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primary studies - published RCT

## Short-term effects of high-frequency chest compression and positive expiratory pressure in patients with cystic fibrosis.

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### Study design (if review, criteria of inclusion for studies)

controlled randomized cross-over trial

### Participants

Thirty-four CF patients (26 +/- 6.5 years) were included in the study.

### Interventions

high-frequency chest compression and positive expiratory pressure mask

### Outcome measures

Before and 30 minutes after each treatment were recorded: pulmonary function testing, oxygen saturation, and perceived dyspnea. Preference for the two devices was assessed.

### Main results

No statistically significant difference between high-frequency chest compression and positive expiratory pressure mask was found in sputum production and in lung function testing. A reduction in SpO<sub>2</sub> was found after positive expiratory pressure mask (98 +/- 1.0% versus 97 +/- 1.2%; P

### Authors' conclusions

High-frequency chest compression and positive expiratory pressure mask have comparable short-term effects on expectorated sputum and lung function. Although positive expiratory pressure mask was associated with a lower SpO<sub>2</sub>, it was better tolerated than high-frequency chest compression.

<http://dx.doi.org/10.4021/jocmr697w>

### See also

J Clin Med Res. 2011 Dec;3(6):279-84. Epub 2011 Nov 10.

### Keywords

non pharmacological intervention - devices OR physiotherapy; Airway clearance technique; Exacerbation; Respiratory Tract Infections; Respiratory Tract Diseases; Infection; Bacterial Infections; Positive-Pressure Respiration- PEP- pep mask; High Frequency Chest Wall Oscillation -HFCWO-; VEST Airway Clearance System; oscillating devices; Chest physiotherapy;