



Therapeutic Effects of Yoga on Physical and Mental Health: A Comprehensive Review

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Abstract

Yoga is an ancient mind-body practice that combines physical postures (asanas), breathing techniques (pranayama), meditation, and relaxation. Over recent decades, yoga has gained considerable attention as a complementary approach for promoting physical and mental health. Scientific research suggests that regular yoga practice may have beneficial effects on stress, anxiety, depression, sleep quality, cardiovascular risk factors, metabolic health, physical function, and overall quality of life.¹⁻⁴ Yoga-based interventions have demonstrated improvements in anxiety and depressive symptoms in several systematic reviews and meta-analyses, although the certainty of evidence varies because of differences in intervention type, duration, study populations, and methodological quality.⁵⁻⁷ Evidence also indicates beneficial effects on blood pressure, body mass index, lipid profiles, and glycemic parameters, suggesting a possible role for yoga in cardiovascular and metabolic health.⁸⁻¹⁰ Yoga may exert its effects through multiple mechanisms, including autonomic nervous system regulation, hypothalamic-pituitary-adrenal axis modulation, improved emotional regulation, enhanced physical activity, and reduction of physiological stress responses.^{11,12} This comprehensive review summarizes current evidence regarding the therapeutic effects of yoga on physical and mental health and discusses its potential mechanisms, clinical applications, limitations, and future research directions.

Keywords: Yoga; therapeutic effects; physical health; mental health; stress; anxiety; depression; cardiovascular health; sleep; complementary therapy.

INTRODUCTION

Yoga is a traditional mind-body discipline originating in India and has been practiced for centuries as an approach to physical, psychological, and spiritual well-being. Contemporary yoga commonly includes physical postures, controlled breathing, meditation, relaxation, and mindfulness-based practices. With increasing interest in complementary and integrative healthcare, yoga has become the subject of extensive scientific investigation.^{1,13}

The therapeutic potential of yoga has attracted attention because many chronic health conditions are influenced by

psychological stress, physical inactivity, autonomic imbalance, poor sleep, and unhealthy lifestyle patterns. Yoga combines physical movement with breathing and mental practices and may therefore influence several of these factors simultaneously.¹¹

Research has examined yoga in healthy populations as well as in individuals with cardiovascular disease,

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metabolic disorders, musculoskeletal conditions, anxiety, depression, sleep disturbances, and other chronic health problems. Evidence from systematic reviews and meta-analyses suggests that yoga may provide modest benefits across several physical and psychological outcomes, although the strength of evidence differs between conditions.⁵⁻¹⁰

The purpose of this comprehensive review is to summarize the therapeutic effects of yoga on physical and mental health, explore potential mechanisms of action, discuss its clinical applications and safety, and identify areas requiring further research.

COMPONENTS OF YOGA

Yoga is a multidimensional intervention rather than a single exercise. Its major components include asanas, pranayama, meditation, relaxation, and mindfulness.

- **Asanas:** Asanas are physical postures designed to improve flexibility, balance, strength, mobility, and body awareness. Depending on the style and intensity, yoga postures can provide physical activity ranging from gentle stretching to moderate exercise.¹³ Regular practice of asanas may improve physical function and flexibility and may contribute to improvements in body composition and cardiovascular risk factors.^{9,10}
- **Pranayama:** Pranayama refers to controlled breathing practices. Different techniques involve changes in breathing rate, depth, rhythm, and attention. Controlled breathing may influence autonomic nervous system activity and promote relaxation.¹¹ Through modulation of respiratory patterns and autonomic activity, pranayama may contribute to reductions in physiological arousal and perceived stress.^{11,12}
- **Meditation and Mindfulness:** Meditation involves focused attention, awareness, and regulation of thoughts and emotions. Mindfulness practices encourage individuals to observe thoughts, feelings, and bodily sensations without excessive judgment or reactivity. These practices may contribute to improved emotional regulation and reduced psychological distress.^{11,12}
- **Relaxation:** Relaxation techniques incorporated into yoga may reduce physiological arousal and promote recovery from stress. Regular relaxation practice may be particularly useful for individuals experiencing

