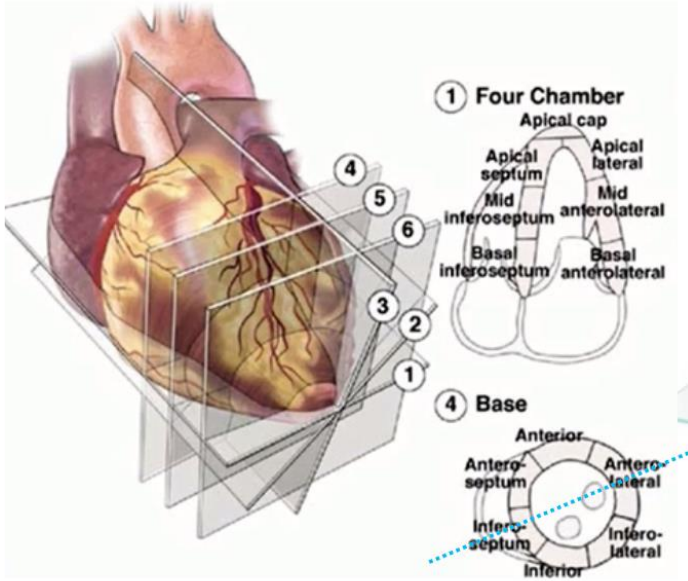


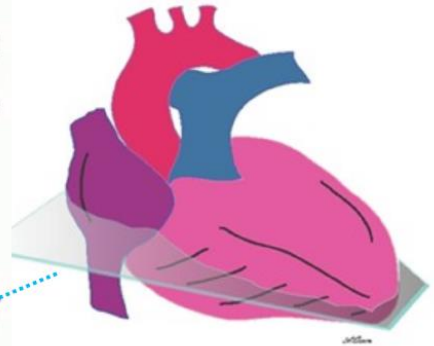
D. Apical Level

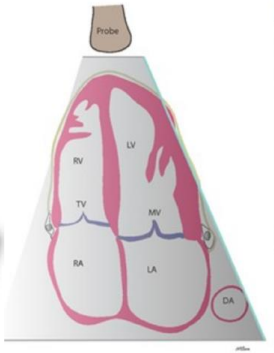


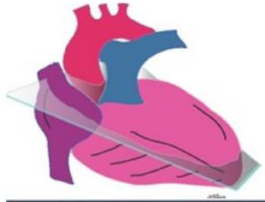
