PEDro Newsletter 3 February 2020

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PEDro

Physiotherapy Evidence Database

A. PEDro update (3 February 2020)

PEDro contains 45,973 records. In the 3 February 2020 update you will find:

- 35,826 reports of randomised controlled trials (34,970 of these trials have confirmed ratings of methodological quality using the PEDro scale)
- 9,478 reports of systematic reviews, and
- 669 reports of evidence-based clinical practice guidelines.

PEDro was updated on 3 February 2020. For latest guidelines, reviews and trials in physiotherapy visit *Evidence in your inbox*.

B. DiTA update (3 February 2020)

DiTA contains 1,563 records. In the 3 February 2020 update you will find:

- 1,409 reports of primary studies, and
- 154 reports of systematic reviews.

DiTA was updated on 3 February 2020. For the latest primary studies and systematic reviews evaluating diagnostic tests in physiotherapy visit *Evidence in your inbox*.

C. PEDro celebrates World Cancer Day on 4 February 2020

4 February 2020 is World Cancer Day. Created in 2000, World Cancer Day has grown into a positive movement to raise awareness for cancer prevention and treatment world wide. This year's theme, I Am And I Will, emphasises the key role individuals and organisations play in taking positive actions to reduce the number of premature deaths from cancer.

Enhancing the knowledge and skills of healthcare workers is a powerful way to deliver quality cancer care. PEDro featured the results of three important systematic reviews in recent years:

1. Exercise reduces cancer-related fatigue, including an infographic.
2. Exercise after curative treatment for breast cancer might reduce mortality.
3. Exercise therapy improves functional capacity and reduces disability in individuals with chronic disease, including cancer.

PEDro indexes a large quanta (2,200+ articles) of high-quality clinical research about the effects of exercise and other physiotherapy interventions for people with cancer. We recommend you use the PEDro Advanced search to acquire research articles to answer your clinical questions. Selecting the 'Oncology' code in the 'Subdiscipline' field is an easy way to define the patient group.

Improving the skills of healthcare workers to deliver these evidence-based programs is vital. In 2019 PEDro featured the work of Lou James and PINC & STEEL International, a pioneer in online and in-person training for physiotherapists.

PEDro can help you stay up to date with the latest developments in the physiotherapy treatment of cancer through the *Evidence in your inbox* feed dedicated to oncology. This monthly update features clinical practice guidelines, systematic reviews, and randomised controlled trials evaluating the effectiveness of physiotherapy interventions for people with cancer. The February 2020 feed contained 23 articles. Subscription is free.

D. Podcasts now available for the PEDro Top 5 Trials from 2014-2019

Last year we announced the PEDro Top 5 Trials from 2014-2019. The trials were nominated by PEDro users, and an independent panel of international trialists judged the nominations received.

PEDro has partnered with PT Pintcast to produce podcasts with the lead authors of the PEDro Top 5 Trials. The next podcast is now available!

[Exercises to improve function of the rheumatoid hand (SARAH): a randomised controlled trial]
Lamb SE, Williamson EM, Heine PJ, Adams J, Dosanjh S, Dritsaki M, Glover MJ, Lord J, McConkey C, Nichols V, Rahman A, Underwood M, Williams MA, on behalf of the Strengthening and Stretching for Rheumatoid Arthritis of the Hand Trial (SARAH) Trial Team
Lancet 2015 Jan 31;385(9966):421-429

Many thanks to Jimmy McKay and the team from PT Pintcast for producing these podcasts. We are looking forward to hearing from the authors of the LIPPSMAck POP trial soon.

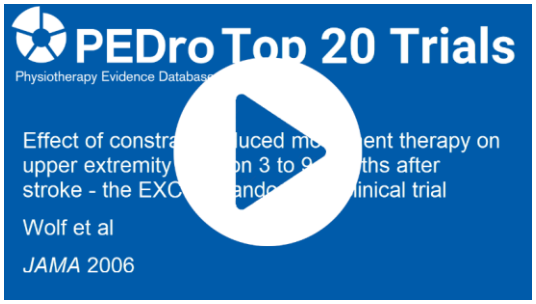
Congratulations once again to the teams who produced the PEDro Top 5 Trials. Your contributions to physiotherapy are highly valued and appreciated.

