PEDro Newsletter 5 July 2021

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PEDro

Physiotherapy Evidence Database

A. PEDro update (5 July 2021)

PEDro contains 51,358 records. In the 5 July 2021 update you will find:

- 39,671 reports of randomised controlled trials (38,771 of these trials have confirmed ratings of methodological quality using the PEDro scale)
- 10,994 reports of systematic reviews, and
- 693 reports of evidence-based clinical practice guidelines.

PEDro was updated on 5 July 2021. For latest guidelines, reviews and trials in physiotherapy visit *Evidence in your inbox*.

B. DiTA update (5 July 2021)

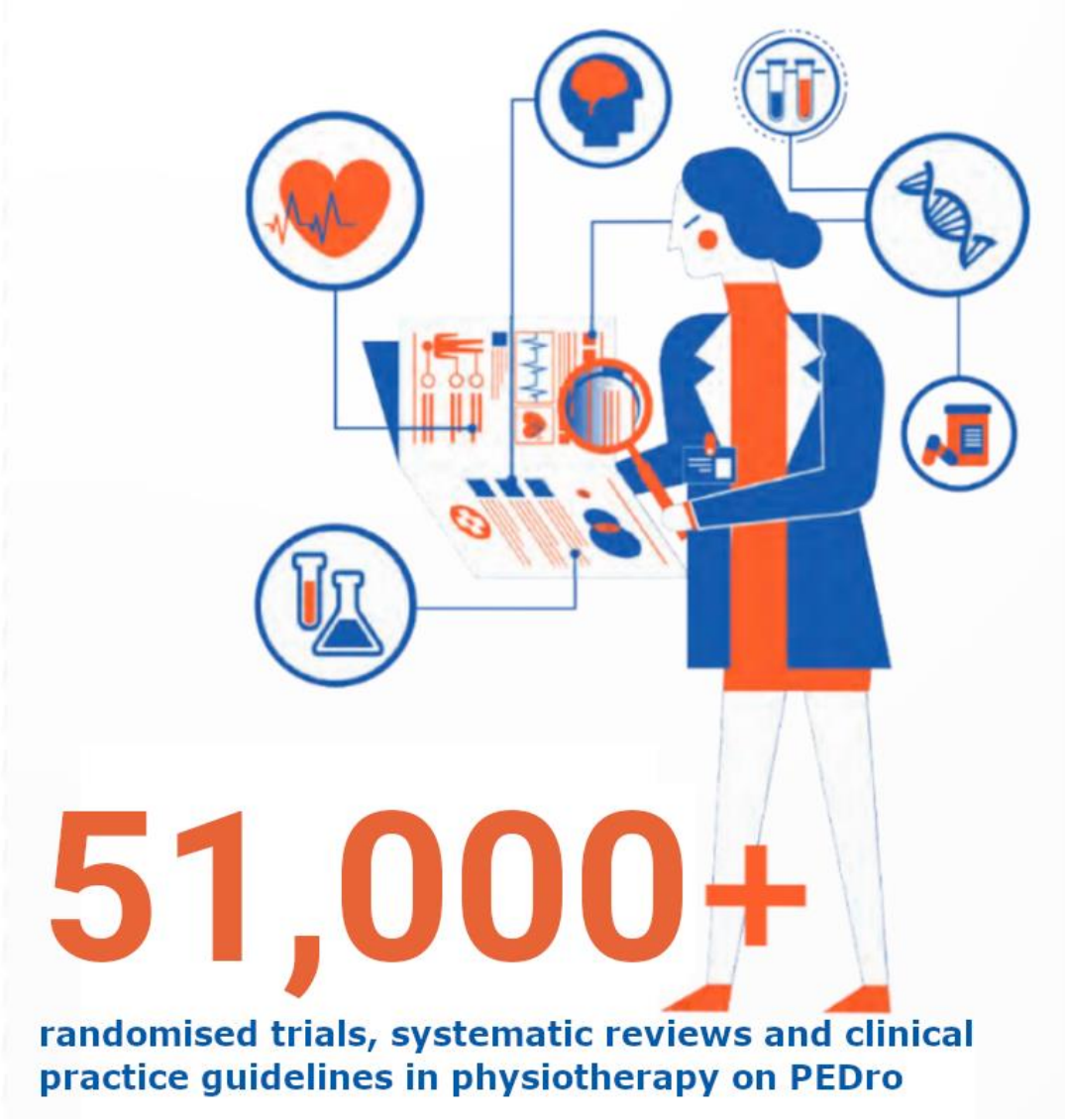
DiTA contains 2,172 records. In the 5 July 2021 update you will find:

