

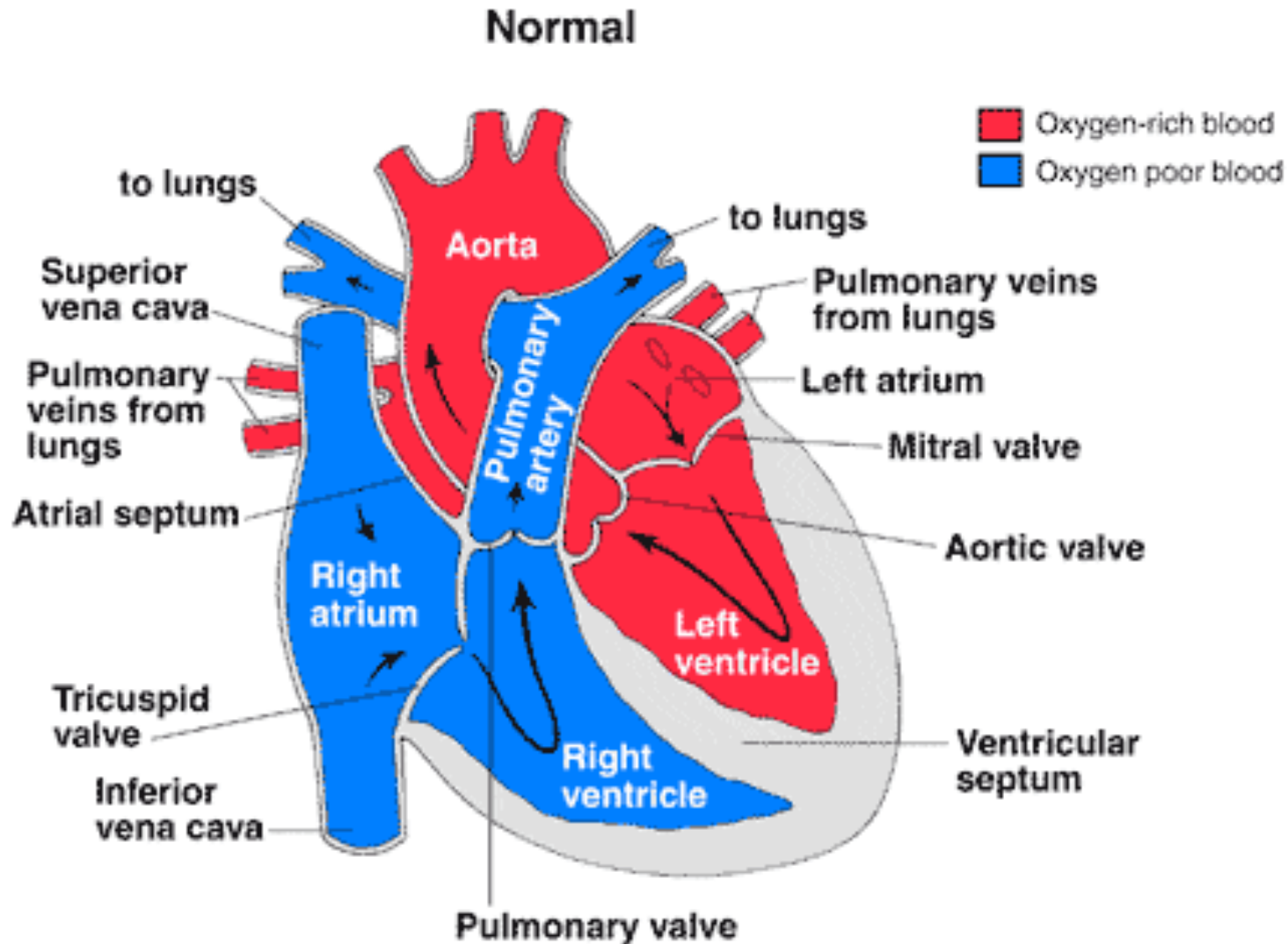


SCANNING PLANES OF THE FETAL HEART

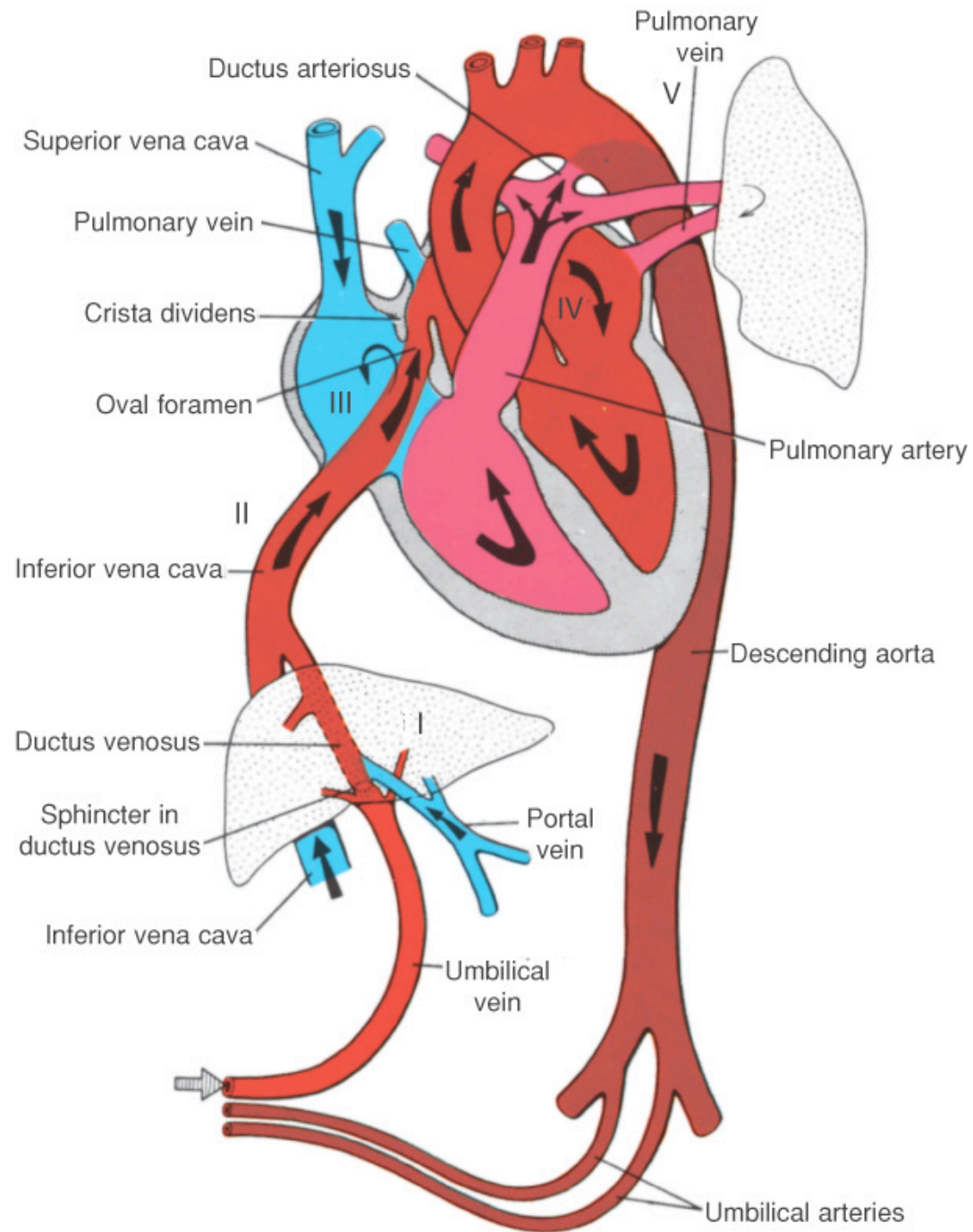
Dr Shuba Barwick

Consultant in Fetal and Paediatric Cardiology
Leeds Teaching Hospitals

The Normal Heart

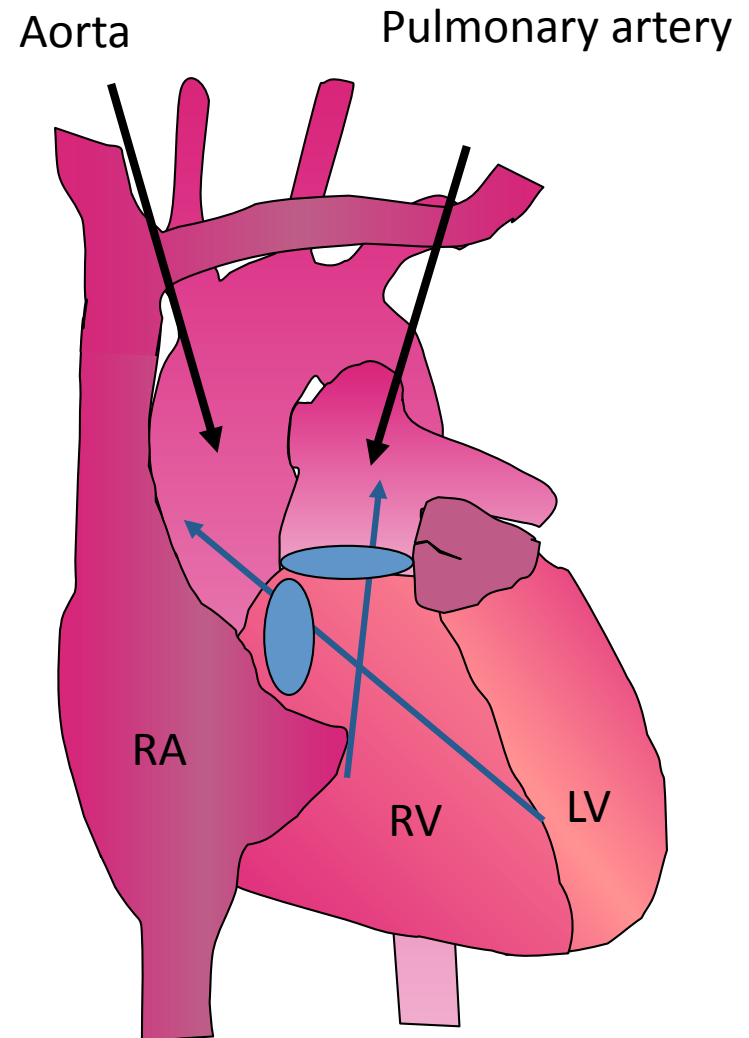


Fetal Circulation



Relationships Within the Heart

- Right ventricle is anterior, beneath chest wall
- Right ventricular outflow “wraps around” the left ventricular outflow
- Pulmonary artery lies to the left of the aorta
- Great arteries are at right angles at their origin



Colour Flow Doppler

Colour shows direction of blood flow

Turbulence indicates narrowing of flow eg."hole", narrowing of valve

Upwards
Towards probe




Downwards
Away from probe



Echo planes of Fetal Heart

Practical and proven protocol for detecting virtually all cardiac anomalies at the 20-week scan.

The views ensure that a heart is examined systematically, establishing orientation, connections and relationships.




