

primary studies - published, non RCT

The role of thoracic expansion exercises during the active cycle of breathing techniques.

Code: CN-00448712 **Year:** 1997 **Date:** 2018

Author: White D

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

Non randomized trial

Participants

9 children with CF (13.3+/-2.6 years; FEV1 66+/-22%) and 18 healthy children (13.8+/-1.8 years; FEV1 107+/-30%) were included.

Interventions

Three backpack positions were tested: no backpack (NB), a 12.5% body-weight backpack carried bilaterally (BB) or unilaterally (UB), at rest and during a 10 minute walk.

Outcome measures

Primary outcome was forced vital capacity (FVC). Secondary outcomes included comparison of cardio-respiratory variables within and between groups.

Main results

FVC was reduced with UB compared to NB (68.5+/-23.3% vs 72.1+/-24.3%, $p = 0.024$) in children with CF. FEV1, MIP and MEP decreased more with UB in children with CF than in healthy peers. Increases in VO₂, VCO₂ and minute ventilation with UB were greater in the CF group during walking.

Authors' conclusions

Unilateral backpack wearing affects FVC in children with CF and requires greater cardio-respiratory adjustments compared to healthy peers.

<http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/712/CN-00448712/frame.html>

See also

Physiotherapy Theory Practice YR: 1997 VL: 13 DE: RCT NO: 2

Keywords

non pharmacological intervention - psyc-soc-edu-org; Behavioural interventions;