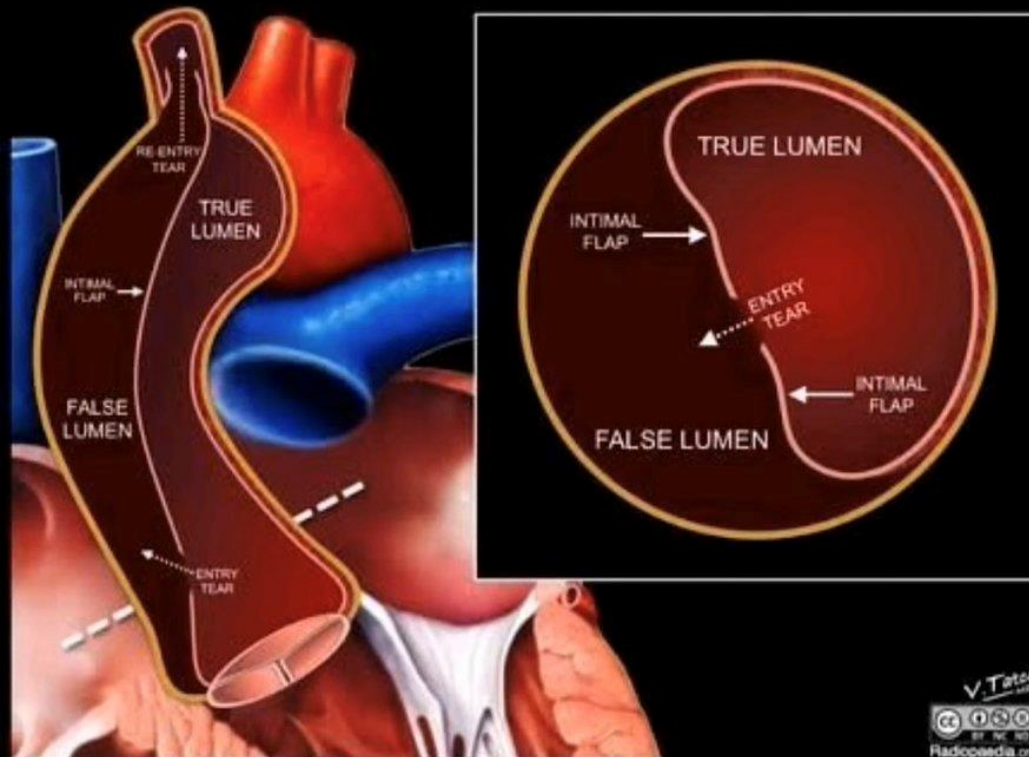


AORTIC DISSECTION





**DR. ROBERT
MARIASI**

Radiology and Diagnostic
Imaging

RADIOLOGICAL DIAGNOSTICS OF AORTIC DISSECTION

A RADIOLOGICAL OVERVIEW OF AORTIC PATHOLOGY



A group of injuries in which blood enters the medial layer of the aortic wall and dissects the wall longitudinally.

Acute: first 14 days
Subacute: 14 days - 3 months
Chronic: >3 months

CT Findings

- Intimal Flap
- **Double Lumen**
- Slow Flow False Lume
- Aortic Dilatation



Plain Chest Radiography

- Widened Mediastinum
- Irregular Aortic Contour
- Pleural Effusion
- 25% Normal



True Lumen

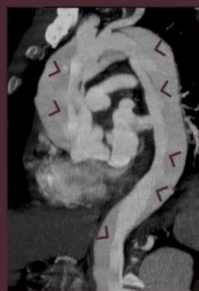
- Frequently compressed
- Wall calcifications
- Coeliac Trunk, SMA and Right renal artery arises from the true lumen

False Lumen

- Frequently larger
- Delayed opacification
- Beak sign (acute angle of the false lumen).

