

## Vest Design In High Frequency Chest Wall Oscillation

The High Frequency Chest Wall Oscillation (HFCWO) vest, developed by Electromed, Inc. for the SmartVest<sup>®</sup> Airway Clearance System, simultaneously and continuously treats the *front, back and sides of the thorax*. Air pulses delivered by the generator to the vest rapidly and gently compress and release the chest to create repetitive airflows in the airways of the patient. These induced airflows shear secretions from the sides of the airways, reduce their viscosity and move them mouthward to promote enhanced mobilization.

The SmartVest<sup>®</sup> incorporates many features designed for the comfort and convenience of the user. These features are intended to increase the ease of use to encourage better cooperation and compliance for all ages – toddler through older adults.

### *What do patients say they like about the SmartVest<sup>®</sup>?*

- SmartVest<sup>®</sup> treatment is gentler on the body, with comparable efficacy
  - Unique air flow produces no direct pounding on the abdomen or sternum by filling from the bottom up; users indicate less discomfort
- Only soft, breathable, washable fabrics touch the skin
  - Elimination of “plasticized” fabrics allows for a more comfortable treatment with less itching and perspiration and simplified infection control
- All Velcro<sup>™</sup> closures make adjustments and “on and off” simple
  - No particular handstrength is required to operate clasps when taking vest off or adjusting fit
- A single offset hose improves maneuverability during treatment
  - Watching TV, playing computer games and doing homework during treatment are easier

When considering HFCWO options, the SmartVest<sup>®</sup> design offers built-in comfort that helps patients comply with their prescribed regimen. Those with uncomfortable abdominal or catheter issues (G-tubes, Port-A-Caths, etc.), trouble sitting still (accommodating maneuverability in the very young), or difficulty following protocols (programmability) find the SmartVest<sup>®</sup> System easy to use.