- 1,960 reports of primary studies, and
- 212 reports of systematic reviews.

DiTA was updated on 5 July 2021. For the latest primary studies and systematic reviews evaluating diagnostic tests in physiotherapy visit *Evidence in your inbox*.

C. PEDro now contains 51,000+ reports of trials, reviews and guidelines

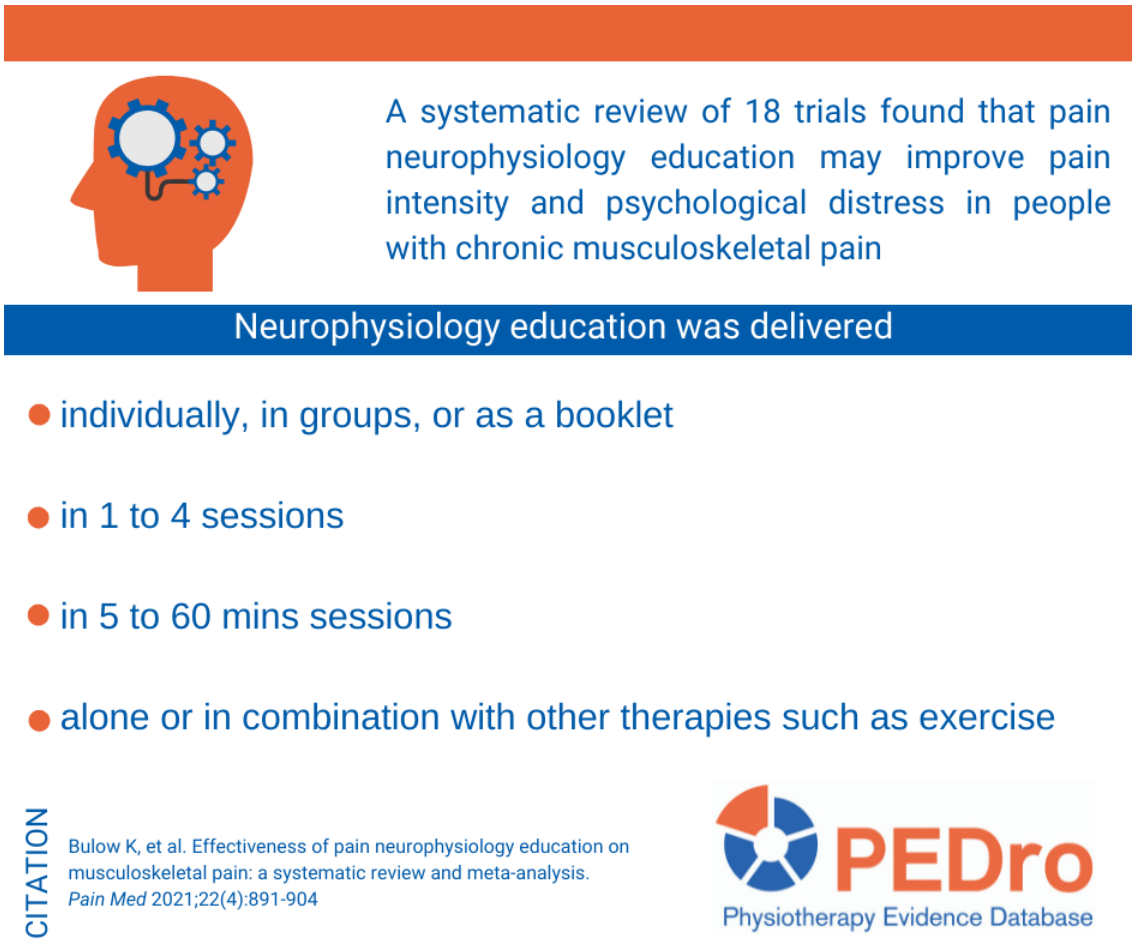
We are pleased to announce that PEDro has just achieved a new milestone. There are now 51,000+ reports of trials, reviews and guidelines indexed on PEDro.



