

BRONCHOSCOPIC LUNG VOLUME REDUCTION PROGRAM



For patients with emphysema and severe hyperinflation whose symptoms cannot be managed using medication or oxygen therapy alone, doctors may resort to surgical resection of the worse regions of emphysema to reduce air trapping and improve patient outcomes. Lung Volume Reduction Surgery (LVRS) surgically removes damaged lung tissue to reduce hyperinflation, and redirects air to healthier lung regions. Although LVRS improves lung function, exercise performance, and quality of life, the need for surgical excision is perceived to have an acceptable risk of complications for many patients who would otherwise benefit from a lung reduction intervention. Temple Lung Center has led several clinical trials that have facilitated FDA approval of the newest lung reduction treatment for severe emphysema—Bronchoscopic Lung Volume Reduction (BLVR) using endobronchial valves. Similar to LVRS in terms of the benefits of treatment, this approach reduces the complications and risks posed by LVRS. Temple was the first U.S. center to commercially perform BLVR using endobronchial valves, and is also a national clinical center of excellence for peer instruction in the selection and performance of BLVR.

WHY CHOOSE TEMPLE?

The Temple Lung Center is renowned for its skilled and experienced medical staff, cutting-edge clinical research, and superior patient care and treatment outcomes. Temple has pioneered clinical research, clinical trials, and testing of the BLVR program in the U.S., which can help patients with severely debilitating emphysema to breathe easier and experience a better quality of life.

- Dr. Gerard Criner, Director of the Temple Lung Center, designed and led the two international multicenter landmark trials for bronchoscopic lung reduction, enrolling more patients for the trial than any other site in the world.
- Temple was the first U.S. hospital to perform bronchoscopic lung volume reduction using endobronchial valves, following their FDA approval.
- Dr. Criner is internationally renowned for his dedication to the treatment of advanced lung diseases. He is on the Global Initiative for Obstructive Lung Disease (GOLD COPD) board of trustees and one of 10 authors who wrote the guidelines for the diagnosis, management, and treatment of chronic obstructive pulmonary disease (COPD), including emphysema.
- Temple staffs some of the most experienced lung transplantation physicians in the nation. In 2017 and 2018, this team performed more lung transplants than any other center in the nation.

ADVANCED TREATMENT FOR EMPHYSEMA

Bronchoscopic Lung Volume Reduction (BLVR), using endobronchial valves, mimics the mechanism of action of Lung Volume Reduction Surgery (LVRS) by removing damaged lung tissue and allowing healthier regions of the lungs to expand and function more efficiently. This procedure inserts endobronchial valves to target sites in the lung that represent diseased regions. These one-way valves allow unidirectional airflow only during expiration, thus preventing air from flowing into the most diseased area of the lung, but allowing trapped air to be released.

The procedure treats the lung with the most emphysematous disease by using high resolution chest tomography imaging and assessment of regional blood flow. Fissure integrity is assessed qualitatively and quantitatively to predict optimal patient selection. Endobronchial valves are placed using a bronchoscope and a flexible delivery catheter to ensure total lobar occlusion of the targeted lobe. Patients are sedated during the procedure, which typically takes up to an hour to perform, and involves placing several valves to isolate or cut off the diseased part of the lung.





GUIDELINES FOR REFERRAL INTO BLVR PROGRAM AT TEMPLE

Inclusion criteria:

- Diagnosed with emphysema
- Able to safely tolerate a bronchoscopic procedure
- BMI < 35 kg/m² and > 15 kg/m²
- FEV₁ ≤ 45% predicted and ≥ 15%
- Residual volume (RV) ≥ 150% predicted
- Total lung capacity (TLC) > 100% predicted
- 6-Minute Walk Distance > 100 m

Exclusion criteria:

- Patient is an active smoker, or has smoked 4 months prior to evaluation
- Patient has a large bullae > 30% volume of either lung
- Patient has previously had lobectomy, Lung volume reduction surgery (LVRS), or lung transplant
- Patient has active asthma
- Patient has uncontrolled pulmonary hypertension
- Patient has been hospitalized for COPD exacerbations more than twice in the past year

Please call 800-TEMPLE-MED to discuss a case or arrange for a patient consultation with the Bronchoscopic Lung Volume Reduction team.

For inpatient transfers, please call 215-707-TRAN (8729).

WHEN TO REFER

Temple offers BLVR using both types of commercially available valves—Spiration Valve System and Zephyr Endobronchial Valve—with specific patient criteria. Reference the criteria on the inside right page to see when patients should be considered for referral.

OUR COMMITMENT TO PHYSICIANS

At the Temple Lung Center, we believe that communication with physicians is an essential part of quality care in diagnosing and managing advanced lung disease. We strive to stay in close communication throughout diagnosis and treatment until your patient is returned to your care.

KEY ACCOUNT MANAGER SERVICE

Our Key Account Manager is always available to provide information about clinical or research programs, help you quickly resolve any issues, and coordinate contact with Temple physicians and staff.

PHYSICIAN OFFICE LOCATIONS



TEMPLE UNIVERSITY HOSPITAL

3401 N. Broad Street
5th Floor, Zone D
(Ambulatory Care Center)
Philadelphia, PA 19140



TEMPLE HEALTH OAKS

450 Cresson Blvd
Suite 200
Phoenixville, PA 19460

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COMMITTED TO PATIENT SAFETY

We understand that patient safety is more important than ever. That's why Temple has implemented new safety precautions and protocols designed to protect our patients and staff. We also offer telemedicine appointments.



[LEARN MORE](#)

Lung Center
TEMPLE HEALTH

Temple Health refers to the health, education and research activities carried out by the affiliates of Temple University Health System (TUHS) and by the Lewis Katz School of Medicine at Temple University. TUHS neither provides nor controls the provision of health care. All health care is provided by its member organizations or independent health care providers affiliated with TUHS member organizations. Each TUHS member organization is owned and operated pursuant to its governing documents.

Non-discrimination notice:

It is the policy of Temple University Hospital, Inc. that there shall be no exclusion from, or participation in, and no one denied the benefits of, the delivery of quality medical care on the basis of race, ethnicity, religion, sexual orientation, gender, gender identity/expression, disability, age, ancestry, color, national origin, physical ability, level of education, or source of payment.