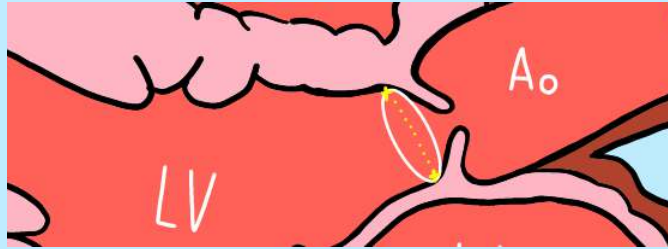


MEASURING CARDIAC OUTPUT

CALCULATE LVOT AREA

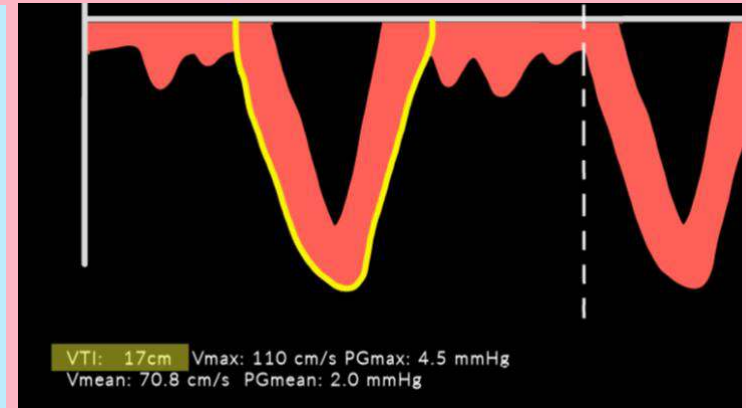
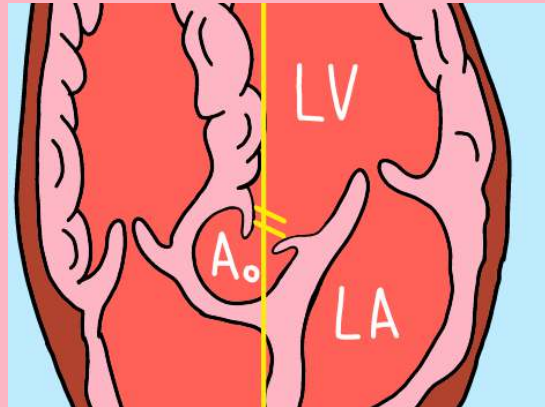
1. PARASTERNAL LONG AXIS VIEW
2. ZOOM INTO LVOT
3. MEASURE LVOT DIAMETER IN CM
4. CALCULATE LVOT AREA USING AREA OF A CIRCLE FORMULA



$$\text{LVOT AREA} = \pi \left(\frac{\text{cm}}{2} \right)^2$$

CALCULATE LVOT VTI

1. APICAL 5 CHAMBER VIEW
2. PLACE PULSE WAVE DOPPLER GATE AT LVOT
3. ACTIVATE PW DOPPLER
4. TRACE AROUND EJECTION WAVE
5. RECORD VTI IN CM



CALCULATE CARDIAC OUTPUT

$$\text{SV} = \text{LVOT AREA} \times \text{LVOT VTI}$$

$$\text{CO} = (\text{LVOT AREA} \times \text{LVOT VTI}) \times \text{HR}$$

$$\text{CO (mL/min)} = \text{SV (mL/cycle)} \times \text{HR (bpm)}$$