



A. PEDro update (7 December 2020)

PEDro contains 49,161 records. In the 7 December 2020 update you will find:

- 38,076 reports of randomised controlled trials (37,326 of these trials have confirmed ratings of methodological quality using the PEDro scale)
- 10,396 reports of systematic reviews, and
- 689 reports of evidence-based clinical practice guidelines.

PEDro was updated on 7 December 2020. For latest guidelines, reviews and trials in physiotherapy visit [Evidence in your inbox](#).

B. DiTA update (7 December 2020)

DiTA contains 1,902 records. In the 7 December 2020 update you will find:

- 1,707 reports of primary studies, and
- 195 reports of systematic reviews.

DiTA was updated on 7 December 2020. For the latest primary studies and systematic reviews evaluating diagnostic tests in physiotherapy visit [Evidence in your inbox](#).

C. PEDro now contains 49,000+ reports of trials, reviews and guidelines



We are pleased to announce that PEDro has just achieved a new milestone to mark the end of this turbulent year. There are now 49,000+ reports of trials, reviews and guidelines indexed on PEDro.

D. Raters share their thoughts on the benefits of volunteering with PEDro

A unique feature of PEDro is that trials are independently assessed for quality using the PEDro scale. The total PEDro score can range from 0 to 10, with higher scores indicating better quality. These quality ratings are used to quickly guide users to trials that are more likely to be valid and to contain enough data to guide practice. You will see these ratings when you perform a PEDro search or open a PEDro Evidence in your inbox feed. In the Search Results page, trials are sorted using the total PEDro score – this means that trials with the highest scores are at the top of the list. In the Evidence in your inbox feeds, we exclude trials that score less than 5/10 and sort the remaining trials using the total PEDro score.

To make the total PEDro scores as robust as possible, each trial in PEDro is independently evaluated by two raters. If these raters disagree on any PEDro scale items, a third rater adjudicates. We currently have a team of over 100 volunteers who assist with this huge task of rating all the trials in PEDro.

We asked six of our raters to share their thoughts on what they have learnt by participating as PEDro volunteers.



Dr Fereshteh Pourkazemi (Senior Lecturer, Discipline of Physiotherapy, The University of Sydney, Australia) has been a PEDro rater since 2011, initially in a paid position while she was undertaking her doctoral studies then, more recently, as a volunteer. She has rated 1,297 trials. Fereshteh says: "This is a great opportunity to learn about the most recent evidence in your field, and to develop a greater understanding of high-quality research. If you are a

researcher, the skills you gain help you with communicating your own research findings clearly. If you are a clinician, becoming a rater helps you develop a critical lens to quickly identify good research. I also enjoy reading research published in my first language, Persian."



Dr Stephen Chan is a clinician-researcher based in Hong Kong who has rated 53 trials written in English or Chinese. His advice is: "I highly recommend becoming a volunteer PEDro rater. Some physiotherapists may hesitate because they think the time commitment may be too great. In my experience, this is not the case. It takes about 10 to 15 minutes to rate each article. As you know, many trials are published every year. It is difficult for a clinician to read all the relevant articles in

a busy work schedule. The most precious reward in my volunteering journey was to train up my critical appraisal skills and learn how to grasp the main points from an article quickly."



Associate Professor Mykola Romanyshyn has rated 139 trials written in English, Polish, Ukrainian or Russian. He is both an academic (National University of Ukraine on Physical Education and Sport and Ukrainian Catholic University, Ukraine) and senior clinician (Kyiv Regional Clinical Hospital, Ukraine). Mykola shared: “This is a great opportunity to deepen your knowledge of evidence-based practice and develop skills in critical analysis of scientific articles. Being a PEDro rater has

significantly influenced my clinical activities.” Mykola has inspired the members of the Neurological subgroup of the Ukrainian Association for Physical Therapy to get involved with PEDro. Together they have produced the [Ukrainian translation](#) of the PEDro website.



Carlos Maximiliano Sánchez Medina started his involvement with PEDro as a visiting intern in 2018. Since then he has rated 139 trials written in English or Spanish. Carlos now works as a clinician-researcher in the Physiotherapy Research Unit of National Autonomous University of Mexico (Mexico). Carlos says: “I recommend becoming a volunteer PEDro rater because it is an opportunity to facilitate evidence-based practice for physiotherapists around the world. I learnt

how to use the PEDro scale and I improved my ability to critically appraise the scientific literature. I enjoy being a PEDro rater because I feel that I can contribute to improving the quality of physiotherapy.”



