

Focus on: The Atrioventricular Canal

Anatomical Considerations

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Cardio  ology
♥ 2018



Perelman
School of Medicine
University of Pennsylvania

I have no financial disclosures

Definition

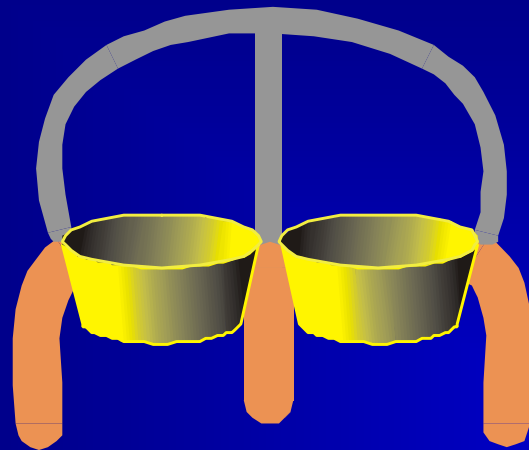
- Atrioventricular alignment abnormality with ...
- both atria connected to ...
- a single (common) AV valve

Common AV Canal

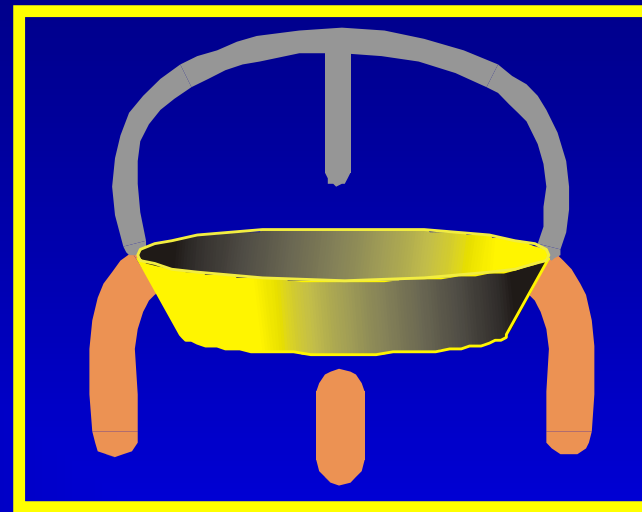
Atrioventricular Alignments

Atrial-to-AV Valve Connections

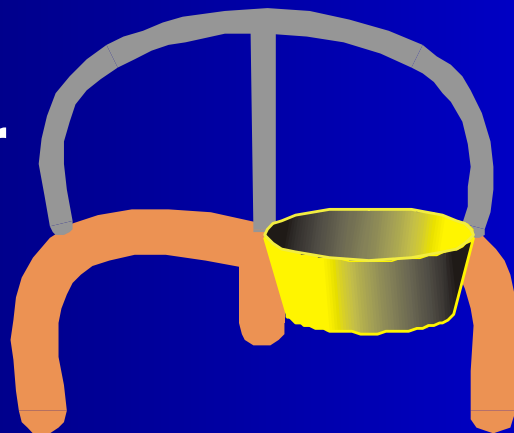
NL



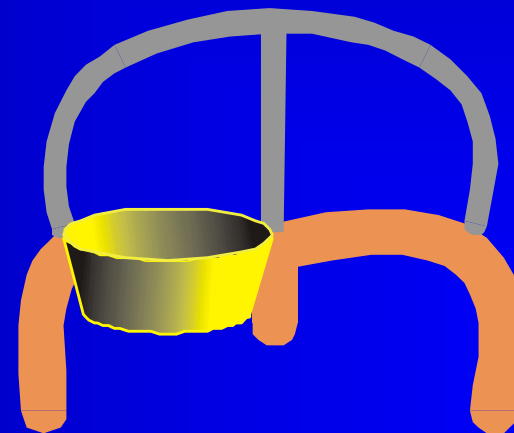
CAVC



RAVV Atr

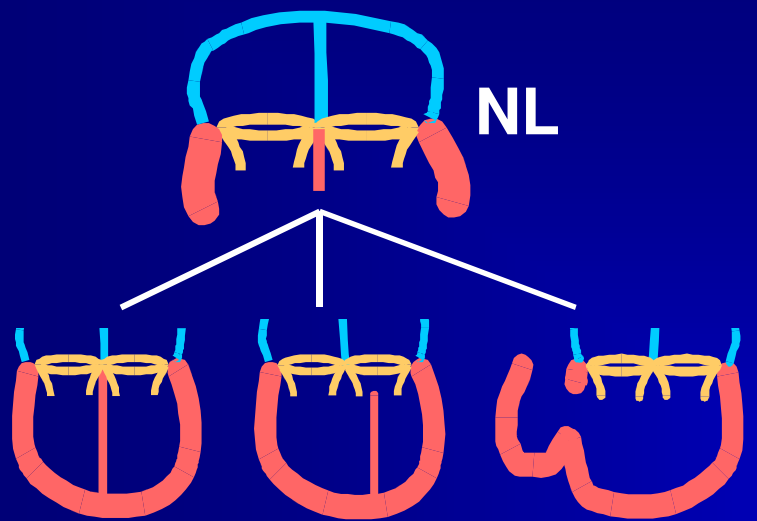


LAVV Atr

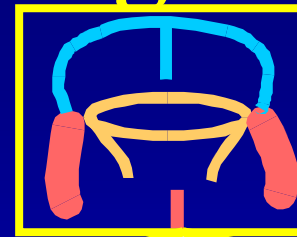


Common AV Canal

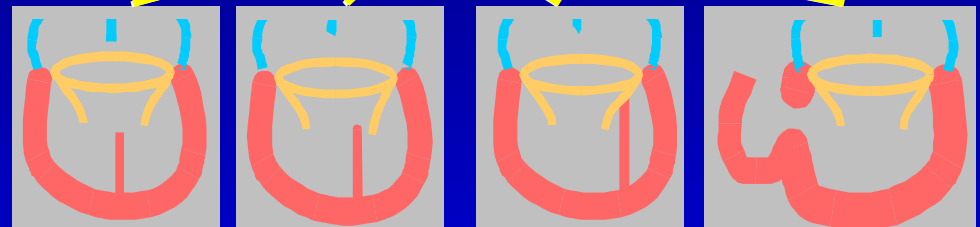
Atrioventricular Alignments



