PEDro Newsletter 1 September 2025

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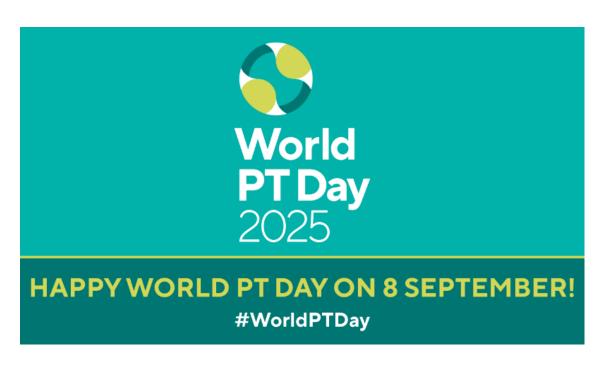


Welcome to the PEDro Newsletter for 1 September 2025

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

In this issue:

- Celebrating World Physiotherapy Day!
- PEDro's World-Wide Journal Club on cognitive functional therapy with or without movement sensor biofeedback versus usual care for chronic, disabling low back pain (RESTORE) is now available.
- Systematic review summary
- Tune in to PEDroCast bringing the evidence to you
- Our Partners renew their commitment to PEDro
- PEDro now contains 66,000+ reports of trials, reviews and guidelines
- PEDro update
- DiTA update



World Physiotherapy Day is celebrated on 8 September each year. It is a day to recognise the vital role physiotherapists play in healthcare and the promotion of wellbeing. This year's theme is healthy ageing, with a focus on preventing falls and frailty. To help prepare you for the day, World Physiotherapy has developed a <u>toolkit</u>.



In celebration of World Physiotherapy
Day, PEDro Project Manager Geraldine
Wallbank chats with Prof Cathie
Sherrington, PEDro Co-Founder, leading
researcher in healthy ageing and falls,
and contributor to this year's World
Physiotherapy Day resources. Together,
they explore what the day means, with
this year's theme focusing on healthy
ageing and the prevention of falls and
frailty.

Listen to the interview on <u>PEDroCast</u> or watch the interview here.

You can also use resources on PEDro to learn about some of the research done in this area:

- <u>Evidence in your inbox</u> for the 'gerontology' and 'Continence and women's health' feeds
- Learn how to ask a clinical guestion to search for research on PEDro
- Watch one of the PEDro World-Wide Journal Clubs on falls

Read one of PEDro's Top 25 Trials on falls and physical activity in older people

Help us celebrate #WorldPTDay by sharing these materials.

PEDro's World-Wide Journal Club on cognitive functional therapy with or without movement sensor biofeedback versus usual care for chronic, disabling low back pain (RESTORE) is now available.

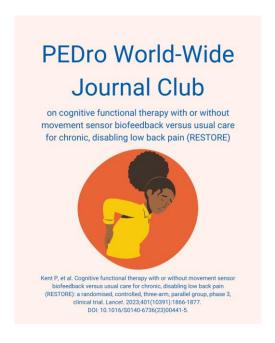
This PEDro World-Wide Journal Club is about cognitive functional therapy with or without movement sensor biofeedback versus usual care for chronic, disabling low back pain. This trial was one of the PEDro Top 25 Trials added to the list in 2024.

You can further the discussions from this journal club by creating your own:

- 1. Invite your colleagues to be involved
- 2. Read the article
- 3. Watch (or listen to) our video summarising the article
- 4. Watch (or listen to) the video of our panel discussing the article
- 5. Meet with your colleagues to have your own discussion

Recently, a 3-year follow-up of this study has been published in *The Lancet Rheumatology*. Read more on PEDro.

PEDro acknowledges Dr Joshua Zadro, Prof Peter O'Sullivan, Dr Chaturani Sigera, Jayden Smileski and Joe (RESTORE trial participant) for their involvement in this journal club.



Systematic review found the use of inspiratory muscle training reduced postoperative pulmonary complications (pneumonia, atelectasis) compared to no inspiratory muscle training in people after coronary artery bypass grafting.

- Post-operative pulmonary complications (PPCs) are common following coronary artery bypass graft (CABG) surgery. This systematic review aimed to summarise and appraise the evidence for the use of inspiratory muscle training (IMT) to reduce the risk of PPCs following CABG.
- Trials included: Randomised controlled trials of adults who underwent CABG and compared IMT to a comparator (usual care, sham IMT or physiotherapy).
- Primary outcome: PPCs, measured by rates of pneumonia, atelectasis or pleural effusion
- Secondary outcomes: Respiratory function, hospital length of stay and exercise capacity
- Adverse events were not reported
- Trial quality was evaluated using the Cochrane Risk of Bias tool 2. Certainty of evidence was evaluated using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach.
- 8 trials (755 participants) were included in the systematic review and metaanalyses.
- Most interventions were pre-operative (4 trials, 621 participants)
- IMT prescription varied: 1-2 times a day; intensity of 30-60% maximal inspiratory pressure; durations between 3 days to 4 weeks.
- Compared to usual care, sham IMT or physiotherapy treatments there was moderate quality evidence that IMT reduced the risk of pneumonia (RR = 0.39, 95% CI: 0.25 to 0.62, p<0.0001, n = 755, 8 trials, I2= 0%); low quality evidence that IMT reduced the risk of atelectasis (RR = 0.43, 95% CI: 0.27 to 0.67, p=0.0002, n = 244, 6 trials, I2= 0%); very low quality evidence that IMT did not reduce the risk of pleural effusion (RR = 1.09, 95% CI: 0.62 to 1.93, p=0.76, n = 244, 6 trials, I2= 18%).</p>

