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A. PEDro update (2 December 2019)

PEDro contains 45,451 records. In the 2 December 2019 update you will find:

- 35,465 reports of randomised controlled trials (34,643 of these trials have confirmed ratings of methodological quality using the PEDro scale)
- 9,318 reports of systematic reviews, and
- 668 reports of evidence-based clinical practice guidelines

PEDro was updated on 2 December 2019. For latest guidelines, reviews and trials in physiotherapy visit [Evidence in your inbox](#).

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

Last month 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 first two podcasts are now available!



[Hip arthroscopy versus best conservative care for the treatment of femoroacetabular impingement syndrome \(UK FASHIoN\): a multicentre randomised controlled trial](#)

Griffin DR, Dickenson EJ, Wall PDH, Achana F, Donovan JL, Griffin J, Hobson R, Hutchinson CE, Jepson M, Parsons NR, Petrou S, Realpe A, Smith J, Foster NE, on behalf of the FASHIoN Study Group

Lancet 2018 Jun 2;391(10136):2225-35



[Efficacy and safety of very early mobilisation within 24 h of stroke onset \(AVERT\): a randomised controlled trial](#)

The AVERT Trial Collaboration group

Lancet 2015 Jul 4;386(9988):46-55

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 HIHO, SARAH and LIPPSMAck-POP trials in 2020.

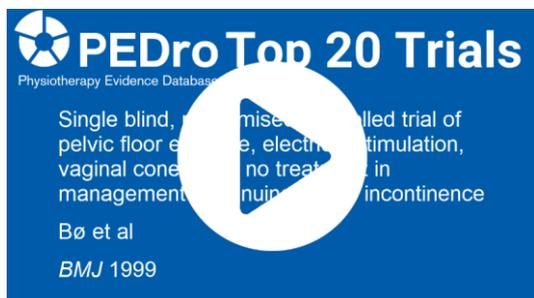
Congratulations once again to the teams who produced the PEDro Top 5 Trials. Your contributions to physiotherapy are highly valued and appreciated.

C. Revisiting the best 15 physiotherapy trials published before 2014

Back in 2014 when PEDro was celebrating its 14th anniversary we decided to identify the [15 most important physiotherapy trials](#). We added 5 more trials to this list to celebrate [PEDro's 20th anniversary in 2019](#). Collectively these trials will be called the PEDro Top 20 Trials.

In October 2019 we started revisiting the best 15 physiotherapy trials published before 2014. We made a short video to summarise the results of the [Olsen trial](#) that evaluated the effects of exercises to prevent lower limb injuries in youth sport.

We have produced videos for four more of the best 15 physiotherapy trials published before 2014.



[Single blind, randomised controlled trial of pelvic floor exercises, electrical stimulation, vaginal cones, and no treatment in management of genuine stress incontinence in women](#)

Bo K, Talseth T, Holme I
BMJ 1999;318(7182):487-93



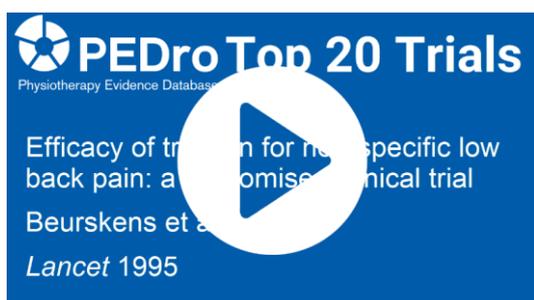
[The effectiveness of the McKenzie method in addition to first-line care for acute low back pain: a randomized controlled trial](#)

Machado LAC, Maher CG, Herbert RD, Clare H, McAuley JH
BMC Medicine 2010;8(10):Epub



[Physiotherapy for Bell's palsy](#)

Mosforth J, Taverner D
British Medical Journal 1958;2(5097):675-77



[Efficacy of traction for non-specific low back pain: a randomised clinical trial](#)

Beurskens AJ, de Vet HC, Koke AJ, Lindeman E, Regtop W, van der Heijden GJ, Knipschild PG
Lancet 1995;346(8990):1596-1600

D. Dutch PEDro workshop: how to use scientific literature in daily practice

Niek Koenders (physical therapist and PhD student at Radboudumc, Nijmegen), Ward Heij (physical therapist and PhD student at Radboudumc, Nijmegen) and Mitchell van Doormaal (physical therapist and policy advisor at the Royal Dutch Society for Physical Therapy, Amersfoort) have collaborated with PEDro to share the PEDro Top 5 Trials from 2014-2019 with Dutch physiotherapists. We thank them for sharing this description of the Dutch PEDro workshop with us.

