

VIGOROUS...

yet comfortable HFCWO Therapy

As patient care teams, RTs, nurses, and physicians strive to speed patients to recovery and safe discharge, ridding lungs of retained secretions on a regular basis is a critical factor in attaining long-term lung health.

The **SmartVest® Airway Clearance System** provides **High Frequency Chest Wall Oscillation (HFCWO)**, also known as **High Frequency Chest Compression (HFCC)**, that delivers a clinically effective airway clearance treatment for numerous diseases and conditions, from post-surgery atelectasis to chronic disease applications.



The **SmartVest®** and **SmartVest Wrap®** provide airway clearance therapy that supports health care teams striving to:

- Foster Patient Recovery in ICU Settings
- Maximize Convenience of Use
- Provide Continuity of Care from Hospital to Home



REVERSIBLE!



References

- ¹ Chang HK, Weber ME, King M. Mucus transport by high-frequency nonsymmetrical oscillatory airflow. *J Appl Physiol* 1988; 65(3): 1203-1209.
- ² Majaesic C, Montgomery M, Jones R, King M. Reduction in sputum viscosity using high frequency chest compressions compared to conventional chest physiotherapy. *Pediatr Pulmonol* 1996; Suppl 13: A358.
- ³ Pliophlys AV, Lewis S, Kasnicke I. Pulmonary vest therapy in pediatric long-term care. *Journal of the American Medical Director's Association* 2002 Sep-Oct; 3 (5): 318-321.
- ⁴ Ohnsorg F. A Cost Analysis of High-Frequency Chest Wall Oscillation in Cystic Fibrosis. *AM J Respir and Crit Care Med* 1994; 149(4): A669.
- ⁵ Chahal K, Austin G, Chakravorty I. High Frequency Chest Wall Oscillation (HFCWO) in patients with Chronic Obstructive Pulmonary Disease (COPD) and MucusHypersecretion. *Proceedings of the American Thoracic Society* May 2008.

Additional references available upon request



Effective, Convenient, and Comfortable™

ELECTROMED, INC.

Creating superior care through innovation®

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New Prague, MN 56071
Phone: 800-462-1045 or 952-758-9299
Fax: 866-758-5077 or 952-758-5077
Made in USA

Additional Readings

- AARC Clinical Practice Guidelines: Postural Drainage Therapy. *Resp Care* 1991; 36(12): 1418-1426.
- Arens R, Gozal D, Omlin K, Vega J, Boyd K, Keens T, Woo M. Comparison of high-frequency chest compression and conventional chest physiotherapy in hospitalized patients with cystic fibrosis. *Am J Respir and Crit Care Med* 1994; 150: 1154-1157.
- Castignino M, Vojtova J, Kaminski S, Fink R. Safety of high-frequency chest wall oscillation in patients with respiratory muscle weakness. *Chest* 1996; 110: S65.
- Warwick W, Hansen L. The long-term effect of high-frequency chest compression therapy on pulmonary complications of cystic fibrosis. *Pediatr Pulmonol* 1991; 11:265-271.

Generator Specifications

Weight: 23 lbs.
Dimensions: 15 3/4" X 15" X 7 1/4"

Mobile Pedestal Specifications

Height to Platform: 25" extendable to 35"
Weight: 22 lbs
Wheelbase Diameter: 25"
Overall Diameter: 26-13/16"
Handle-to-handle Width: 23-1/8"
5 Casters total - 2 locking
Casters: 3" Diameter x 13/16" Tread Width

USA and International voltage compatibility
Compatible vest sizes: small children to large adults

Regulatory Approvals:

FDA 510(k) clearance
ISO 9001 / ISO 13485 Certified
EEC/CE marked
Licensed in Canada
Patented and Patents Pending

All warranty information is available at www.SmartVestWrap.com

EM00004
2009-07

The Only Airway Clearance System Combining Single-Hose and Soft Start® Technology



Effective, Convenient, and Comfortable™



Accredited by
The Joint Commission

**THE INNOVATIVE LEADER IN
AIRWAY CLEARANCE**



Mobile pedestal provides stability yet requires minimal space

HOW DOES HFCWO WORK?

