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RESEARCH DIGEST · ISSUE 1 · WEEK OF 28 SEPTEMBER 2026

The latest research, turned into **what to do on Monday.**

Six appraised papers for MSK, persistent pain and return-to-work practice, with clinic actions, scheme wording and client explainers.

6

papers appraised

5 min

per paper

1

free Top Pick



Reviewed by Brett Stevens

Accredited Exercise Physiologist · 18 years in MSK, pain & workers comp

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How to read each paper: start with the Key points and the graphic, check the verdict, then take the Monday morning actions into your next session. The scheme angle gives wording for treatment plans, and the pull quote is a client explainer you can use word for word.

YOUR REVIEWER



Brett Stevens

Accredited Exercise Physiologist · Founder, Kinetic Rehab, Newcastle NSW

Brett has 18 years of clinical experience in musculoskeletal rehabilitation, persistent pain and workers compensation, writing treatment plans and reports across SIRA, icare, Comcare, DVA and NDIS every week. He built the Research Digest to answer one question for busy clinicians: what should I do differently on Monday?

How papers are chosen

Systematic reviews, RCTs, guidelines and large cohorts from the past week, filtered for relevance to exercise-based MSK, pain and return-to-work practice.

How they're appraised

Design, sample, risk of bias and certainty, with a clear verdict. Each entry says whether the full paper or the abstract was appraised.

How it's made

Research software scans new publications each week and prepares a first draft of each summary. An Accredited Exercise Physiologist then reviews and approves every paper before it's published.

Graphics

Every infographic is drawn from the figures reported in the paper. Schematics are labelled as such.



PAPER 1 · LOW BACK PAIN

Systematic review / meta-analysis

CONSIDER

Optimal exercise dose in adults with chronic low back pain disorders: systematic review with dose-response network meta-analysis

Arora NK et al. · *British Journal of Sports Medicine* · 2026 · doi.org/10.1136/bjsports-2026-111988



Reviewed by Brett Stevens, AEP

KEY POINTS

1. 239 RCTs in adults with chronic low back pain, modelled for dose and response.
2. Most short-term benefit came from about 3–4 sessions a week of 25–30 minutes over 8–13 weeks.
3. More volume added little, and certainty is low: a starting dose, not a formula.

THE DOSE THAT DID MOST OF THE WORK

3–4

sessions a week

25–30

minutes a session

8–13

weeks



Schematic of the dose-response shape reported, not plotted data. Low certainty evidence.

KEY FINDING

Most of the short-term benefit comes from about 3–4 sessions a week of 25–30 minutes over 8–13 weeks. The model's optimal dose for short-term disability was 4 sessions a week of 25 minutes over 13 weeks, and for short-term pain 3 sessions a week of 30 minutes over 8 weeks. Credible intervals overlapped across most dose levels, so more volume didn't clearly add benefit, and beyond 3 months few dose combinations reached a clinically meaningful effect. Only 28.5% of trials reported adverse events, mostly minor musculoskeletal ones.

STUDY QUALITY

Systematic review with a model-based, non-linear dose-response network meta-analysis of 239 RCTs (252 reports) in adults with chronic low back pain disorders, searched to June 2025. Almost all trials (99.2%) involved non-specific pain; only two included radicular presentations. RoB 2 and GRADE used; 5 points on a 0–100 scale set in advance as clinically meaningful. 84% of trials were at high risk of bias and certainty was low to very low. Total participant count isn't given in the abstract. Appraised from the abstract only.

CONSIDER

It gives you a reasonable, evidence-anchored default dose, but the low certainty rules out treating any one dose as optimal.

