

Lung Volume Reduction Surgery Fact Sheet

Lung Volume Reduction Surgery (LVRS) is a procedure to help people with severe emphysema. LVRS is not a cure for emphysema but can improve one's quality of life and can be an alternative to lung transplantation. The goal of the surgery is to reduce the size of the lungs by removing about 30% of the most diseased lung tissues so that the remaining healthier portion can perform better. LVRS can also allow the diaphragm to return to its normal shape, allowing the patient to breathe more efficiently. The surgery has been shown to help improve breathing ability, lung capacity, and overall quality of life.

A large nationwide study, the National Emphysema Treatment Trial (NETT), found that those with severe emphysema in the upper lobes of the lung and a low risk for surgery, but who do not respond to rehabilitation prior to surgery would benefit most from LVRS. The study also showed that patients at high risk for surgery and those with emphysema in other parts of the lung would have the least benefit and could even be harmed. To find out if you qualify for LVRS, contact a specialist for a full evaluation.

As a result of the NETT study, the Centers for Medicare and Medicaid Services recently approved coverage for certain LVRS procedures for selected patients. In order to qualify for Medicare coverage, there are strict requirements, including:

- having a history of emphysema
- not smoking for four months prior to and throughout the evaluation process
- not having had a previous LVRS
- not having had a previous coronary artery bypass or certain heart conditions
- In addition, the patient must undergo pulmonary therapy both before and after the surgery. Many hospitals have similar requirements.

The surgery can be open-chest, with a large incision allowing the lungs to be seen directly, or less invasive, through video-assisted thoracic surgery (VATS), where a series of small cuts are made. Portions of the lung can be removed using lasers while staples and fabric are some methods used for re-sealing the lungs.