Abdominal View

4-Chamber View

Left Outflow Tract

Right Outflow Tract

2-Vessel View

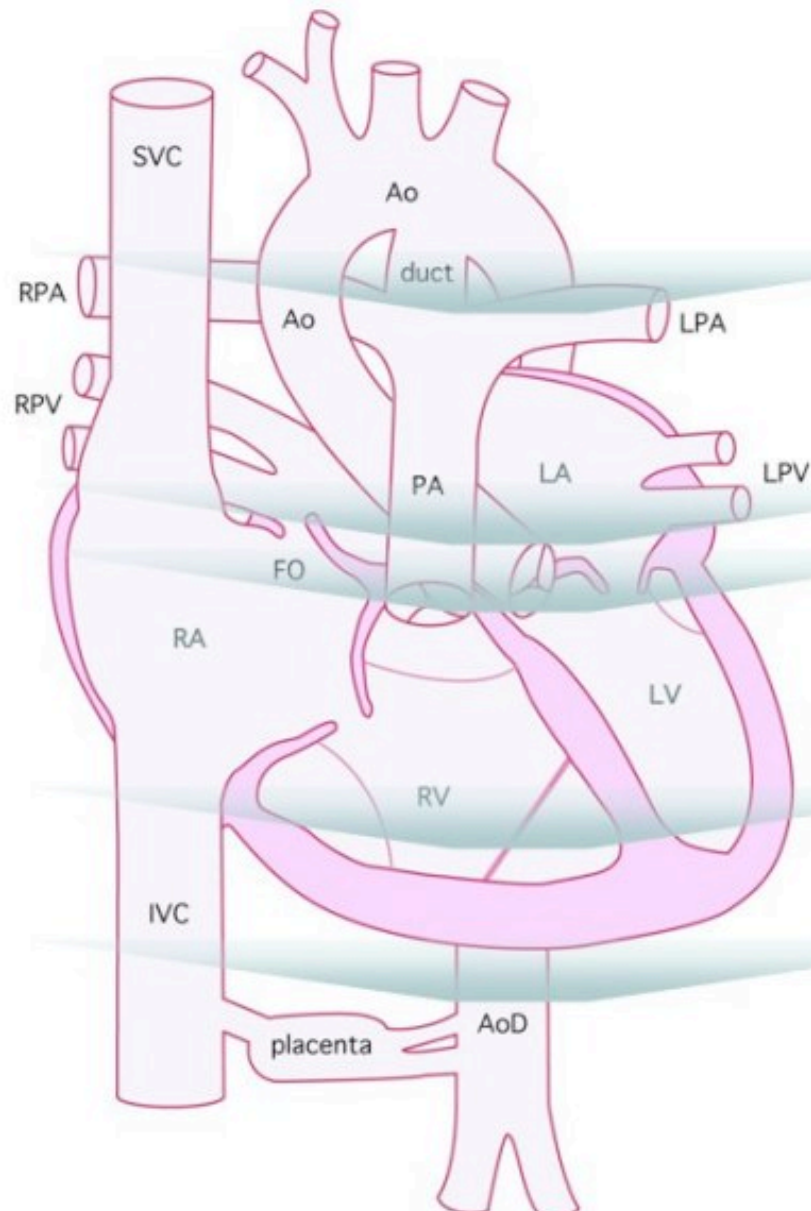
 echo

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Echo planes of Fetal Heart



V5
(3-vessel view)



V4
(pulmonary artery)



V3
(aortic root)



V2
(4-chambers)



V1
(situs)



