

Who's developing  
new **therapies**  
to make  
**organ**  
**transplants**  
more  
successful?



TRANSPLANTATION

Partners. For life.

# WHAT YOU NEED TO KNOW ABOUT HEART TRANSPLANT



  
**National  
Heart Centre**  
S I N G A P O R E

Marc Dewey, recipient of a bone marrow transplant, and Deanna Arnold, a recipient of an emergency liver transplant, standing in front of the church where they were married in April. Both transplants were made successful with new medicine developed by Novartis

new skills in the science of life.

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Let the Heart Beat on

## Introduction

Heart Transplantation is an established treatment for advanced heart disease. Since the advent of ciclosporin and other medications to control rejection, survival of transplant patients has improved significantly. About 80 percent of heart transplant patients survive 1 year or more. Organ availability is the main barrier to more successful transplantations.

## How Is A Heart Transplanted?

A transplant is the replacement of a patient's diseased heart with a healthy heart from someone who has died, called a donor. The donor's heart is completely removed and quickly transported to the patient. During the operation, the patient is placed on a heart-lung machine which pumps blood throughout the rest of the body. The patient's heart is removed leaving behind the back walls of the heart's upper chambers. The back chambers on the new heart are opened and the heart is sewn into place. The blood vessels are then connected and blood flow through the heart and lungs resumed. As the heart warms up, it begins beating. Patients are usually up and around a few days after surgery, and if there are no signs of the body rejecting the organ, patients are allowed to go home within 2 weeks.

## Who Might Have A Heart Transplant?

People under age 60 are the most likely heart transplant candidates. Patients must be suffering from end-stage heart disease, but in good health otherwise. The doctor, patient and family must address the following four basic questions to determine whether a transplant should be considered:

1. *Have all other therapies been tried or ruled out?*
2. *Is the patient likely to die without the transplant?*

3. *Is the person in generally good health other than heart disease?*
4. *Can the patient stick to the lifestyle changes – including complex drug treatments and frequent examinations – required after a transplant?*

Patients who do not meet the above considerations or who have additional problems, such as other severe diseases, active infections or severe obesity, are not good candidates for a heart transplant.

## How Are Donors Found?

Donors are individuals who are brain-dead, meaning that the brain shows no signs of life while the person's body is being kept alive by artificial means. Donors have often died as a result of an automobile accident, a stroke or a severe head injury. Most hearts come from those who died under the age of 45. Since not enough organs are available for transplant, many people may be waiting for a heart transplant at any given time. Patients may wait for months for a transplant and some do not survive the wait. Only a fraction of those who could donate organs actually do so.

## Can A Person Lead A Normal Life After Transplantation?

The quality of life improves dramatically after a heart transplant and patients are able to lead more active lifestyles, including return to work. However, patients must take several medications for life after a heart transplant. The most important are drugs that keep the body from rejecting the transplant. A patient's survival depends on many factors, including age, general health and response to the transplant. 81% of heart transplant patients are alive 1 year after surgery, 77% after 2 years, 73% after 3 years and 69% after 4 years.

## ENQUIRIES

Heart Transplant Coordinator  
Heart / Lung Transplant Programme  
National Heart Centre  
Mistri Wing  
17 Third Hospital Avenue  
Singapore 168752  
Tel 4367635  
Fax 2243938