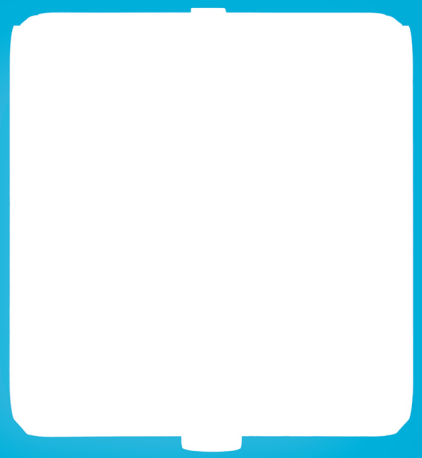
Discover the next level of OLE therapy

The BiWaze® Clear system innovates oscillating lung expansion (OLE) therapy with an advanced design that:

- DELIVERS unmatched aerosol efficiency, deeper into the lungs.[1]
- FEATURES a closed breathing circuit with Aerogen® Solo.
- PROVIDES an expiratory flow bias during high frequency oscillations to mobilize mucus from distal to central airways.[2]
- INCLUDES a lithium-ion battery with every light-weight system.
- SIMPLIFIES therapy setup and delivery with an intuitive touchscreen.



BiWaze® Clear expands airway clearance from hospital to home

Specifications

PEP Pressure	1 to 30 cm H20
Oscillation Pressure	5 to 70 cm H20
Oscillation Frequency	Low (3 Hz), Med (4 Hz), High (5 Hz)
Phase Duration	5 seconds – 30 minutes
Modes	Auto & Manual
Presets Available	Up to 10
Weight	9 lbs with battery
Battery	Included with every system
Number of therapies per battery charge	10 nominal therapies*
Patient Inferences	**Hospital to Home:** Mouthpiece, Face Mask, Trach Adapter (to a trach or endotrachael tube). **Hospital Only:** In-Line with a Ventilator
Aerogen® Controller	Included within the BiWaze® Clear control unit
Aerogen® Solo Nebulizer	Included within the BiWaze® Clear Dual Lumen Breathing Circuit

* Nominal = a 10 minute standard OLE therapy

** FDA Indication to use the Aerogen nebulizer with saline solution only.

1 Kontoudios N, KenKnight HR, DiBlasi RM. In Vitro Comparison of Aerosol Delivery in High-Frequency Assisted Airway Clearance Devices With Integrated Nebulizers. *Respir Care.* 2024 Sep 26;69(10):1221-1230.

2 DiBlasi, Robert, Nicholas Kontoudios, and Howard KenKnight. Assessment of Oscillatory Pressure and Flow Waveforms With the BiWaze® Clear System: A Study in Vitro. Seattle Children's Hospital & Research Institute; ABM Respiratory Care, 2025. https://abmrc.com/wpcontent/uploads/2025/02/BiWaze-Clear-Spontaneous-Breathing-Oscillation-Comparison-1.pdf.

3 Huynh, T., et al. Efficacy of Oscillation and Lung Expansion in Reducing Postoperative Pulmonary Complication. *Journal of the American College of Surgeons* 229(5):p 458-466e1, November 2019.

℞ Only

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BiWaze® Clear SYSTEM

One system, three therapies

The BiWaze® Clear System delivers OLE therapy in just 10 minutes through a combination of the following therapies:

Positive Expiratory Pressure (PEP):
The system delivers a programmed positive pressure which the patient exhales against to open and expand the patient's airways. The Aerogen® Solo can be configured to run during PEP therapy to help move the aerosol throughout the airways.



High Frequency Oscillation:
The system oscillates the airways with pulses of positive pressure to thin secretions and mobilize them from the lower airways to the upper airways so they can be coughed or sectioned out. The Aerogen® Solo can be configured to run during oscillation therapy to help move the aerosol throughout the airways.



Nebulizer:
The system powers only the Aerogen® Solo vibrating mesh nebulizer to deliver medicated aerosol without PEP or oscillations.



Superior Aerosol Delivery

In vitro study found BiWaze Clear delivers a greater deposition of aerosol to the lungs compared to other OLE systems. The closed, dual-lumen breathing circuit with the Aerogen® nebulizer** has a profound impact on aerosol delivery.[1]

4.5 x more aerosol during PEP therapy[1]

2.2 x more aerosol during OSC therapy[1]

8.5 x less fugitive aerosol[1]

Expiratory Flow & Pressure Precision for Airway Clearance

Independent *in-vitro* bench testing showed that the BiWaze® Clear system generated up to three-times greater expiratory-flow bias than a comparator OLE system—a performance factor associated with mobilizing mucus from distal to central airways. In the same study, BiWaze® Clear kept airway pressure within the tolerance range in 100 % of high-frequency-oscillation (HFO) tests.[2]

Reduce Postoperative Pulmonary Complications (PPCs) with OLE therapy[3]

REDUCTION in PPCs for all Patients
31%
from 22.9% to 15.8%

REDUCTION in Length of Stay (Days)
1.6%
from 8.40 to 6.78

REDUCTION in PPCs for Intubated Patients
47%
from 69.8% to 36.7%

REDUCTION in Time on Ventilator
64%
from 94.1 to 29.7 hours

PATIENT CONDITIONS	HOSPITAL DEPARTMENT
Pneumonia	Emergency
Respiratory failure	ICU
Cardiothoracic surgery	Medical / Surgical
Postoperative	Pediatrics
Pulmonary exacerbation	Bariatrics
Spinal Cord Injuries	Trauma / Burn
Stroke	Transplant
COPD	Rehab
Cystic fibrosis	Subacute
Bronchiectasis	Long-Term Care