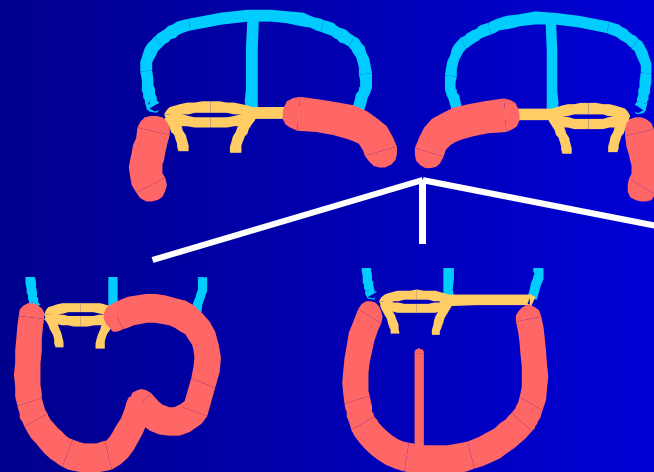
NL Straddling AVV Double Inlet



CAVC



Balanced Unbalanced Inlet Atresia Common Inlet



L or RAVV Atr

Straddling
AV Valve

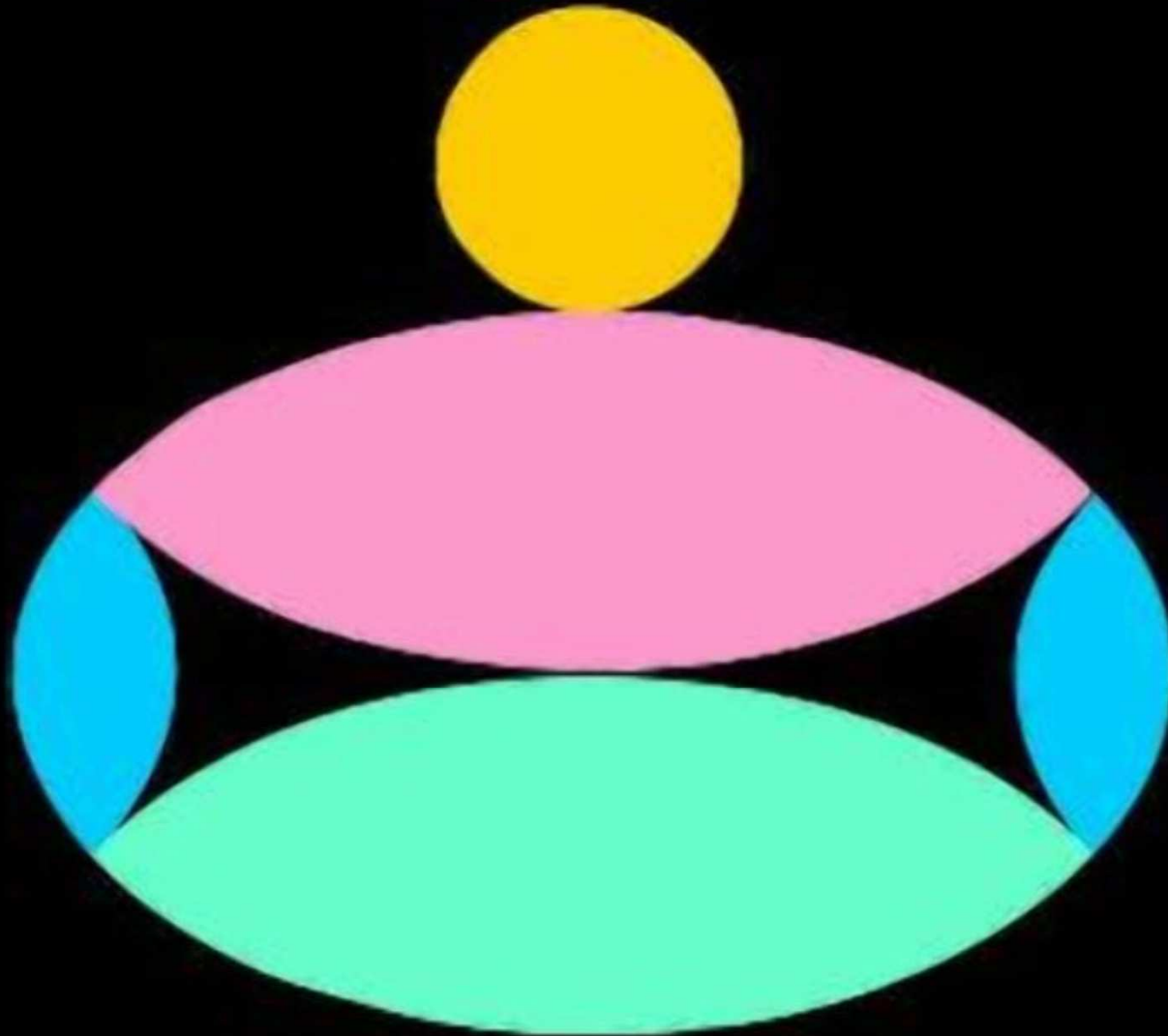
Absent
Ventricle

Approach to Common AV Canal

- Number of orifices
- Valve morphology
- Attachments to septum
- Subsemilunar obstruction
- Balance, atrial
- Balance, ventricular