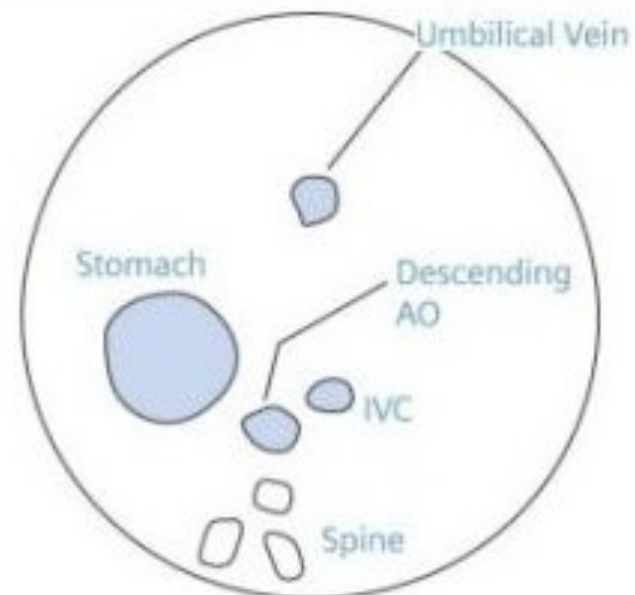
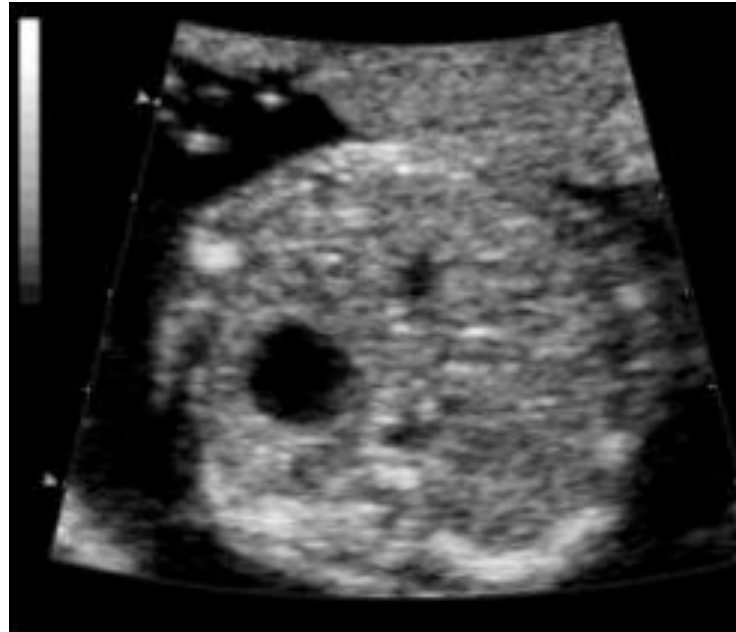
Images from "Tiny Tickers/Echocharity"

1. Abdominal Situs

Stomach on left

Ao to left of spine

IVC ant'r and to R of Ao



Images from "Tiny Tickers/Echocharity"

