

WELLNESS TEAM CULTURE

Evidence-based wellness, leadership, and team dynamics

RESEARCH BRIEF · THE EVIDENCE, PLAINLY

Start Lower Than You Think

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A plan that opens with five hard sessions a week asks a depleted person for the one thing they are short on. The research suggests the opening ask can be much smaller. A 2022 pooled analysis of 15 long-term cohorts found that adults reaching half the recommended activity volume had 18 percent lower risk of depression than inactive adults, against 25 percent at the full recommended volume, with diminishing benefit beyond. Randomized trials in people who already have depression show moderate effects from walking, yoga and strength training, larger at higher intensity, though confidence in that evidence is low. The evidence in burnout itself is thin and mixed. This brief sets out what each source found, where the evidence is strong and weak, and what none of it proves.

WHAT WAS ACTUALLY STUDIED

01

Pearce et al. (2022), JAMA Psychiatry

TIER 2 · DOSE-RESPONSE META-ANALYSIS OF 15 PROSPECTIVE COHORTS

The dose source for this issue. The authors pooled 15 prospective cohort studies of adults (191,130 participants, 2,110,588 person-years, at least three years of follow-up) that reported physical activity at three or more levels and depression outcomes. The dose-response relationship was inverse and curvilinear, steeper at lower activity volumes, with large heterogeneity (I-squared 74%). Compared with adults reporting no activity, those accumulating half the recommended volume (4.4 marginal MET-hours a week) had 18% lower risk of depression (95% CI 13% to 23%), and those at the recommended volume (8.8) had 25% lower risk (18% to 32%). Beyond that volume the potential benefits diminished and uncertainty grew. The authors estimated that 11.5% of depression cases could have been prevented if less active adults had met the recommendation.

02 Noetel et al. (2024), BMJ

TIER 1 · NETWORK META-ANALYSIS OF 218 RANDOMIZED TRIALS

The treatment-trial source. The review included 218 studies and 14,170 participants who met clinical cut-offs for major depression. Compared with active controls such as usual care or a placebo tablet, moderate reductions in depression were found for walking or jogging (Hedges' g -0.62), yoga (-0.55), strength training (-0.49), mixed aerobic exercise (-0.43), and tai chi or qigong (-0.42). The effects of exercise were proportional to the intensity prescribed. Strength training and yoga appeared to be the most acceptable modalities. The authors graded confidence as low for walking or jogging and very low for other treatments, and only one study met Cochrane's criteria for low risk of bias.

03 Singh et al. (2023), British Journal of Sports Medicine

TIER 2 · UMBRELLA REVIEW OF 97 SYSTEMATIC REVIEWS

A broad overview of the reviews. It included 97 reviews covering 1,039 trials and 128,119 participants across healthy adults, people with mental health disorders, and people with chronic disease. Physical activity had medium effects on depression (median effect size -0.43), anxiety (-0.42) and psychological distress (-0.60) compared with usual care. Higher-intensity activity was associated with greater improvements, and effectiveness diminished with longer interventions. Most reviews (77 of 97) scored critically low on the appraisal tool the authors used, which is why this brief treats the overview as direction and not as precision.

04 Ochentel, Humphrey and Pfeifer (2018), Journal of Sports Science and Medicine

TIER 1 · META-ANALYSIS OF RANDOMIZED TRIALS, 4 STUDIES AND 248 PARTICIPANTS

The burnout-specific source, and the reason this issue carries a boundary. The authors searched for randomized trials of exercise therapy in people with burnout in the occupational setting and found six, of which four could be meta-analyzed (248 participants). The combined effect interval ran from -0.41 to 0.09, and no clear difference was found between intervention and control conditions. The authors wrote that the paper did not support the widespread assumption that exercise therapy is a successful means to alleviate burnout symptoms, and noted that the different types of physical activity and treatment modalities used in the studies prevented clear conclusions. It is an older review of a small trial set.

