

**THERAPEUTIC POTENTIAL OF YOGA IN IMPROVING LIFE QUALITY: A
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ABSTRACT

The effects of yoga postures on psychological illnesses, such as anxiety and depression, on pain syndromes, cardiovascular, autoimmune, and immunological conditions, as well as on pregnancy, are reviewed in this study based on recent research. The physiological consequences of yoga, such as lower blood pressure and heart rate, as well as the physical effects, such as weight loss and improved muscle mass, are also discussed. Because yoga has been examined in many populations addressing a wide range of different disorders and conditions, this paper gives information about its therapeutic effects. Yoga postures and practises are used in therapeutic yoga to treat medical disorders. It also involves receiving education in yogic teachings and practises to prevent, lessen, or eliminate limits caused by structural, physiological, emotional, or spiritual pain. According to the study's findings, yoga improves a number of bodily functions, including muscular strength and flexibility, respiratory and cardiovascular health, addiction treatment and recovery, stress reduction, chronic pain management, and sleep quality. It also reduces anxiety and depressive symptoms.

KEYWORDS: Yoga, Anxiety, Heart diseases, Stress.**INTRODUCTION**

Yoga, a 3,000-year-old tradition, is today viewed as a holistic approach to health in the Western world, and is designated as a kind of Complementary and Alternative Medicine by the National Institutes of Health (CAM).^[1] Ayurveda is made up of two Sanskrit words: "Ayus" and "Veda," which represent "life" and "knowledge," respectively. It literally means "life science." Yoga is an important aspect of Ayurveda, which is widely practiced in India and is gaining favour in many other nations. Regular yoga practice increases strength, endurance, flexibility, kindness, compassion, and self-control, all while creating a sense of peace and well-being.^[2] The sustained practice also leads to crucial consequences such as a shift in perspective, increased self-awareness, and more energy to live life fully and with genuine pleasure. Yoga provides a physiological condition that is the polar opposite of the flight-or-fight stress reaction, and this disruption in the stress response allows for a sense of balance and oneness between the mind and body.^[3] It places a strong emphasis on the body, mind, and consciousness. Herbal medicines, food, yoga,

meditation, and other disciplines are all part of Ayurvedic treatment.^[4]

Yoga is a mind-body exercise that combines muscular action with an internally directed focused focus on self-awareness, breath, and energy.^[5] Yoga's healing approach is based on four fundamental concepts.^[6] The first premise is that the human body is a holistic entity made up of several interconnected dimensions that are inextricably linked, and that the health or illness of any one dimension has an impact on the others. Individuals and their requirements are unique; thus, they must be handled in a way that recognises this, and their practises must be adapted accordingly. The third point is that yoga empowers the pupil to be their own healer. Yoga involves the learner in the healing process; by taking an active position in their health journey, the healing comes from within rather than from an outside source, and the student gains a stronger sense of autonomy. The fourth premise is that a person's mental health and well-being are critical to their recuperation. Healing occurs more quickly when the individual's mind-state is positive,

however healing may take longer when the mind-state is negative.

Patanjali's Yoga Sutras, usually considered the definitive work on yoga, was the first to define yoga theory and practise.^[6] Many people today associate yoga solely with asana, or physical practise, but asana is only one of many tools used to heal the individual; only three of the 196 sutras mention asana, and the rest of the text discusses other aspects of yoga such as conscious breathing, meditation, lifestyle and diet changes, visualisation, and the use of sound, among other things.^[6] Patanjali lays forth an eight-fold road to consciousness and enlightenment known as ashtanga, which literally means "eight limbs," in his Yoga Sutras.^[7]

The eight limbs are a set of ethical principles for living a meaningful and purposeful life; they serve as a prescription for moral and ethical behaviour and self-discipline, and they focus on one's health while recognising one's spiritual essence. Although any of the eight limbs can be employed independently, the physical postures and breathing techniques used in yoga philosophy prepare the mind and body for meditation and spiritual development.^[7] Many distinct yogic disciplines have sprung out as a result of Patanjali's eight limbs. Each has a unique approach to disease prevention and treatment.^[1] The physical postures and breathing techniques of Hatha yoga, as well as meditation, are the most popular parts of yoga in the Western world. Hatha yoga uses a series of bodily postures, movements (asanas), and breathing methods to improve the physical body's potential (pranayama). Hatha yoga breathing practises emphasise inhalation, breath retention, and exhalation that are all conscious. Blockages in the body's energy channels are cleansed and the body's energy system becomes more balanced through the union of the physical body, breath, and focus while doing the postures and exercises. The bulk of the research in this publication used the Iyengar style of yoga, despite the fact that there are many different types of Hatha yoga. The Hatha yoga Iyengar technique is based on B.K.S. Iyengar's teachings.^[1] To improve strength, stability, stamina, attention, and body alignment, Iyengar yoga focuses on standing poses. Props are used to aid learning and change positions, and teaching on how to use yoga to relieve various conditions and tensions is provided.