E. Videos for the PEDro Top 20 Trials

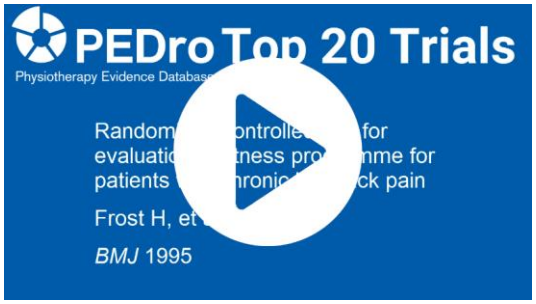
Back in 2014 when PEDro was celebrating its 15th anniversary we decided to identify the15 most important physiotherapy trials. We added 5 more trials to this list to celebratePEDro's 20th anniversary in 2019. Collectively these trials will be called the PEDro Top 20 Trials.

We have made short videos to summarise 14 of the trials.

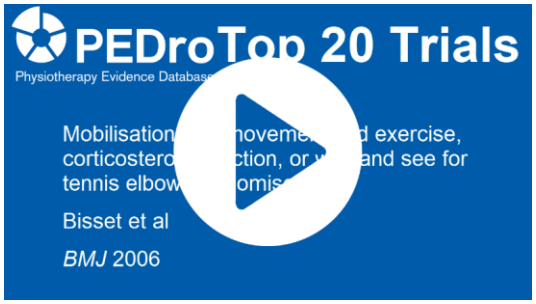
We have produced videos for three more of the PEDro Top 20 Trials.



[Effect of constraint-induced movement therapy on upper extremity function 3 to 9 months after stroke: the EXCITE randomized clinical trial]
Wolf SL, Winstein CJ, Miller JP, Taub E, Uswatte G, Morris D, Giuliani C, Light KE, Nichols-Larsen D, for the EXCITE Investigators
JAMA 2006 Nov 1;296(17):2095-2104



[Randomised controlled trial for evaluation of fitness programme for patients with chronic low back pain]
Frost H, Klaber Moffett JA, Moser JS, Fairbank JC
BMJ 1995;310(6973):151-4



[Mobilisation with movement and exercise, corticosteroid injection, or wait and see for tennis elbow: randomised trial]
Bisset L, Beller E, Jull G, Brooks P, Darnell R, Vicenzino B
BMJ 2006;333(7575):939-44

F. Most commonly accessed articles in PEDro in 2019

In 2019, [PEDro answered more than 3,000,000 questions]. That means a new search was performed every 10 seconds, on average.

Although PEDro contains more randomised controlled trials than systematic reviews and practice guidelines, the most commonly accessed articles by PEDro users were reviews and guidelines. This means that many physiotherapists are using the best research methods to guide their practice. Using guidelines and reviews is also efficient because both methods synthesise the results of all available trials and, for guidelines, reviews on physiotherapy interventions for specific health conditions.

The top 10 articles accessed in PEDro during 2019 were:

1. Qaseem A, et al. Noninvasive treatments for acute, subacute, and chronic low back pain: a clinical practice guideline from the American College of Physicians. *Ann Intern Med* 2017;166(7):514-30. Read more on PEDro.
2. Delitto A, et al. Low back pain clinical practice guidelines linked to the International Classification of Functioning, Disability, and Health from the Orthopaedic Section of the American Physical Therapy Association. *J Orthop Sports Phys Ther*2012;42(4):A1-57. Read more on PEDro.
3. Hunter D, et al. Guideline for the management of knee and hip osteoarthritis (second edition). Read more on PEDro.
4. Diercks R, et al. Guideline for diagnosis and treatment of subacromial pain syndrome: a multidisciplinary review by the Dutch Orthopaedic Association. *Acta Orthop* 2014;85(3):314-22. Read more on PEDro.

5. Thorson D, et al. Adult acute and subacute low back pain: sixteenth edition. 2018. Read more on PEDro.
6. Stochkendahl MJ, et al. National clinical guidelines for non-surgical treatment of patients with recent onset low back pain or lumbar radiculopathy. *Eur Spine J*2018;27(1):60-75. Read more on PEDro.
7. Logerstedt DS, et al. Knee stability and movement coordination impairments: knee ligament sprain. *J Orthop Sports Phys Ther* 2010;40(4):A1-37. Read more on PEDro.
8. Low Back Pain Working Group. Evidence-informed primary care management of low back pain. 2017. Read more on PEDro.
9. Geneen LJ, et al. Physical activity and exercise for chronic pain in adults: an overview of Cochrane Reviews. *Cochrane Database Syst Rev* 2017;Issue 4. Read more on PEDro.
10. Mehl J, et al. Evidence-based concepts for prevention of knee and ACL injuries. 2017 guidelines of the ligament committee of the German Knee Society (DKG). *Arch Orthop Trauma Surg* 2018;138(1):51-61. Read more on PEDro.

