

The heart is the most important organ in our body. We can compare it to an engine. During the day, it pumps around 2,000 gallons of blood.

Heart failure occurs when our heart is not working well. In this situation, a heart transplant is often necessary. This is a difficult procedure. Unfortunately, patients often wait very long for heart and this is a reason why many people die.

Fortunately, the surrogate heart of Abiocr was created, which is the first independently acting heart.

Fortunately, people created first artificial heart - Abiocr, which is the first independently working heart.

The heart contracts in two stages. In the first, the left and right atria contract and pump blood into the ventricles. Then the ventricles contract and push blood out of the heart. And the cycle repeats. In the artificial heart, the work of the atria is the same, but the ventricles do not shrink at the same time, so that the blood first goes into the body, and then into the lungs.

The heart consists of many elements. A hydraulic pump is used to build the heart, which works the same as in large machines. Then there is a transfer valve that opens and closes so that fluid can move. Wireless energy transfer system consisting of two coils: internal and external. And also an internal battery, batteries and controller that monitors heart rate and blood pumping speed. The entire system weighs about 2 pounds. Generally, heart is made of materials such as plastic and titanium.

Heart implant surgery is very delicate but also complicated. It takes about 7 hours. To carry it out, you need 2 doctors, 14 nurses and many other helpers.

Today, around 3 million Americans live with heart failure, and this number is still growing. In severe cases, people without a heart transplant live about 5 years. Due to high mortality, doctors are still urging society to donate their heart by becoming an organ donor after death.