Yoga is a type of mind-body medicine that integrates a person's physical, mental, and spiritual aspects to enhance health, particularly stress-related disorders.^[8] Stress appears to play a role in the aetiology of heart disease, cancer, stroke, and other chronic illnesses and diseases, according to research.^[9] Because stress has been linked to a variety of diseases, stress management and the decrease of negative emotional states should be prioritised in order to lessen disease burden. Yoga is a type of CAM that causes a physiological sequence of events in the body that reduces the stress response. It is viewed as a holistic stress management approach. Yoga's

scientific study has exploded in recent years, with a slew of clinical experiments evaluating its therapeutic effects and benefits.

In the past few decades, yoga has been studied as a treatment for modern epidemic diseases such as mental stress, obesity, diabetes, hypertension, coronary heart disease, and chronic obstructive pulmonary disease. Individual studies indicate that yoga can be used as a nonpharmaceutical measure or as a supplement to medication therapy for the treatment of several illnesses, showing that yoga can be used as a nonpharmaceutical measure or as a supplement to drug therapy. For therapeutic objectives, this research has utilised solely yoga asana, pranayama, and/or brief meditation sessions. Likewise, the general perception of yoga is incorrect, which is also the case. In actuality, yoga signifies the unification of individual awareness with the divine mind. It involves eight rungs or limbs of yoga, which comprise yama, niyama, asana, pranayama, pratyahara, dharana, dhyana, and samadhi. The basic purpose of yoga is self-realization, which is attained by intense practise of these. Analysing the rungs and purpose of yoga reveals that it is a holistic lifestyle that leads to a state of perfect bodily, social, mental, and spiritual health and harmony with nature. This is in contrast to the exclusively economic and materialistic objective of modern civilization's progress, which has resulted in social turmoil and ecological damage.^[10]

As the popularity of mind-body fitness programmes like yoga grows, it's more vital than ever for health care providers to understand the nature of yoga and the evidence for its numerous therapeutic impacts. As a result, this review of the research is topical and significant, as it gives information on the beneficial effects of yoga in different populations for a variety of disorders and conditions. Therapeutic yoga is described as the use of yoga postures and practises to treat illnesses.^[5] Yoga therapy is the study of yogic practises and teachings in order to prevent or relieve structural, physiological, emotional, and spiritual pain, suffering, or limits. Yogic activities improve muscular strength and bodily flexibility, improve respiratory and cardiovascular function, aid in addiction recovery and treatment, reduce stress, anxiety, depression, and chronic pain, improve sleep patterns, and improve general well-being and quality of life.^[11]

THERAPEUTIC EFFECTS OF YOGA

1. In Mental Health

Depression, anxiety, stress, and sleeplessness are among the most common reasons people seek treatment with alternative therapies like yoga. Yoga teaches one to relax, slow the breath, and concentrate on the present moment, shifting the balance from the sympathetic nervous system and the fight-or-flight reaction to the parasympathetic system and the relaxation response. The latter is relaxing and restorative; it reduces breathing and heart rate, blood pressure, cortisol levels, and blood flow

to the intestines and important organs.^[12] One of the primary goals of yoga is to acquire mental peace and produce a sense of well-being, relaxation, enhanced self-confidence, higher productivity, heightened attentiveness, reduced irritation, and an optimistic attitude on life.^[3]

Yoga has been proved to improve both healthy and unwell people's quality of life. Yoga is as effective as or better than exercise for improving a range of mental and physical health parameters, including stress, quality of life, emotional states, heart rate variability, pulmonary function, and so on, according to a review research.^[13] Yoga could be an effective and less harmful supplementary treatment for severe mental illness, according to a meta-analysis. because weight gain and toxicity are side effects of numerous pharmacotherapies. Yoga was found to improve prisoners' subjective well-being, mental health, and executive function in one study.^[14] Various studies have shown that yoga improves the quality of life and interpersonal connections of pregnant women.^[15] Yoga has been demonstrated to improve psychological health and health-related quality of life in antipsychotic-stabilized individuals in studies conducted over the last 15 years.^[16]