HFCWO, administered by the patented **SmartVest**[®], creates a revolutionary “SQUEEZE and RELEASE” action around the chest and torso from 5-20 times per second. The **SmartVest**[®] inflates and delivers vigorous, yet comfortable, air pulses to the body through a single hose powered by a programmable air pulse generator. The rapid squeeze and release action simulates repetitive “mini-coughs,” which have been reported in medical literature to effectively:

- Shear mucus away from the walls of a lung’s airways¹
- Reduce the viscosity of the secretions²
- Propel the mucus toward the larger airways where it can be expectorated or suctioned more easily^{1,2}

Today, HFCWO is commonly prescribed and widely practiced. This method is technique-independent and can be administered by the RT, the patient, or another caregiver. Patient and caregiver feedback indicates it is better tolerated than manual Chest Physiotherapy (CPT).

What clinicians like most about **SmartVest**[®] and **SmartVest Wrap**[®]:

- Full coverage pulsation
- Convenience
- Ease of operation
- Patient comfort - when patients are able to tolerate a vest system more comfortably than CPT, they are more likely to use it and to benefit consistently
- Single-hose design and reversibility of the **SmartVest Wrap**[®] allow patient access from either side of the bed
- No upward “creep” is experienced - with **Soft Start**[®] technology the vest inflates gradually, following the contours of the chest
- HomeCare model can be ordered for patients upon discharge
- Reduces clinicians’ potential for repetitive motion injuries
- Eliminates concerns associated with manual Chest Physiotherapy (CPT) regarding patient positioning in the Trendelenburg position and technique variance

Benefits of a HFCWO treatment delivered by the **SmartVest**[®] and **SmartVest Wrap**[®] include:

- Reduction in lung infections, such as pneumonia^{3,4,5}
- Reduction in hospitalizations^{3,4,5}
- Reduction of expensive medications^{3,4,5}
- Cost effective by reducing the secondary complications associated with impaired mucus transport^{3,4,5}

INSTITUTIONAL PURCHASE OPTIONS

OPTION 1

Purchase Model SV2100-I, includes Mobile Pedestal and Three Year Warranty.

OPTION 2

Rent to Own Model SV2100-I for 12 monthly payments with System ownership transferred upon 12th installment, includes Mobile Pedestal and Three Year Warranty.

OPTION 3

Receive one Model SV2100-I at no charge with an agreement to purchase five or more **SmartVest Wraps**[®] per month for 36 consecutive months. System ownership is transferable to customer after completion of 36 month contract.

ADDITIONAL PURCHASE OPTIONS

Single **SmartVest Wrap**[®]
Package of 5 same-size **SmartVest Wraps**[®]
Single Patient Use Vest (In-patient use)
Long-Term Vest (HomeCare use)
Vest extender (14 inches)

APPLICATIONS

HFCWO has been demonstrated to be effective in promoting airway clearance and improving bronchial drainage for a wide variety of medical conditions including the following:

Mucociliary System Disorders

Cystic Fibrosis, Primary Ciliary Dyskinesia

Obstructive Pulmonary Conditions

COPD (Chronic Obstructive Pulmonary Disease), Bronchiectasis, Asthma

Neuromuscular Disease

Muscular Dystrophy, Spinal Muscular Atrophy, ALS (Amyotrophic Lateral Sclerosis)

Neuromotor Disorders

Cerebral Palsy, Multiple Sclerosis, Spinal Cord Injuries

Restrictive Airway Disorders

Scoliosis, Kyphoscoliosis

Additional features and services:

- Fully supported patient and clinician services
- Toll-free support HELPLINE
- Single Patient Use **SmartVest**[®] and **SmartVest Wrap**[®] available in multiple sizes for in-patient use



To determine which **SmartVest**[®] system and accessories will work best for your health care setting, contact Electromed, Inc. at

1-800-462-1045 (Within the U.S.)

or

info@electromed.com

Please visit our website:

www.SmartVestWrap.com

ELECTROMED, INC.

Creating superior care through innovation[®]

Electromed, Inc. is committed to continuing a strong program of innovation for the benefit of patients and their caregivers.

Electromed, Inc. has been awarded more than twelve patents related to HFCWO technology.