

# Chronic Obstructive Pulmonary Disease

July 11-12, 2016 Brisbane, Australia

## The effect of including manual therapy in the management of mild chronic obstructive pulmonary disease: A randomized controlled trial

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**Background:** Chronic obstructive pulmonary disease (COPD) is a major cause of disability, hospital admission and premature death in Australia. Estimates put the number of people affected at just over half a million. While exercise capacity is a prognostic indicator in COPD, the primary source of exercise limitation is dyspnoea with an increase in chest tightness identified as one of the causes. Manual therapy (MT) increases mobility of musculoskeletal structures and has the potential to alter chest tightness. Two pilot trials that used MT in conjunction with exercise reported greater improvements in exercise capacity in the group that received MT and exercise compared to exercise alone. This presentation will report on the design and progress of a fully-powered randomized controlled trial designed to investigate the effect of MT and exercise on patients with mild COPD.

**Methods:** 202 participants with stable mild COPD, between the ages of 50 and 65 years were randomly allocated to one of two groups: Standardized exercise (Ex) or MT plus Ex (MT+Ex). Outcome measures including lung function, exercise capacity, dyspnoea levels and systemic inflammatory biomarkers were recorded at baseline, 4, 8, 16, 32 and 48 weeks.

**Results:** Preliminary analysis of results from the first group of participants show a trend towards greater increases in exercise capacity and lung function in the MT plus Ex group compared to Ex alone.

**Discussion:** Combining MT with exercise enhances exercise performance in people with mild COPD. If the increase in exercise capacity is sustained it appears to have a beneficial effect on lung function.

### Biography

Roger Mark Engel is a Senior Lecturer and Coordinator of Research in the Department of Chiropractic at Macquarie University. He is an Osteopath and Chiropractor with over 30 years of clinical experience in hospitals in Australia and South-East Asia. In 2012, he was awarded a PhD from Macquarie University for his work in the field of Chronic Respiratory Disease in particular his work on the use of manual therapy in the management of chronic obstructive pulmonary disease. He has presented the results from his research at national and international conferences in Australia, Canada, China, Indonesia, Japan, UK and USA.

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