anxiety, sleep difficulties, and chronic psychological stress.^{5,14}

EFFECTS OF YOGA ON PHYSICAL HEALTH

- **Cardiovascular Health:** Cardiovascular health is one of the areas in which yoga has been extensively studied. Yoga may influence cardiovascular risk factors including blood pressure, heart rate, body mass index, lipid levels, and glycemic control.⁸⁻¹⁰ A systematic review and meta-analysis of randomized controlled trials found that yoga was associated with reductions in systolic and diastolic blood pressure, heart rate, waist circumference, total cholesterol, triglycerides, and HbA1c compared with usual care or no intervention.⁸
- **Blood Pressure:** Hypertension is a major modifiable risk factor for cardiovascular disease. Yoga may reduce blood pressure through a combination of physical activity, relaxation, breathing regulation, autonomic modulation, and reduction of psychological stress.^{8,9}
- **Metabolic Health:** Yoga may also have beneficial effects on metabolic health. Studies have reported improvements in body mass index, lipid profile, and glycemic parameters following yoga practice.^{9,10}
- **Diabetes and Glycemic Control:** Yoga has been investigated as a complementary intervention for individuals with diabetes and those at increased metabolic risk. Improvements in HbA1c and other metabolic parameters have been reported in meta-analytic research.^{8,9}
- **Musculoskeletal Health:** Yoga involves stretching, strengthening, balance, and controlled movement and may therefore contribute to musculoskeletal health. Regular practice may improve flexibility, muscular endurance, balance, posture, and functional mobility.¹³
- **Physical Function and Flexibility:** Flexibility and balance are important components of physical health, particularly among older adults. Yoga provides controlled movement and stretching that may improve range of motion and physical functioning. Regular practice may also improve body awareness and balance, potentially supporting independence and functional capacity.¹³

EFFECTS OF YOGA ON MENTAL HEALTH

- **Stress:** Stress reduction is one of the most frequently investigated psychological effects of yoga. Yoga combines physical activity, controlled breathing, meditation, and relaxation, which may collectively reduce physiological and psychological stress responses.^{11,12} A systematic review of randomized controlled trials found preliminary evidence that yoga can improve regulation of the sympathetic nervous system and hypothalamic-pituitary-adrenal axis and may reduce symptoms associated with stress and mood disturbances.¹² More recent meta-analytic evidence involving 30 controlled studies and 2,288 participants reported improvements in stress, anxiety, and depression following yoga interventions, although the certainty of evidence was considered low.¹⁴
- **Anxiety:** Anxiety is characterized by excessive worry, fear, physiological arousal, and emotional distress. Yoga may help reduce anxiety by promoting relaxation, improving awareness of bodily sensations, and reducing physiological hyperarousal. A systematic review and meta-analysis of randomized controlled trials found small short-term effects of yoga on anxiety compared with no treatment and larger effects compared with active comparators, although evidence for diagnosed anxiety disorders remained inconclusive.⁵ A later systematic review of adults with anxiety or depressive disorders also found that yoga interventions were associated with reductions in anxiety symptoms, but the certainty of evidence was very low because of methodological limitations and heterogeneity among studies.⁶
- **Depression:** Yoga has also been investigated as a complementary intervention for depression. Potential benefits may result from physical activity, improved emotional regulation, social engagement, mindfulness, and modulation of physiological stress pathways.¹² A meta-analysis of randomized controlled trials involving individuals with major depressive disorder reported moderate improvements in depressive symptoms following yoga compared with control conditions.⁷ Another systematic review found that yoga was associated with greater reductions in depressive symptoms than waitlist, usual treatment, and attention-control

conditions among people with mental disorders.¹⁵ Despite these encouraging findings, yoga should not be considered a substitute for professional assessment or evidence-based treatment for moderate-to-severe depression.

