

THERAPEUTIC

# *Lungflute*<sup>®</sup>

for Home Care

Fast, Reliable, Innovative  
Secretion Mobilisation



## **Therapeutic Lung Flute<sup>®</sup>**

The Therapeutic Lung Flute<sup>®</sup> is indicated for Positive Expiratory Pressure (PEP) Therapy and is clinically proven to be an effective method for Mucociliary Clearance.

Lung Flute<sup>®</sup> features include:

1. Simple hand-held device
2. Low pressure operation
3. Replaceable reeds

## **Low Frequency Acoustic Waves Help Patients' Natural Mucus Clearing System**

A low frequency wave is generated at the mouth by exhaling through a mouthpiece over a laminar surface (Reed) inside the Lung Flute<sup>®</sup>. The resulting low frequency acoustic wave that is produced travels retrograde into the lower airways and lung parenchyma and increases mucociliary clearance. Patients expel air with the force required to blow out a single candle. Multiple repetitions (up to 20) of a single two-breath pattern are performed with the device to complete a therapeutic session.



*The Lung Flute<sup>®</sup> presents a safe, effective, convenient and rapid method of secretion mobilisation*

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The Lung Flute<sup>®</sup> was selected by Popular Science magazine for inclusion in the magazine's Best of What's New (BOWN) awards for 2009.

### Clinical Results

In a recent clinical trial conducted at The WNY VA Medical Center by the University at Buffalo, School of Medicine, the performance of the Therapeutic Lung Flute<sup>®</sup> was compared to that of the Acapella<sup>®</sup> device. In this 8-week trial, changes in 24-hour sputum collection was the primary endpoint. Secondary endpoints were changes in spirometry and quality of life.

Changes in the quality of life questionnaires were noted for both devices. A larger reduction in symptoms was seen with the Lung Flute<sup>®</sup> with the CCQ. However, the differences between the two devices were not statistically significant. Disease related health status is an important efficacy end point in COPD. The Lung Flute<sup>®</sup> did show larger improvements in health status than the other device as measured by the SGRQ, though the difference did not reach statistical significance. Though dry sputum weight did not change, subjective benefit in health status and symptoms is seen with OPEP treatment in COPD.

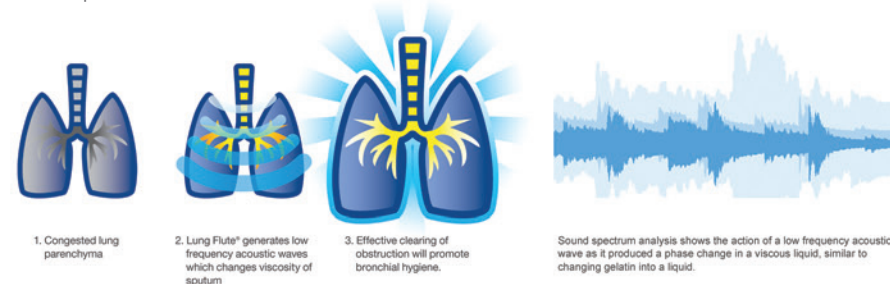
The mechanism of action that results in clinical benefits of the Lung Flute<sup>®</sup> and the other device in COPD is presumed to be increased mucociliary clearance of tracheobronchial secretions. However, a limitation of this study was the absence of measurement of mucociliary clearance. The duration of the interventions was not long enough and the study was not large enough to determine if other parameters such as lung function and exacerbation frequency were impacted.

Mechanical means to improve mucus clearance in hypersecretory lung conditions including Oscillatory PEP devices, chest vibration and percussion and breathing techniques have not been tested systematically in stable COPD. This study demonstrates that Oscillatory PEP devices are of potential benefit in COPD patients with mucus hypersecretion. Further studies with the Lung Flute<sup>®</sup> should explore mechanisms and clinical benefit with longer-term use in COPD and other hypersecretory lung diseases.

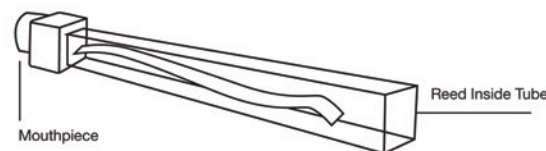
### Proven Clinical Benefits

The Therapeutic Lung Flute<sup>®</sup> offers these advantages:

- Easy to use
- No adjustments
- Used twice daily, improves quality of life scores
- Increased mucociliary clearance
- Greater improvement in quality of life scores in COPD patients compared to conventional OPEP device



### The Lung Flute<sup>®</sup> – Mucus Clearing Device



### Products

Product No. MA1003-01 Lung Flute<sup>®</sup> for Home Care Bronchial Hygiene Therapy  
Product No. MA1002-01 Replacement Reed Kit for Home Care Lung Flute (14 reeds)