

Welcome to the PEDro Newsletter for 8 April 2024

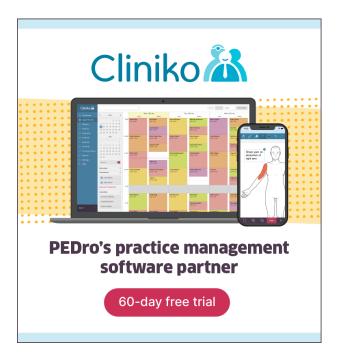
Thank you to <u>Latvijas Fizioterapeitu Asociācija</u> who have renewed their partnership with PEDro for another year.

In this issue:

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New PEDro partner!

PEDro is proud to introduce a new partner, Cliniko. Thank you for supporting PEDro!



PEDro celebrates the World Day for Physical Activity 2024

April 6 was the 22nd anniversary of the World Day for Physical Activity and this year's theme is "Have a Good Time! Be Active!".

Exercise impacts many health conditions and is fun. Inform your clinical practice with up-to-date evidence. Sign up to receive evidence delivered straight to your inbox.

Happy WHO World Health Day 2024

April 7 was the 76th anniversary of the World Health Organization and this year's theme is 'My health, my right'.

Inform your clinical practice with up-to-date evidence. Sign up to receive evidence delivered straight to your inbox.

World Day for Safety and Health at Work

A safe and healthy working environment is a fundamental principle and right at work.

April 28 is World Day for Safety and Health at Work. It promotes the prevention of occupational accidents and diseases globally.

Make sure you stay up-to-date with the latest physiotherapy evidence by subscribing to the 'Ergonomics and occupational health' *Evidence in your inbox feed*.

Systematic review found that physical therapy interventions including aerobic exercise and multimodal approaches are beneficial in treating adolescent and young adult athletes post-concussion

- This systematic review aimed to investigate the effects of physical therapy interventions compared to alternative treatments in adolescent and young adult athletes post-concussion.
- Articles were included if they were randomized controlled-trials, had participants
 who were athletes under the age of thirty who had an acute or chronic sport-related
 concussion, and the intervention was physical therapy, including aerobic and
 multimodal interventions. Outcome measures included: days from injury to
 recovery, PCSS, PCSI, Health Related Quality of Life, Beck Depression Inventory for
 Youth, Pediatric Quality of Life Multidimensional Fatigue Scale, the BESS, ImPACT,
 time to return to play, health and demographic questionnaires, Borg CR10, Rate of
 Perceived Exertion (RPE), and Post Ride Symptom Change Rating. The control
 groups either participated in education, rest, sub-therapeutic exercise, placebo, or
 sham treatment.
- The PEDro scale was used to assess methodological quality of included trials to indicate high (>5/10), moderate (5/10) and low (<5/10) quality. Five of the eight articles scored five or higher on the PEDro Scale.
- Eight trials (375 participants) were included in the systematic review. Participants' ages ranged from 11.2 to 21.2 years.
- Participants showed improvement in time to recovery and post-concussion symptoms with no significant adverse effects. This systematic review concludes that physical therapy interventions including aerobic exercise and multimodal approaches are beneficial for treating adolescent and young adult athletes postconcussion. Physical therapy may lead to quicker symptom recovery and return to sport than traditional treatment of physical and cognitive rest. The most effective intervention is yet to be determined.

Infographic: Systematic review found that following hip fracture surgery in older adults, a structured exercise program improved physical function, mobility and independence with ADLs compared to regular physical activity or no exercise

Last month we summarised the systematic review by Bai et al 2023. The review concluded that following hip fracture surgery in older adults, a structured exercise program improved physical function, mobility and independence with ADLs compared to regular physical activity or no exercise.

Some findings are included in this infographic.

EFFECTIVENESS OF INTENSIVE VERSUS REGULAR OR NO EXERCISE IN OLDER ADULTS AFTER HIP FRACTURE SURGERY

Bai F, et al. Braz J Phys Ther. 2023;27(1):100482

WHAT DID THEY DO?

- | There v

FINDINGS

Study design: Systematic review and metaanalysis of 15 randomised controlled trials.

Population: 1,317 older adults without significant co-morbidities post hip fracture and surgical repair who began intervention up to 7 years post injury.

Intervention: Structured exercise programs ('Intense') defined as: frequency > 5 days/week; intensity > 60% 1 RM and > 3 sets of 8 reps; time: > 30 minutes; type: resistance, weight-bearing, strength, endurance, power, balance or aerobic.

Comparator: No exercise or regular, pre-trial physical activities.

Outcome: Primary outcome is *physical* function. Secondary outcomes include mobility, balance, independence with ADLs and hospital length of stay (LOS).

Most trials prescribed resistance exercise (n=11). Remaining trials primarily focused on balance and/or endurance.

There was moderate-certainty evidence that structured exercise programs improved:

- physical function (SMD = 0.74, 95% CI: 0.25, 1.23, n = 1019, 11 trials, I2= 58.3%)
- gait speed (SMD = 0.15, 95% CI: 0.01, 0.30, n = 742, 8 trials, I2= 0%)
- timed-up and go test time (MD = -4.34 s, 95% CI: -6.74, -1.94, n = 477, 6 trials, I2= 80%)
- independence (SMD = 0.55, 95% CI: 0.24, 0.87, n = 577, 6 trials, I2= 68%).



Subgroup analyses revealed significant between-group differences for physical function in only the group commencing within three months post-operatively.

Note: There was significant heterogeneity in exercise interventions in the included trials, limiting generalisability. Adverse events were not reported.

This review suggests structured exercise programs are superior to unstructured programs for physical function in older adults post hip fracture surgery, and may be most effective when initiated early post-operatively.





Bai F, Leng M, Zhang Y, Guo J, Wang Z. Effectiveness of intensive versus regular or no exercise in older adults after hip fracture surgery: A systematic review and meta-analysis. *Braz J Phys Ther*. 2023 Jan-Feb;27(1):100482. doi: 10.1016/j.bjpt.2023.100482.

Read more on PEDro.

Access the full summary in the PEDro blog.

PEDro update (8 April 2024)

PEDro contains 60,969 records. In the 8 April 2024 update you will find:

- 46,699 Reports of randomised controlled trials (45,665 of these trials have confirmed ratings of methodological quality using the PEDro scale)
- 13,486 reports of systematic reviews, and
- 784 reports of evidence-based clinical practice guidelines.

For latest guidelines, reviews and trials in physiotherapy visit Evidence in your inbox.

DiTA update (8 April 2024)

DITA contains 2,466 records. In the 8 April 2024 update you will find:

- 2,189 reports of primary studies, and
- 277 reports of systematic reviews.

For the latest primary studies and systematic reviews evaluating diagnostic tests in physiotherapy visit *Evidence in your inbox*.















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