Common AV Canal

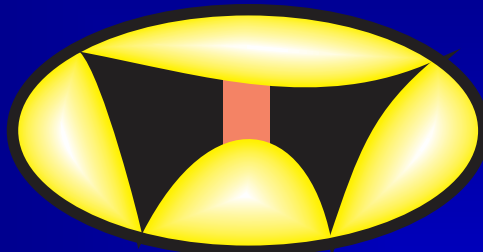
Development



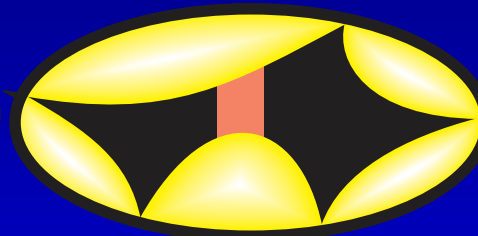
Valve Morphology

1 Orifice

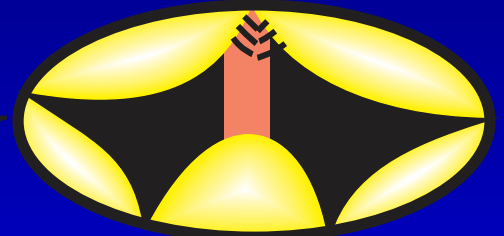
**Superior
Leaflet**



Undivided

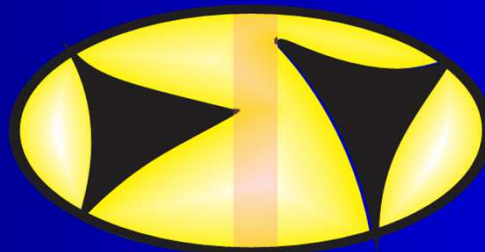


Divided



2 Orifices

**Medial
Leaflet**



Cleft “Mitral”

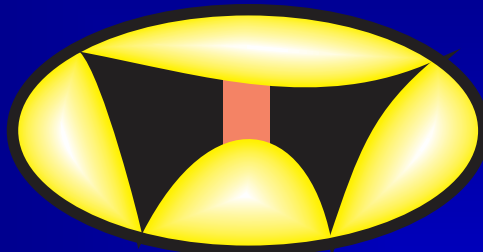


Deficient

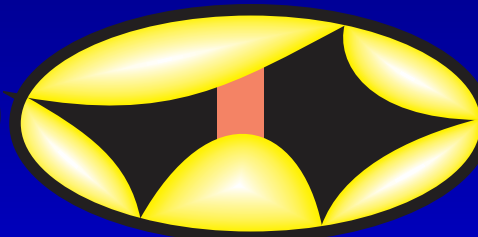
Valve Morphology

1 Orifice

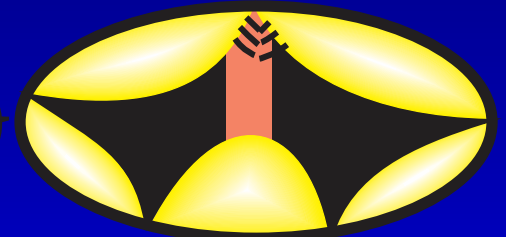
**Superior
Leaflet**



Undivided

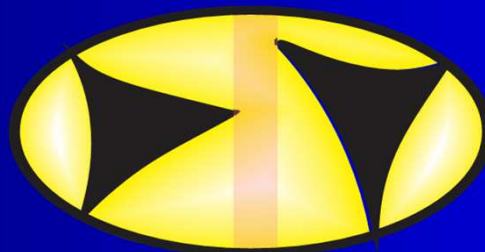


Divided



2 Orifices

**Medial
Leaflet**



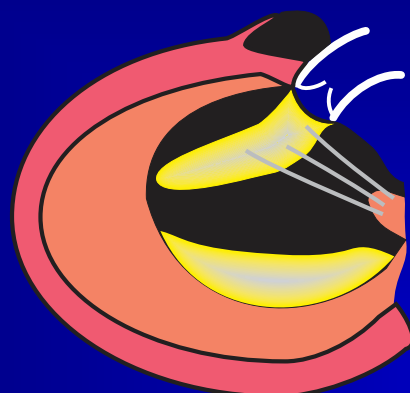
Cleft "Mitral"