MONDAY MORNING

- Set a default chronic LBP prescription of about 3–4 exercise sessions a week at 25–30 minutes, planned over 8–13 weeks, mostly home or gym based with clinic visits for review and progression
- Separate exercise frequency from consult frequency in your plans: one or two supervised sessions a week can still deliver the modelled dose when the home program is tracked
- When progress plateaus, check adherence and individualise before adding volume, because extra dose gives diminishing returns
- Re-measure disability and pain (e.g. ODI or RMDQ, NRS, PSFS) at about 8 and 13 weeks

SCHEME ANGLE

For SIRA/icare or Comcare treatment plans, this gives a citable rationale for dose and duration. Example wording: “Program prescribed at 3–4 sessions/week (25–30 min), including 1–2 supervised sessions tapering to fortnightly, over 12 weeks. This is consistent with current dose-response evidence for chronic low back pain (Arora et al., BJSM 2026). Outcomes (ODI, PSFS) will be reviewed at weeks 6 and 12.” For EPC clients with limited rebated sessions, use them to design, review and progress a program the client completes at home at the modelled dose.



The research suggests you don't need to exercise for hours to help your back. Three or four sessions a week of around half an hour, kept up for two to three months, gets most of the benefit. Doing it consistently matters more than doing a lot.

Client explainer: say it or hand it over

CPD REFLECTION

How closely do my usual chronic LBP programs match about 3–4 x 25–30 minutes a week over 8–13 weeks, and where do I tend to under- or over-dose?



PAPER 2 · FALLS & NEURO

Systematic review / meta-analysis

CONSIDER

Physical exercise reduces fall-related outcomes among people with stroke: a systematic review and meta-analysis

Li X et al. · *Physical Therapy* · 2026 · doi.org/10.1093/ptj/pzag098



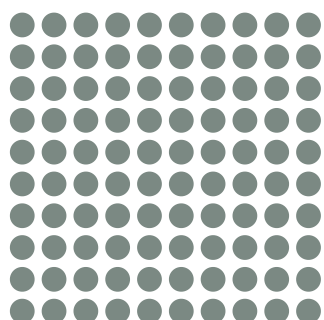
Reviewed by Brett Stevens, AEP

KEY POINTS

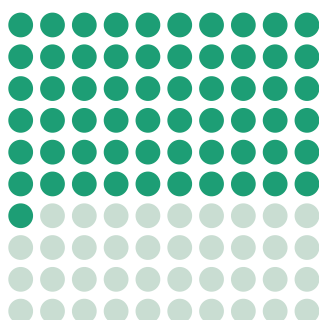
1. 18 RCTs, 1,536 people after stroke.
2. Exercise cut the rate of falls by about 39%.
3. Balance and dual-task programs beat walking or strength work alone.

FALLS AFTER STROKE

Usual care: 100 falls



With exercise: about 61



-39%

rate of falls

RR 0.61 (95% CI 0.47–0.78)

Each dot is one fall. Injurious falls: estimate favoured exercise, but the CI includes no effect.

KEY FINDING

Exercise reduced the rate of falls per person (IRR 0.61, 95% CI 0.47 to 0.78), about 39% fewer falls. For injurious falls the estimate favoured exercise (IRR 0.63) but the 95% CI (0.37 to 1.05) includes no effect, and the drop in the proportion of fallers was smaller and borderline. Balance-focused and cognitively integrated (dual-task) programs outperformed walking, strength training, or balance-plus-walking alone. People in the chronic stage with mild to moderate disability benefited most.

STUDY QUALITY

Systematic review and meta-analysis of 18 RCTs (1,536 people after stroke) across six databases. Stroke stage and severity varied between trials. Heterogeneity and GRADE ratings weren't available in what could be accessed. Appraised from the abstract only.

CONSIDER

The fall-rate result is solid enough to act on. Whether exercise reduces injurious falls is still uncertain.

MONDAY MORNING

- For post-stroke clients, make balance the core of the program, not an add-on to walking or strength work
- Add dual-task progressions such as stepping to cues, walking while naming items, or carrying while turning, grading cognitive as well as physical load
- Track falls prospectively with a falls diary and add Mini-BESTest or TUG-cognitive alongside usual gait measures
- For clients with more severe disability, set expectations that the evidence is weaker and prioritise safety, supervision and home set-up

SCHEME ANGLE

For NDIS participants after stroke, this supports balance and dual-task programs as capacity building that reduces falls risk. Example wording: “Program emphasises balance and dual-task training. Meta-analytic evidence shows these components reduce falls more than walking or strength training alone in people after stroke (Li et al., Phys Ther 2026). Falls will be monitored via diary and Mini-BESTest at 8 and 16 weeks.” The same framing suits DVA and EPC plans.



