Mammalian Heart Dissection

Pre-laboratory Questions

1. Complete the following table.

Large Vessels Associated with the Heart

Vessel	Associated Chamber	Blood Flow (enters or exits heart)	Blood Oxygen Level (oxygenated or deoxygenated)
Pulmonary trunk and arteries	*Right ventricle*	Exits	*Deoxygenated*
Pulmonary vein	*Left atrium*	*Enters*	*Oxygenated*
Superior vena cava	*Superior vena cava*	*Enters*	*Deoxygenated*
Inferior vena cava	*Right atrium*	*Enters*	*Deoxygenated*
Aorta	*Aorta*	*Enters*	*Oxygenated*

2. Beginning with the superior vena cava, trace the path followed by a red blood cell as it passes into and through the heart, to the lungs, back to and through the heart, and to the rest of the body. Name each heart chamber, valve, and large blood vessel in the pathway.

   Superior vena cava, right atrium, inferior vena cava, tricuspid value, right ventricle, pulmonary value, primary trunk, right pulmonary artery, and left pulmonary artery

   Back to the heart from the lungs: right and left pulmonary veins, left atrium, bicuspid valve, left ventricle, aortic value, and aorta - to the body

3. What are the primary tissue types present in endocardium, myocardium, and epicardium? Each of these tissues serves a specific purpose. Identify why each structure is composed of that particular tissue type. What purpose does each serve?

The primary tissue type that is present in endocardium is connective tissue. This tissue is the innermost layer and lined the chambers of the heart. It provides protection to the valves and heart chambers.

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For epicardium, the primary tissue type is also connective tissue. The epicardium is the outermost layer and wraps around the outside of the heart; it encloses the heart. This helps with cushioning the heart and prevents friction.

The myocardium is composed of mainly cardiac muscle. This layer is really thick compared to the other two. This is found in the walls of the heart and is important for contraction.