Other Reviews - - Other Review

Physical Training and Pulmonary Rehabilitation in Patients with Cystic Fibrosis: A Systematic Review and Meta-Analysis of Clinical Trials.

Code: PM40868633 **Year:** 2025 **Date:** **Author:** Murillo SR

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

Systematic review and meta-analysis of randomized controlled trials

Participants

Patients with cystic fibrosis.

Interventions

Physical training and Pulmonary Rehabilitation

Outcome measures

Pulmonary function, exercise capacity

Main results

Twenty-three studies with a total of 800 patients with CF were included. This meta-analysis showed that pulmonary rehabilitation and physical training did not affect pulmonary function, as observed in FEV1 (SMD: 0.05; 95% CI: -0.09 to 0.20; p = 0.46) and FVC (SMD: 0.11; 95% CI: -0.04 to 0.27; p = 0.14). However, it has a discrete impact on exercise capacity, producing an increase in VO(2) max (MD: 2.74; 95% CI: 0.43 to 5.04; p = 0.02). Subgroup analyses did not yield relevant findings, and sensitivity analyses did not produce modifications in the direction or magnitude of the effect.

Authors' conclusions

The intervention evaluated in this meta-analysis does not have effects on pulmonary function but may influence exercise capacity, particularly VO(2) max. It is recommended to interpret the findings with caution due to the limited certainty of the available evidence.

http://dx.doi.org/10.3390/healthcare13162017

See also

Healthcare (Basel). 2025 Aug 15;13(16):2017. doi: 10.3390/healthcare13162017.

Keywords

adult; non pharmacological intervention - psyco-soc-edu-org; Home; non pharmacological intervention - devices OR physiotherapy; Organization; training; Infection; Respiratory Tract Diseases;