

in preparation for the transplant and increase the chances of a successful outcome following the transplant.

Can A Person Lead A Normal Life After Transplantation?

The quality of life improves dramatically after a lung transplant and patients are able to lead more active lifestyles, including returning to work. However, patients must take several medications for life after a lung 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.

Outcome

Survival following lung transplantation is reported to be 90%, 77% and 60% for the 1st month, 1st year and 3rd year. Early mortality (< 90 days) is most often due to infection and late mortality (> 90 days) is most often related to rejection. Survival rates are higher for patients undergoing lung transplantation for COPD compared to those whose indications were IPF or pulmonary hypertension.

Enquiries

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This pamphlet is supported by an educational grant from Novartis (Singapore) Pte Ltd

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



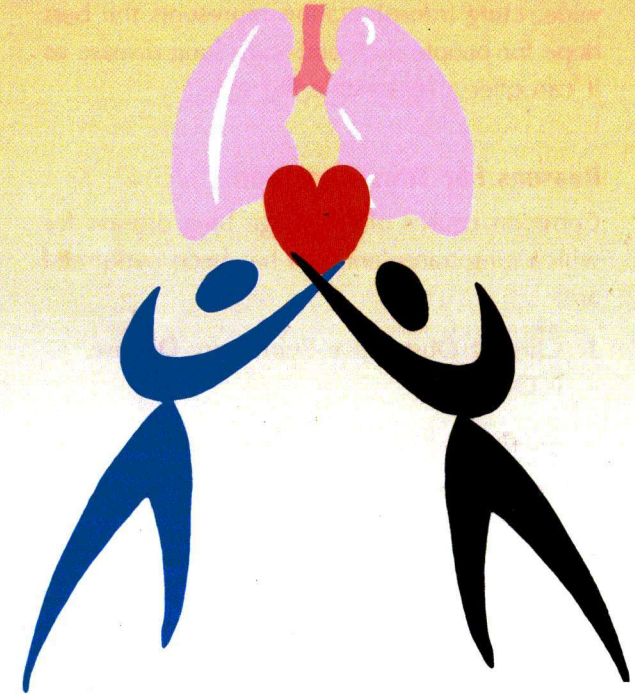
new skills in the science of life.

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



NEC001/PRI
02/2000

WHAT YOU NEED TO KNOW ABOUT LUNG TRANSPLANT



Singapore General Hospital



Introduction

Lung transplantation is an effective treatment for end-stage lung disease. End-stage lung disease would mean that the lungs are so diseased that they can no longer perform their normal function to obtain sufficient oxygen required by the body. The lungs are organs that provide your entire body with oxygen and remove carbon dioxide from your system.

Lung transplantation involves removing the diseased lung or lungs from the recipient and replacing either one (single lung transplant) or both (bilateral lung transplant) of them with healthy ones from a recently deceased donor. To date, more than 8,000 lung transplants (single and bilateral) have been done worldwide. Lung transplantation represents the best hope for people with end-stage lung disease as it can offer a reasonable life style.

Reasons For Transplantation

Common causes of end-stage lung disease for which lung transplantation has been performed are:-

1. Chronic Obstructive Pulmonary Disease (COPD)
2. Idiopathic Pulmonary Fibrosis (IPF)
3. Bronchiectasis
4. Pulmonary Hypertension (Primary and Secondary)

Evaluation For Lung Transplant

Evaluation of your condition is done currently in hospital where your underlying lung condition and prospects of a successful transplant are thoroughly evaluated. During this

evaluation period, you will meet and talk with various members of the transplant team which includes:

- (a) **Transplant Pulmonologist:** Physician who specialises in pulmonary diseases and in lung transplantation.
- (b) **Transplant Surgeon:** Surgeon who performs the operation and manages the post-operative care together with the Transplant Pulmonologist.
- (c) **Transplant Coordinator:** Nurse who is the main contact person on the Transplant Team.
- (d) **Medical Social Worker:** Person who will assist in determining your ability (financial and social) to cope with a transplant.
- (e) **Psychologist:** Specialist in human behaviour who will help determine your ability to cope with the stress and anxiety of undergoing a transplant.
- (f) **Dietician:** Specialist who assesses your nutritional needs before the transplant operation.
- (g) **Physiotherapist:** Specialist who will evaluate your exercise capacity and musculoskeletal system and also recommend exercise programs to increase body strength and endurance before and after the transplant.

The evaluation work-up will include a series of blood tests and the status of the heart, lung, liver and kidney systems. Also, indulgence in harmful habits such as smoking and alcohol or mind-altering drug dependency is particularly noted. We require potential transplant recipients to be substance-free for at least 1 year before being listed for the transplant.

Lung Donation And Selection

When the transplant team decides that a candidate is appropriate for transplantation, the candidate's name is placed on the waiting list. Donor lungs are matched with recipients according to the following criteria:-

1. SIZE (height and weight)
2. CHEST MEASUREMENTS (chest circumference & chest x-ray measurements)
3. BLOOD TYPE (O, A, B or AB).

Quality of the donor lungs is of the utmost priority. Donor lungs are thoroughly evaluated by the lung transplant team. Evaluating the donor includes examination of the donor's chest x-ray, medical history, social history (with particular emphasis on tobacco and substance abuse), arterial blood gases and bronchoscopy (direct visualisation of the donor airway with an endoscope).

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 a machine. Donors have often died as a result of an automobile accident, a stroke or a severe head injury. Most lungs come from those who have died under the age of 55. Since not enough organs are available for transplant, many people may be waiting for a lung transplant at any given time. Patients may wait for months for a transplant and some do not survive the wait. The candidate will be strongly urged to participate in a pulmonary rehabilitation programme. Such a programme of monitored physical exercise will help build strength and endurance