G. PEDro's how to videos have 150,000+ views

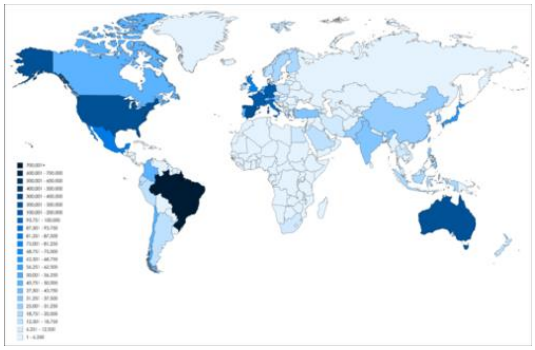
We are pleased to announce that the PEDro YouTube Channel has reached a new milestone! There have been over 150,000 views of PEDro instructional and promotional videos so far!

The PEDro YouTube Channel currently contains 93 videos, and is growing steadily. We welcome your suggestions for future video content, please let us know if you have any ideas for instructional videos you would like to see created.

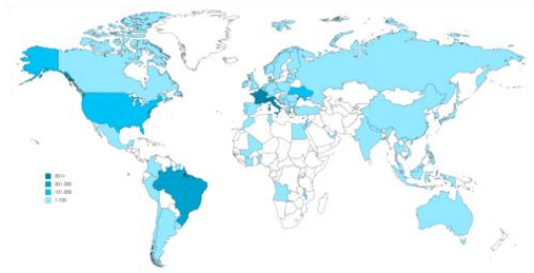
For guidance on enhancing your PEDro searching skills, we suggest watching the 'How to optimise PEDro searching'. The tutorial will help you get the most useful results when searching for high-quality research to answer your clinical question. This video is also available in German, Spanish, Italian, French, Japanese, Portuguese, and Tamil.

For more PEDro 'how to' videos please visit the PEDro YouTube Channel.

H. Who used PEDro and DiTA in 2019?



In 2019 PEDro answered over 3-million questions posed by users from 216 countries. The countries with the highest PEDro usage were Brazil (26%), United States of America (8%), Spain (8%), Australia (7%), and France (5%). This heat map illustrates the global distribution of PEDro searches during 2019.



The DiTA (Diagnostic Test Accuracy) search was launched in late 2019, and we have usage statistics available for December 2019. In 1-month DiTA answered 1,695 questions posed by users from 74 countries. The countries with the highest DiTA usage were Italy (22%), France (20%), Brazil (18%), United States of America (8%), and Ukraine (6%). This heat map illustrates the global distribution of DiTA searches in December 2019.

I. Thank you to PEDro volunteers and staff during 2019

PEDro received assistance from a large number of volunteers during 2019. These physiotherapists have donated time and skills to confirm that articles are eligible for indexing in PEDro, apply search codes, an rate trials indexed in PEDro using the PEDro scale. We extend a big vote of thanks to: Andrea Gardoni, Anne Jahn, Antonella Daugenti, Athilas Braga, Benjamin Bowtell, Bernadine Teng, Brett Althorpe, Carlos Sanchez Medina, Cecilia Bagnoli, Charlotte Torp, Ciara Harris, Claudia Koeckritz, Claudia Sarno, Claudio Cordani, Connie Jensen, Crystian Oliveira, David Fernandez Hernando, Diego Poddighe, Elisa Ravizzotti, Elisabetta Bravini, Emilie Brussat, Emily Dunlap, Emre Ilhan, Eurose Majadas, Eva Uršej, Fereshteh Pourakzemi, Gabriel Farhat, Gessica Tondini, Guloznur Karabicak, Harry Truong, Hopin Lee, Ilkim Karakaya, Ivan Jurak, Jiaqi Zhang, Jon Rivero, Jonathan Wray, Joshua Zadro, Juliana Fernandes, Julio Fernandes de Jesus, Junior Vitorino Fandim, Kamil Adamiec, Kathrin Fiedler, Laura Crowe-Owen, Laura Daly, Leonardo Piano, Lorenzo Schiocchetto, Manuela Besomi, Marco Bordino, Marco Bravi, Maria Letizia Zuccotti, Maria Natividad Seisdedos Nunez, Maribeth Gelisanga, Mathew Smith, Matteo Gaucci, Matteo Locatelli, Mia Boye Nyvang, Michelle Liu, Michelle Lobo, Mykola Romanyshyn, Nicola Ferri, Nicolas Ferrara, Paoline Li, Pedro Andreo, Peng Cai, Riccardo Guarise, Robyn Porep, Rodrigo Cappato, Sacha Bossina, Simon Olivotto, Stacey