After a stroke, the exercises that best protect you from falls challenge your balance, especially while your brain is doing something else. We'll build that up gradually and safely. The research shows this kind of training can cut the number of falls by more than a third.

Client explainer: say it or hand it over

CPD REFLECTION

In my last three stroke clients, what share of session time went to balance and dual-task training compared with walking or strength?



PAPER 3 · HEALTHY AGEING

Systematic review / meta-analysis

CONFIRMS CURRENT PRACTICE

Exercise-only interventions and exercise-based multidomain lifestyle interventions to promote cognitive function in older adults without dementia: a systematic review and meta-analysis

Hernández-Gamboa R et al. · *British Journal of Sports Medicine* · 2026 ·

doi.org/10.1136/bjsports-2026-111684



Reviewed by Brett Stevens, AEP

KEY POINTS

1. 227 studies in adults over 60 without dementia.
2. Exercise improved executive function, memory and processing speed.
3. Adding cognitive challenge gave extra gains in executive function and speed.

WHERE COGNITION IMPROVED

Exercise alone

✓ Executive function

✓ Memory

✓ Speed

Exercise + lifestyle

✓ Memory

...vs exercise alone

✓ Executive function

✓ Speed

Improvements compared with control, in adults over 60 without dementia (227 studies).

The abstract gave no effect sizes, so the size of these gains is unknown.

KEY FINDING

Exercise alone improved executive function, memory and processing speed compared with control. Exercise plus other lifestyle components improved memory compared with control and did better than exercise alone on executive function and processing speed. The abstract gives no effect magnitudes, so how large the effects are is unknown from this source.

STUDY QUALITY

Systematic review with pairwise and network meta-analyses of RCTs in adults over 60 without dementia, searched to March 2026. Pairwise analyses included 227 studies (178 exercise-only, 67 exercise-plus); 105 fed the network analysis. Common add-ons were cognitive training and cognitively engaging activities. Effect sizes, certainty and risk of bias weren't reported in the abstract. Appraised from the abstract only.

CONFIRMS CURRENT PRACTICE

It backs exercise for cognitive health in older clients, with a nudge to build in cognitive challenge.

MONDAY MORNING

- Add cognitively demanding elements to older clients' programs: learning new movement sequences, coordination drills, reaction or decision tasks, or group classes with choreography
- Use cognition as a motivational hook, since many older clients care more about staying sharp than strength numbers
- Don't promise specific cognitive gains or report cognitive outcomes unless you measure them; agree on a validated screen with the GP if you want to track cognition

SCHEME ANGLE

For DVA and EPC clients, this supports citing cognitive health as a secondary program goal. Example wording: "Program includes cognitively engaging exercise (dual-task and coordination components). This is consistent with meta-analytic evidence that exercise, especially when combined with cognitive challenge, supports executive function and processing speed in older adults (Hernández-Gamboa et al., BJSM 2026)."



Regular exercise is one of the best things you can do for your thinking and memory as you age. Exercise that also makes you think, like learning new moves or reacting to cues, seems to give your brain an extra boost.

Client explainer: say it or hand it over

CPD REFLECTION

Which of my older-adult programs could add a cognitive challenge without compromising safety or the physical dose?



PAPER 4 · KNEE & HIP OA

Discrete choice experiment within an RCT

CONSIDER

First-hand experience and the value of telerehabilitation for chronic knee pain: a discrete choice experiment nested in a randomised controlled trial

Woode ME et al. · *Journal of Orthopaedic & Sports Physical Therapy* · 2026 ·

doi.org/10.2519/jospt.2026.14073

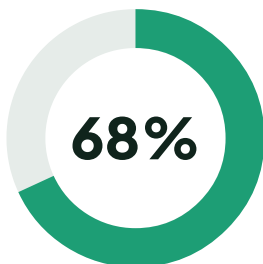


Reviewed by Brett Stevens, AEP

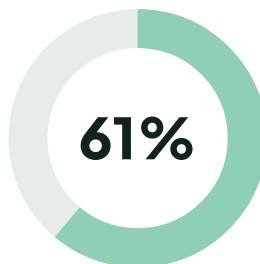
KEY POINTS

1. 319 Australians with chronic knee pain, nested in an RCT.
2. 68% of people who received telerehab preferred it afterwards.
3. Most in-person patients held only a mild preference for face-to-face care.

