

肺移植病人手冊

Lung Transplant Patient Handbook

肺移植手術及術後管理

Lung Transplant Operation and postoperative management

(給可能需要肺移植的您) (To potential lung transplant recipients)

肺移植手術中 During lung transplant surgery

肺移植手術是在全身麻醉下進行，會應用到插喉管和呼吸機來幫助呼吸，以及心肺循環機來保持血液循環。外科醫生會先將舊肺移除，繼而將新肺縫合到位。當移植團隊確信新肺能夠有效運作時，會進行最後的胸部傷口縫合。整個手術過程通常需要六至十小時不等，具體取決於手術的複雜程度。

Lung transplant surgery is performed under general anaesthesia, using an endotracheal tube to support your breathing and a heart-lung bypass machine to maintain blood circulation. The surgeon will first remove the old lungs and then sew the new lungs in place. When the transplant team assesses that the new lungs will work effectively, the chest wound will be closed. The entire surgical procedure usually takes from 6 to 10 hours, depending on the complexity of the surgery.



肺移植手術後 After lung transplant

深切治療部

手術結束後，您將會在深切治療部繼續接受治療，您將需要重要的儀器和管道（例如呼吸機、中心靜脈導管、胸腔引流管、尿管、胃管等），輸送藥物和營養，以幫助身體復原。

After the surgery, you will be looked after in the intensive care unit. You will need some important equipment and tubes (such as ventilator, central venous catheter, chest drainage tube, urinary catheter, gastric tube, etc.), to speed up body recovery and deliver necessary drugs and nutrients.



✚ 肺移植病房

當您脫離呼吸機以及病情穩定後，您將被轉到肺移植病房，繼續下一步的藥物穩定治療以及肺部和全身復康訓練，期間逐步學習和掌握基本的藥物使用方法和自我護理知識，做好充分生理和心理的出院前準備。您可能會在手術後數週至數月內出院，出院前，您的醫生會再次進行測試，以確保您的新肺正常運作。檢查通常包括肺功能測試、胸部 X 光檢查、血液檢查和支氣管鏡檢查。



When you are weaned off the ventilator and your condition is more stable, you will be transferred to the lung transplant ward to further stabilizing the lungs and continue the systemic rehabilitation training. During this period, you will gradually understand the medications that you will need to use after transplantation and will learn more about post-transplant self-care knowledge. This is to fully prepare you both physically and mentally for your discharge from the hospital. You may be discharged in a few weeks' or a few months' time. Before leaving hospital, your doctor will perform tests to make sure your new lungs are working properly. These usually includes lung function tests, chest X-rays, blood tests, and bronchoscopy etc.



✚ 出院初期

您通常需要緊密監察如每週覆診。從移植手術至完全恢復通常需要至少數月的時間，且因人而異。其後隨著您的情況轉趨平穩，需要覆診的頻率將會逐漸減少到一至三個月不等。

During the early days of discharge, you will usually need frequent like weekly follow-up visits to the transplant unit. Full recovery from a transplant surgery takes at least several months on average and this might vary from person to person. Later, as your condition stabilizes, the frequency of required follow-up visits will gradually reduce to 1-3 months.





關於復康運動,除了在預備肺移植手術前要加強訓練外,在肺移植後,我們也要求您參加復康計劃,其中包括運動鍛鍊以增強您的力量。根據您從事的工作類型,您也許可以在手術後數月至半年左右重返工作崗位。

You will need pre-lung transplant rehabilitation exercise to prepare yourselves to undergo operation. After lung transplant, you will be required to participate in a rehabilitation program that includes exercises to build up your strength. Depending on the type of job you have, you could return to work anywhere from a few months to half a year after surgery.

肺移植可能的併發症 Possible complications of lung transplantation

在許多情況下,肺移植患者在手術後表現良好。他們可以去工作並保持生活質量。但肺移植是一項複雜的醫療程序,有些人在肺移植後會出現併發症,這包括可能在手術中或後立即發生,也可能在數月數年後發生。期間需要反覆的就診、住院接受檢查和治療。

In many cases, lung transplant patients can do really well after the surgery. They can go to work and maintain their decent quality of life. However, lung transplantation is a very complex medical treatment, and some people experience complications after lung transplant, either immediately during or after the surgery or even months or years later. This might lead to repeated visits to the hospital and admissions for examination and treatment.



