

## THE HEART: Tanyyah P.and Isaiah B.

The heart is one of the body's major organs. It is responsible for pumping blood. The heart on average beats 70-80 times per minute and approximately 115,200 per day. Another responsibility for the heart is to get deoxygenated blood to the lungs to oxygenate the blood.

Just like other organs, the heart is composed of muscles, tissues, arteries, and veins. The heart receives the deoxygenated through a vein known as the superior and inferior vena cava. The oxygenated blood then goes into the right atrium, passing a muscle called the valve responsible for keeping the blood from going the wrong way this one is called the tricuspid valve. Then into the right ventricle, pass the pulmonary valve into the pulmonary artery, which takes the blood to the lung. The blood is return to the heart through the pulmonary veins and enters the left atrium, then passes the mitral valve and goes into the left ventricle from the left ventricle the blood is sends the blood to other organs.

Congestive heart failure is a major disease category that often leads to heart failure, requiring transplantation. Diseases that are associated with congestive heart failure are mitral valve regurgitation mitral valve prolapse, left ventricle hypertrophy and dilated cardiomyopathy.

The left ventricle is the strongest muscle in the heart. It is composed of striated smooth muscle that has contractile cells only related to the heart. The left ventricle works as a pump that pumps blood throughout all parts of the body. The left ventricle

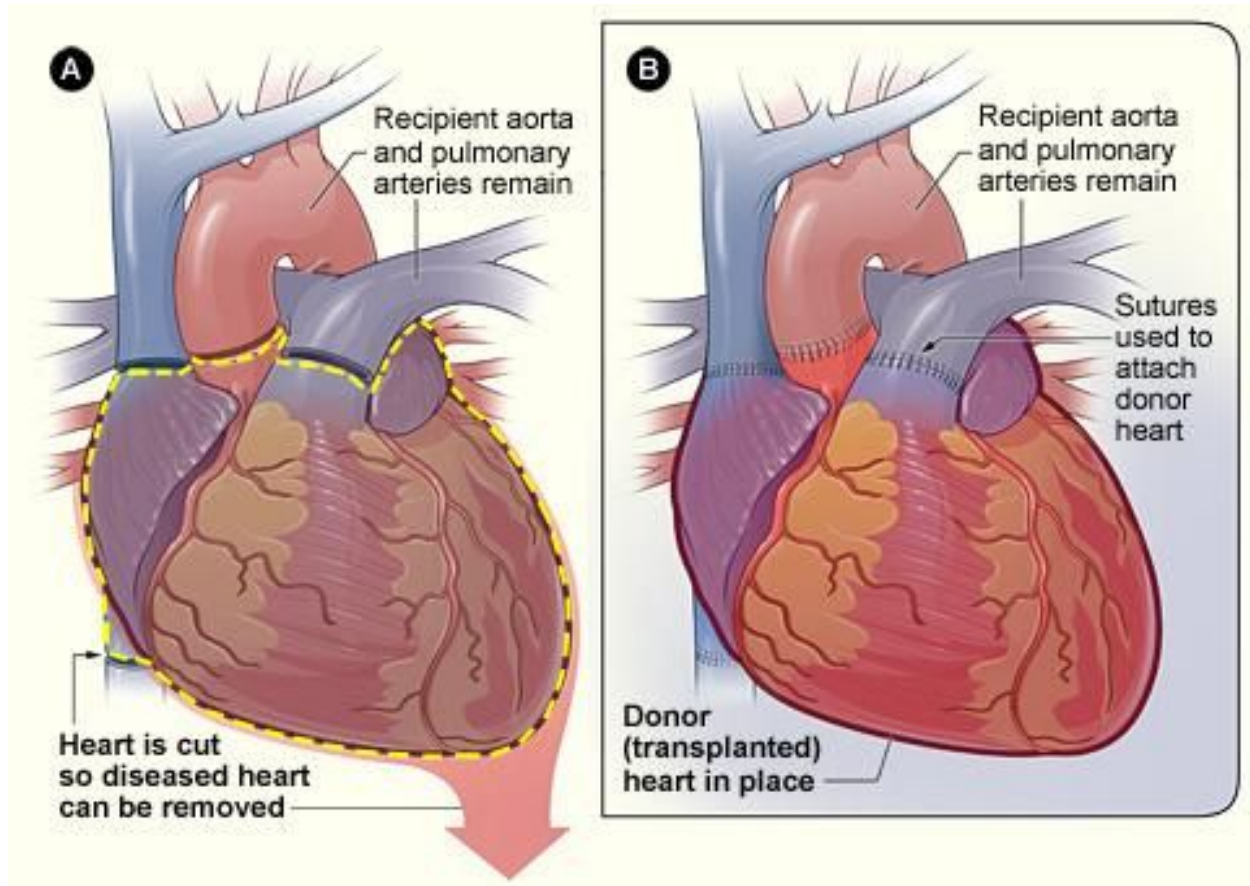
can be enlarged by longstanding hypertension disease which causes blood to be congested and not be properly pumped through other parts of the body. Mitral valve regurgitation, mitral valve prolapse, and dilated cardiomyopathy all progress to blood being congested in the left ventricle and causing the pumping action to be insufficient. These problems eventually will result in the need for transplantation

Many people die from heart failure. Some sign up and are put on a waitlist for transplant. About 100,000 people per year await transplant. Donor centers in every region receive about 34,000 transplant organs per year, but only 30,000 receive the transplant. When someone receives a transplant, they have to find a heart that is the same size and blood type. The blood types are A, O, B, and AB, O matches with any, A with A, AB and AB, and B with B&AB. The patient is set up for transplant if he/she is contacted when the needed organ is matched. The doctors begin the procedure accordingly to the problem. One of the methods is to remove everything except a part of the right atrium. After that, they sew the right atrium of the donor's heart to the part still remaining of the patient. The heart is then attached to the superior and inferior vena cava. Then it's attached and the three separate tubes on the aortic arch that takes blood to the upper body. Next the doctor connects it at the bottom where the aorta takes it the lower body. The heart connects at the pulmonary veins and arteries that attach to the left and right lung.

In conclusion, the heart is very essential to our lives. When the heart stops pumping, we die. Some people get a second chance at life, through a transplant. However, the patient may reject their "new" heart, and the transplant fails. To avoid

transplant, just keep your heart healthy!





#### Works Cited

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