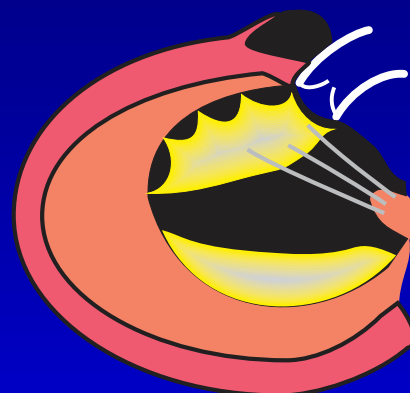
Deficient

Septal Attachments

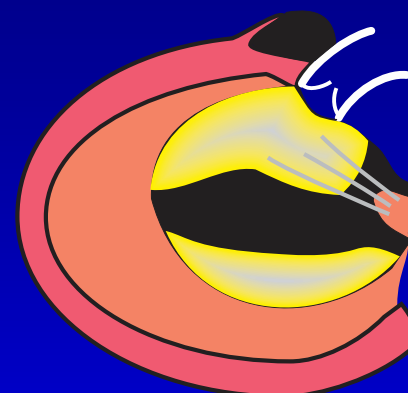
1 Orifice



Minimal

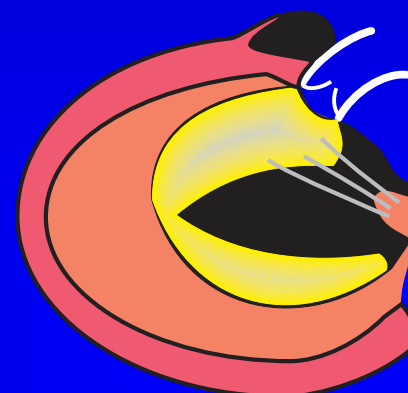
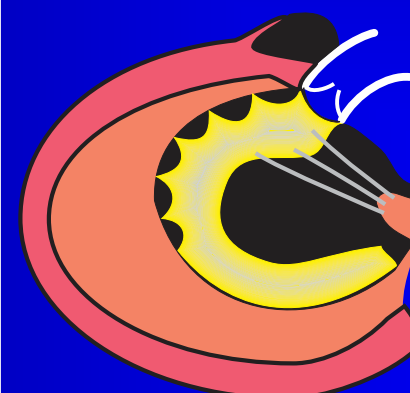
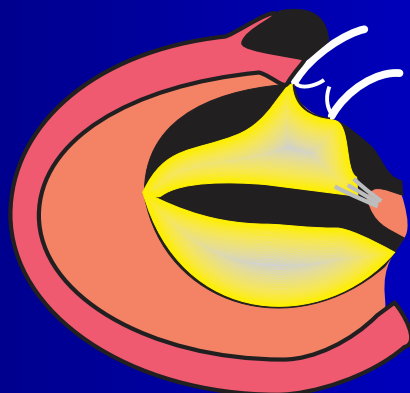


