

Morphology of the atrial septum and ASD

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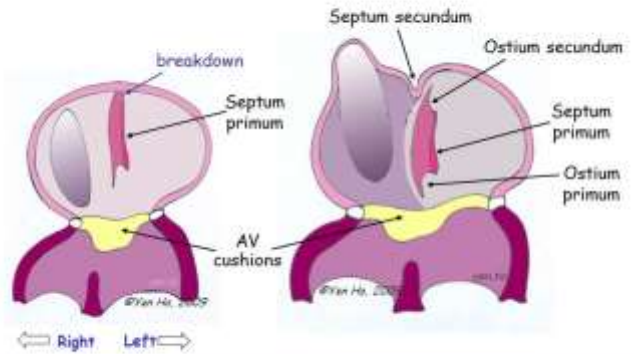


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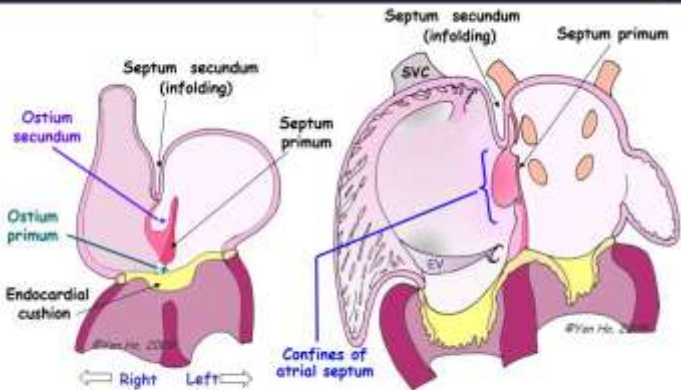
Atrial septum development



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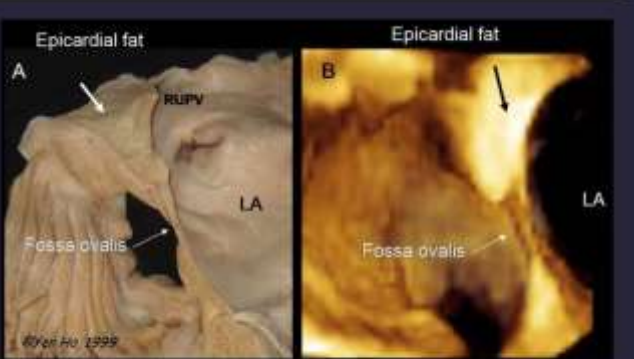
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Atrial septum



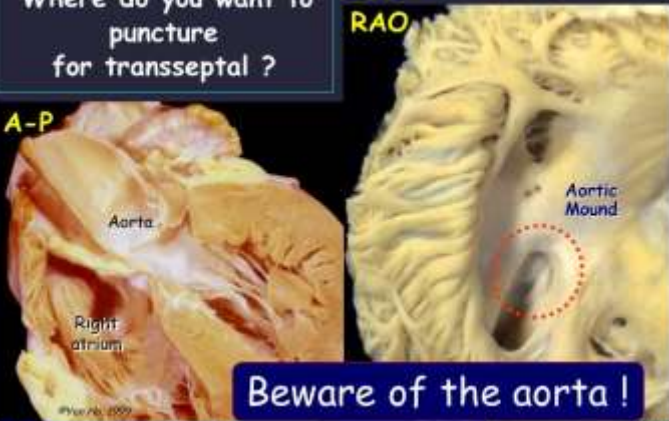
Faletra FF, Nucifora G, Ho SY. Imaging the atrial septum using real-time three-dimensional transesophageal echocardiography: Technical tips, normal anatomy, and its role in transeptal puncture. *J Am Soc Echocardiogr.* 2011

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Atrial septum

Where do you want to puncture for transeptal?