2. 4 Chamber view

Apex to Left

RV ant'r

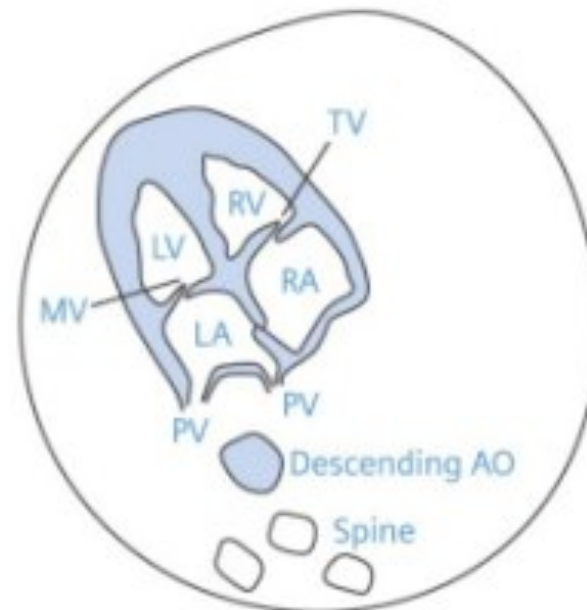
Offset AV valves

Moderator band

LA post'r

Pulm veins

Ao behind LA



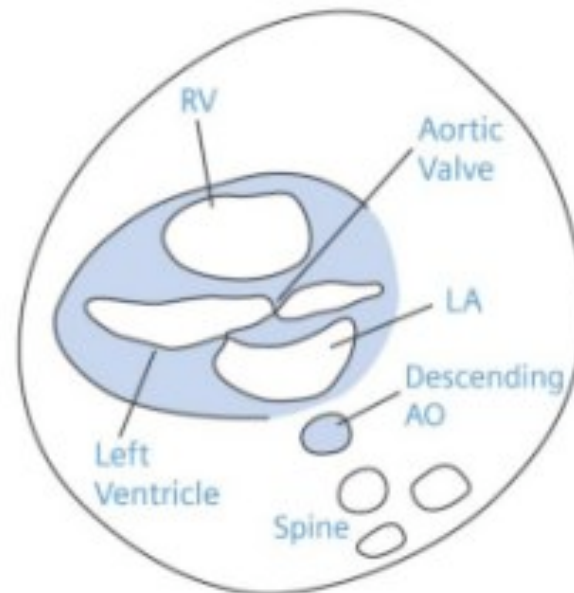
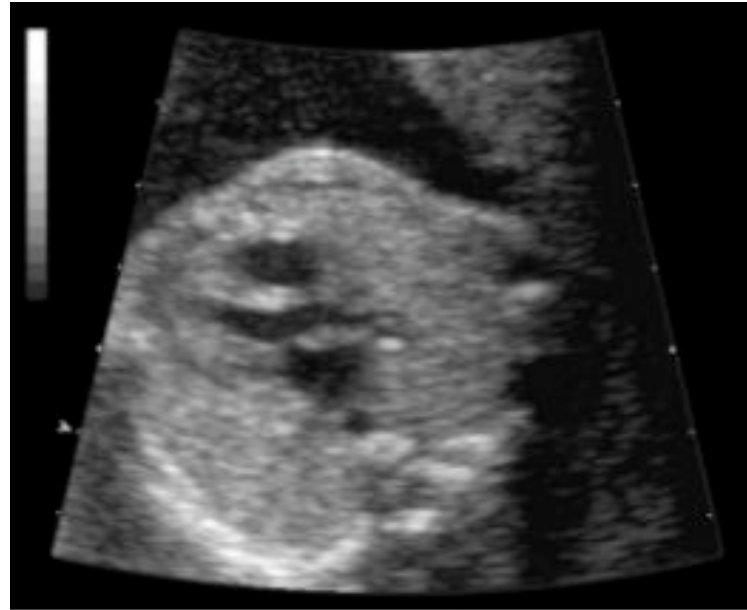
Images from "Tiny Tickers/Echocharity"

3. Left ventricular outflow tract

RV Ant'r

LVOT towards right shoulder

dAo behind LA



Images from "Tiny Tickers/Echocharity"

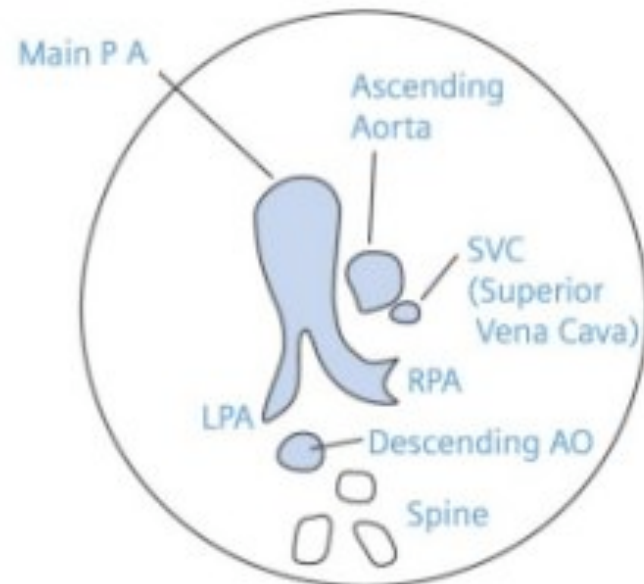
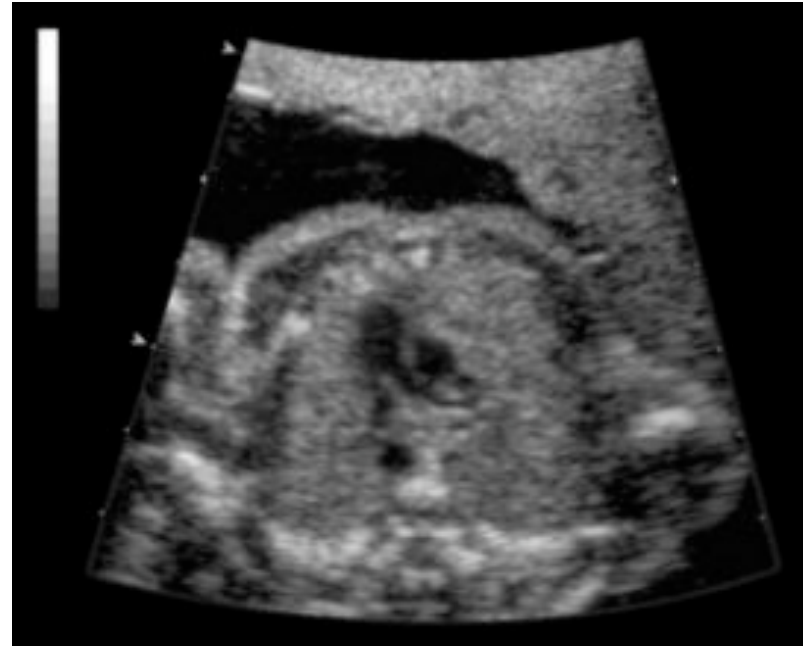
4. Right ventricular outflow tract

