

Anatomy Notes - Chapter 13 (Heart and Heart Disease)

pericardium - inner layer is the visceral pericardium = epicardium
outer layer is the parietal pericardium

serous membranes lubricate the surfaces of the pericardium and the heart/epicardium junction to reduce friction

AV valves - tricuspid - right atria/ventricle
bicuspid = mitral - left atria/ventricle

Semilunar - pulmonary semilunar valve - right side
aortic semilunar valve - left side

incompetent valves - leaky, some blood can flow backwards

stenosed valves - narrowed, blood flow is slowed

rheumatic heart disease - delayed inflammation resulting from untreated or improperly treated streptococcal infection. can cause valvular stenosis or deformities. can also affect the chordae tendineae or myocardium (heart muscle). the state of inflammation is called rheumatic fever.

mitral valve prolapse can be genetic, caused by rheumatic fever, or other causes. it results in valvular incompetence.

Heart sounds - S1 (lub) is lower in pitch and longer in duration than S2 (dup). S1 is AV valve closure. S2 is semilunar valve closure.

Murmur - an abnormal heart sound, often caused by valvular disorders

Three divisions of the circulatory system: pulmonary, systemic, coronary.

atherosclerosis - hardening of the arteries caused by accumulations of lipids and other substances inside the lumen of the vessels.

stroke volume - amount of blood ejected from the ventricle during ONE cardiac cycle

cardiac output = (stroke volume) multiplied by (heart rate). typically 5 L for a healthy adult at rest.

autonomic nervous system controls heart rate but the impulse pathway is built-in to the heart's conduction system.

sinus dysrhythmia - inc during inspiration (remember as in..in), dec during expiration

heart failure - the inability of the heart to pump enough blood to sustain life

cor pulmonale - right-sided heart failure caused by lung disorders that overload the right side of the heart