Assistant Professor Gul Oznur Karabicak (Adnan Menderes University Faculty of Health Sciences, Turkey) has rated 124 trials written in English or Turkish. She shared: “In working life, it is not easy to devote time to reading on topics outside your field of study. Being a PEDro rater gives me this opportunity. Reading a variety of articles outside of my field improves my creativity in my work area. You get to meet new researchers and discover new ideas. Additionally, I am so pleased to feel that I am helping to improve PEDro.”



Robyn Porep has rated 291 trials for PEDro since 2012. She is a rehabilitation physiotherapist at Baringa Private Hospital (Australia) who has volunteered extensively for Mercy Ships Australia, a charity providing essential medical care in West Africa. Robyn reflects: “The wide range of topics fascinates me. Just in the last few months, I have read about nerve flossing, taping, vibration on trigger points, exercise for cancer patients, low-level

laser treatment and adhesive capsulitis of the shoulder following a pacemaker implant. Volunteering for PEDro lets me give back something to the profession that I have belonged to and loved for the past 40 years. Physiotherapy is a great career and I want it to stay professional and dependable for our patients and those physiotherapists coming after me. For that to happen we need evidence-based practice.”

PEDro is always looking for volunteers to help us locate and rate trials. To become a volunteer rater, you need to complete the PEDro scale training program, [available online](#). If you think you might like to assist in this way, please [contact us](#). You can be a volunteer from anywhere in the world.

We are particularly looking for bilingual physiotherapists who could help us rate trials that are written in Chinese, Danish, Finnish, Persian, Serbian, Slovak, Hebrew and Greek.

E. PEDro website is now available in Ukrainian, Polish and Romanian

We are excited to announce that the PEDro website is now available in Ukrainian, Polish and Romanian.

This enhancement means that PEDro has 16 language sections: English, simplified Chinese, traditional Chinese, Portuguese, German, French, Spanish, Italian, Japanese, Korean, Turkish, Tamil, Arabic, Ukrainian, Polish and Romanian. Users can select their preferred language with the language selector in the header.

Producing the Ukrainian, Polish and Romanian sections of the PEDro website has been a real team effort. We are grateful to the following people who helped with translation: Vladyslav Talalaiev, Petro Skobliak, Yaroslav Sybiriakin and Mykola Romanyshyn from the Neurological Subgroup of the Ukrainian Association of Physical Therapy (Ukrainian); Maciej Płaszewski from Józef Piłsudski University of Physical Education with Zbigniew Wroński and Weronika Krzepkowska from the Polish Chamber of Physiotherapists (Polish); and OMTRO – Orthopedic Manual Therapy Romania Association (Romanian).

We invite all physiotherapists whose primary language is Ukrainian, Polish or Romanian to visit the PEDro website at pedro.org.au.

You can use the PEDro website to SEARCH for research articles that answer your clinical questions, BROWSE the latest research in your area of interest, LEARN more about using PEDro and skills for evidence-based practice, access useful RESOURCES, or find out more ABOUT this invaluable global resource.

PEDro has three search pages (Advanced, Simple and Consumer). We strongly encourage health professionals to use the Advanced Search. This is why the SEARCH buttons in the header, footer and PEDro navigation wheel take you directly to the Advanced Search page. The Advanced Search page contains 13 fields to define search terms with precision. Those who are new to searching may like to begin with the Simple Search, which contains a single text field. Patients and other users of physiotherapy can access the Consumer Search, which has less technical language. You can click through to the Simple and Consumer search pages from the PEDro Advanced Search page.

The BROWSE page gives you access to the latest Evidence in your inbox monthly feeds. This is a curated collection of recent trials, reviews and guidelines grouped by 15 areas of clinical practice. Scroll down to subscribe to PEDro's Evidence in your inbox. The latest research will be emailed to you each time PEDro is updated. Subscription is free.

The LEARN page gives you access to tutorials, frequently asked questions, search help, PEDro statistics, indexing criteria and codes, the PEDro Top 20 Trials (available in the

English, Portuguese and Spanish sections), World-Wide Journal Club (only available in the English section), and the latest news (available in the English and Portuguese sections). For tips on PEDro searching using the Advanced Search page we suggest you visit the search help page and watch the 'How to perform a PEDro advanced search' video. The World-Wide Journal Club page includes instructions and materials to facilitate the translation of research findings into clinical practice.

The RESOURCES page includes tools to help you use PEDro and implement evidence-based practice. These are the PEDro scale, confidence interval calculator, filters for referencing software, useful links, publications about PEDro (only available in the English section), systematic review summaries published in the British Journal of Sports Medicine (only available in the English section), newsletter archive (available in the English and Portuguese sections) and press release archive (only available in the English section).

To find out more about the team and organisations behind PEDro visit the ABOUT page.

