

# Outrun the Blues!

## Some mental health issues are best treated with exercise

*Can you outrun your depressed mood? Are we able to exercise away our anxiety? If so, how much exercise do we need to do? What type of exercise should we do? How long should we exercise? How hard should we exercise?*

### Abstract

- Objective: To synthesise the evidence on the effects of physical activity on symptoms of depression, anxiety and psychological distress in adult populations.
- Design: Umbrella review.
- Data sources: Twelve electronic databases were searched for eligible studies published from inception to 1 January 2022.
- Eligibility criteria for selecting studies: Systematic reviews with meta-analyses of randomised controlled trials designed to increase physical activity in an adult population and that assessed depression, anxiety or psychological distress were eligible. Study selection was undertaken in duplicate by two independent reviewers.
- Results: Ninety-seven reviews (1039 trials and 128 119 participants) were included. Populations included healthy adults, people with mental health disorders and people with various chronic diseases. Most reviews (n=77) had a critically low A MeaSurement Tool to Assess systematic Reviews score. Physical activity had medium effects on depression (median effect size=-0.43, IQR=-0.66 to -0.27), anxiety (median effect size=-0.42, IQR=-0.66 to -0.26) and psychological distress (effect size=-0.60, 95% CI -0.78 to -0.42), compared with usual care across all populations. The largest benefits were seen in people with depression, HIV and kidney disease, in pregnant and postpartum women, and in healthy individuals. Higher intensity physical activity was associated with greater improvements in symptoms. Effectiveness of physical activity interventions diminished with longer duration interventions.
- Conclusion and relevance: Physical activity is highly beneficial for improving symptoms of depression, anxiety and distress across a wide range of adult populations, including the general population, people with diagnosed mental health disorders and people with chronic disease. Physical activity should be a mainstay approach in the management of depression, anxiety and psychological distress.



*Previous research suggests that physical activity may have similar effects to psychotherapy and pharmacotherapy for patients with depression, anxiety, or psychological distress. But these studies have evaluated different forms of physical activity, in varying dosages, in different population subgroups, and using different comparator groups, which makes it difficult for clinicians to understand the evidence for physical activity in the management of mental health disorders.*

*This extensive study compiled the findings of 1134 studies involving 128,119 participants to evaluate the effects of physical activity on depression, anxiety, and psychological distress. Let's look at the key findings from this large compilation of studies.*

- *Physical activity is very useful in improving symptoms of depression, anxiety, and psychological distress. It works faster than medications and was found to be 1.5 times more effective than counseling or medications in managing depression.*
- *All types of physical activity were beneficial, including aerobic, resistance, mixed-mode exercise, and yoga. The beneficial effects of physical activity on depression and anxiety are likely due to a combination of various psychological, neurophysiological, and social mechanisms. Exercise is shown to increase the availability of serotonin and norepinephrine, regulate hypothalamic-pituitary-adrenal axis activity, and reduce systemic inflammation.*
- *Different types of physical activity stimulated different physiological and psychosocial effects. Resistance exercise had the largest effects on depression, while Yoga and other mind-body exercises were most effective for reducing anxiety.*

- *Moderate-intensity and high-intensity physical activities were more effective than lower-intensity. For those with depression and anxiety, higher-intensity bursts of short and mid-duration exercise proved more beneficial than longer-duration exercise.*

*These findings underscore the important role of physical activity in the management of mild-to-moderate symptoms of depression, anxiety, and psychological distress. If you are feeling depressed, go lift some weights. If you are feeling anxious, yoga or tai chi may be the way to go. Add this to the breathing exercises from last month's newsletter! The bottom line is that exercise is great for us mentally and physically!*

Singh B, Olds T, Curtis R, et al. Effectiveness of physical activity interventions for improving depression, anxiety and distress: an overview of systematic reviews. *British Journal of Sports Medicine* Published Online First: 16 February 2023. doi: 10.1136/bjsports-2022-106195.