In the context of the collaboration between PEDro and the Royal Dutch Society for Physical Therapy, we introduced the [PEDro Top 5 Trials from 2014-2019](#) to Dutch physiotherapists. Our annual conference was the perfect opportunity for this. On November 16, over 1,500 physiotherapists, researchers, teachers and other professionals attended the “Day of the Physical Therapist” (or “Dag van de Fysiotherapeut” in Dutch) at the Brabanthallen, Den Bosch. After the opening ceremony, in which Prof Dr Erik Scherder pleaded for more physical activity in the Dutch population and highlighted the key role that physiotherapists can play in increasing activity levels, the attendees could choose from 50 parallel sessions on offer at the conference.

In the afternoon, we organized two workshops on PEDro’s Top 5 Trials from 2014-2019. Our main goal was to help physiotherapists read and interpret findings from scientific literature. The items of the [PEDro scale](#) guided the reading of the article and helped participants to recognize important potential sources for bias. The physiotherapists found the PEDro scores very useful for screening methodological quality. In addition, the physiotherapists used the [Consensus on Therapeutic Exercise Training scale \(CONTENT\)](#) to assess the therapeutic validity of the exercise programs used in the trials. This helped participants to assess the dosage and type of intervention for use in daily practice. The first workshop was attended by a small group of nine practicing physiotherapists, which made personal coaching possible. The second workshop had a larger group of 23 participants (therapists, researchers, full professors, and policy staff) who were all very impressed with the work and knowledge that PEDro supports. Ultimately, all participants left the workshop with a big smile and additional skills and knowledge on how to use scientific literature in daily practice.

We will continue our journey in helping physiotherapists to use scientific literature in their daily clinical practice.



Pictured are Dutch physiotherapists evaluating the PEDro Top 5 Trials from 2014-2019 at the workshop.

E. Evidence-based practice workshop at Shanghai Sunshine Rehabilitation Center

In November 2019 and in collaboration with Prof Alice Jones (Honorary Professor at Faculty of Health Sciences, University of Sydney, and at School of Health and Rehabilitation Sciences, University of Queensland), Anne Moseley and Rob Herbert ran a workshop on how to practice and teach evidence-based practice at [Shanghai Sunshine Rehabilitation Center](#).

The workshop ran over 3 days and involved both physiotherapy educators and clinicians. It helped participants to develop knowledge and skills in all five steps of evidence-based practice. The content addressed all 68 of the core competencies for [evidence-based practice teaching](#). As the workshop focused on therapy, the competencies that relate to appraising diagnostic, prognostic, etiology and qualitative studies were not covered (ie, competencies 3.5 and 3.7-3.9).

Two additional objectives were also addressed in the workshop. First, developing strategies to teach each step of the evidence-based practice process to entry-level physiotherapy students. And second, how to incorporate teaching evidence-based practice in the curricula for entry-level physiotherapy courses.

The workshop was a great success. Anne and Rob extend their gratitude to the participants (who made the workshop an engaging and interactive experience) and to Shanghai Sunshine Rehabilitation Center (for being such gracious hosts). They also extend a special thanks to Alice for being such a dynamic translator during the workshop.



Pictured are the workshop leaders, Anne Moseley, Alice Jones and Rob Herbert, along with workshop participants at Shanghai Sunshine Rehabilitation Center.

F. You can now search and browse DiTA, a database of Diagnostic Test Accuracy in physiotherapy



The PEDro Partnership is very excited to let you know that the search and browse features are now available for [DiTA](http://www.dita.org.au). This database indexes articles evaluating the accuracy of diagnostic tests used by physiotherapists.