05 Aronsson et al. (2026), Stress and Health

TIER 1 · RANDOMIZED CONTROLLED TRIAL, 4.5-YEAR FOLLOW-UP (56 OF 132 RETURNED)

A recent long-term look at aerobic training in patients with stress-related exhaustion disorder. Earlier results from the trial had shown that adding aerobic training to a multimodal rehabilitation program improved cognitive function more than rehabilitation alone, with the effect not maintained at one year. At 4.5 years, 56 of the original 132 participants returned. Aerobic training showed no extended long-term effect on cognitive performance. Later improvements in burnout in both groups, and extra effects on anxiety and work ability in the aerobic group, were not present at one year and the authors judged them more plausibly explained by selective attrition than by a delayed effect of the intervention.

06 Puetz, O'Connor and Dishman (2006), Psychological Bulletin

TIER 1 · META-ANALYSIS (OLDER)

The fatigue source. The authors meta-analyzed the effect of chronic exercise on feelings of energy and fatigue and found that exercise increased energy and lessened fatigue compared with control conditions by a mean effect delta of 0.37. The effect varied with the control condition: investigations that used a placebo control and examined chronic exercise alone found no effect. The authors noted that certain placebo controls may themselves raise energy and lessen fatigue in older adults or people with psychological distress, and called for better control conditions. It is a 2006 review and predates much of the newer trial literature.

WHAT THEY FOUND

In a pooled analysis of 15 long-term cohorts, adults who reached half the recommended activity volume had 18% lower risk of depression than adults reporting no activity, and adults at the full recommended volume had 25% lower risk. The curve was steepest at the lowest volumes, and the added benefit diminished beyond the recommendation (Pearce et al., 2022). The recommended volume corresponds to the usual guideline of about 150 minutes of moderate activity a week, so half is about 75 minutes.

18%

Lower risk of depression at half the recommended activity volume, compared with no activity (95% CI 13% to 23%). At the full recommended volume the figure was 25% (95% CI 18% to 32%). Observational data from 15 cohorts, with large heterogeneity (Pearce et al., JAMA Psychiatry, 2022).

In randomized trials of people who already meet criteria for major depression, walking or jogging, yoga, strength training, and mixed aerobic exercise each produced moderate reductions in depression

compared with active controls, and effects were proportional to the intensity prescribed, though confidence in the evidence was low to very low (Noetel et al., 2024). An umbrella review of 97 reviews found medium effects on depression, anxiety and distress, again larger at higher intensity, and most of those reviews were rated critically low in quality (Singh et al., 2023).

The burnout-specific evidence is thin and mixed. A meta-analysis of four randomized trials in people with burnout (248 participants) found no clear difference from control conditions (Ochentel et al., 2018). In patients with exhaustion disorder, aerobic training added to rehabilitation did not produce a lasting cognitive advantage at one year or at 4.5 years, and later burnout gains were more plausibly explained by attrition (Aronsson et al., 2026). On fatigue, exercise lessened it overall (delta 0.37), but placebo-controlled studies of exercise alone found no effect (Puetz et al., 2006).

WHERE THE EVIDENCE STANDS

Where the evidence converges: some activity is associated with meaningfully lower depression risk than none, the association is steepest at the lowest volumes, and trials in people with depression show moderate effects from several kinds of movement, with low to very low confidence. The shape of the finding, a large gain from the first rung and a smaller gain beyond it, appears in the pooled cohort data, though heterogeneity between the studies was large.

Where it diverges or is thin: the cohort data suggest diminishing benefit with volume, while the trials report larger effects at higher prescribed intensity. These answer different questions (risk of future depression in the general population versus treatment effects in people already depressed), and the trial evidence carries low to very low confidence. The burnout-specific trials are few and small, and the longest follow-up of an exhaustion-disorder trial found no lasting advantage from added aerobic training.

What follows for a reader is a change in how to start, not a treatment claim. A small, repeatable amount of movement is a reasonable first step, though the case for starting small is inferred from the shape of the cohort curve and has not been tested in depleted people, and intensity is a second lever once the routine holds. The case that exercise repairs burnout itself is not established by the trials reviewed here.

WHAT THIS DOES NOT PROVE

The 18% and 25% figures come from observational cohorts. They show that people who reported more activity developed less depression, but they cannot show that adding activity caused the difference, and people who feel well may simply move more. Heterogeneity across the cohorts was large.

The cohort figures concern the risk of developing depression over years, in large adult cohorts. They do not measure what happens to a depleted person who starts a small routine this month, and they do not measure burnout.