KNEE OA: TRYING TELEREHAB CHANGED MINDS



Preferred telerehab
after receiving telerehab



Only a mild preference
for in-person care, in-person arm

+\$87
more per telerehab session*

*willingness to pay, telerehab arm vs in-person arm (AU\$)

KEY FINDING

People who had received telerehab would pay about AU\$87 more per telerehab consultation than those who had received in-person care (AU\$87.49, 95% CI 72.83 to 102.14). In the telerehab arm, 68% preferred telerehab. In the in-person arm, only 39% held a strong preference for in-person care; 61% had a mild one.

STUDY QUALITY

Discrete choice experiment nested in an Australian RCT. 319 adults aged 45+ with chronic knee pain consistent with OA who had completed physiotherapy by telerehabilitation (155) or in person (164), about 80% of each arm. Randomisation to the parent trial strengthens between-arm comparisons. Limitations: hypothetical (stated) choices, trial completers only, and preferences rather than clinical outcomes. Appraised from the abstract only.

CONSIDER

Preferences for in-person care are often mild and change with experience, which supports offering telehealth as a real option rather than a fallback.

MONDAY MORNING

- For knee OA clients, offer one telehealth review mid-program so they can try it, and ask their preference afterwards rather than upfront
- Build a telehealth-ready assessment set: 30-second chair stand, a video-observed step-up or squat, and a PROM such as KOOS-12 or PSFS sent before the session
- Use telehealth reviews for progression and adherence checks in long OA programs, keeping in-person sessions for hands-on assessment and early skill learning

SCHEME ANGLE

For EPC, DVA and insurer-funded OA clients, check each funder's current telehealth rules before offering video reviews. Where allowed, example wording: "Review sessions may be delivered via video consultation where clinically appropriate and preferred by the client, consistent with trial evidence that telerehabilitation is acceptable to people with knee osteoarthritis."



Many people with knee arthritis find video check-ins work better than they expected. They save travel and still let us review your exercises and move you forward. If you'd like, we can try one and you can decide.

Client explainer: say it or hand it over

CPD REFLECTION

Do I steer clients towards in-person care out of my own preference, and how could I let them try both before they decide?



PAPER 5 · RETURN TO WORK

Cohort study

WATCH THIS SPACE

Explainable prediction of prolonged work disability after occupational injury and disease: temporal validation and sex-specific performance

Fernández Laviada N et al. · *Journal of Occupational Rehabilitation* · 2026 ·

doi.org/10.1007/s10926-026-10456-x



Reviewed by Brett Stevens, AEP

KEY POINTS

1. 182,051 work-injury claims from a Spanish insurer.
2. Models ranked long claims well (AUC 0.83) but flagged many false alarms.
3. Claim-data models miss psychosocial risk, so your notes still matter.

PREDICTING LONG WORK-INJURY ABSENCES

Ranking cases (ROC-AUC)

How well it sorts long vs short claims



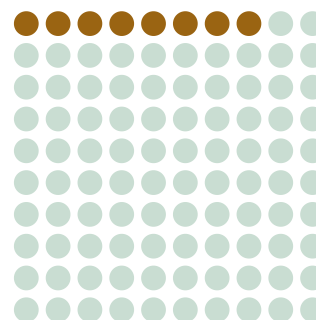
Precision (PR-AUC)

Many flagged cases won't become long claims



Only 8.2% of claims

lasted 101+ days (2025 cohort)



Best model shown. No machine-learning model beat penalised logistic regression on every measure.

KEY FINDING

The best model (LightGBM) reached ROC-AUC 0.829 (95% CI 0.823 to 0.836), but the best precision-recall AUC was only 0.389 (from logistic regression), so many flagged cases won't become long claims. No machine-learning model beat penalised logistic regression on every measure. Top predictors were injury description, body region, accident mechanism, age and job tenure. Performance wasn't shown to be equivalent for men and women.