DiTA is designed to enable clinicians, researchers and patients to easily access information on the accuracy of diagnostic tests used by physiotherapists. DiTA is built on the same platform as PEDro. Unlike PEDro, which indexes evidence of the effects of physiotherapy interventions (randomised controlled trials, systematic reviews, and clinical practice guidelines), DiTA indexes evidence (primary studies and systematic reviews) of the accuracy of diagnostic tests relevant to physiotherapy. Like PEDro, DiTA is freely accessible to all and, we hope, as easy to use.

The DiTA web-site has three main elements: SEARCH, BROWSE, and LEARN. You can now SEARCH the DiTA database to answer a clinical question. The search operates in a similar way to PEDro's Advanced Search Page.

You can now BROWSE the latest articles indexed in DiTA. You can simply view the latest articles online or sign up to receive the most recent studies and reviews via email each time DiTA is updated. We are collecting subscriptions for [DiTA's Evidence in your inbox](#),

and the first feed will be released in January 2020.

You can LEARN more about diagnostic tests in physiotherapy by taking one of the DiTA tutorials. Two tutorials are now available: “Is this study valid?” and “How can I use evidence of diagnostic test accuracy?”.

You may be interested in reading a recent editorial published in the Journal of Physiotherapy that provides more information about DiTA:

[Kaizik MA, et al. DiTA: a database of diagnostic test accuracy studies for physiotherapists. *J Physiother* 2019;65\(3\):119-120](#)

G. #MyPTArticleOfTheMonth – PEDro’s holiday reading list

This year we called on the global physiotherapy community to commit to the #MyPTArticleOfTheMonth challenge. The challenge involved reading at least one research article each month. We’d like to thank everyone for making the commitment to the challenge. Your ability to read scientific articles will improve with practice.

If you didn’t get the chance to participate, you can use the holiday period to catch up on some important articles we shared throughout the year.

PEDro’s holiday reading list includes:

- Xia T-L, et al. [Efficacy of different types of exercise-based cardiac rehabilitation on coronary heart disease: a network meta-analysis](#). *J Gen Intern Med* 2018;33(12):2201-9
- Sexton BP, et al. [To sit or not to sit? A systematic review and meta-analysis of seated exercise for older adults](#). *Australas J Ageing* 2019;38(1):15-27
- Naci H, et al. [How does exercise treatment compare with antihypertensive medications? A network meta-analysis of 391 randomised controlled trials assessing exercise and medication effects on systolic blood pressure](#). *Br J Sports Med* 2019;53(14):859-69
- Petushek EJ, et al. [Evidence-based best-practice guidelines for preventing anterior cruciate ligament injuries in young female athletes: a systematic review and meta-analysis](#). *Am J Sports Med* 2019;47(7):1744-53
- Thompson JY, et al. [Effectiveness of scoliosis-specific exercises for adolescent idiopathic scoliosis compared with other non-surgical interventions: a systematic review and meta-analysis](#). *Physiotherapy*;105(2):214-34

- Rubinstein SM, et al. [Benefits and harms of spinal manipulative therapy for the treatment of chronic low back pain: systematic review and meta-analysis of randomised controlled trials](#). *BMJ* 2019;364:l689
- Lakke S, et al. [The added value of therapist communication on the effect of physical therapy treatment in older adults: a systematic review and meta-analysis](#). *Patient Educ Couns* 2019;102(2):253-65
- Berbenetz N, et al. [Non-invasive positive pressure ventilation \(CPAP or bilevel NPPV\) for cardiogenic pulmonary oedema](#). *Cochrane Database Syst Rev* 2019;Issue 4
- Oliveira JS, et al. [Effect of interventions using physical activity trackers on physical activity in people aged 60 years and over: a systematic review and meta-analysis](#). *Br J Sports Med* 2019 Aug 9:Epub ahead of print
- Sherrington C, et al. [Exercise for preventing falls in older people living in the community](#). *Cochrane Database Syst Rev* 2019 Jan 31;1:CD012424

H. #MyPTArticleOfTheMonth – what is Mark Hancock reading?



Mark Hancock is a professor of physiotherapy in the Faculty of Medicine and Health Sciences at Macquarie University in Sydney, Australia. He has over 20 years of clinical experience as a musculoskeletal physiotherapist working in primary care. While he now works primarily as

an academic and researcher, Mark manages to fit in some clinical work on a part-time basis. He is one of the founders of the [Diagnostic Test Accuracy database \(DiTA\)](#).

