

## **Heart and Lung Transplant**

### **What is a heart and lung transplant?**

A heart and lung transplant is a surgical procedure to replace diseased or damaged heart and lungs in a combined procedure, using donor replacements.

### **Who can benefit from heart and lung transplant surgery?**

There are many medical conditions that may result in the need to undergo heart and lung transplant surgery. Severe end-stage lung and heart disease are the most common reason, alongside birth defects, congenital heart disease, emphysema, cystic fibrosis and coronary heart disease - among others. Heart and lung transplant surgery is usually seen as a last resort if other treatments have not shown improvement.

### **Procedure**

Heart and lung transplant surgery is performed under a general anesthetic. An incision is made down the middle of the chest and the patient placed on a heart-lung machine that allows continued blood flow to the heart and lungs during the procedure. The heart and lungs are then removed, except for the upper part of the heart and part of the airway. The new heart and lungs are then fitted and attached to the remaining sections of the original organs. The blood vessels are then all reconnected to allow blood flow, and the heart will begin to beat; sometimes an electric shock is necessary to get the heart started. Air will also begin to circulate within the lungs and airway. The breast bone is then wired together, and the initial incision sewn up. Tubes are left in place to drain any excess fluid.

### **Recovery period**

You will need to remain in hospital for 2-3 weeks following heart and lung transplant surgery. You will be constantly monitored for signs of rejection and given immunosuppressant medication to help prevent this, which you will need to take indefinitely. There may be some side effects from the medication. You will probably be in some pain and given painkillers to alleviate any discomfort. There will be weekly follow-up appointments that involve visiting hospital to monitor your recovery at home. It can take up to six months to fully recover from the heart and lung transplant surgery. You will be advised by your physician about when you can return to work and resume exercise. Prognosis following surgery will depend on the patient, but generally there is a 70-75% survival rate in the first year, and 40-50% after five years.

### **Risks**

As with any surgical procedure, there are potential complications. Following a heart and lung transplant, these include rejection or failure of the new organs, infection, bleeding, high blood pressure and high cholesterol levels. Kidney damage (as a result of medication), thinning and weakened bones (osteoporosis), developing certain cancers, blockages, blood clotting and death are also potential risks.