Loose

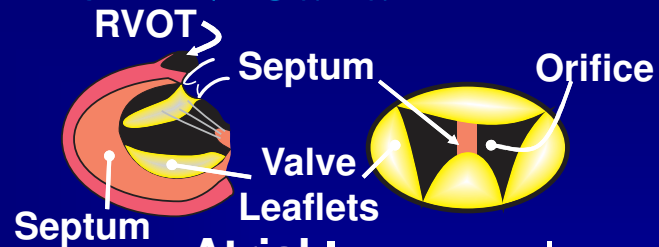


Dense

2 Orifices



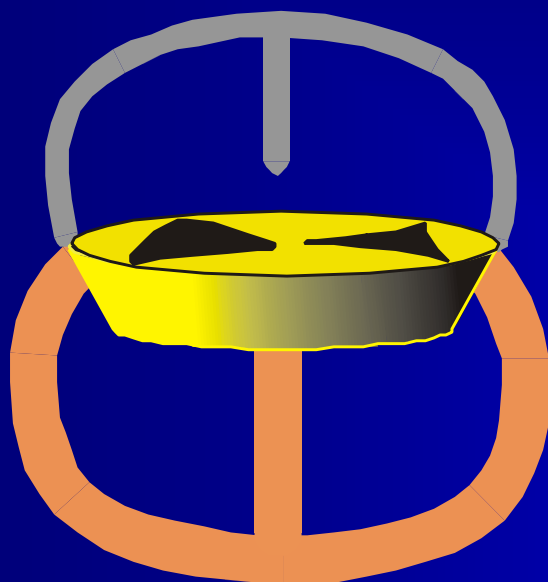
Common AV Canal



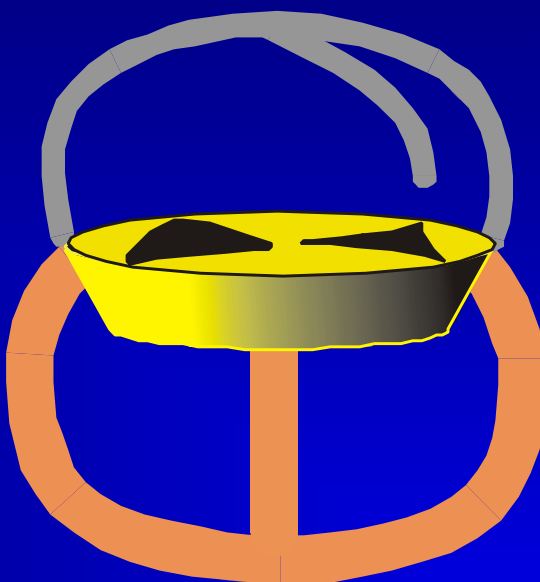
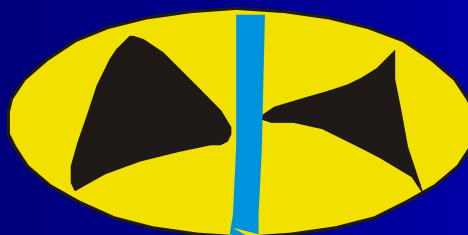
Leaflet Morphology

Atrial View		Atrial View	
LV View		LV View	
Leaflet Attachment to Septum		Rastelli C	Complete AVC w/ 2 Orifices
		Rastelli B	Transitional AVC
		Rastelli A	
		Incomplete AVC	

