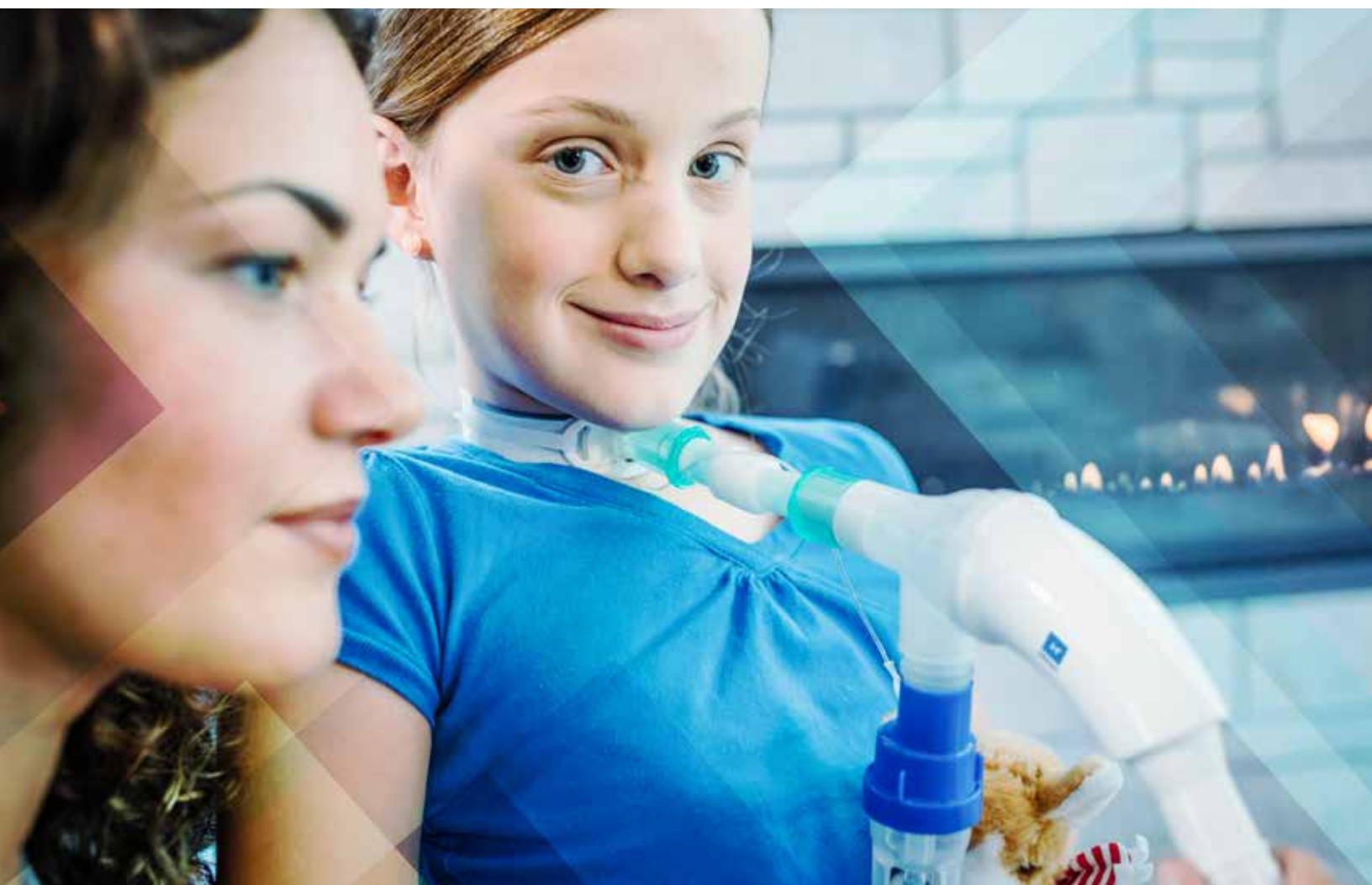


**Baxter**

# AIRWAY CLEARANCE THERAPIES



For Neuromuscular Patients



# OUR PURPOSE IS CLEAR

For neuromuscular patients, airway clearance problems can be a serious, even life-limiting issue.

