

pulmonX<sup>®</sup>

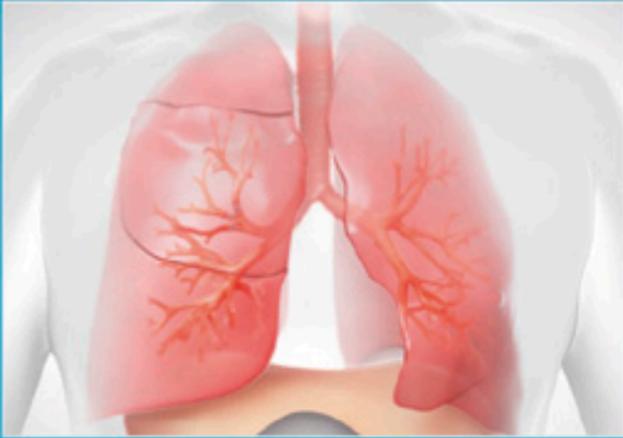
Breathe better with  
**Pulmonx Valves**

# About Emphysema

Emphysema is a debilitating chronic disease that leads to shortness of breath and reduced quality of life. Globally, over 30 million patients have been diagnosed with emphysema.

**With emphysema, air gets trapped in the alveoli causing the diseased lung region to expand. This is known as lung hyperinflation.**

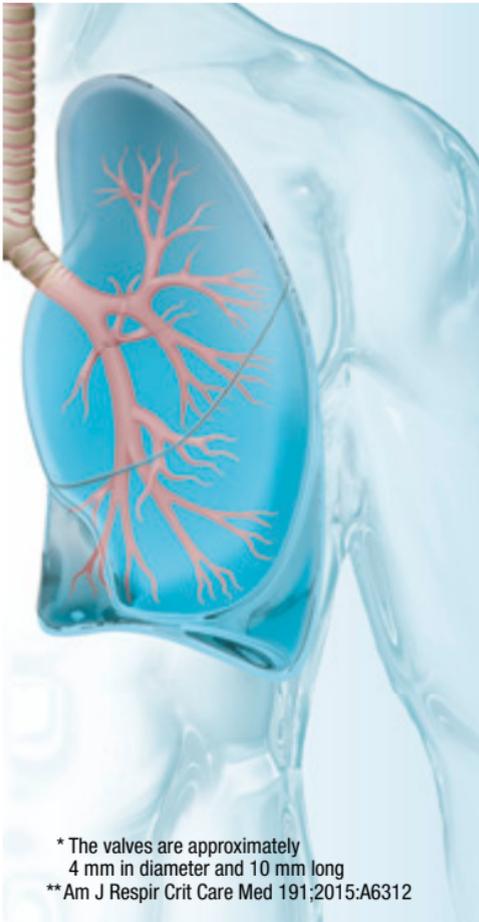
- Oxygen exchange is reduced
- The diseased region compresses the healthier region, and breathing becomes increasingly more difficult



Healthy Lung



Lung with Emphysema



# How does Endoscopic Lung Volume Reduction work?

During the 60-minute procedure, 3-5 Zephyr®\* are placed in airways leading to the diseased region of the lung.

The valves block air from entering the diseased region and allow trapped air and fluids to escape.

The goal is to reduce the volume of the diseased region so that the healthy region can function more efficiently. Studies of suitable valve patients have shown that most have an improvement in lung function, exercise capacity and/or quality of life.\*\*

\* The valves are approximately  
4 mm in diameter and 10 mm long

\*\* Am J Respir Crit Care Med 191:2015:A6312

Zephyr<sup>®</sup>

Endobronchial Valve



# Who is suitable for treatment?

Zephyr® valves may be a treatment option for you if you have severe emphysema. Your doctor will conduct certain tests to determine if you are a potential candidate for endoscopic lung volume reduction.

## Common tests are:

- Spirometry or pulmonary function test, PFT, is a test that measures your lung function. Parameters such as Residual Volume (RV) and Forced Expiratory Volume (FEV<sub>1</sub>) will be taken as measure of your condition
- X-ray and CT scan will show the distribution of the emphysema
- 6 Minute Walk Test (6MWT) is a measure of your stamina and shows how far you can walk during 6 minutes
- Chartis Pulmonary Assessment System is a tool to predict treatment response by determining the presence of collateral ventilation\*

# Treatment Options

Emphysema cannot be cured, however, treatment may help reduce symptoms, improve quality of life, and slow progression of the disease.

Your doctor can help you determine which treatment may be best for you.

## **Emphysema Treatment Options:**

- Smoking cessation
- Medication
- Pulmonary rehabilitation
- Endoscopic lung volume reduction (e.g. Zephyr<sup>®</sup> Endobronchial Valve)
- Surgical lung volume reduction
- Lung transplant

# Are there any complications?

The most common but scarce complications are:

- Pneumothorax, a tear in the lung. This leak normally heals by itself after treatment with a chest drain
- Infection
- Bleeding
- Absence of benefit from treatment
- Occasionally, a valve can become dislodged and coughed out
- Coughing of blood

# After you have been treated

You will stay in hospital after procedure for observation and X-ray to rule out any complication.

The examinations performed before will give parameters for comparison as to how you have responded to the treatment at later follow-up.



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**Treatment Centres**

Treatment Centre list missing? Please contact us via e-mail: [info@pulmonx.com](mailto:info@pulmonx.com)

Pulmonx International Sàrl  
Rue de la Treille 4  
2000 Neuchâtel  
Switzerland  
Tel: +41 32 475 20 70  
Fax: +41 32 475 20 71  
info@pulmonx.com



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