The trial evidence for depression carries low to very low confidence, and only one trial met Cochrane's low-risk-of-bias criteria. Participants and staff generally cannot be blinded to exercise, so expectation can inflate results. The older fatigue meta-analysis found no effect in placebo-controlled studies of exercise alone, which is a direct example.

Evidence that effects grow with intensity comes from the intensity that trials prescribed to people who were able to take part. It does not show that a depleted person should start intense, and this brief does not recommend that.

The burnout-specific evidence is a small set of trials with different types of exercise, plus one long-term follow-up in which 56 of 132 participants returned. Absence of a clear effect in small trials is not proof that exercise does not help burnout, and it is not proof that it does.

The conversion of the recommended volume into about 150 minutes of moderate activity a week, and half into about 75 minutes, is this brief's translation of the standard guideline, not a figure stated in the abstract of the cohort review.

None of this is medical advice. If you have a heart or lung condition, pain, or feel unwell when you move, check with a clinician before changing your activity. If exhaustion or low mood is severe or lasting, a clinician is the right next step.

WHAT IT MEANS FOR YOU

Start at half the guideline or lower, about 75 minutes a week or less, because the gains in the cohort data were steepest at the lowest volumes. Choose the kind of movement you will repeat on a bad day, since walking or jogging, yoga and strength training all showed moderate effects in depression trials and strength training and yoga were the best tolerated. Log minutes moved and a 0 to 10 energy rating each evening and read the direction after two weeks, because expectation can inflate how exercise feels. Once the floor has held for two to three weeks, add intensity before minutes, and step back down if you end up more wiped out or sleeping worse for several days. If you lead a team, make the smallest version of

movement easy to start and easy to be seen doing. The newsletter walks through those five moves. The research above is why they are the five, and where each one runs out.

GO TO THE SOURCE

TIER 2 · DOSE-RESPONSE META-ANALYSIS Pearce, M., Garcia, L., Abbas, A., Strain, T., Schuch, F. B., Golubic, R., et al. (2022). Association between physical activity and risk of depression: A systematic review and meta-analysis. JAMA Psychiatry, 79(6), 550-559. doi.org/10.1001/jamapsychiatry.2022.0609

TIER 1 · NETWORK META-ANALYSIS Noetel, M., Sanders, T., Gallardo-Gómez, D., Taylor, P., del Pozo Cruz, B., van den Hoek, D., et al. (2024). Effect of exercise for depression: systematic review and network meta-analysis of randomised controlled trials. BMJ, 384, e075847. doi.org/10.1136/bmj-2023-075847

TIER 2 · UMBRELLA REVIEW Singh, B., Olds, T., Curtis, R., Dumuid, D., Virgara, R., Watson, A., et al. (2023). Effectiveness of physical activity interventions for improving depression, anxiety and distress: an overview of systematic reviews. British Journal of Sports Medicine, 57(18), 1203-1209. doi.org/10.1136/bjsports-2022-106195

TIER 1 · META-ANALYSIS Ochentel, O., Humphrey, C., & Pfeifer, K. (2018). Efficacy of exercise therapy in persons with burnout: A systematic review and meta-analysis. Journal of Sports Science and Medicine, 17(3), 475-484. pubmed.ncbi.nlm.nih.gov/30116121

TIER 1 · RANDOMIZED CONTROLLED TRIAL (FOLLOW-UP) Aronsson, I., Neely, A. S., Boraxbekk, C.-J., Eskilsson, T., & Gavelin, H. M. (2026). Extended long-term effects of cognitive and aerobic training on cognitive function in patients with stress-related exhaustion disorder: A 4.5-year follow-up of a randomized controlled trial. Stress and Health, 42(5), e70218. doi.org/10.1002/smi.70218

TIER 1 · META-ANALYSIS Puetz, T. W., O'Connor, P. J., & Dishman, R. K. (2006). Effects of chronic exercise on feelings of energy and fatigue: A quantitative synthesis. Psychological Bulletin, 132(6), 866-876. doi.org/10.1037/0033-2909.132.6.866

Tier 1 means peer-reviewed primary research or meta-analysis, the strongest evidence. Tier 2 means an expert framework or smaller study that traces to peer-reviewed work. We grade every source so you can see the weight behind each claim.

Pegasus Realm publishes Wellness Team Culture and the practice resources behind it.

Education, not medical advice.

