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primary studies - published RCT

## The benefits of mechanical insufflator-exsufflator compared to autogenic drainage in adults with cystic fibrosis.

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

Prospective cross-over trial

### Participants

Fourteen males and eight females from the national center for CF, with an average FEV(1) of 54%

### Interventions

Autogenic drainage (AD). Mechanical insufflator-exsufflator (MI-E). Subjects received either AD or MI-E in a random order.

### Outcome measures

Sputum was collected and weighed immediately after treatment. Subjects performed lung function tests at baseline, 20 minutes after and 1 hour after treatment; additionally, a 2-minute walk test was performed at the end of all lung function tests. Saturation, dyspnea scores while resting and after a 2-minute walk and subjective fatigue were recorded.

### Main results

Thirty-six percent more sputum was collected following MI-E than AD treatment (P<0.05).

### Authors' conclusions

Treatment with the MI-E was more effective for clearing sputum in CF subjects, initial evidence suggests that the MI-E may be successfully incorporated into treatment protocols. Further studies are needed to assess the long-term benefits of MI-E in patients with CF.

<http://dx.doi.org/10.1002/ppul.25020>

### See also

Pediatr Pulmonol. 2020 Nov;55(11):3046-3052. doi: 10.1002/ppul.25020. Epub 2020 Aug 24.

### Keywords

Adolescent; Airway clearance technique; Child; Drainage; non pharmacological intervention - devices OR physiotherapy; pharmacological\_intervention; Airway clearance drugs -expectorants- mucolytic- mucociliary-; Exacerbation; Respiratory Tract Infections; Respiratory Tract Diseases; Infection; Bacterial Infections; Postural Drainage; percussion; Chest physiotherapy; Autogenic Drainage;