APICAL 4 CHAMBER VIEW

- RV < 0.6 LV
- Septal wall motion abnormalities

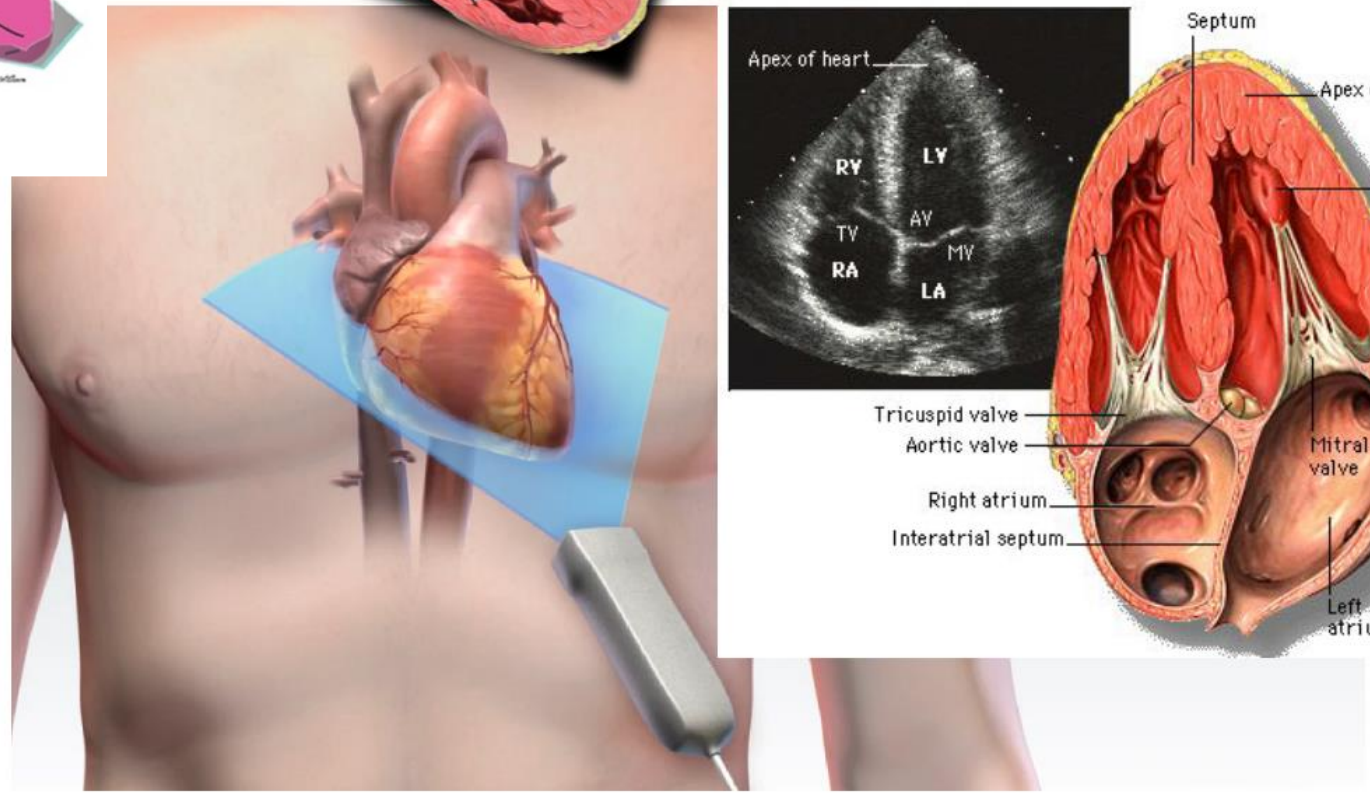




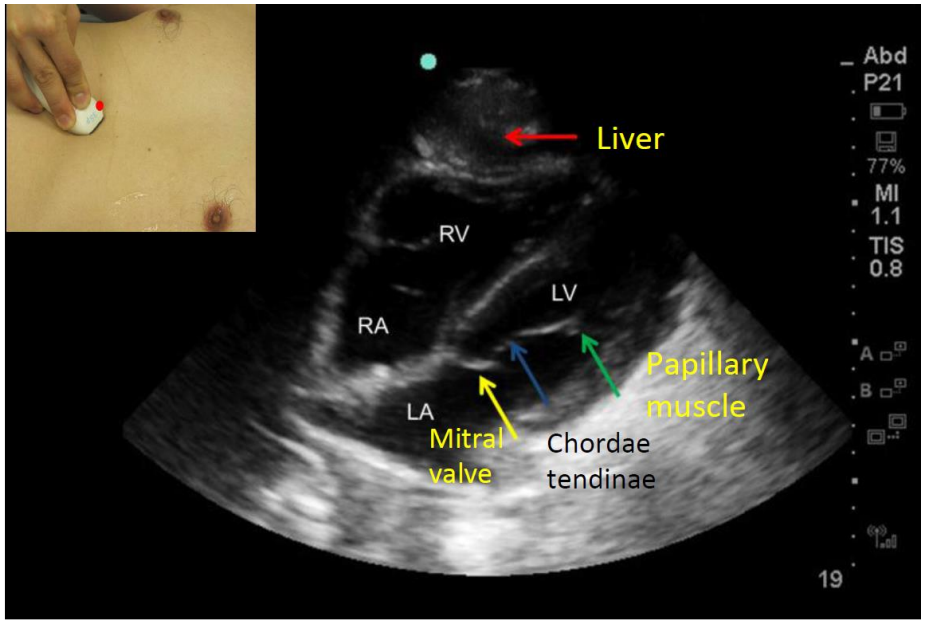