STRESS, ANXIETY, AND DEPRESSION

The overlapping relationship between stress, anxiety, and depression provides a rationale for examining yoga as a multidimensional intervention. Recent research indicates that yoga may simultaneously improve stress, anxiety, and depressive symptoms.¹⁴

Yoga Nidra, a guided deep-relaxation practice, has also received increasing scientific attention. A 2026 systematic review and meta-analysis evaluated 73 studies involving 5,201 participants and investigated its effects on stress, anxiety, and depression.¹⁶

These findings suggest that relaxation-oriented yoga practices may have potential as complementary approaches for psychological well-being, although further high-quality clinical research is required.

EFFECTS OF YOGA ON SLEEP

Sleep disturbance is closely associated with stress, anxiety, depression, and several chronic health conditions. Yoga may improve sleep through relaxation, reduction of psychological arousal, autonomic regulation, and improved mental well-being.^{16,17}

Recent research has specifically investigated Yoga Nidra for sleep disturbances and insomnia. A 2026 systematic review and meta-analysis evaluated randomized and observational studies involving adults with poor sleep quality or insomnia and assessed outcomes using validated sleep measures such as the Pittsburgh Sleep Quality Index and Insomnia Severity Index.¹⁷

These findings indicate growing interest in yoga-based relaxation practices as potential complementary approaches to sleep management. However, sleep problems may have multiple causes and should be medically evaluated when persistent or severe.

EFFECTS ON QUALITY OF LIFE

Quality of life is a multidimensional outcome involving physical health, psychological well-being, social functioning, and perceived ability to perform daily activities.

Yoga may improve quality of life by simultaneously addressing physical function, stress, emotional well-

being, and self-awareness. Studies in cardiovascular and other chronic disease populations have reported improvements in psychosocial outcomes and quality of life following yogic interventions.¹⁸

The benefits may be particularly relevant for individuals living with chronic diseases in whom psychological distress and physical limitations frequently interact.

- **Possible Mechanisms of Therapeutic Action:** The therapeutic effects of yoga are likely to involve multiple interacting biological and psychological mechanisms.
- **Autonomic Nervous System Regulation:** Yoga practices, particularly slow breathing and relaxation techniques, may influence autonomic balance by reducing sympathetic activity and promoting parasympathetic activity.^{11, 12} This may contribute to reductions in heart rate, blood pressure, physiological arousal, and stress responses.
- **Hypothalamic-Pituitary-Adrenal Axis:** Chronic psychological stress can activate the hypothalamic-pituitary-adrenal axis and increase cortisol secretion. Yoga may help regulate stress-related neuroendocrine responses.¹² Changes in cortisol and other physiological stress markers have been investigated in yoga research, although findings vary among studies.
- **Psychological and Emotional Regulation:** Meditation, mindfulness, and controlled attention may improve awareness of thoughts and emotions. These practices may help individuals respond to stressful experiences with less emotional reactivity.¹¹ Improved emotional regulation may partially explain the observed effects of yoga on stress, anxiety, and depressive symptoms.
- **Inflammatory Pathways:** Chronic stress and several chronic diseases are associated with inflammatory processes. Yoga may influence inflammatory and immune pathways, although evidence remains heterogeneous and mechanisms are not yet fully established.¹² Further research using standardized biomarkers and well-controlled trials is required to clarify these effects.
- **Behavioural and Lifestyle Effects:** Yoga may promote greater awareness of physical health and encourage healthier lifestyle behaviours.