Mark's clinical practice and research focuses on the diagnosis and management of back pain. Two articles have recently caught his eye.

[Huang R, et al. Exercise alone and exercise combined with education both prevent episodes of low back pain and related absenteeism: systematic review and network meta-analysis of randomised controlled trials \(RCTs\) aimed at preventing back pain. *Br J Sports Med* 2019 Oct 31:Epub ahead of print](#)

This is the first systematic review of prevention interventions for low back pain to use a network meta-analysis approach. Forty randomised controlled trials were included in the analysis. Both exercise alone and exercise combined with education prevented low back

pain episodes and low back pain-related work absenteeism compared to standard care. Back belts, shoe insoles, ergonomic adjustment (with or without education or exercise), and education alone were not effective. Mark says: “It is reassuring to see the results of this network meta-analysis are consistent with previous systematic reviews, including the review published by our group ([Steffens et al, JAMA Intern Med 2016](#)) finding that exercise and exercise combined with education provide important reductions in the risk of future low back pain. This is an important finding for physiotherapists and suggests we should put more focus on prevention and less on treating low back pain.”

[Bråten LCH, et al. Efficacy of antibiotic treatment in patients with chronic low back pain and Modic changes \(the AIM study\): double blind, randomised, placebo controlled, multicentre trial. *BMJ* 2019;367:l5654](#)

This randomised controlled trial compared the effect of antibiotics and placebo on disability for people with chronic low back pain and Type 1 or 2 Modic changes on magnetic resonance images. It aimed to replicate a previous trial that had concluded that antibiotics were highly effective in people with chronic low back pain and Type 1 Modic changes ([Albert et al, *Eur Spine J* 2013](#)). The 2013 trial had attracted an enormous amount of international attention, with some believing it was a major breakthrough in the understanding and treatment of low back pain and others sceptical about the findings. Mark says: “This validation trial has been highly anticipated. The findings are very interesting and require careful interpretation. While the antibiotic intervention was statistically more effective than the placebo, the effect was small and the authors conclude that the intervention does not provide clinically important benefits. This will likely lead to some ongoing controversy.”

I. Tackling the language barrier to implementing research into practice: a survey of usage of the PEDro

We know that language can be a barrier to implementing research evidence into practice. Whilst the majority of the world’s population speak languages other than English, English has become the dominant language of publication for research in healthcare. PEDro content is now available in 13 languages, thanks to the translation efforts from volunteers from around the world.

A survey of usage of the PEDro was recently published in the Brazilian Journal of Physical Therapy. The aim of the study was to quantify the usage of the [PEDro web-site](#) and [training videos](#) by language, including the use of online translation, and to calculate relative usage of the different sections of the web-site.

Google Analytics was used to track usage (or pageviews) of the PEDro web-site for July 2017 to June 2018. The number of views of each of the PEDro training videos was downloaded from YouTube for January 2015 to August 2018. The pageviews and video views were categorised by language and, for pageviews, web-site section. 2,828,422 pageviews were included in the analyses. The English-language sections had the largest number of pageviews (59%), followed by Portuguese (16%), Spanish (12%), German (4%), and French (4%). Users applied online translation tools to translate selected content of the PEDro web-site into 41 languages. The PEDro training videos had been viewed 78,150 times. The three most commonly viewed languages were English (59%), Portuguese (20%), and Spanish (6%).

There was substantial use of some of the translated versions of the resources offered by PEDro. Future efforts could focus on region-specific promotion of the language resources that were underutilised in PEDro. The developers of PEDro and PEDro users can work collaboratively to facilitate uptake and translate resources into languages other than English, to reduce the language barrier in using research to guide practice.

