Write a report in a table form outlining the structure and function of the heart. Within you report you must ensure to link structure and function as much as possible ‘You will also include a short paragraph detailing how blood travels through it

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| --- | --- | --- | --- |
| **Describing the Structure** |  | **Function** | **Structure adapted to function** |
|  |  |  |  |
| **Ventricles** |  |  |  |
|  |  |  |  |
| Right Ventricle- makes up the right lower chamber of the heart.  |  | It is divided by a wall of tissue called a septum. The right ventricle pumps blood into the pulmonary circulation to the lungs. | The right ventricle pumps blood into the pulmonary circulation to the lungs. |
| Left Ventricle- makes up the left lower chamber of the heart |  | It has a septum wall made up of tissue. The left ventricle pumps blood into the systemic circulation through the aorta. The ventricles are larger than the atria for they have a thicker wall of muscles (Szymanski, 2020).  | The left ventricle pumps blood into the systemic circulation through the aorta. The left ventricle is responsible for distributing oxygenated blood from the heart into the body (Szymanski, 2020). |
| **Atrium** |  |  |  |
| Left Atrium- is the left upper chamber of the heart |  | It passes blood to the ventricles. The left atrium receives oxygenated blood from the pulmonary vein (Szymanski, 2020).  | When blood receives oxygen it then returns to the left atrium through the pulmonary veins (Szymanski, 2020).  |
| Right Atrium- is the right upper chamber of the heart.  |  | The right atrium received deoxygenated blood from the body and it takes that blood to the right ventricle (Fitzgerald, 2020).  | The right atrium receives deoxygenated blood from the body through the superior and inferior vena cava, and from the coronary veins (Fitzgerald, 2020). This blood is pumped into the right ventricle (Fitzgerald, 2020). |
| **Valves** |  |  |  |
| Valves are thin yet they are strong. They are made of leaflets or cusps. They are four valves. * Tricuspid valve. This valve is located between the right atrium and the right ventricle.
* Pulmonary valve. The pulmonary valve is located between the right ventricle and the pulmonary artery.
* Mitral valve. This valve is located between the left atrium and the left ventricle. It has only 2 leaflets.
* Aortic valve. The aortic valve is located between the left ventricle and the aorta (Gandelman & Cunningham, 2020, para, 1).
 |  | Valves are flaps made of leaflets “that act as one-way inlets for blood coming into a ventricle and one-way outlets for blood leaving a ventricle. Normal valves have 3 flaps (leaflets), except the mitral valve. It only has 2 flaps” (Gandelman & Cunningham, 2020, para.1). | “Blood passes through a valve before leaving each chamber of the heart. The valves prevent the backward flow of blood” (Gandelman & Cunningham, 2020, para.1). They are four heart valves.  |
| **Nodes** |  |  |  |
| AV Node |  | The AV node sends an impulse into the ventricles. The lower heart chambers (ventricles) contract or pump (Kai, 2019). | The lower heart chambers (ventricles) contract or pump (Kai, 2019). |
| SA Node |  | The SA node sends signals to the atria (Kai, 2019). | The SA node sends another signal to the atria to contract, which starts the cycle over again (Kai, 2019). |
| **Purkinje Fibres** |  |  |  |
| In the ventricular walls of the heart, the Purkinje fibers (Purkyne tissue or subendocardial branches) are found (Kai, 2019).  |  | Their functions are to “allow the heart's conduction system to create synchronized contractions of its ventricles, and they are essential for maintaining a consistent heart rhythm” (Kai, 2019). | they are essential for maintaining a consistent heart rhythm” (Kai, 2019).  |

**The Heart**

The heart is made up of four chambers. Two upper chambers are called the atrium and two lower chambers are called the ventricles. The heart is a large muscle group with multiple functions. The heart is divided into the right half and the left half. The right half or side is responsible for pumping deoxygenated blood to the lungs, while the other half of the heart pumps oxygenated blood around the body. The way these works is blood is pumped from the right atrium to the right ventricle, then the blood is pumped to the lungs to receive oxygen. From the lungs, the blood flows to the left atrium, then to the left ventricle (Szymanski, 2020).

**References**

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