



AABIP PATIENT EDUCATION SERIES

Bronchoscopic Lung Volume Reduction with Valves in Patients With Severe Emphysema

1. How do the valves help me breathe?

Endobronchial valves are designed to treat select patients with severe emphysema. The valves are placed in the airways leading to a part of your lung that has the most disease due to emphysema. They are placed only in one lung and not both. Once they are placed, they allow air and mucus out of but not into the diseased part of the lung they are blocking. This leads to shrinkage of the plugged area allowing the healthier parts of your lung to expand and function better. This also allows the diaphragm (the muscle that is located between the chest and abdomen and helps the lung move when you breathe) to move easier and with improved efficiency.

2. I heard that the same thing can be done with surgery. Should I choose the valves or surgery?

Surgery can be performed to remove the most diseased part in your lung. You can get similar benefits with both approaches but not everyone is a candidate for the surgery as you may be too sick to have the surgery. Discuss with your doctor whether you are a candidate for the surgery, valves or both. If you are a candidate for both, evaluate both options and make your choice based on benefits and risks estimated for you.

3. I am a candidate for the valves but I heard that there are two different brands available. Does it matter which valve I get?

Both valves have been studied and showed similar results in producing benefits for patients. There are some differences in the qualifications to get these valves. You may be a candidate for one type of the valves but not the other. Ask your doctor if you qualify for one kind or the other and whether the benefits and risks are the same for you with either type.

4. I didn't qualify for the valves and I am very disappointed. Why couldn't I qualify? There are three main reasons why might have not qualified:

- The valves only work if your lung has a high degree of destruction from emphysema and retains a lot of excess air ("hyperinflated"). Your CT of the chest and pulmonary function tests (breathing tests) help inform your doctor whether you meet these criteria.
- The valves work by plugging the airways branches to that most diseased part of your lung. Sometimes, sections of the lung can connect with other sections of the lung via side channels (we call these "collateral ventilation"). If your lung has these side channels, then the valves will not work as the side channels will provide air to the lung part blocked with valves. Your doctor can tell whether you have these side channels by assessing the chest CT before the procedure or sometime during the bronchoscopy procedure by using a small balloon placed temporarily in the airways to measure the airflow coming out of the destructed area in your lung.
- Sometimes your doctor sees things on your chest CT that will need to be addressed first like a lung nodule that may be monitored to make sure it is not cancer or findings on your heart, aorta, kidney or other organs that appear on the chest CT.

5. What should I do to help myself be a good candidate for the valve?

Use your inhalers and oxygen as prescribed by your doctor and continue to refrain from smoking. You also need to be in good physical shape by participating in a formal pulmonary rehabilitation program or maintaining activities at home as you can tolerate (walking, exercising on a stationary bike, etc...). In addition, make sure you take all the vaccines recommended by your provider.