[Melman A, et al. Tackling the language barrier to implementing research into practice: a survey of usage of the Physiotherapy Evidence Database. *Braz J Phys Ther* 2019 Nov 12:Epub ahead of print](#)

J. Infographic for systematic review that found that exercise reduces cancer-related fatigue

Last month we summarised the [van Vulpen et al systematic review](#). The review concluded that exercise reduces cancer-related fatigue.

Some suggestions for providing exercise during or following cancer treatment is this infographic.



A recent systematic review of 31 randomised controlled trials found exercise results in a small, clinically relevant reduction in cancer-related fatigue

What were the findings?

It worked:

- For all cancer sites included in the review - mainly breast, prostate, and haematological cancer
- For all patients, regardless of age, gender, treatment type, and body mass index
- During or following cancer treatment

The most effective programs were:

- Supervised
- Moderate to high intensity, 30 to 60 mins in duration, <150 mins per week
- Up to 12 weeks long, but not longer than 24 weeks

CITATION van Vulpen JK, et al. Moderators of exercise effects on cancer-related fatigue: a meta-analysis of individual patient data. *Med Sci Sports Exerc* 2019 Sep 12:Epub ahead of print



van Vulpen JK et al. Moderators of exercise effects on cancer-related fatigue: a meta-analysis of individual patient data. *Med Sci Sports Exerc* 2019 Sep 12:Epub ahead of print.

Read more on [PEDro](#).

K. Systematic review found that supervised, multifaceted lifestyle interventions reduce metabolic syndrome prevalence and risk factors in people with metabolic syndrome

The objective of this systematic review were to determine the effectiveness of lifestyle interventions on the prevalence of metabolic syndrome and on independent, modifiable

risk factors for metabolic syndrome in people with metabolic syndrome. Randomised controlled trials published in English that evaluated the effectiveness of supervised, multifaceted lifestyle interventions in people with metabolic syndrome were included. Lifestyle interventions were defined as any supervised intervention involving both diet and exercise with or without other components, such as counselling. The risk of bias of the included trials was assessed using the PEDro scale, and these were used to determine the quality of the evidence using the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) approach. Outcomes were prevalence of metabolic syndrome, risk factors for metabolic syndrome (eg, waist circumference, triglycerides, systolic blood pressure, body mass index), and quality of life. Adverse events were a secondary outcome.

15 articles reporting the results for 10 trials were included (n = 1,160 participants). Compared to usual care, there was moderate quality evidence that lifestyle interventions reduced the prevalence of metabolic syndrome (risk ratio 0.61, 95% confidence interval (CI) 0.38 to 0.96, 4 trials, 463 participants). There was moderate quality evidence that lifestyle interventions reduce waist circumference (mean difference -4.9 cm, 95% CI -8.0 to -1.7, 6 trials, 643 participants), low quality evidence that lifestyle interventions reduce triglycerides (standardised mean difference -0.46, 95% CI -0.88 to -0.04, 9 trials, 797 participants) and systolic blood pressure (mean difference -6.5 mmHg, 95% CI -10.7 to -2.3, 8 trials, 689 participants), and very low quality evidence that lifestyle interventions reduce body mass index (standardised mean difference -1.30, 95% CI -2.18 to -0.44, 9 trials, 798 participants). There was no difference for quality of life (standardised mean difference 1.68, 95% CI -0.23 to 3.58, 4 trials, 225 participants) and no trials reported adverse events.

Very low to moderate quality evidence supports the use of multifaceted, supervised lifestyle interventions to reduce the prevalence of metabolic syndrome and to reduce risk factors for this condition.

van Namen M, et al. Supervised lifestyle intervention for people with metabolic syndrome improves outcomes and reduces individual risk factors of metabolic syndrome: a systematic review and meta-analysis. *Metabolism* 2019 Oct 28:Epub ahead of print.

Read more on [PEDro](#).

L. Support for PEDro comes from Krajowa Izba Fizjoterapeutów and Macau Physical Therapists Association

We thank [Krajowa Izba Fizjoterapeutów](#) and [Macau Physical Therapists Association](#) who have just renewed their partnership with PEDro for another year.

M. Next PEDro update (January 2020)

The next PEDro update is on Monday 13 January 2020.

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