RVOT passes directly back towards spine

PA branches “trouser leg”

Ao to right of RVOT

SVC to right of Ao



Cross over of great vessels

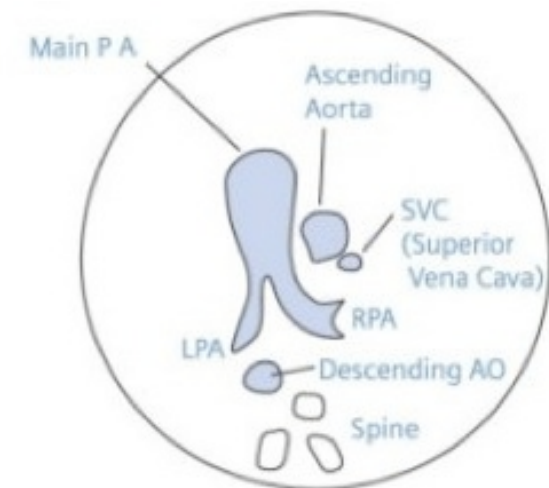
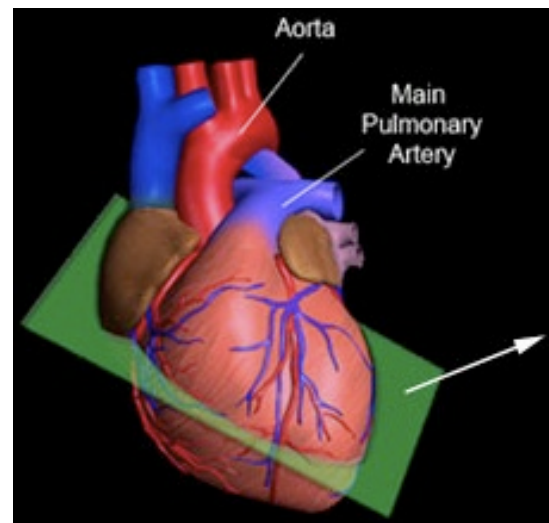
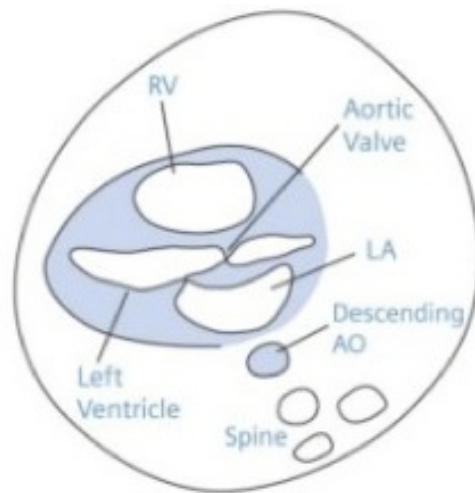
Aorta passes from centre of heart towards right shoulder

Higher arch

PA wraps around the LVOT and is directed towards spine

Lower Arch

Ao and PA CROSS OVER at right angles



5. 3 vessel view

Duct from ant'r RVOT directly backwards

Transverse arch to right of duct

Ao arch to left of trachea

SVC to right of duct