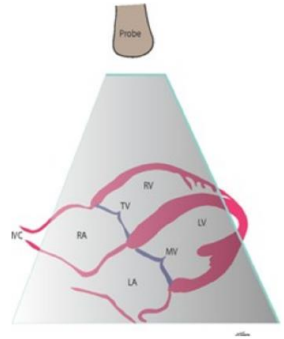
APICAL 5 CHAMBER VIEW

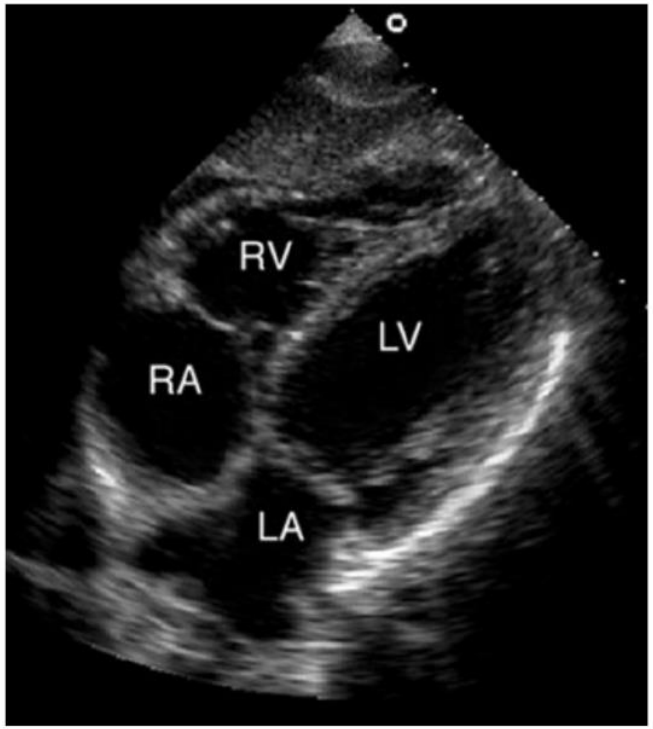


SUBCOSTAL LONG AXIS



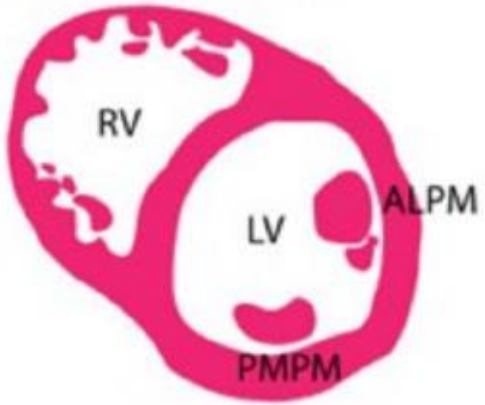
