

## Heart transplantation: Contraindications and complications

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### Introduction

A heart transplant, or a cardiac transplant, may be a surgical transplant procedure performed on patients with end-stage coronary failure or severe arteria coronaria disease when other medical or surgical treatments have failed. As of 2018, the foremost common procedure is to require a functioning heart, with or without both lungs, from a recently deceased donor (brain death is that the standard) and implanting it into the patient. The patient's own heart is either removed or replaced with the donor heart (orthotopic procedure) or, much less commonly, the recipient's diseased heart is left in situ to support the donor heart (heterotopic, or "piggyback", transplant procedure).

Approximately 3,500 heart transplants are performed annually worldwide, quite half which are within the US. Post-operative survival periods average 15 years. Heart transplantation isn't considered to be a cure for heart disease; rather it's a life-saving treatment intended to enhance the standard and duration of life for a recipient.

### Rejection

Since the transplanted heart originates from another organism, the recipient's system typically attempts to reject it. The danger of rejection never fully goes away, and therefore the patient are going to be on immunosuppressive drugs for the remainder of their life. These drugs may cause unwanted side effects, like increased likelihood of infections or development of certain cancers. Recipients can acquire renal disorder from a heart transplant thanks to the side effects of immunosuppressant medications. Many recent advances in reducing complications thanks to tissue rejection stem from mouse heart transplant procedures.

People who have had heart transplants are monitored in various ways to check for the event of rejection. Some patients are less suitable for a heart transplant, especially if they suffer from other circulatory conditions associated with their heart disease. The subsequent conditions during a patient increase the probabilities of complications.

### Contraindications

- Advanced kidney, lung, or liver disease[citation needed]

- Active cancer if it's likely to impact the survival of the patient
- Life-threatening diseases unrelated to the explanation for coronary failure, including acute infection or systemic disease like systemic LE, sarcoidosis or amyloidosis
- Vascular disease of the neck and leg arteries.
- High pulmonary vascular resistance over 5 or 6 Wood units.
- Relative contraindications:
  - Insulin-dependent diabetes with severe organ dysfunction
  - Recent thromboembolism like stroke
  - Severe obesity
  - Age over 65 years (some variation between centers) older patients are usually evaluated on a private basis.
  - Active drug abuse, like alcohol, recreational drugs or tobacco smoking (which increases the prospect of lung disease)
  - Patients who are in need of a heart transplant but don't qualify could also be candidates for a man-made heart or a left ventricular assist device (LVAD).

### Complications

- Post-operative complications include infection, sepsis. The surgery death rate was 5-10% in 2011.
- Acute or chronic graft rejection
- Cardiac allograft vasculopathy
- Atrial arrhythmia
- Lymphoproliferative malignancy
- Increased risk of secondary infections thanks to immunosuppressive medication
- Serum sickness thanks to anti-thymocyte globulin

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