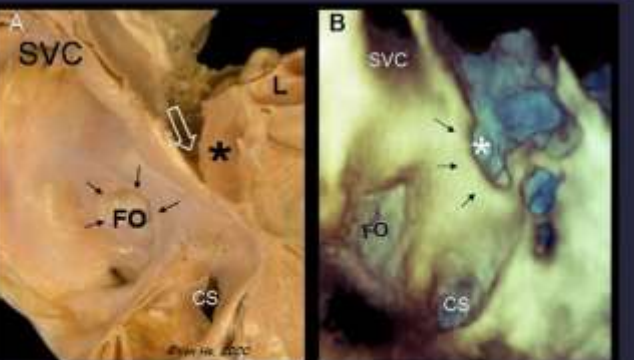


Beware of the aorta!

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Atrial septum: anterior = aortic border



Faletra FF, Nucifora G, Ho SY. Imaging the atrial septum using real-time three-dimensional transesophageal echocardiography: Technical tips, normal anatomy, and its role in transeptal puncture. *J Am Soc Echocardiogr.* 2011;24:593-9

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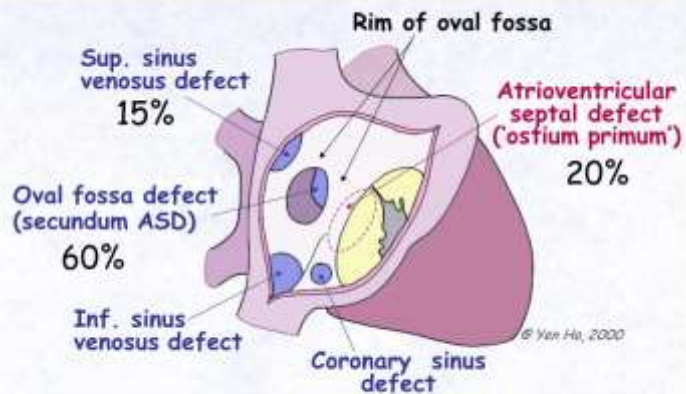
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Atrial septal defects and interatrial communications

- Where in the septum
- Size of defect
- The margins
- Proximity to important structures



Atrial septal defects and interatrial communications



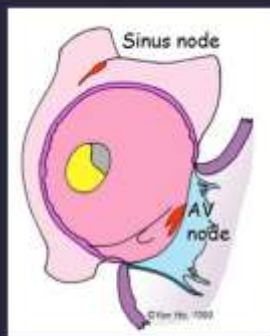
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Atrial septal defects and interatrial communications



Oval fossa defect (secundum ASD)

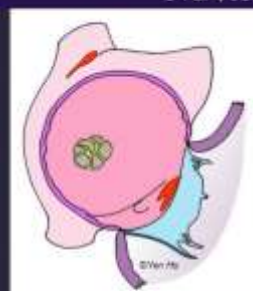


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Atrial septal defects and interatrial communications

Oval fossa defect (secundum ASD)



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Atrial septal defects and interatrial communications

Oval fossa defect (secundum ASD)



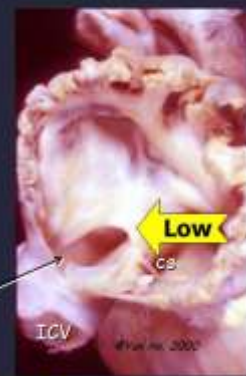
Large defect, proximity to right pulm. vein

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Atrial septal defects and interatrial communications

Oval fossa defect (secundum ASD) SIZE, LOCATION, MARGINS



Right atrial views

Inferior margin

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Atrial septal defects and interatrial communications

Superior sinus venous defect

Sup. caval vein, Pulm. vein, RA, LA, Confines of atrial septum

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Atrial septal defects and interatrial communications

Superior sinus venous defect

Sinus node, Van Ho

- Partial anomalous PV connection
- Proximity to sinus node (atriotomy site)
- No superior margin (overriding SCV)

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Atrial septal defects and interatrial communications

Inferior sinus venous defect

TV, Inf caval vein, Coronary sinus

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Atrial septal defects and interatrial communications

Coronary sinus defect

Coronary sinus defect

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Atrial septal defects and interatrial communications

Coronary sinus defect

Normal, Communications, Back of Left atrium, Coronary sinus orifice

- Defect at site of coronary sinus
- Persistent left superior caval vein
- 'Unroofing' of the coronary sinus

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Atrial septal defects and interatrial communications

Coronary sinus defect

Beware of the aortic root

Not all ASDs are in the true septum

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