

Cyanotic Congenital Heart Anomalies

Pulmonary Atresia	Pulmonary valve closed, ASD and PDA present, intact ventricular septum
Transposition of the great vessels	Complete transposition of the aorta and pulmonary artery
Hypoplastic left heart syndrome	Small left ventricle, normal great vessels
Tetralogy of Fallot	Subaortic septal defect, right ventricular outflow obstruction, overriding aorta, right ventricular hypertrophy

Acyanotic Congenital Heart Abnormalities

ASD	Opening between the left and right atria. Ostium secundum most common.
VSD	Opening between the left and right ventricle. **Most common of all congenital defects.
AV Septal Defect (Canal)	Due to incomplete fusion of the endocardial fusions. Common in Down Syndrome.
PDA	Failure/delay in closure of the channel bypassing the lungs (which during fetal development allows placental gas exchange)
Coarctation of the Aorta	Narrowing in the proximal thoracic aorta

Aortic/Mitral Valvular Disorders

Aortic Stenosis	Narrowing of the valve opening
Aortic Insufficiency (Regurg)	Results in volume overload of left ventricle
Mitral Stenosis	Impedes blood flow between the left atrium and left ventricle
Mitral Insufficiency	Causes backflow and volume overload of left atrium
Mitral Valve Prolapse	Can range from asymptomatic to causing mitral regurg.
Consequence of valve-related heart failure	Pulmonary HTN + congestion

Aortic/Mitral Valvular Disorders (cont)

Most common cause of mitral/aortic valve disorders	Congenital defects* (also rheumatic heart disease, infx)
Clinical scenario: female with minor chest wall deformity, mid systolic click, late systolic murmur	Mitral valve prolapse
Treatment	surgical repair, valve replacement, and balloon valvuloplasty
Recommendations	Anticoagulation therapy esp. if pt. has Afib, and abc to prevent endocarditis if regurg.

Tricuspid/Pulmonic Valve Disorders

Right-sided pressure overload leads to:	Right-sided cardiomegaly, systemic venous congestion, and right-sided heart failure
Clinical features	Exercise intolerance, JVD, peripheral edema, hepatomegaly
EKG Findings	Right-axis deviation
Echo Findings	Definitive method for identifying structural/functional abnormalities
Treatment	Na ⁺ restriction, diuretic therapy --> decrease fluid volume and right atrial filling pressure

