

Glossary of Terms

Abhesives – decrease the ability of mucus to cling to airways (include surfactants).

ALS, or Amyotrophic Lateral Sclerosis – Often referred to as Lou Gehrig’s Disease, this progressive neurodegenerative disease affects nerve cells in the brain, brain stem and spinal cord. As motor neurons degenerate, so does muscle control and even lung function. Decreased ability to move air in and out of the lungs heightens the risk of lung infection.

Airway Clearance – the ability to cough up mucus from the airways in the lungs.

Bronchiectasis – an irreversible, chronic lung condition where airways in the lungs (bronchi) become damaged and abnormally widened from recurring inflammation or infection, preventing a person’s lungs from properly functioning. Often, bronchiectasis is caused by an underlying condition that may include: respiratory infections, immunodeficiency disorders, allergic reaction to the fungus aspergillus, and genetic disorders.

Bronchodilators – such as Albuterol; help open the airways.

Cerebral Palsy – a blanket term referring to a group of disorders that involve brain and nervous system functions that affect a person’s ability to move and maintain balance and posture. With cerebral palsy, there are numerous areas of overall health that need to be monitored, including respiratory health. Because of muscle weakness, people with cerebral palsy may have swallowing difficulties, a weak cough and seizures, which can impair their ability to effectively cough up mucus. When this occurs, more serious respiratory complications can result.

CPT, or Chest Physiotherapy - prior to HFCWO’s invention, CPT was standard treatment for diseases and conditions that impair airway clearance. In CPT, the patient lies in various positions, using gravity to promote drainage, while a therapist or caregiver claps on the chest or back.

COPD, or Chronic Obstructive Pulmonary Disease – the combination of emphysema and chronic bronchitis.

Cystic Fibrosis – a genetic disorder that causes the body to produce thick, sticky mucus that clogs the lungs and other organs. In the lungs, the thick mucus allows germs to thrive and can lead to life-threatening lung infections.

Expectorants – increase the volume or hydration of secretions and can induce coughing.

HFCWO, or High Frequency Chest Wall Oscillation – a self-administered technique for airway clearance therapy that utilizes a wearable HFCWO device, or vest, that loosens and mobilizes respiratory secretions in a patient’s lungs through repeated compression and release of the upper body. Also referred to as high frequency chest compression (HFCC).

Mucolytics – break down the structure of mucus (includes Pulmozyme).

Mucokinetics – increase movement of mucus via coughing or other natural processes.

Mucoregulators – such as anti-inflammatories and some antibiotics; reduce production of pulmonary secretions.

Muscular Dystrophy – a group of diseases that cause progressive weakness and loss of muscle mass. In muscular dystrophy, abnormal genes (mutations) interfere with the production of proteins needed to form healthy muscle. The most common form of muscular dystrophy is Duchenne muscular dystrophy, a condition that affects the muscles associated with breathing. As lung muscles weaken, the ability to cough up mucus can be impaired and mucus can pool in the lungs, allowing bacteria to thrive. The result can be an increase in lung infections and ultimately respiratory failure.

OPEP, or Oscillatory Positive Expiratory Pressure Device – provides PEP therapy and also vibrates the large and small airways, which thins, dislodges and moves mucus.

PEP, or Positive Expiratory Pressure Device – employs a mask or mouthpiece attached to a machine that creates resistance to exhaling, holding open the patient's airways.

Quadriplegia – also known as tetraplegia, a condition in which an individual has significant paralysis below the neck, affecting all four limbs plus the torso. Quadriplegia affects chest wall and diaphragm muscle function, the ability to mobilize secretions may be impacted. As a result, excess mucus may accumulate in the lungs, which can lead to recurrent respiratory complications