primary studies - published RCT

Strength vs aerobic training in children with cystic fibrosis: a randomized controlled trial.

Code: PM15486384 **Year:** 2004 **Date:** 2004 **Author:** Orenstein DM

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

1-year randomized clinical trial.

Participants

67 patients with CF, aged 8 to 18 years

Interventions

Participants in both exercise conditions were encouraged to exercise at least three times per week for 1 year. Each child in the aerobic group was given a stair-stepping machine, and each child in the upper-body strength training group was given an upper-body-only weight-resistance machine. Counselors conducted in-home visits with the participants once per week for the first 8 weeks followed by monthly visits for the remainder of the study

Outcome measures

Aerobic fitness, pulmonary function, quality of life, and strength were measured at baseline, at 6 months, and at 12 months.

Main results

Strength training increased the maximum weight lifted for biceps curls significantly more than aerobic training (p

Authors' conclusions

We concluded that strength and aerobic training may increase upper-body strength, and that both types of training may increase PWC for children with CF. Future trials should be conducted with no-training control subjects and larger samples to increase statistical power.

http://dx.doi.org/10.1378/chest.126.4.1204

See also

Chest. 2004 Oct;126(4):1204-14.

Keywords

Adolescent; Child; exercise; non pharmacological intervention - devices OR physiotherapy; training; Home; Aerobic training; Chest physiotherapy; strength training;