This review suggests IMT is more effective when compared to usual care, sham IMT or physiotherapy treatments in reducing the risk of pneumonia and atelectasis in patients following CABG surgery.

INSPIRATORY MUSCLE TRAINING TO REDUCE RISK OF **PULMONARY COMPLICATIONS AFTER CORONARY ARTERY BYPASS GRAFTING**

Xiang Y, et al. Front Cardiovasc Med. 2023 Jul 24;10:1223619

WHAT DID THEY DO?

FINDINGS

Study design: Systematic review and metaanalysis of 8 randomised controlled trials.

Population: 755 adults treated with coronary artery bypass grafting (CABG).

Intervention: Inspiratory muscle training (IMT), either prior to or following surgery.

Comparator: Usual care, sham IMT or physiotherapy.

Outcome:

- · Primary outcome was post-operative pulmonary complications (PPCs) of pneumonia, atelectasis or pleural effusion.
- · Secondary outcomes were respiratory function, hospital length of stay and exercise capacity.



IMT prescription ranged from 1-2 times a day, intensities of 30-60% maximal inspiratory pressure (MIP) and durations 3 days - 4 weeks. Most participants received IMT pre-operatively.

IMT reduced the risk of

- Pneumonia (RR = 0.39, 95% CI: 0.25 to 0.62, p<0.0001, n = 755, 8 trials, I2= 0%, moderate quality)
- Atelectasis (RR = 0.43, 95% CI: 0.27 to 0.67, p=0.0002, n = 244, 6 trials, I2= 0%, low quality)

IMT did not reduce the risk of

• Pleural effusion (RR = 1.09, 95% CI: 0.62 to 1.93, p=0.76, n = 244, 6 trials, I2= 18%, very low quality)

IMT significantly improved respiratory function and reduced hospital length of stay.

No between group differences were found for exercise capacity.



Note: The risk of bias was rated high in 3 trials due to lack of allocation concealment, participant or assessor blinding.

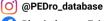
Adverse events: Not assessed in the review.

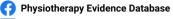
Evidence from moderate to low quality trials suggests IMT reduces the risk of pneumonia and atelectasis following CABG, and shortens hospital stay.



pedro.org.au







Physiotherapy Evidence Database (PEDro)

Infographic prepared by Lara Edbrooke, Piotr Lewandowski and Nidhi Nair

Access the full summary in the PEDro blog.

Tune in to PEDroCast - bringing the evidence to you

In case you missed it, last month we released 5 new episodes on PEDroCast.

- Understanding confidence intervals
- 2. Exercise for rotator cuff related shoulder pain: summary of trial
- 3. Exercise for rotator cuff related shoulder pain: Panel discussion
- 4. EBP time hacks with Nick Draheim
- 5. PEDro chats with Prof Sallie Lamb

Listen now.



Our Partners renew their commitment to PEDro

Support for PEDro comes from global physiotherapy organisations and ensures that we can continue delivering the best physiotherapy evidence and expand our services.

We thank and recognise our Bronze Partner, <u>Physioswiss</u>, who have just renewed their partnership with PEDro for another year. <u>Y Thank you for your financial support.</u>

You can also help keep PEDro running by making a donation.



PEDro now contains 66,000+ reports of trials, reviews and guidelines

We are delighted to announce that PEDro now indexes over 66,000 reports of trials, reviews and clinical practice guidelines.

That's 66,000+ reports of high-quality evidence available to physiotherapists, researchers, educators and students around the world to support better decision-making and improve patient care.

For more than 25 years, PEDro has been helping the global physiotherapy community answer important clinical questions, translate research into practice, and push the profession forward.

Access the evidence.



PEDro update (1 September 2025)

PEDro contains 66,147 records. In this update you will find:

- 49,331 reports of randomised controlled trials (48,279 of these trials have confirmed ratings of methodological quality using the PEDro scale)
- 15,713 reports of systematic reviews, and
- 830 reports of evidence-based clinical practice guidelines.

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

DiTA update (1 September 2025)

DiTA contains 2,529 records. In this update you will find:

- 2,236 reports of primary studies, and
- 293 reports of systematic reviews.

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

Next PEDro and DiTA updates are on 13 October 2025.



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