D. Infographic for systematic review that found that pain neurophysiology education may reduce pain and psychological distress in people with chronic musculoskeletal pain

Last month we summarised the systematic review by Bulow et al. The review concluded that pain neurophysiology education may reduce pain and psychological distress in people with chronic musculoskeletal pain.

Some suggestions for providing neurophysiology education are included in this infographic.



Bulow K, et al. Effectiveness of pain neurophysiology education on musculoskeletal pain: a systematic review and meta-analysis. *Pain Med* 2021;22(4):891-904

Read more on PEDro.

E. Systematic review found that exercise-based prevention programs may reduce the risk of non-contact musculoskeletal injuries in football (soccer) players

Football (soccer) is a popular sport world-wide. Despite the health benefits of playing football, non-contact musculoskeletal injuries (eg, hamstring strain) are relatively common. Exercise-based programs have been developed to prevent injury, but previous evaluations have not differentiated between contact and non-contact injuries. This systematic review aimed to estimate the effects of exercise-based programs compared to control to prevent non-contact musculoskeletal injuries in football players.

Guided by a prospectively registered protocol, sensitive searches of six databases (including Medline, Embase and PEDro), three clinical trial registries and citation tracking were performed to identify randomised controlled trials evaluating exercise-based injury prevention programs. The participants were football players aged 13 years and older. The intervention was any exercise therapy performed to develop function, skills or physical fitness. The comparator could be usual training or warmup, minimal intervention, education or no intervention. The primary outcome was the occurrence of any acute sudden onset musculoskeletal injury that occurred without physical contact with another player or object on the field. In addition to reporting the number of non-contact injuries, included trials needed to report the number of exposure hours for each group. Two reviewers independently selected trials and extracted data. Disagreements were resolved through discussion or arbitration by a third reviewer. Risk of bias was evaluated using the PEDro scale, with scores downloaded from the PEDro database and confirmed by one reviewer. Certainty of evidence was evaluated using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach. The number of non-contact injuries and exposure hours were used to calculate the injury incidence rate per 1,000 hours and the injury risk ratio. Meta-analysis was used to compute the pooled injury risk ratio and its 95% confidence interval (CI). One pre-planned subgroup analysis was undertaken based on exercise type: focused/unimodal (exercises chosen to train and protect a specific muscle or joint) vs. generalised/multimodal (exercises that targeted many body segments) on non-contact hamstring injuries.

10 trials (13,355 participants) were included in the meta-analyses. The trials were conducted in the United States, Norway, and the Netherlands (2 trials each) and in Germany, Japan, Nigeria and Sweden (1 trial each). Only male players were included in 6 trials and only female players in 4. Most trials (7) recruited youth players and all trials included amateur players. The duration of the exercise-based program ranged from 3 to 9 months. Focused exercise was used in 3 trials (Nordic Hamstring Exercise, Bounding Exercise Program) and generalised exercise in 7 (Prevent Injury and Enhance Performance Program, FIFA 11+, FIFA 11, Knäkontroll (neuromuscular training)). All interventions were applied at least twice a week to every training session.

Exercise-based programs reduce the risk of non-contact injuries by 23% compared to control, with an injury risk ratio of 0.77 (95% CI 0.61 to 0.97; 10 trials; 13,355 participants; low certainty). The sub-group analysis revealed that focused programs were not different from generalised programs for the prevention of non-contact hamstring injuries. The injury risk ratio was 0.65 (0.44 to 0.97; 3 trials; 1,238 participants; low certainty) for focused programs and 0.63 (0.19 to 2.12; 3 trials; 2,573 participants; very low certainty) for generalised programs.