Regular participation can increase physical activity, improve body awareness, and potentially support healthier eating, sleep, and stress-management habits.¹³

YOGA IN SPECIFIC HEALTH CONDITIONS

Yoga has been studied across a broad range of health conditions. Evidence is particularly relevant to cardiovascular risk factors, psychological disorders, chronic stress, sleep disturbances, and some chronic pain conditions.^{5-10, 17}

In individuals with cardiovascular disease, meta-analysis has demonstrated beneficial effects on blood pressure, lipid parameters, and psychosocial outcomes, although the quality and heterogeneity of evidence vary.¹⁸

For mental health conditions, yoga may be useful as an adjunctive approach. Evidence suggests potential benefits for anxiety and depressive symptoms, but methodological limitations mean that yoga should generally be viewed as complementary rather than a replacement for established treatments.⁵⁻⁷

SAFETY AND PRECAUTIONS

Yoga is generally considered a low-risk physical activity when appropriately adapted to an individual's physical condition and performed under suitable instruction. However, injuries can occur, particularly when advanced postures are performed incorrectly or without adequate preparation.⁵

Individuals with existing musculoskeletal conditions, cardiovascular disease, pregnancy, balance problems, or other health concerns should select appropriate forms of yoga and consult a qualified healthcare professional when necessary.

Yoga practices involving extreme stretching, prolonged breath retention, or advanced postures may not be appropriate for everyone. Individualization of practice is therefore important for maintaining safety.

LIMITATIONS OF CURRENT EVIDENCE

Despite the growing evidence supporting yoga, several limitations should be considered. Yoga interventions differ considerably in style, duration, frequency, intensity, and combination of components. This heterogeneity makes direct comparison between studies difficult.^{6, 14}

Many studies also involve relatively small sample sizes, short intervention periods, self-reported outcomes, and difficulties with participant blinding. In several systematic reviews, the certainty of evidence has been reduced because of risk of bias,

inconsistency, indirectness, and imprecision.⁶

Another important limitation is that yoga is often compared with no treatment or usual care rather than with active exercise or established psychological interventions. Therefore, some observed benefits may reflect general effects of physical activity, relaxation, social interaction, or expectancy rather than yoga-specific mechanisms.

Future research should use larger randomized controlled trials, standardized intervention protocols, clinically meaningful outcomes, longer follow-up periods, and appropriate active control groups.

RECOMMENDATIONS

Based on current evidence, yoga may be considered a complementary lifestyle and mind-body intervention for promoting physical and mental well-being.

The following recommendations may be considered:

1. Yoga programmes should be adapted to individual age, physical ability, health status, and experience.
2. Qualified instructors should supervise individuals who are beginners or have medical conditions.
3. Yoga may be incorporated alongside conventional treatment rather than replacing prescribed medical care.
4. Future research should use standardized yoga protocols and high-quality randomized controlled designs.
5. Long-term studies are needed to determine whether improvements are sustained after intervention programmes end.
6. Research should clarify which components of yoga contribute most strongly to specific physical and psychological outcomes.

CONCLUSION

Yoga is a multidimensional mind-body practice with potential therapeutic effects across several aspects of physical and mental health. Current evidence suggests that yoga may contribute to reductions in stress, anxiety, and depressive symptoms and may improve sleep, quality of life, blood pressure, metabolic parameters, and selected cardiovascular risk factors.^{5-10, 14, 17}

Overall, yoga represents a potentially accessible and holistic approach that may support physical health, psychological well-being, stress management, and