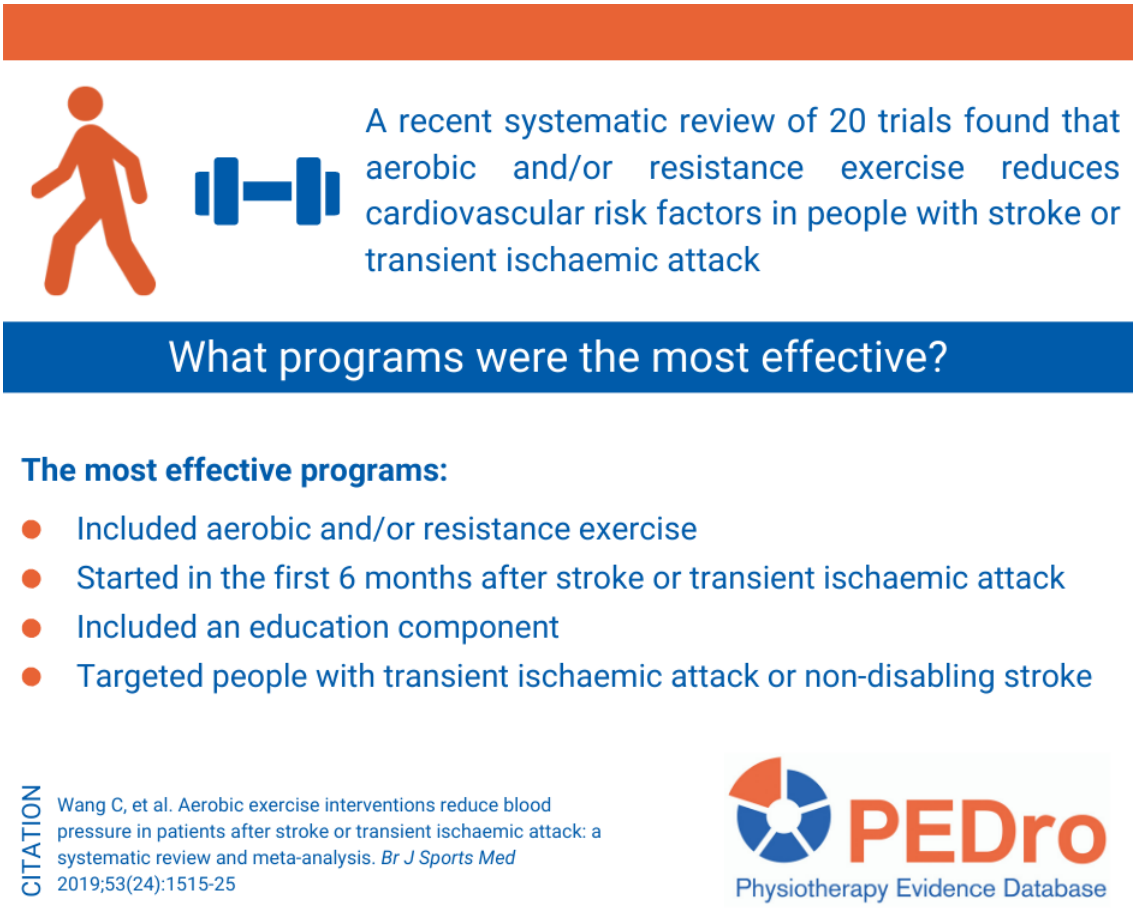
Cubitt, Stefan Liebsch, Stefano Berrone, Stefano Vercelli, Stephen Chan, Tiziano Innocenti, Uwe Eggerickx, Vladyslav Talalaiev, Winifried Backhaus, Yaroslav Sybiriankin, Ye Tao Xu, and Zoe Russell.

Several staff are employed to develop and maintain PEDro. The staff for 2019 include: Anne Moseley (Manager); Alla Melman (Research Officer); Courtney West (Administration); Giovanni Ferreira, Johnny Kang, Jooeun Song, Julia Scott, Nina Wang, Sweekriti Sharma, Theresa Ford, and Yen-Ning Lin (PEDro raters).