## WE'RE HERE TO HELP THESE PATIENTS BREATHE EASIER.

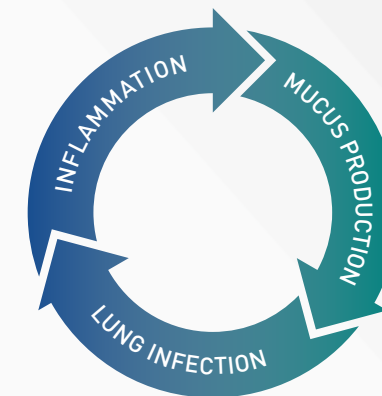
With a full portfolio of industry-leading airway clearance therapies, we can help you help your patients reduce infections, hospitalizations and lung damage, and improve their quality of life.<sup>1</sup>

Airway clearance therapy may benefit patients with:

- Cerebral palsy (CP)
- Amyotrophic lateral sclerosis (ALS)
- Muscular dystrophy (MD)
- Spinal muscular atrophy (SMA)
- Spinal cord injuries (SCI)

### The Vicious Cycle

If patients are unable to clear mucus from their lungs it accumulates, creating an environment where bacteria can grow, causing lung infections and further damage. This cycle can eventually lead to respiratory failure.



“ Respiratory failure is the most common cause of morbidity and mortality in patients with chronic or rapidly progressive neuromuscular disease.<sup>2</sup> ”

# THE 3 ESSENTIALS FOR AIRWAY CLEARANCE

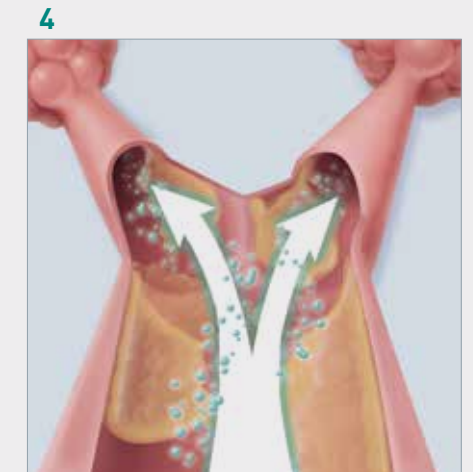
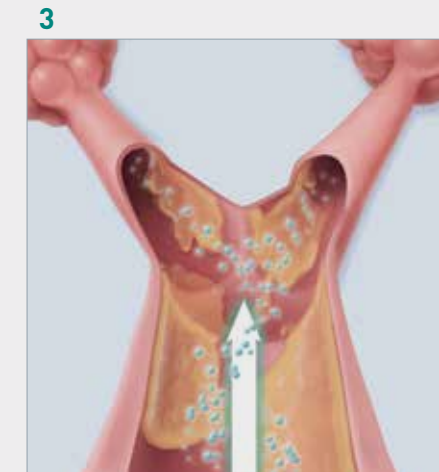
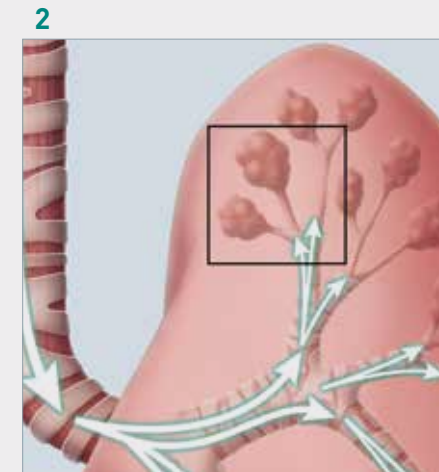
Effective airway clearance involves three essential processes: expansion of the lungs, mobilization of secretions, and evacuation of secretions.

Patients with neuromuscular conditions may need therapies for any or all of these processes.

## EXPANSION

Continuous Positive Expiratory Pressure (CPEP) therapy expands the lungs to prevent or treat atelectasis, enabling mobilization and evacuation of secretions.