F. Infographic for systematic review that found Tai Chi probably improves physical and mental health in people with knee osteoarthritis

Last month we summarised the [systematic review by Hu et al.](#) The review concluded that Tai Chi can improve physical and mental health in people with knee osteoarthritis.

Some suggestions for providing Tai Chi for people with knee osteoarthritis are included in this infographic.



A systematic review of 16 trials found low-to-moderate evidence that Tai Chi exercise improves physical function and mental health in older adults with knee osteoarthritis

Participants

- Aged 60 to 79 years
- 80% female

Programs

- 8-52 weeks in duration, 30-60 minutes/session, 2-4 sessions/week
- Compared to either usual care, education, or physiotherapy

CITATION

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



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.](#)

G. Systematic review found that electromechanical- or robot-assisted training increases the likelihood of independent walking after stroke

Improving walking is one of the main goals of rehabilitation after stroke. Electromechanical or robotic devices allow people with stroke with impaired walking to participate in intensive, high repetition, walking practice. This systematic review aimed to estimate the effects of electromechanical- or robot-assisted gait training and normal care compared to normal care alone on the ability to walk independently in people with stroke.

Guided by a protocol, sensitive searches were conducted in 11 databases (including Cochrane CENTRAL, Medline, Embase and PEDro) and two trial registers to identify randomised controlled trials in adults with stroke evaluating electromechanical- or robot-assisted gait training. Stroke could be clinically diagnosed and of any severity, stage or

setting. Trials could evaluate any electromechanical or robotic device that enable repetitive walking practice. These are broadly classified into end-effector (where the participants feet are placed on footplates that are moved to simulate walking) or exoskeleton (where a frame is attached to the body segments which move the knees and hips to simulate walking). The Gait Trainer GT and Haptic Walker are examples of end-effector devices. The Lokomat is an example of an exoskeleton device. The comparison for all trials was electromechanical- or robotic-assisted training plus normal care versus normal care alone. Normal care involved over-ground gait training and exercise with a physiotherapist. The primary outcome was the proportion of participants walking independently. Walking independence could be assessed using the Functional Ambulation Category (score 4 or 5), Barthel Index ambulation item (score 3), Functional Independence Measure walking item (score 6 or 7) or Rivermead Mobility Index ('walking inside, with an aid if necessary' or 'walking on uneven ground' item score 'yes'). We decided to report one secondary outcome, walking speed, in this summary because we think it is of interest to people with stroke and clinicians. Two reviewers independently selected trials for inclusion, extracted data and evaluated trial quality. Disagreements were resolved by discussion or arbitration from a third reviewer. Trial methodology was evaluated using the Cochrane risk of bias tool and certainty of evidence was evaluated using the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) approach. Meta-analysis was used to calculate the odds ratio and its 95% confidence interval (CI) for the ability to walk independently.

62 trials (2,440 participants) were included in the meta-analyses. Participants were aged 47 to 76 years, on average, and about 65% were men. Electromechanical- or robotic-assisted training commonly involved sessions of 30 to 60 minutes in duration on 3 to 5 days/week for 3 to 4 weeks. 24 trials recruited people 3 months or less and 16 recruited people > 3 months post stroke. 40 trials recruited only independent walkers, 18 recruited only dependent walkers, and 4 a mix of independent and dependent walkers. 41 trials used an exoskeleton device and 14 an end-effector device (7 trials could not be categorised as exoskeleton or end-effector).

Electromechanical- or robot-assisted gait training in combination with physiotherapy increased the odds of participants becoming independent in walking by 2.14 (95% CI 1.57 to 2.92; 38 trials; 1,567 participants; high-certainty evidence) and increased walking speed by a mean of 0.06 m/sec (95% CI 0.02 to 0.10; 42 trials; 1,600 participants; low certainty evidence) compared to physiotherapy alone at the end of the intervention phase.

Electromechanical- or robotic-assisted training in combination with physiotherapy increases the chance of regaining independent walking ability after stroke. If 100 people with stroke who could not walk independently received electromechanical- or robotic-assisted training and physiotherapy, about 62 would be able to walk independently at the end of the intervention period compared to 45 in the group receiving physiotherapy alone.

Mehrholtz J, et al. Electromechanical-assisted training for walking after stroke. *Cochrane Database Syst Rev* 2020;Issue 10

[Read more on PEDro.](#)

H. Support for PEDro comes from the Motor Accident Insurance Commission and Chartered Society of Physiotherapy

We thank [Motor Accident Insurance Commission](#) and [Chartered Society of Physiotherapy](#) who have just renewed their partnership with PEDro for another year.

I. Next PEDro and DiTA updates (January 2021)

The next PEDro and DiTA updates are on Monday 11 January 2021.

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