J. Infographic for systematic review that found that aerobic and/or resistance exercise reduces cardiovascular risk factors in people with stroke or transient ischaemic attack

Last month we summarised the Wang et al systematic review. The review concluded that aerobic and/or resistance exercise reduces cardiovascular risk factors in people with stroke or transient ischaemic attack.

Some suggestions for providing the most effective programs are in this infographic.



Wang C, et al. Aerobic exercise interventions reduce blood pressure in patients after stroke or transient ischaemic attack: a systematic review and meta-analysis. *Br J Sports Med*2019;53(24):1515-25.

Read more on PEDro.

K. Systematic review found that exercise reduces the rate of falls in people 60 years and older living in the community

Falls occur in one third of community-dwelling individuals who are more than 65 year of age. Falls can cause serious injuries, and the rate of injuries increase as individuals get older. The aim of this systematic review was to assess the effects of exercise interventions for preventing falls in older people living in the community when compared with a usual care or attention control.

The review included randomised controlled trials that evaluated the effects of exercise interventions compared to usual care or attention control in community-dwelling individuals 60 years of age and older. Exercise programs were classified using the Prevention of Falls Network Europe (ProFaNE) taxonomy (balance and functional exercises, resistance exercises, flexibility, three-dimensional exercise, walking programmes, endurance, other). The review defined community-dwelling individuals as those living at home or in residences where they do not provide residential health-related care or rehabilitation. The review excluded trials that only included individuals with clinical conditions known to increase the risk of falls, such as Parkinson's disease, multiple sclerosis, and dementia. The main outcome for this review was the rate of falls. Risk of bias for all eligible trials was assessed using Cochrane's risk of bias tool. The certainty of evidence was judged using the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) approach.

The review included 108 randomised controlled trials, conducted in 25 countries, involving 23,407 participants. 77% of the participants in these trials were women and the average age was 76 years. Overall, there was high-certainty evidence that exercise reduced the rate of falls by 23% when compared to control (rate ratio 0.77, 95% confidence interval (CI) 0.71 to 0.83, 59 trials, 12,981 participants). Certain exercise types reduced the rate of falls more than others when compared to control, there was: high-certainty evidence for interventions that mainly focussed on balance and functional tasks (rate ratio 0.76, 95% CI 0.70 to 0.81, 39 trials, 7,920 participants); moderate-certainty evidence for balance and functional exercises with resistance exercises (rate ratio 0.66, 95% CI 0.50 to 0.88, 11 trials, 1,374 participants); and, low-certainty evidence for three-dimensional exercise (Tai Chi or similar) (rate ratio 0.81, 95% CI 0.67 to 0.99, 7 trials, 2,655 participants).

Subgroup analyses showed that there was little difference in the effect of exercise on the rate of falling when:

1. trials included participants at increased baseline risk of falling compared to trials that did not (rate ratio 0.80, 95% CI 0.72 to 0.88 versus 0.74, 95% CI 0.65 to 0.84)
2. trials that only included participants 75 years of age and older compared to trials of participants less than 75 years of age (rate ratio 0.83, 95% CI 0.72 to 0.97 versus 0.75, 95% CI 0.69 to 0.82)
3. trials where the exercise intervention was delivered in a group setting compared to individually delivered exercise (rate ratio 0.76, 95% CI 0.69 to 0.85 versus 0.79, 95% CI 0.71 to 0.88).
4. Exercise interventions led by health professionals (such as a physiotherapist) resulted in a greater reduction in the rate of falls compared to those led by non-health professionals (such as a trained fitness leader), although both still resulted in a reduction in rate of falls (rate ratio 0.69, 95% CI 0.61 to 0.79 versus 0.82, 95% CI 0.75 to 0.90).

There is high-certainty evidence that exercise interventions reduce the rate of falls by 23% in community dwelling individuals aged over 60 years of age compared to control. If there were 850 falls in 1,000 people followed over 1 year, exercise would result in 195 fewer falls (95% CI 144 to 246). Exercise interventions that primarily focus on balance and functional activities can reduce the rate of falls. Exercise led by health professionals result in a greater reduction in the rate of falls.

Sherrington C et al. Exercise for preventing falls in older people living in the community: an abridged Cochrane systematic review. *Br J Sports Med* 2019 Dec 2:Epub ahead of print

Read more on PEDro.

L. Next PEDro and DiTA updates (March 2020)

The next PEDro and DiTA updates are on Monday 2 March 2020.