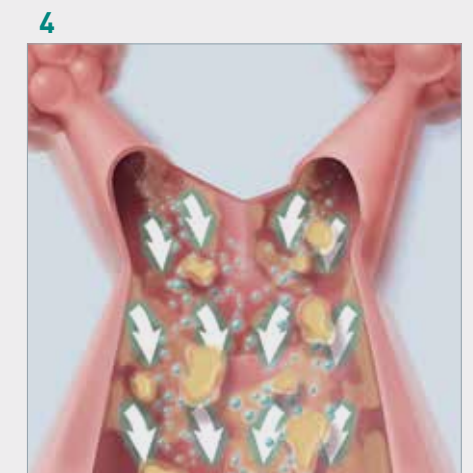
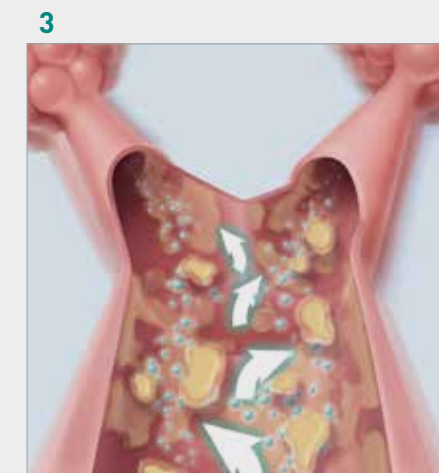
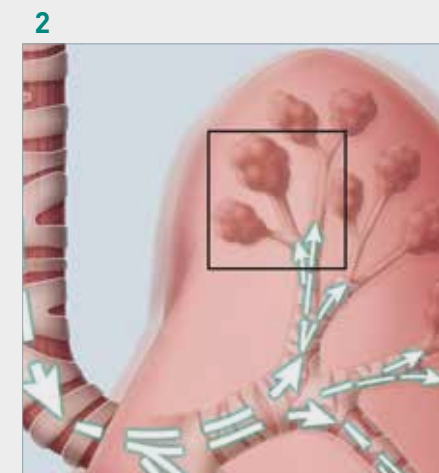
- 1,2 Continuous positive expiratory pressure and increased airflow combined with aerosol, opens the airways
- 3 Airflow during inspiration and expiration prevents or reverses atelectasis
- 4 Lung expansion allows air to move beyond retained secretions, aiding in mobilization



## MOBILIZATION

Continuous High Frequency Oscillation (CHFO) therapy uses continuous pulses of positive pressure to loosen and mobilize secretions to the large airways.

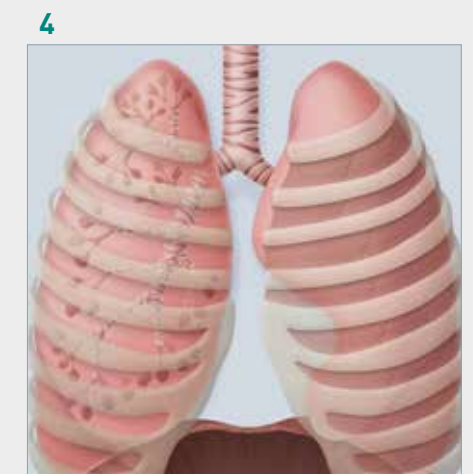
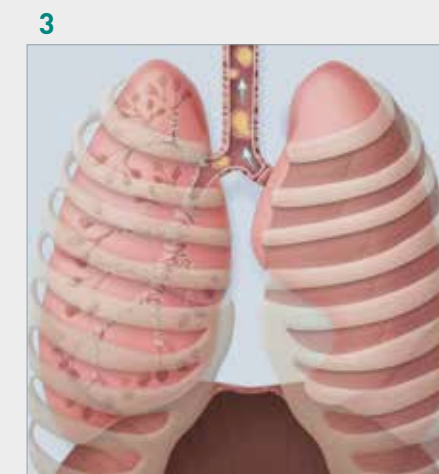
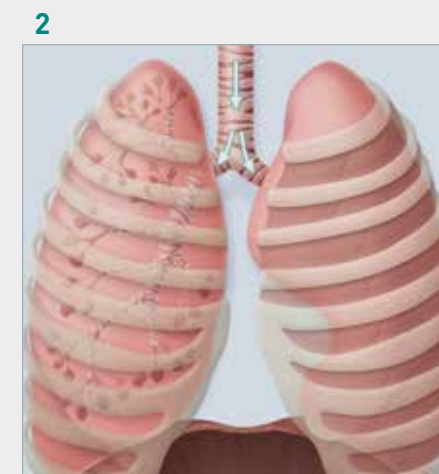
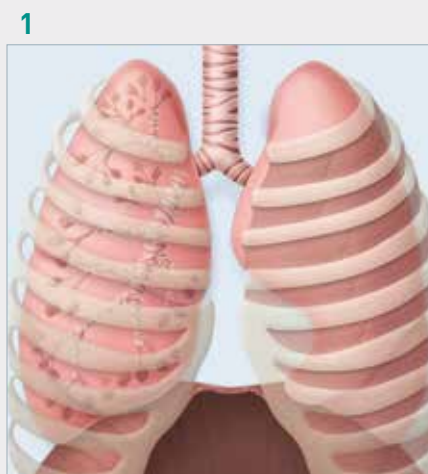
- 1,2 Continuous pulses of positive pressure combined with aerosol, is delivered to the airways to loosen secretions
- 3 Continuous high frequency oscillation during both inspiration and expiration forms a pressure gradient
- 4 Accelerated expiratory airflow mobilizes secretions to the larger airways where they can be cleared by coughing or suctioning