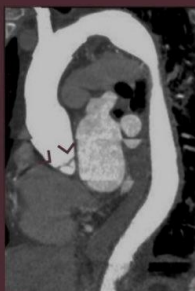


Involves ascending and descending aorta



Type I

Involves only the ascending aorta



Type II

Involves descending aorta only, after the origin of the left subclavian artery



Type III

DeBakey Classification

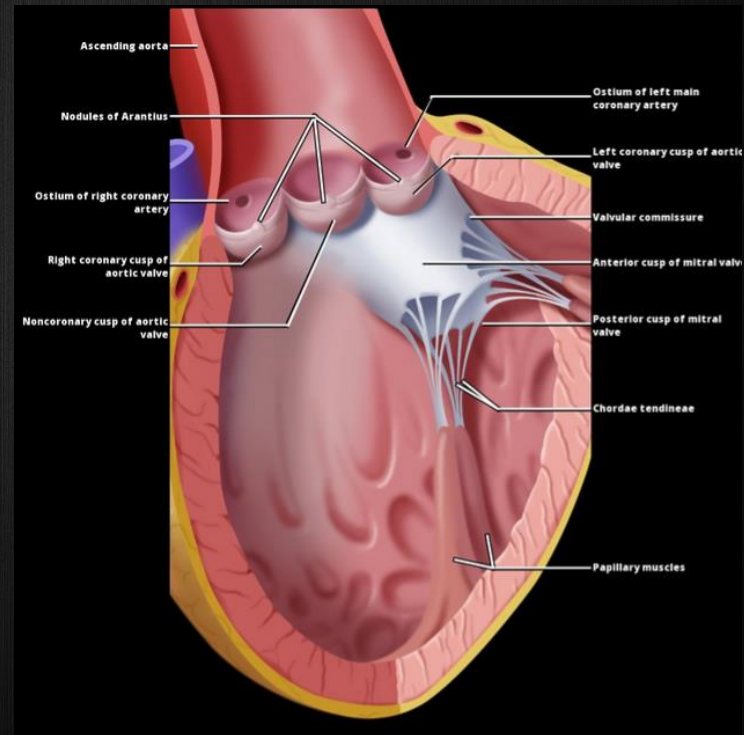
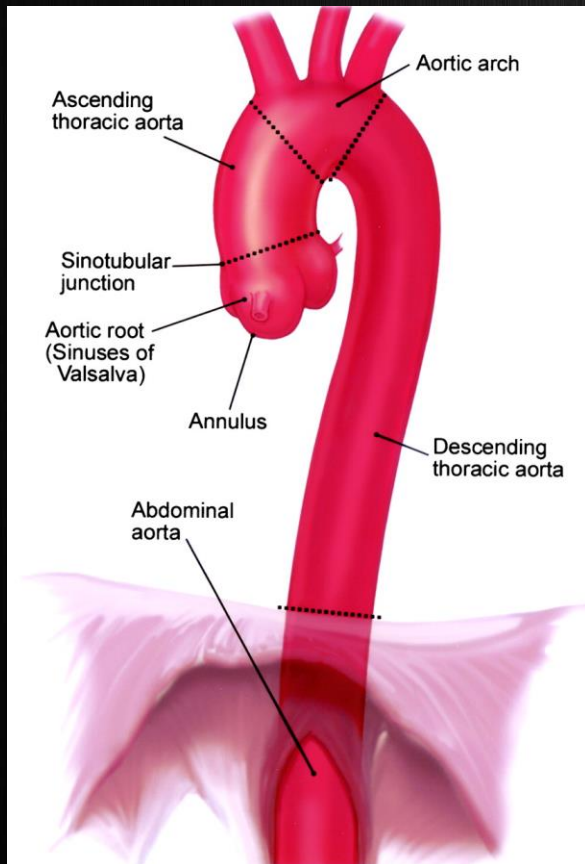
Type A

Type B

Stanford classification

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- Levy, D., Goyal, A., Grigorova, Y., Farci, F., & Le, J. K. (2024). Aortic Dissection. In StatPearls. StatPearls Publishing. <http://www.ncbi.nlm.nih.gov/books/NBK441963/>



Sinuses of Valsalva

- Also known as **aortic sinuses**
 - Anatomic spaces at the aortic root bounded internally by the aortic valve leaflets and externally by outward bulges of the aortic wall.
- The normal sinus diameter upper limit is usually taken as 40 mm (with some publications suggesting 36 mm for females) .
- Three sinuses
 - Right coronary or anterior
 - » gives rise to right coronary artery
 - Left coronary or left posterior
 - » gives rise to left main coronary artery
 - Noncoronary/posterior or right posterior

Aorta

■ Sinuses of Valsalva

- Anatomic dilatations of the ascending aorta, which occurs just above the aortic valve.

■ Sinotubular junction

- Region of the ascending aorta between the aortic sinuses (of Valsalva) and where the normal tubular configuration of the aorta is attained.
- The superior attachments of the aortic valvar leaflets demarcate the level of the sinotubular junction.

