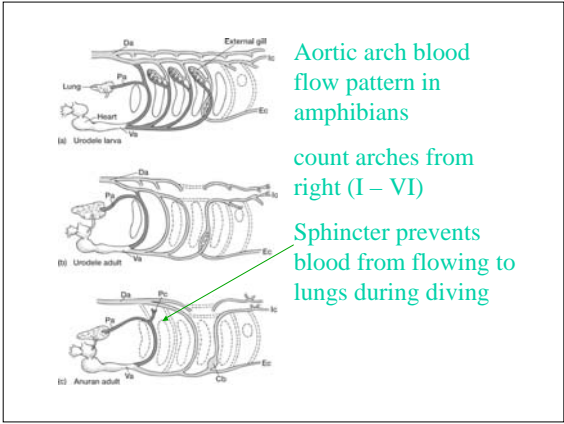
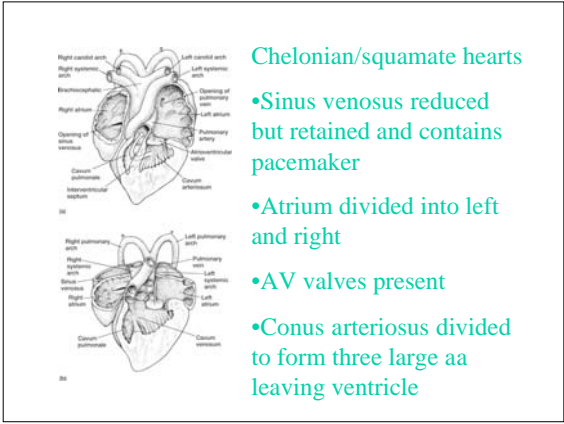


Three chambered amphibian heart – undivided ventricles have trabeculae that may separate blood flow functionally if not structurally

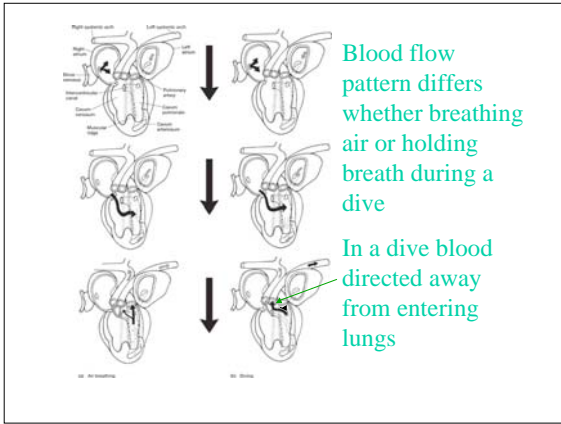


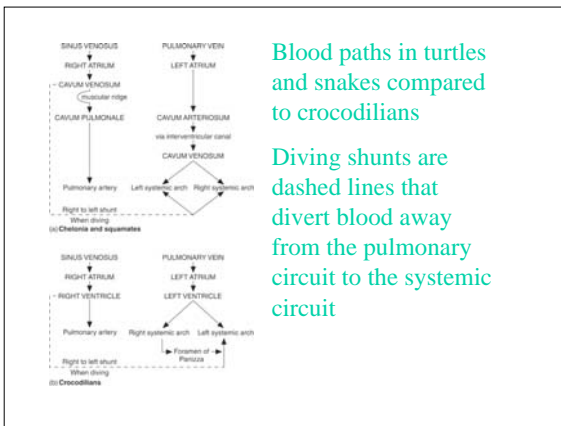
Aortic arch blood flow pattern in amphibians
 count arches from right (I – VI)
 Sphincter prevents blood from flowing to lungs during diving

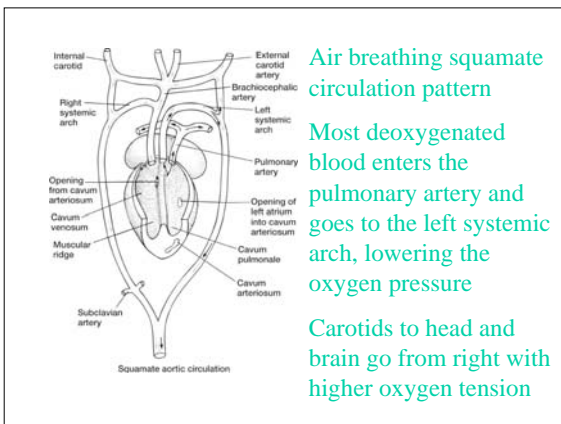


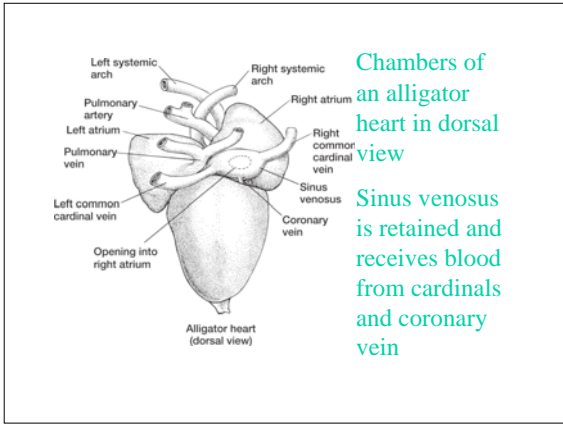
Chelonian/squamate hearts

- Sinus venosus reduced but retained and contains pacemaker
- Atrium divided into left and right
- AV valves present
- Conus arteriosus divided to form three large aa leaving ventricle



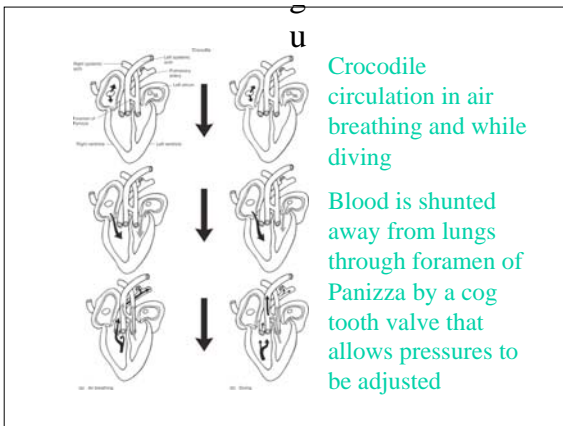


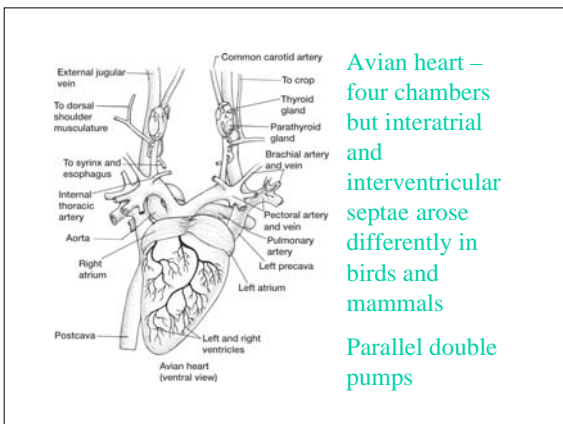




Chambers of an alligator heart in dorsal view

Sinus venosus is retained and receives blood from cardinals and coronary vein





Avian heart – four chambers but interatrial and interventricular septae arose differently in birds and mammals

Parallel double pumps