Exercise-based prevention programs may reduce the risk of non-contact musculoskeletal injuries in football players. Hamstring-focused programs did not reduce hamstring injury any more than general programs.

Lemes IR, et al. Do exercise-based prevention programmes reduce non-contact musculoskeletal injuries in football (soccer)? A systematic review and meta-analysis with 13,355 athletes and more than 1 million exposure hours. *Br J Sports Med* 2021 May 17:Epub ahead of print

Read more on PEDro.

F. Sixth video of PEDro Advanced Search for the "You Ask #PEDroAnswers" campaign

Each month in 2021 we will share short videos illustrating how to use the PEDro Advanced Search to find the best research to answer clinical questions submitted by PEDro users.

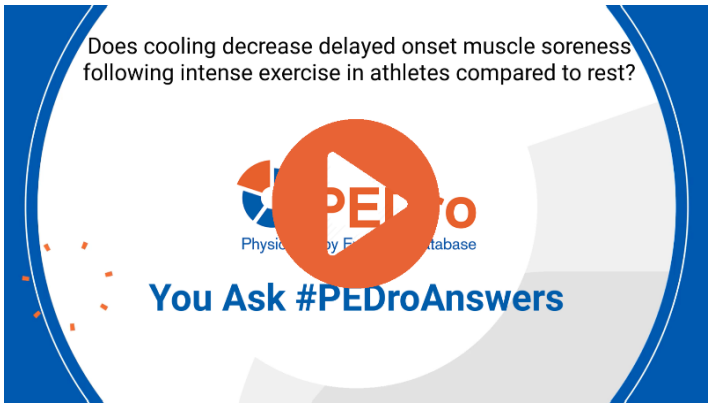
The sixth question to be answered is "Does cooling decrease delayed onset muscle soreness following intense exercise in athletes compared to rest?"

The Search terms are:

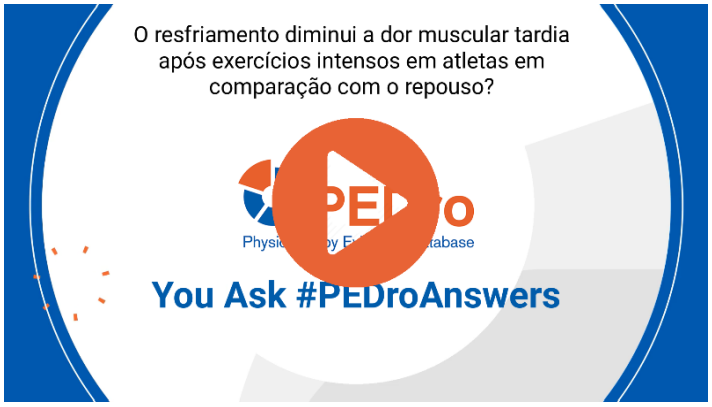
- sports (Subdiscipline)
- "muscle soreness" (Title)
- cold (Abstract & Title).

PEDro acknowledges the contributions of: Ana Helena Salles from Faculdade de Ciências Médicas de Minas Gerais, Brazil who translated and recorded the Portuguese version; and, Céline Lesage and Sébastien Matéo from the Société Française de Physiothérapie who translated and recorded the French version.

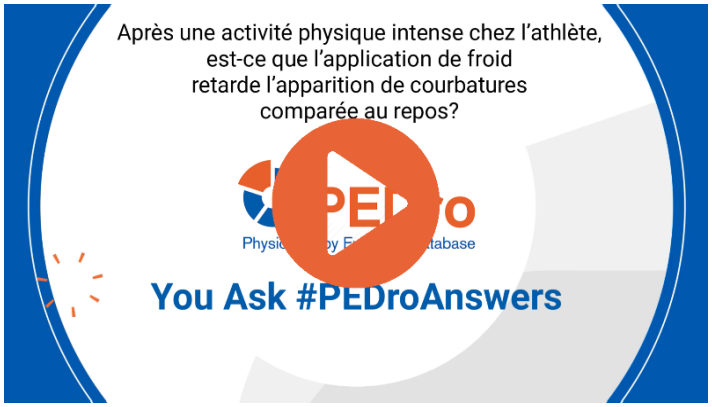
You can submit your question for the "You Ask #PEDroAnswers" campaign at https://pedro.org.au/english/learn/you-ask-pedro-answers/.



