



# Heart Transplants and the Artificial Heart

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# Human Heart

- Vital organ that functions as a pump
- Divided into four chambers
- About the size of a large fist
- Blood flows in one direction

# Artificial Heart

- A device used to replace the heart
- Typically used to temporarily
- Jarvik-7
- 13 day old baby is the youngest with an artificial heart

# History of Artificial Heart

- First clinical implantation of total artificial heart
- First clinical application of a permanent pneumatic total artificial heart
- First clinical application of an intrathoracic pump
- First clinical application of a paracorporeal pump



# Heart Transplants

- A surgical transplant procedure to replace the heart
- Human hearts are received from recent deceased organ donors
- Owner's heart can be removed or left in its body
- NOT a cure for diseased hearts



# Reasons for Heart Transplants

- Heart failure
  1. coronary artery disease
  2. high blood pressure
  3. atrial fibrillation
  4. valvular heart disease
  5. cardiomyopathy
- Congestive heart failure