

European Respiratory Society Annual Congress 2012

Abstract Number: 1007

Publication Number: P3523

Abstract Group: 1.2. Rehabilitation and Chronic Care

Keyword 1: COPD - management **Keyword 2:** Rehabilitation **Keyword 3:** Physiotherapy care

Title: Breathing retraining in COPD: A Cochrane review

Prof. Anne 8552 Holland a.holland@alfred.org.au ^{1,2,3}, Dr. Catherine 8553 Hill catherine.hill@austin.org.au ^{3,4}, Prof. Alice 8554 Jones alice.jones.hk@gmail.com ⁷ and Prof. Christine 8555 McDonald christine.mcdonald@austin.org.au ^{3,5,6}. ¹ Physiotherapy, Alfred Health, Melbourne, VIC, Australia, 3004 ; ² Physiotherapy, La Trobe University, Melbourne, VIC, Australia, 3086 ; ³ Institute for Breathing and Sleep, Austin Health, Melbourne, VIC, Australia, 3084 ; ⁴ Physiotherapy, Austin Health, Melbourne, VIC, Australia, 3084 ; ⁵ Respiratory and Sleep Medicine, Austin Health, Melbourne, VIC, Australia, 3084 ; ⁶ Medicine, The University of Melbourne, Victoria, Australia, 3000 and ⁷ Rehabilitation Sciences, Hong Kong Polytechnic University, Hong Kong, Hong Kong .

Body: Background: Breathing retraining aims to alter respiratory muscle recruitment in order to reduce dyspnoea and improve respiratory muscle performance. Our aim was to determine whether breathing retraining is safe and beneficial for people with COPD. Method: The Cochrane Airways Group Specialised Register of trials and the PEDro database were searched to identify randomised controlled trials comparing breathing retraining to no breathing retraining or another intervention in COPD. Primary outcomes were dyspnoea, exercise capacity and quality of life; secondary outcomes were adverse events. Results: 16 studies involving 1104 participants with mean FEV1 30-51% predicted were included. Few studies reported allocation concealment, assessor blinding or intention to treat analysis. Two studies showed improvement in 6-minute walk distance after 3 months of yoga involving pranayama timed breathing techniques (mean difference 45m, 95% CI 29-61m), with similar improvements in single studies of pursed lip breathing (mean 50m) and diaphragmatic breathing (mean 35m). Effects on dyspnoea and quality of life were inconsistent. Two studies reported that addition of ventilation feedback (VFB) to exercise training did not improve dyspnoea, exercise tolerance or quality of life more than exercise training alone, and one study showed that VFB alone was less effective than exercise training for improving exercise capacity. No adverse effects were reported. Conclusion: Breathing retraining in COPD is safe and improves exercise capacity when compared to no intervention; however there are no consistent effects on dyspnoea or quality of life. Breathing retraining may not have additional benefits beyond that offered by exercise training for people with COPD.