



A. PEDro update (2 November 2020)

PEDro contains 48,845 records. In the 2 November 2020 update you will find:

- 37,879 reports of randomised controlled trials (37,083 of these trials have confirmed ratings of methodological quality using the PEDro scale)
- 10,280 reports of systematic reviews, and
- 686 reports of evidence-based clinical practice guidelines.

PEDro was updated on 2 November 2020. For latest guidelines, reviews and trials in physiotherapy visit [Evidence in your inbox](#).

B. DiTA update (2 November 2020)

DiTA contains 1,893 records. In the 2 November 2020 update you will find:

- 1,701 reports of primary studies, and
- 192 reports of systematic reviews.

DiTA was updated on 2 November 2020. For the latest primary studies and systematic reviews evaluating diagnostic tests in physiotherapy visit [Evidence in your inbox](#).

C. PEDro celebrates World COPD Day on 18 November 2020

World Chronic Obstructive Pulmonary Disease (COPD) Day is organised by the Global Initiative for Chronic Obstructive Lung Disease (GOLD) in collaboration with the World Health Organization.

COPD is a disease that causes breathlessness, chronic sputum production and cough. There are 300 million people living with COPD worldwide. This year's theme, "Living Well With COPD - Everybody, Everywhere" sends a positive message to both patients and physiotherapists that there are many ways to live well with the disease. The campaign aims to raise awareness about interventions such as pulmonary rehabilitation, physical activity, self-management and nutrition.

There is a growing amount of high-quality clinical research to guide the physiotherapy management of COPD. PEDro currently indexes over 1,300 clinical practice guidelines, systematic reviews and randomised controlled trials evaluating physiotherapy management of COPD.

You may like to read these clinical practice guidelines and systematic reviews, which provide useful direction for physiotherapists working with patients with COPD:

- Dobler CC, et al (2019). [Pharmacologic and nonpharmacologic therapies in adult patients with exacerbation of COPD: a systematic review](#). A guideline produced by the Agency for Healthcare Research and Quality, US Department of Health and Human Services
- Alison JA, et al (2017). [Australia and New Zealand pulmonary rehabilitation -- clinical practice guidelines](#). A guideline produced by the Lung Foundation Australia and the Thoracic Society of Australia and New Zealand
- Anderson B, et al (2016). [Diagnosis and management of chronic obstructive pulmonary disease \(COPD\): 10th edition](#). A guideline produced by the Institute for Clinical Systems Improvement in Minnesota USA
- Burge AT, et al. [Interventions for promoting physical activity in people with chronic obstructive pulmonary disease \(COPD\)](#). *Cochrane Database Syst Rev* 2020;Issue 4
- Chuatrakoon B, et al. [Balance impairment and effectiveness of exercise intervention in chronic obstructive pulmonary disease -- a systematic review](#). *Arch Phys Med Rehabil* 2020;101(9):1590-602
- McCarthy B, et al. [Pulmonary rehabilitation for chronic obstructive pulmonary disease](#). *Cochrane Database Syst Rev* 2015;Issue 2

To keep up-to-date with the latest trials, reviews and guidelines evaluating physiotherapy interventions for people with COPD, subscribe to the "cardiothoracics" or "chronic respiratory disease" feeds of PEDro's [Evidence in your inbox](#). Subscription is free.

D. Infographic for systematic review that found pulmonary rehabilitation can improve functional capacity and quality of life in people with pneumoconiosis

Last month we summarised the [systematic review by Zhao et al.](#) The review concluded that pulmonary rehabilitation can improve functional capacity and quality of life in people with pneumoconiosis.

Some suggestions for providing pulmonary rehabilitation for people with pneumoconiosis are included in this infographic.



