



RePneu® Lung Volume Reduction Coils

A new treatment
for emphysema



Breath of life

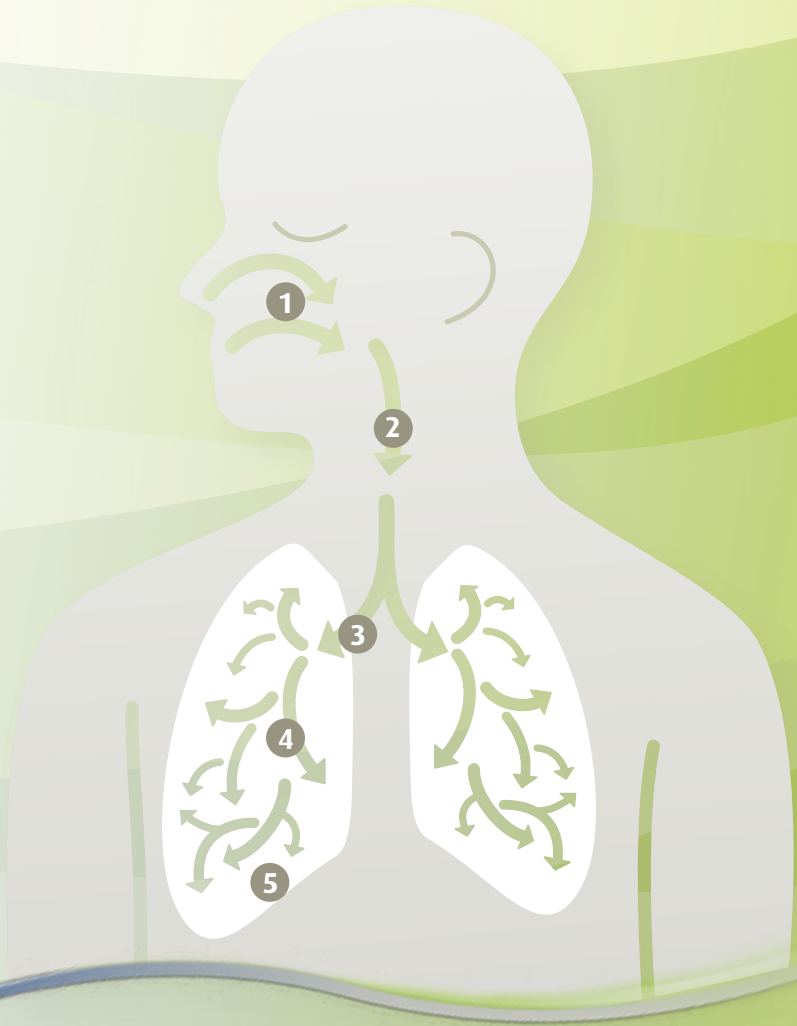
When you breathe, your lungs draw oxygen in and pass carbon dioxide out of your body. This simple, yet complex and life-sustaining process powers everything you do.

How do we breathe?

Through our mouth or nose we inhale oxygen which flows into **the throat** (1). The air passes through **the windpipe** (2) into the lungs, where it divides between the left and right **main bronchus** or airway (3). In each lung, the air flows from the main bronchus into increasingly narrowing airways or **bronchioles** (4), ending in tiny air sacs or **alveoli** (5).

These alveoli look like clusters of grapes, providing plenty of surface area for the exchange of oxygen for carbon dioxide, which will then be transported back through your lungs and out of your nose or mouth.

Meanwhile, enriched red blood cells surrounding the alveoli will transport the oxygen to the different parts of the body.



- 1 Throat
- 2 Windpipe
- 3 Main bronchus or Airway
- 4 Bronchioles
- 5 Alveoli



Your lungs

Emphysema is a form of “**Chronic Obstructive Pulmonary Disease**” (COPD), which is the fastest growing cause of death in developed world economies.¹

If you have emphysema, you probably notice shortness of breath and difficulty breathing, which may worsen when you exercise, or even when you perform routine daily activities. This is because emphysema causes your lungs to lose their elasticity, much like a stretched-out rubber band.

The small airways deep in your lungs may also collapse, leading to air trapping and over-inflation (hyperinflation),

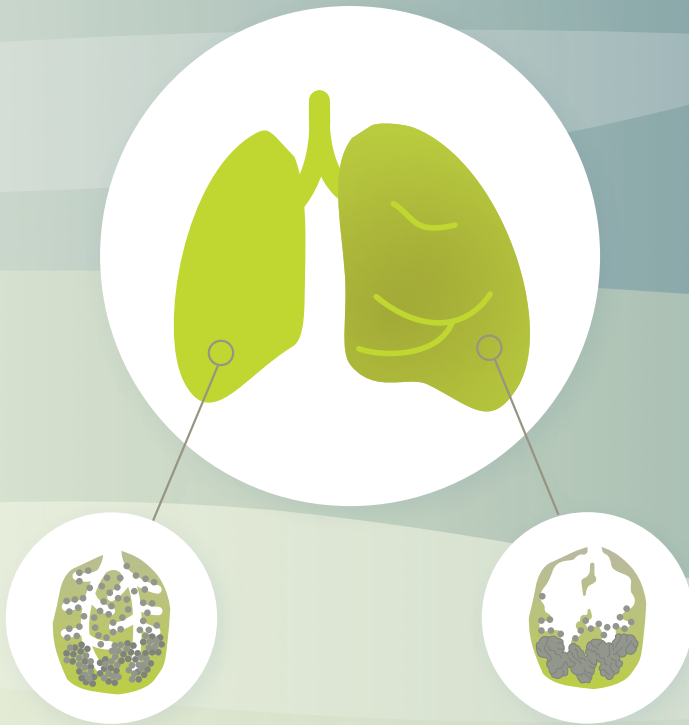
further compromising your ability to breathe. This loss of the lung's natural elasticity is a major problem in emphysema management.

