

Heart Failure and Transplants

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Purpose of Study

The reason why I chose this topic is because when someone gets a heart transplant it can end in heart failure and the person can die. I became curious about how long you can live after you get a heart transplant.

Introduction

My topic is based on heart transplants because I want to learn more about the effects heart transplants have on the human body. Around 6 million people live with heart failure. In order to need a heart transplant you need to have pre-existing heart conditions such as coronary artery disease, weak heart muscles, heart failure, etc. Heart transplants are needed when the heart does not function like it should like pumpin blood in and out correctly. Heart failure begins due to pre-existing condition learning to the need for a heart transplant.

Symptoms of Heart Failure

- Fatigue, weakness, or shortness of breath when you lie down.
- Rapid or irregular heart rhythm
- Chest pains
- Reduced ability to exercise
- Drop in blood pressure
- Sudden weight gain
- Swelling of feet or hands

Heart Transplant Procedure

- Several hour open-heart surgery
- Connected to a heart-bypass machine that keeps oxygen flowing through the body.
- Surgeon makes incision in the chest, removes the heart, and replaces with donor heart.
 - Donor heart must be to patient with four hours.
- New heart begins to beat when blood flow is restored.
 - Sometimes an electric shock is given to start the new heart.

Complications

- **Heart Failure**
 - Irregular blood flow from heart failure can cause kidney failure.
 - If your heart is enlarged or has extreme pressure your blood will not flow in the right direction
 - Heart failure can lead to too much fluid pressure on the liver
 - Irregular heart rhythm problems.
- **Transplant**
 - Rejection of donor heart
 - Infection
 - Increased risk of tumors or cancer

Data

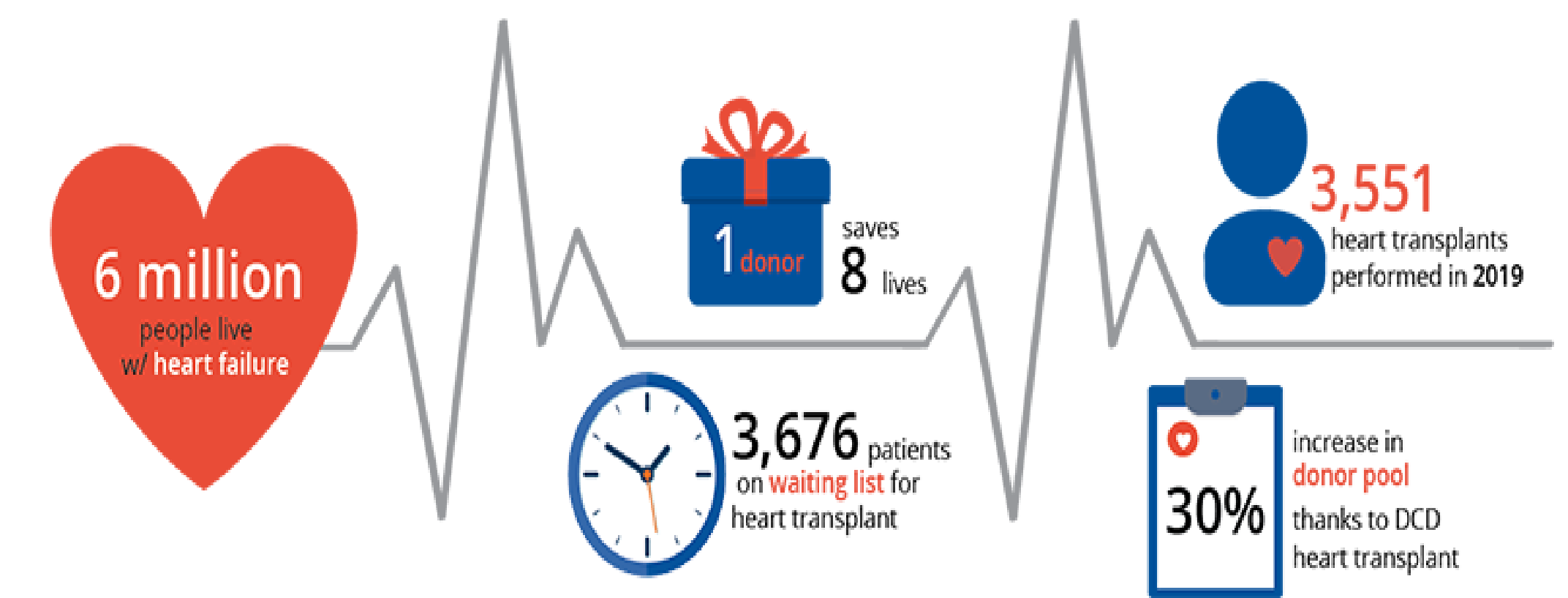


Figure 1: This image shows the impact of heart failure

Conclusion

- Survival rate of 85% one-year after heart transplant and decreases to 69% after five-years.
- Due to nationwide organ shortage many patients do not receive heart donations.
- To lower risk of heart disease and failure it is important to eat a healthy diet, regular exercise, no smoke or alcohol.

References

- <https://www.world-heart-federation.org/resources/heart-failure-fact-sheet/>
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- <https://www.mayoclinic.org/diseases-conditions/heart-failure/symptoms-causes/syc-20373142>
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