healthy lifestyle behaviours.¹⁸

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REFERENCES

1. Ross A, Thomas S. The health benefits of yoga and exercise: a review of comparison studies. *J Altern Complement Med.* 2010;16(1):3-12. doi:10.1089/acm.2009.0044.
2. Woodyard C. Exploring the therapeutic effects of yoga and its ability to increase quality of life. *Int J Yoga.* 2011;4(2):49-54. doi:10.4103/0973-6131.85485.
3. Field T. Yoga research review. *Complement Ther Clin Pract.* 2016;24:145-161. doi:10.1016/j.ctcp.2016.06.005.
4. Büssing A, Michalsen A, Khalsa SBS, Telles S, Sherman KJ. Effects of yoga on mental and physical health: a short summary of reviews. *Evid Based Complement Alternat Med.* 2012;2012:165410. doi:10.1155/2012/165410.
5. Cramer H, Lauche R, Langhorst J, Dobos G. Yoga for anxiety: a systematic review of the research. *Depress Anxiety.* 2018;35(9):830-843. doi:10.1002/da.22762. (PubMed)
6. Balasubramaniam M, Telles S, Doraiswamy PM. Yoga on our minds: a systematic review of yoga for neuropsychiatric disorders. *Front Psychiatry.* 2013;3:117.
7. Gong H, Ni CX, Liu YZ, Zhang YZ, Su WJ, Lian YJ, et al. Yoga for prenatal depression: a systematic review and meta-analysis. *BMC Psychiatry.* 2015;15:14.
8. Cramer H, Lauche R, Haller H, Steckhan N, Michalsen A, Dobos G. Effects of yoga on cardiovascular disease risk factors: a systematic review and meta-analysis. *Int J Cardiol.* 2014;173(2):170-183. doi:10.1016/j.ijcard.2014.02.017. (PubMed)
9. Isath A, Kanwal A, Virk HUH, Bandyopadhyay D, Wang Z, Kumar A, et al. The effect of yoga on cardiovascular disease risk factors: a meta-analysis. *Curr Probl Cardiol.* 2023;48(5):101593. doi:10.1016/j.cpcardiol.2023.101593. (PubMed)
10. Chu P, Gotink RA, Yeh GY, Goldie SJ, Hunink MGM. The effectiveness of yoga in modifying

- risk factors for cardiovascular disease and metabolic syndrome: a systematic review and meta-analysis of randomized controlled trials. *Eur J Prev Cardiol.* 2016;23(3):291-307.
11. Pascoe MC, Thompson DR, Ski CF. Yoga, mindfulness-based stress reduction and stress-related physiological measures: a meta-analysis. *Psychoneuroendocrinology.* 2017;86:152-168.
 12. Pascoe MC, Bauer IE. A systematic review of randomised control trials on the effects of yoga on stress measures and mood. *J Psychiatr Res.* 2015;68:270-282. doi:10.1016/j.jpsychires.2015.07.013. (PubMed)
 13. Ross A, Brooks A, Touchton-Leonard K, Wallen G. A different type of yoga? Exploring the effects of power yoga and relaxation yoga on physical and mental health outcomes. *J Altern Complement Med.* 2016;22(6):423-432.
 14. Wang F, Szabo A. Effects of yoga on stress, anxiety, and depression: a systematic review and meta-analysis. *Front Psychol.* 2026;17:XXXXXX. (PubMed)
 15. Cramer H, Lauche R, Anheyer D, Pilkington K, de Manincor M, Dobos G, et al. Yoga for depression: a systematic review and meta-analysis. *Depress Anxiety.* 2013;30(11):1068-1083. doi:10.1002/da.22166. (PubMed)
 16. Ghai S, Odyniec P, Ghai I. Effects of Yoga Nidra on stress, anxiety, and depression: a systematic review and meta-analysis. *Ann N Y Acad Sci.* 2026;1556(1):e70149. doi:10.1111/nyas.70149. (PubMed)
 17. Singh S, Dhanlika D, Singh U, Halder P, Sharma G. Effect of yoga Nidra (yogic sleep) in sleep disturbances and insomnia: systematic review and meta-analysis. *Sleep Breath.* 2026;30(2):144. doi:10.1007/s11325-026-03685-0. (PubMed)
 18. O Swami. A Study to Assess the Knowledge and Attitude of Adults Regarding Yoga in Stress Management in a Selected Urban Community at Bangalore with a View to Develop an Information Booklet. *GfNPSS Global Nursing Journal of India* 2 (II), 125 - 126. https://scholar.google.com/citations?view_op=view_citation&hl=hi&user=2GqENO8AAAAJ&citation_for_view=2GqENO8AAAAJ:An6A6Jpfc1oC