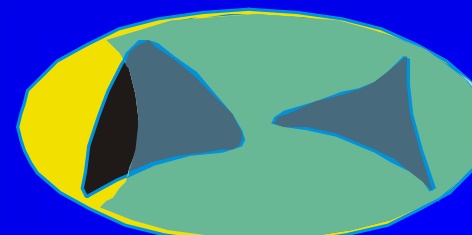
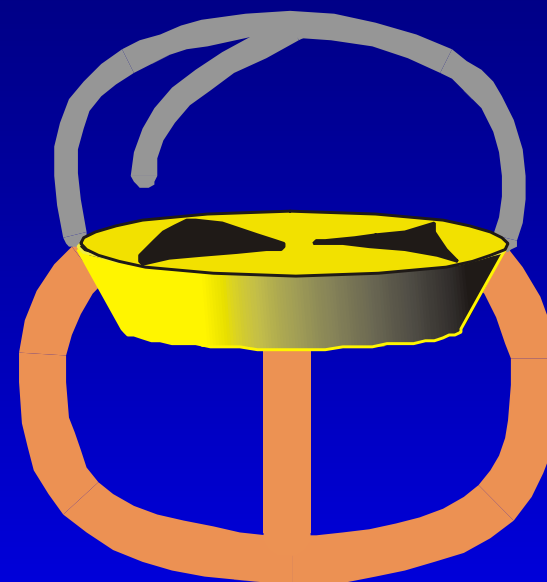
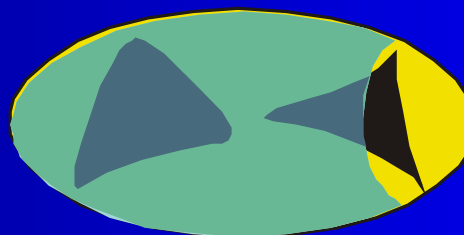
Atrial Balance



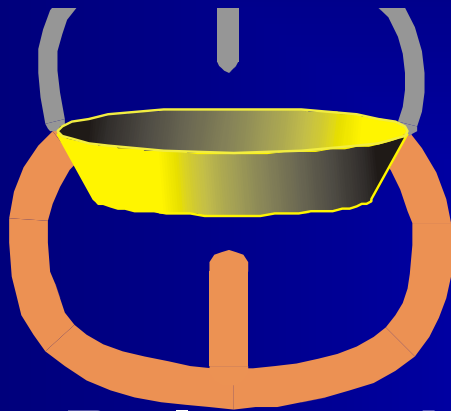
Balanced



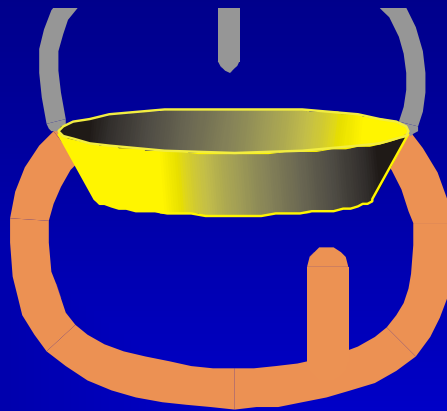
“Double Outlet Atrium”



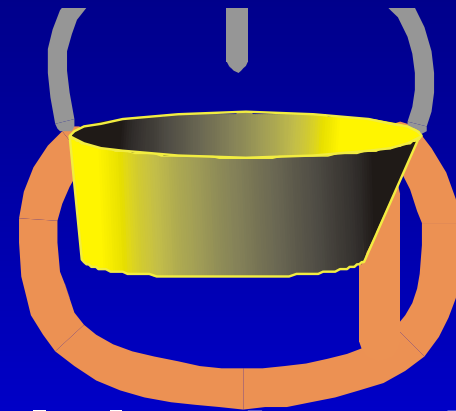
AV Valve-to-Ventricle Connection



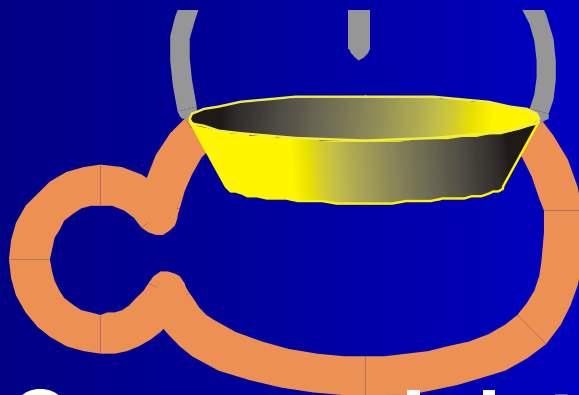
Balanced



Unbalanced



Inlet Atresia



Common Inlet



Single Ventricle