## EVACUATION

Mechanical Insufflation-Exsufflation (MIE) therapy simulates a cough to evacuate secretions.

- 1 Resting state
- 2 Patient's lungs are inflated with positive insufflation
- 3 Patient receives active negative exsufflation
- 4 PAP phase with "Resting Positive Pressure" setting maintains positive flow to the patient. Full cycle is repeated



# PROVEN THERAPIES TO FIT YOUR PATIENTS



## VOLARA SYSTEM

EXPANSION	MOBILIZATION	EVACUATION
X	X	

The **Volara** System delivers proven, hospital-level Oscillation and Lung Expansion (OLE) therapy.<sup>3,4</sup>

- 3-in-1 therapy combines CPEP, CHFO and nebulizer in one system
- Pre-set programs for your therapy protocols
- Use with tracheostomy, mask, mouthpiece or inline ventilator
- Aerosol medication delivery

### INDICATIONS

- Lung expansion therapy
- Mobilization of secretions
- Prevention and treatment of pulmonary atelectasis
- Supplemental oxygen delivery when used with oxygen supply



## THE VEST AIRWAY CLEARANCE SYSTEM

EXPANSION	MOBILIZATION	EVACUATION
	X	

The **Vest** System delivers High Frequency Chest Wall Oscillation (HFCWO).

- Home and acute care models available
- Multiple programming options for flexible treatment

### INDICATIONS

Mobilization of secretions when there is:

- Evidence or suggestion of retained secretions
- Difficulty with secretion clearance



## SYNCLARA COUGH SYSTEM

EXPANSION	MOBILIZATION	EVACUATION
		X

The **Synclara** Cough System simulates a cough, evacuating secretions that could otherwise collect in the upper airways.

- Home and acute care models available
- Use with mask, mouthpiece, or tracheostomy

### INDICATIONS

- Secretion evacuation for patients who are unable to cough or clear secretions effectively from upper airways, due to reduced peak cough expiratory flow or respiratory muscle weakness

## CARE CONNEX PROGRAM FOR SUPPORT

Baxter created the **CARE Connex** program to deliver comprehensive services at every step of the patient journey, offering new efficiencies for you and better therapy outcomes for your patients. We work with over a thousand leading local, regional and national companies to include commercial health plans and networks, Medicaid, Medicare, TRICARE and the Department of Veterans Affairs.

- Insurance provider services
- 24/7 clinical care with multilingual customer service and product support
- 600+ in-home licensed clinicians
- Continuing education courses
- Clinical in-home assessments, trainings, outcomes monitoring and reporting
- E-Prescribing available (Parachute, Epic, Cerner, Allscripts and others)

## FOR FURTHER INFORMATION ABOUT PRODUCTS AND SERVICES

Please contact your Baxter sales representative or  
call Baxter customer service at **1-800-426-4224**.

### References

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2. Ambrosino N, Carpena N, Gherardi M. Chronic Respiratory Care for Neuromuscular Diseases in Adults. *Eur Respir J.* 2009; 34: 444-451
3. Basavaraj A, DeKoven M, Shah D, et al. Impact of High Frequency Chest Wall Oscillation on Clinical Outcomes and Healthcare Resource Utilization in Adult Patients with Non-Cystic Fibrosis Bronchiectasis in the United States: A Pre-Post Cohort Analysis. *AJRCCM* 2020;201:A7758.
4. Nicolini A, et al., Effectiveness of treatment with high-frequency chest wall oscillation in patients with bronchiectasis, *BMC Pulm Med*, 2013, 13:21

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