English



Portuguese



French

G. "You Ask #PEDroAnswers" search tip #6 - Don't use Boolean operators

Throughout 2021 we will be sharing some tips on how to use the PEDro Advanced Search. The sixth tip is "Don't use Boolean operators".

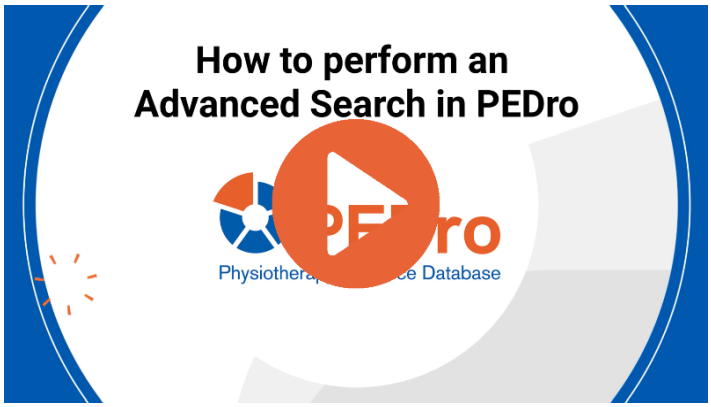
Boolean operators connect your search terms together to either narrow or broaden your results. There are three basic Boolean operators: AND, OR, and NOT. Boolean operators are useful when you are conducting a search that contains two or more terms.

If you need to narrow your results, AND is the Boolean operator you should look for. AND means all the terms you are searching for need to be present in the article. If you want to broaden your search, you should use OR instead. OR means that any search term in your strategy can be present in the article. NOT is designed to exclude words from your search by omitting any articles that contain certain terms.

Although used in other databases, you do not need to use Boolean operators to conduct a PEDro search. When you run a search using two or more terms in one of the free-text fields (eg, 'Abstract & Title'), PEDro automatically combines the terms with AND.

For example, let's think about planning a search to identify articles evaluating the effects of exercise for shoulder pain. In PEDro you can simply type the words shoulder exercise into the 'Abstract & Title' field, because PEDro will automatically combine both words with

AND. You should not use shoulder AND exercise. If you do use a search strategy that includes a Boolean operator, an error message will pop up prompting you to amend your search by removing Boolean operators from the text field.



We've recently revised the PEDro video tutorial on how to do an Advanced Search.

H. Call for questions from physiotherapy students for "You Ask #PEDroAnswers" campaign

The "You Ask #PEDroAnswers" campaign aims to encourage physiotherapists and physiotherapy students to develop their searching skills and perform more database searching to find high-quality research to inform practice. The videos produced during this campaign help physiotherapists to improve their searching skills using the PEDro Advanced Search.

This month we invite physiotherapy students to submit their clinical questions to the "You Ask #PEDroAnswers" campaign. You can submit a question using a form on the PEDro web-site, tag us in a Tweet (@PEDro_database), or on Facebook by commenting on a "You Ask #PEDroAnswers" post or by sending us your question via Messenger.

I. Support for PEDro comes from Axxon, Società Italiana di Fisioterapia, UNIFY ČR and Singapore Physiotherapy Association

We thank Axxon, Società Italiana di Fisioterapia, UNIFY ČR and Singapore Physiotherapy Association who have just renewed their partnership with PEDro for another year.

J. Next PEDro and DiTA updates (August 2021)

The next PEDro and DiTA updates are on Monday 2 August 2021.

Proudly supported by

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