SUBCOSTAL 4 CHAMBER VIEW

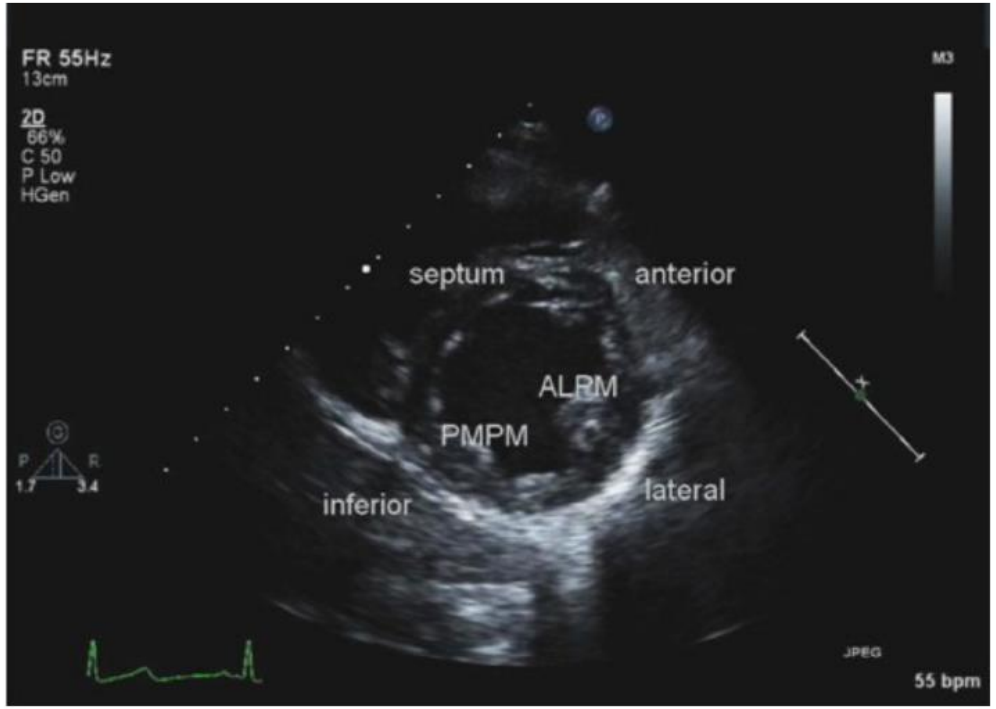




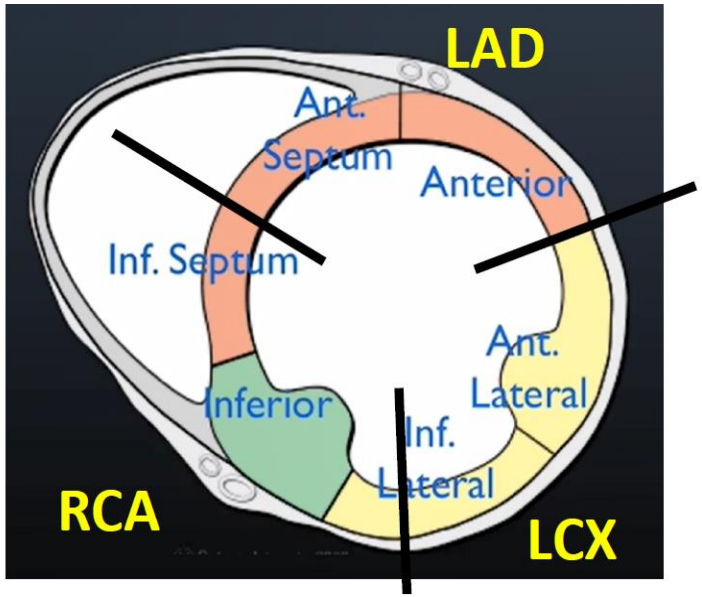
- Part of FAST exam.
- Liver as acoustic window
- Great for Effusion