A systematic review of 16 studies found that pulmonary rehabilitation can improve functional capacity and quality of life in people with pneumoconiosis (dust-related interstitial lung diseases)

Description of interventions and clinical implications

- All programs included exercise (aerobic with or without resistance training) plus health education
- Program durations ranged from 1.5 to 12 months, but long and short programs had similar benefits
- Benefits were similar whether or not respiratory muscle training or nutritional advice were incorporated
- People with pneumoconiosis should be referred to pulmonary rehabilitation

CITATION

Zhao H, et al. Pulmonary rehabilitation can improve the functional capacity and quality of life for pneumoconiosis patients: a systematic review and meta-analysis. *BioMed Res Int* 2020; (6174936):Epub ahead of print



Zhao H, et al. Pulmonary rehabilitation can improve the functional capacity and quality of life for pneumoconiosis patients: a systematic review and meta-analysis. *BioMed Res Int* 2020;(6174936):Epub

[Read more on PEDro.](#)

E. Systematic review found that Tai Chi probably improves physical and mental health in people with knee osteoarthritis

Knee osteoarthritis is a common and disabling condition. Previous reviews of Tai Chi for knee osteoarthritis have focused on physical health outcomes. This systematic review aimed to estimate the effects of Tai Chi compared to non-exercise intervention (eg, education), usual care or physiotherapy on both physical and mental health in people with knee osteoarthritis.

Searches were performed in eight databases (including PubMed, Embase and PEDro). Randomised controlled trials that involved participants with knee osteoarthritis and compared Tai Chi to non-exercise intervention (eg, education), usual care or physiotherapy were included. Key outcomes were physical and mental health. Two reviewers independently selected trials for inclusion, extracted data, and evaluated trial quality and certainty of evidence. Disagreements were resolved by discussion or arbitration from a third reviewer. Trial quality was evaluated using the Cochrane risk of bias tool. Certainty of evidence was evaluated using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach. Meta-analyses were used to calculate the standardised mean between-group difference (and its 95% confidence interval (CI)) of change from baseline to follow-up for each outcome.

16 trials (986 participants) were included in the meta-analyses. The trials were conducted in the United States (n=7 trials), China (6) and Korea (3) and recruited people with knee osteoarthritis with a mean age of 60 to 79 years. About 80% of participants were women. Three styles of Tai Chi were evaluated (Yang (n=7 trials), Sun (3), Qigong (1), unclear (5)), and treatment duration ranged from 8 to 52 weeks. Tai Chi was compared to usual care in 9 trials, education in 5 trials, and physiotherapy in 2 trials. Physical health was quantified using the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) physical function subscale in 13 trials (note: lower scores indicate better function, so a negative between-group difference indicates better physical function in the Tai Chi groups). Mental health was quantified using the 36-Item Short Form Survey (SF-36) mental component summary score in 5 trials (note: higher scores indicate better mental health, so a positive between-group difference indicates better mental health in the Tai Chi groups).

Mean physical health in the Tai Chi groups was 0.9 standard deviations lower than in the control groups (95% CI 0.7 to 1.1 lower; 13 trials; 844 participants; moderate certainty). This translates to an absolute mean lowering of 8 points (95% CI 6 to 10 lower) on the 0- to 68-point WOMAC physical function subscale compared to control (note: the baseline standard deviation from the [Osteoarthritis Initiative study](#) and guidance from the [Cochrane Handbook v6.1](#) were used to calculate this estimate).

Mean mental health in the Tai Chi groups was 0.3 standard deviations higher than in the

control groups (95% CI 0.1 to 0.5 higher; 5 trials; 409 participants; moderate certainty). This translates to an absolute mean difference of 2 points (95% CI 1 to 4) on the 0- to 100-point SF-36 mental component summary score (note: the baseline standard deviation from [Wang et al 2016](#) was used to calculate this estimate).

Tai Chi probably improves physical and mental health in people with knee osteoarthritis. The small difference in the SF-36 mental component summary score is unlikely to be clinically meaningful.

Hu L, et al. Tai Chi exercise can ameliorate physical and mental health of patients with knee osteoarthritis: systematic review and meta-analysis. *Clin Rehabil* 2020 Sep 21:Epub ahead of print

[Read more on PEDro.](#)

F. Next PEDro and DiTA updates (December 2020)

The next PEDro and DiTA updates are on Monday 7 December 2020.

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