其中併發症包括：

- 新肺的排斥——即使人們服用抗排斥藥物,他們的身體仍然可能排斥並攻擊新肺。
- 氣道變窄或阻塞
- 肺部血栓
- 肺部感染以及全身嚴重的感染
- 抗排斥藥物的副作用:增加感染和某些類型癌症的機會包括消化道、血液系統等,有可能帶來腎臟或肝臟問題。
- 類固醇藥物副作用:影響血壓、血糖、膽固醇、骨質疏鬆等。
- 慢性移植肺功能下降

Complications include:

- Rejection of the new lungs – Even with people taking anti-rejection medications, their bodies may still reject and attack the new lungs.
- Narrowing or obstruction of the airway
- Blood clots in the lungs
- Lung infections and other organ or systemic infections

- Side effects of anti-rejection drugs: Increased chances of infection and certain types of cancer including the digestive tract, blood system, etc., may also cause kidney or liver problems.
- Side effects of steroids: affecting blood pressure, blood sugar, cholesterol, osteoporosis, etc.
- Chronic decline in transplanted lung function

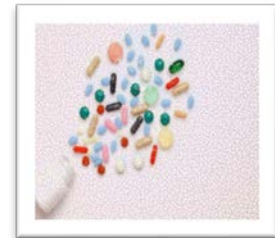
因此，規律的覆診，監測各項指標，及時治療併發症至關重要。

Therefore, regular follow-up visits, monitoring of various indicators, and timely treatment of complications are crucial.

肺移植長期藥物管理 Long-term medication

從肺移植當天起，您將需要服用稱為“抗排斥”的藥物，大多數移植中心使用以下免疫抑制劑組合：他克莫司+嗎替麥考酚酯+類固醇。這些藥物可以防止身體的免疫系統排斥新肺部，但也會帶來一定的副作用，包括削弱身體的抗感染能力，因此還需要服用某些抗生素和抗病菌藥來預防感染。

From the day of your lung transplant, you will need to take anti-rejection medications. Most transplant centres use the following immunosuppressant combination: tacrolimus + mycophenolate mofetil + steroids. These drugs prevent the body's immune system from rejecting the new lungs, but can also cause certain side effects, including weakening the body's ability to fight against infection. So certain antibiotics and anti-microbial medication are also needed to prevent infection.



您服用的特定抗排斥藥物和抗生素可能會隨著時間的推移而改變。您的移植團隊會幫助您調整免疫抑制劑的劑量，以達至抑制免疫系統及減少出現副作用。即使藥物的副作用使您覺得困擾，您也不應該突然停止服藥，請及時與醫護團隊聯繫。

The specific anti-rejection medications and antibiotics you take may change over time. Your transplant team will help you to adjust your immunosuppressant dose, to suppress your immune system and balance the side effects. Even if your side effects become somewhat troublesome, you should not stop taking your medication suddenly without checking with your health care team.

肺移植後的生活 Life after lung transplant

大多數在接受肺移植後的患者都能獲得良好的結果。為了充分利用您的新肺，遵從您的治療計劃並保持健康的生活方式非常

重要。在出院之前請確保：

- 按照處方服用所有藥物。如果您有任何疑問，請與我們的團隊聯繫。
- 堅持肺康復鍛鍊和保持健康良好的生活習慣。

如您有出現發熱、身體不適或肺功能下降等，請及時就醫。



Most patients who undergo lung transplantation have good outcomes. To get the most out of your new lungs, it's important to follow your treatment plan and maintain a healthy lifestyle. Before leaving hospital, please make sure:

- Take all medications as prescribed. If you have any questions, please contact our team.
- Continue pulmonary rehabilitation exercises and maintain healthy and good lifestyle.
- If you have fever or other discomfort or decreased lung function, please seek medical treatment as soon as possible.