STUDY QUALITY

Large retrospective prediction-modelling cohort from a Spanish work-injury mutual insurer: 182,051 closed absence episodes (2022–2025), temporally validated on the 2025 cohort (45,773 episodes; 8.2% lasted 101+ days). Machine-learning models compared with penalised logistic regression. Predictors are administrative; no psychosocial measures mentioned. No external validation, and Spain's system differs from Australian schemes. Appraised from the abstract only.

WATCH THIS SPACE

Insurers can flag likely long claims reasonably well from claim data alone, but these tools miss the psychosocial picture and need calibration checks and external validation before use.

MONDAY MORNING

- Run a validated psychosocial screen at the first work-injury consult, such as the Örebro short form, and put the result in your initial report
- In reports, separate injury factors from modifiable factors (fear-avoidance, recovery expectations, workplace support), because the modifiable factors are where rehab adds value
- If you build or use AI triage tools, ask for calibration and precision data as well as AUC, and check performance separately for men and women

SCHEME ANGLE

Australian insurers increasingly use claims analytics to triage case management. Your documented functional capacity and psychosocial risk add information those models lack. Example wording for a SIRA/icare or Comcare report: “Örebro (short form) score indicates elevated risk of delayed recovery, driven mainly by recovery expectations and fear-avoidance. The treatment plan targets these factors alongside graded upgrading of duties.”



The details of an injury only tell part of the story about how long recovery takes. How you feel about the injury, your expectations and the support at work make a big difference too. That's why we'll ask about those things as well.

Client explainer: say it or hand it over

CPD REFLECTION

How consistently do I record psychosocial risk in initial workers compensation reports, and would a case manager reading my report see what's modifiable?



Economic evaluation of an indicated prevention strategy focused on future long-term sickness absence

Klasen S et al. · *Journal of Occupational Rehabilitation* · 2026 · doi.org/10.1007/s10926-026-10444-1



Reviewed by Brett Stevens, AEP

KEY POINTS

1. 263 high-risk office workers in a Dutch RCT.
2. Early occupational physician input cost about the same as usual care.
3. From the employer's view it was slightly cheaper and more effective.

COSTS PER HIGH-RISK WORKER

Societal cost



Employer cost



Per worker over 12 months. From the employer's view the intervention was slightly cheaper and more effective.

KEY FINDING

Societal costs were €3,808 per worker with the intervention vs €3,742 with usual care, about €39 per point of self-rated health gained. From the employer's perspective costs were €3,418 vs €3,425, so the intervention was slightly cheaper and more effective (dominant), because reduced sickness absence offset its cost.

STUDY QUALITY

Economic evaluation alongside a Dutch RCT with 12 months' follow-up. 263 office workers screened as high risk of long-term sickness absence: early structured occupational physician consultation with tailored follow-up (n=132) vs on-request usual care (n=131). Effect measured by a single self-rated health item (0–100). Cost differences were small, uncertainty ranges weren't available, and Dutch employer-funded occupational health differs from Australia. Appraised from the abstract only.

WATCH THIS SPACE

Screening for risk and stepping in before a long absence is promising, but the differences are small and the model isn't Australian.

MONDAY MORNING

- If your clinic runs employer contracts, consider offering early screening and fast-track assessment for at-risk workers before a claim, not only after injury
- Frame the value to employers in their terms, such as absence days and replacement costs, and record absence days as an outcome in your programs
- Pair screening with a clear pathway, such as early EP or physio assessment plus a workplace conversation, because screening alone does nothing

SCHEME ANGLE

Mostly relevant to employer-funded early intervention outside the formal claim (e.g. corporate health contracts, Comcare-covered employers' early intervention programs). Not directly applicable to SIRA-funded treatment.



Getting the right help early, before a problem turns into weeks off work, tends to work out better for you and for your employer. That's why we'd like to see you now rather than wait.

Client explainer: say it or hand it over

CPD REFLECTION

What would an early-intervention offer to local employers look like from my clinic, and what outcome data would I need to show it works?

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