

primary studies - published RCT

## Comparison of active cycle of breathing and high-frequency oscillation jacket in children with cystic fibrosis.

**Code:** PM14679493

**Year:** 2004 **Date:** 2004

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

RCT cross-over design. Single centre UK study. Randomisation via sealed envelope.

### Participants

10 participants (7 males, 3 females). Median (range) age: 14 (9 - 16) years. CF diagnosed via sweat chloride testing or genetic testing. Participants admitted to the Brompton Hospital with an acute exacerbation as defined by conventional criteria

### Interventions

ABCT versus HFCWO. 2 supervised treatments of either ACBT or HFCWO on 2 successive dates for 20 min.

### Outcome measures

FVC, FEV1 (measured immediately before, immediately after and 10 min after each treatment), wet sputum weight (measured over 24-hour period, during treatment and 15 minutes after treatment), participant preference (measured at the end of the study).

### Main results

Sputum weight increased significantly with ACBT compared with HFCC during treatment (5.2 g vs. 1.1 g, P

### Authors' conclusions

Compared with ACBT, HFCC by Hayek Cuirass is not an effective airway clearance treatment modality for children with CF during an infective exacerbation.

<http://dx.doi.org/10.1002/ppul.10358>

### See also

Pediatr Pulmonol. 2004 Jan;37(1):71-5.

### Keywords

Adolescent; Airway clearance technique; Chest Wall Oscillation; Child; non pharmacological intervention - devices OR physiotherapy; pharmacological\_intervention; Active Cycle of Breathing Technique -ACBT-; Exacerbation; Respiratory Tract Infections; Respiratory Tract Diseases; Infection; Bacterial Infections; High Frequency Chest Wall Oscillation -HFCWO-; Chest physiotherapy; VEST Airway Clearance System; oscillating devices;