C. Mid-Ventricular Level

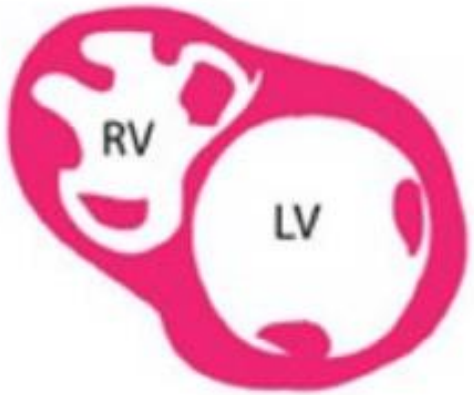


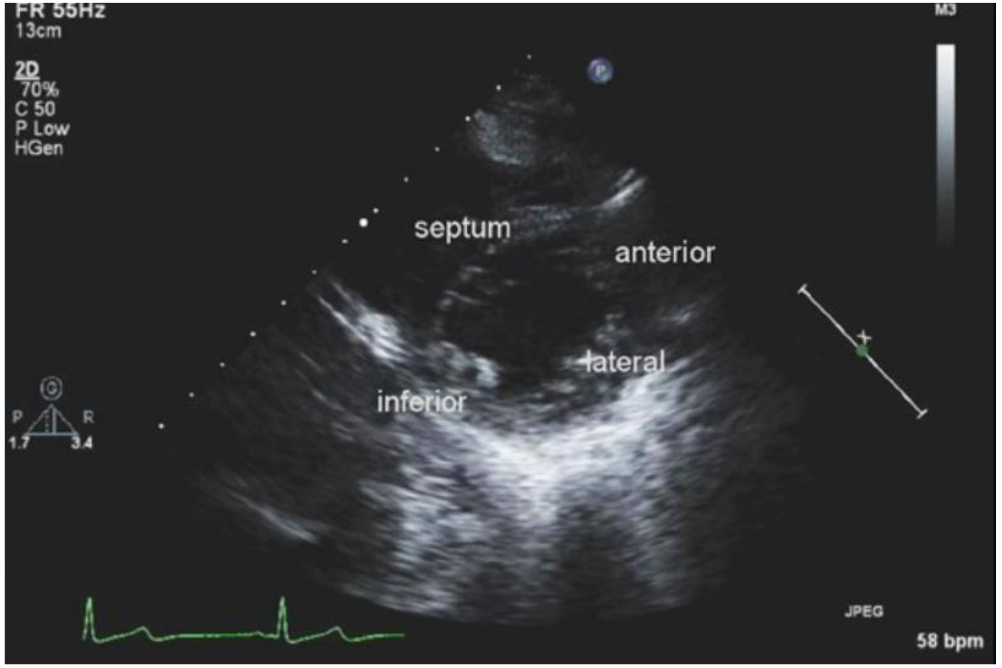


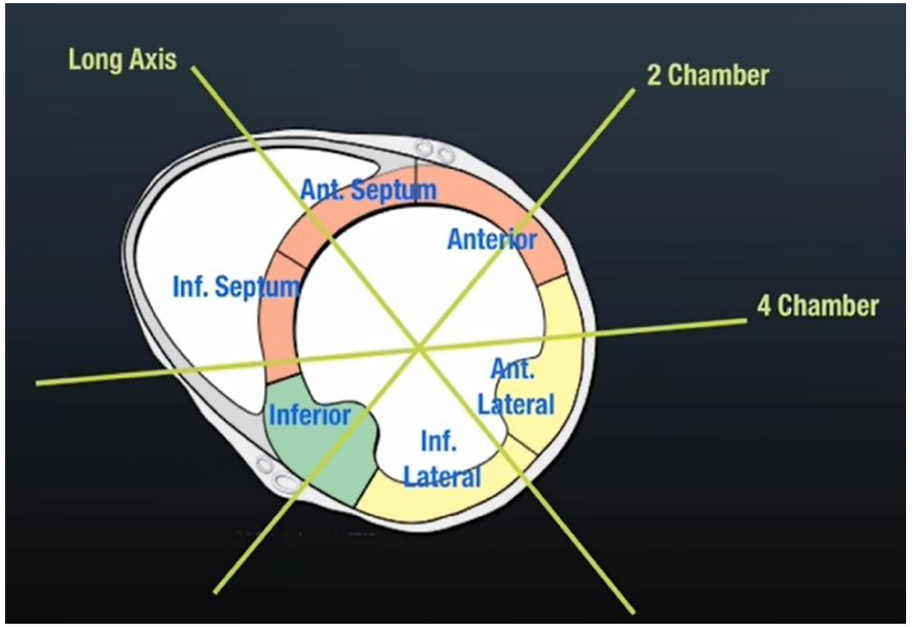
WALL SEGMENTS



D. Apical Level







EPSS

What is E Point Septal Separation?