COPD is currently the fourth most frequent cause of death worldwide. It is estimated that around 210 million people worldwide suffer from COPD. Approximately 5 million COPD sufferers run the risk of death from this disease.²

¹ source: ENCPA European Network of COPD Patient Associations

² source: Statistisches Bundesamt - the German Federal Statistical Office

Loss of the lung's natural elasticity is the major cause of emphysema symptoms.



Normal airways and air sacs in the healthy lung. Alveoli "clusters" provide plenty of surface area for gas exchange.

Collapsed airways and destroyed alveoli compromise breathing by trapping air due to loss of lung elasticity.

Evolution in the treatment of emphysema

Today, there are some minimally-invasive techniques available to treat the symptoms of emphysema.

The **non-implant methods** use chemicals or steam to destroy parts of your lung, causing volume reduction. These methods are permanent, and may cause a severe inflammatory reaction during your recovery process.

The **implant methods** involve placing either valves or RePneu Coils into your airways. Valves shut off access to part of your lung, causing volume reduction through lobar collapse by shunting trapped air through the valve. A special diagnostic test is required to determine if your lung anatomy will respond to valves. Typically, less than half the patients tested will qualify for valve treatment.

The **RePneu Coils** can function regardless of your lung anatomy - a big advantage. No parts of your lung are destroyed or blocked off.





Revive. Rebound. Renew.

RePneu Coils are designed to help restore the lung's natural elasticity while holding small airways open, helping you to breathe easier, feel better and live a more active life.

The RePneu Coils

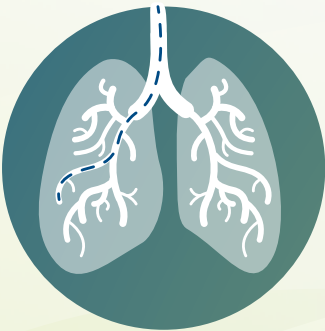
The rounded shape of the RePneu Coil resembles a tiny flexible spiral. Coils are made of a shape-memory material called Nitinol, common in medical implants like cardiac stents and bone anchors.

The Coils can be easily straightened to pass through your airways, then gently regain their coiled shape once in place.

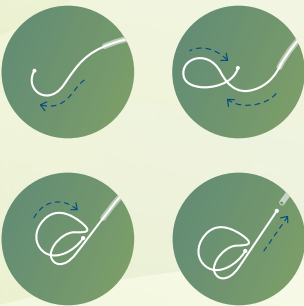
What is the RePneu Coil treatment procedure?



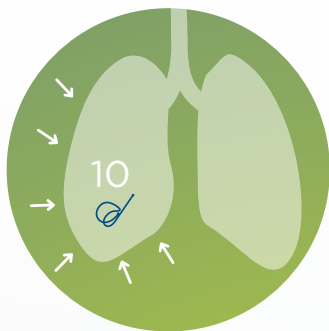
- 1 The procedure may be performed under **general anesthesia or deep sedation**, so you will be asleep and won't feel anything.



- 2 The Coils will be placed into your lung through a **bronchoscope**. Your physician will use fluoroscopy imaging to see precisely where to place the Coils.



- 3 The Coils are straightened for insertion into your airways, and then reform their coiled shape once they are released from the bronchoscope, **gently compressing the surrounding diseased lung tissue and tethering the small airways open**.



- 4 About 10 Coils will be placed in the airways in each lung, either in the upper or lower lobe, depending on which area is more diseased. **The procedure typically takes 30 - 40 minutes.** You will be monitored in the hospital for a few days before returning home.

Most patients experience optimal benefits when both sides of the lung are treated. If your physician advises you to complete a full treatment, a 6 – 8 week interval is usually recommended.



- 5 While many patients report feeling **relief** as soon as the very next day, it may take a few weeks for your lungs to fully adapt to the treatment. During the treatment recovery period, you may experience some extra coughing or exacerbations, but this is normal and usually resolves without additional care within about 30 days.

How can the RePneu Coil treatment help me ?

The RePneu Lung Volume Reduction Coils are designed to correct the problem of loss of elasticity in the emphysematous lung. They work by preventing small airways from collapsing by retensioning the lung tissue to hold them open. This improves your lung's ability to contract when you breathe out. The Coils also help by compressing the diseased lung tissue, which decreases excess lung volume and trapped air. The volume reduction of diseased parts of your lung

allows other healthier parts of your lung to perform more of the breathing function, as air is re-directed to those healthier areas. This improves your lungs ability to control when you breathe out. RePneu Coils are designed to help you breathe easier, feel better, and even increase your activity levels. And unlike other methods, RePneu Coil treatment doesn't require complicated diagnostic tests or block or destroy any part of your lung.

Studies presented to date showed clinically relevant improvements in pulmonary function, exercise capacity and quality of life measures for patients treated with RePneu Coils. Please ask your doctor for details.



Made of **Nitinol**,
common in
medical implants

Help you
breathe easier,
feel better &
increase your
activity levels



Real size

They work by
preventing small
airways from
collapsing and
trapping air

Unlike other
methods, they
**don't block or
destroy** any part
of your lung

This restores your
lung's **elasticity** and
improves your lung
ability to contract
when you breathe out

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The devices and products described in this document are CE marked.
The RePneu® LVRC is limited to investigational use in the United States.



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