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*primary studies - published, non RCT*

## **Efficacy of the Flutter device for airway mucus clearance in patients with cystic fibrosis.**

**Code:** PM8176554

**Year:** 1994 **Date:** 1994

**Author:** Konstan MW

### **Participants**

18 patients with cystic fibrosis and mild to moderate lung disease

### **Interventions**

Flutter was compared with vigorous voluntary coughing and with postural drainage (chest percussion and vibration).

### **Outcome measures**

efficacy of the Flutter in clearing mucus from the airways

### **Main results**

The amount of sputum expectorated by subjects using the Flutter was more than three times the amount expectorated with either voluntary cough or postural drainage (p

### **Authors' conclusions**

The Flutter is simple to use, inexpensive, and fully portable, and once the patient and family are instructed in its use, it does not require the assistance of a caregiver. For hospitalized patients, elimination of the need for a therapist could reduce health care costs. Long-term studies of the use of the Flutter seem justified to determine its effects on pulmonary function and outcome.

<http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/109/CN-00101109/frame.html>

### **See also**

J Pediatr. 1994 May;124(5 Pt 1):689-93.

### **Keywords**

Adolescent; Adult; Airway clearance technique; Child; Drainage; flutter; non pharmacological intervention - devices OR physiotherapy; pharmacological\_intervention; Postural Drainage; Vibration; Airway clearance drugs -expectorants- mucolytic- mucociliary-; percussion; oscillating devices; Chest physiotherapy;