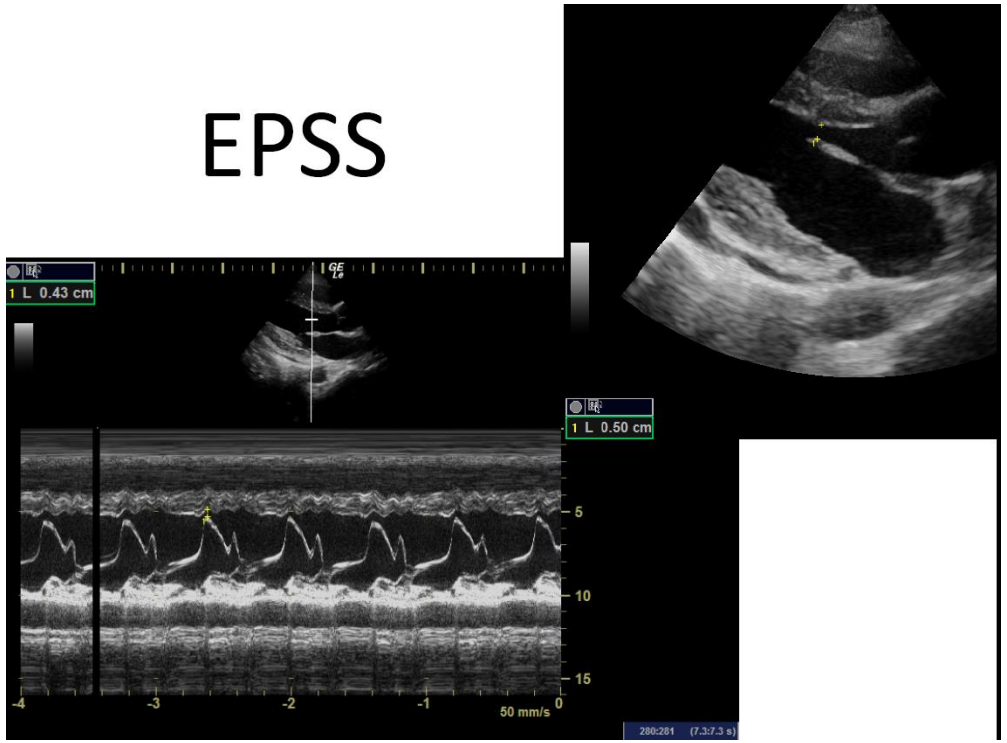
Distance from TIP of anterior mitral valve to the septal wall

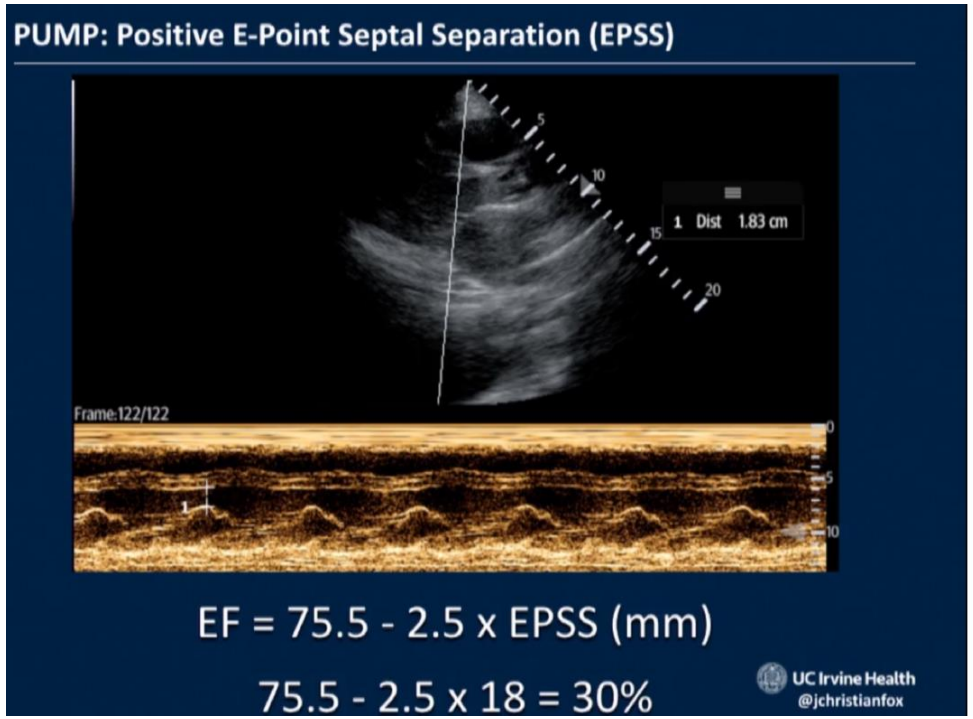
Using M-mode EPSS is measured during diastole

Less than 7 mm suggests normal LV function

EF = 75.5 - 2.5 x EPSS (mm)

EPSS





WALL MOTION EVALUATION

ASE GUIDELINES