Yoga could be used as a monotherapy in the treatment of mild to moderate MDD, according to promising data. Yoga's use as an adjuvant therapy is supported by Level 2 evidence.^[17] Multiple studies have found that: a) Yoga is more effective than no treatment in improving mild to moderate depressive symptoms in MDD b) Yoga is as effective as TCAs (tricyclic antidepressants) in severe MDD; and c) Yoga in combination with antidepressants is better than antidepressants alone for depressive symptoms.^[18,19]

The practise of yoga produces balanced energy, which is essential to the immune system's function. The posterior or sympathetic region of the hypothalamus is inhibited as a result of yoga.^[3] This inhibition enhances the body's sympathetic reactions to stressful stimuli and recovers the stress-related autonomic regulating reflex mechanisms. Yogic techniques suppress the regions of the brain responsible for fear, aggression, and fury, and stimulate the rewarding pleasure centres in the middle forebrain and other regions that lead to a feeling of joy and pleasure. This inhibition reduces anxiety, heart rate, respiration rate, blood pressure, and cardiac output among yoga and meditation practitioners.^[20]

Consistent yoga practise can lead to large increases in serotonin levels and decreases in monamine oxidase, an enzyme that degrades neurotransmitters and cortisol.^[12] For the therapy of depressive disorders, a variety of therapeutic techniques are available; however, many patients turn to complementary therapies due to the side effects of medication, lack of response, or simple preference for the complementary approach. Numerous

research suggested the potential therapeutic effects of yoga therapies on depression, anxiety, and stress.^[21]

2. In Obesity

Yoga has become one of the world's most popular evidence-based disciplines. In 2002, more than ten million Americans practised yoga for health reasons, and by 2007, that number had risen to thirteen million.^[22] Several yoga schools have developed several modules of yoga practises that have demonstrated a variety of good effects on BMI in both adults and children. The BMI, hip circumference, waist circumference, and skin-fold thickness of 72 obese adult males improved as a result of a randomised controlled experiment. Yoga nutrition, asana, pranayama, relaxation techniques, meditation, and yogic counselling were all part of a 14-week yoga-based lifestyle transformation.^[23] Weight loss is effective with a yoga-based lifestyle intervention, and it also prevents weight gain, particularly in overweight people.^[24] A decrease in the levels of IL-6, IL-18, and CRP, as well as an increase in adiponectin in obese and postmenopausal women, suggest that this lifestyle modification decreases inflammation. Adiponectin levels, serum lipids, and metabolic syndrome risk factors in obese postmenopausal women were all improved in another study.^[25] Short-term yoga-based lifestyle interventions have been demonstrated to lower IL-6 and TNF- in obese and normal-weight people, as well as raise adiponectin and lower IL-6 in obese men.^[26] Short-term yoga exercises substantially reduced IL-6, hs-CRP, and extracellular superoxide dismutase levels in heart failure patients. Furthermore, a diet-induced weight loss resulted in a reduction in ET-1, which was linked to a reduction in systolic BP.^[27] In individuals with CAD, a significant rise in plasma total antioxidants, plasma vitamin E, and erythrocyte glutathione (GSH) has been demonstrated following an aggressive lifestyle adjustment.^[28]

3. In Heart Diseases

Yoga combines a healthy lifestyle with mental peace^[29], and it has been proven that a change in lifestyle and calming activities can improve the clinical profile of patients with various pathologies.^[30] Even a short-term yoga-based lifestyle intervention resulted in better cardiovascular metabolic status^[31] and lipid peroxidation in healthy volunteers who practised pranayama and meditation regularly. A reduction in disease activity was reported after a comprehensive lifestyle intervention in patients with coronary atherosclerosis in a randomised controlled trial.^[32] In a study undertaken by the same group, it was discovered that intense lifestyle modification can lead to coronary atherosclerosis regression after one year, with more regression occurring after five years than after one year in the experimental group.^[33] The probable role of a yoga-based lifestyle in the prevention of coronary atherosclerosis disease was investigated in an Indian study. After a year, the yoga group had a lower number of angina events per week, increased activity ability, and a lower body weight. When compared to the control group, total cholesterol,

LDL cholesterol, and triglyceride levels in the blood were all lower. Importantly, even a brief yoga-based holistic lifestyle intervention resulted in significant reductions in BMI, blood pressure, and blood glucose levels, as well as a clinically important improvement in lipid profile.^[34] According to a recent study, a yoga-based, residential weight loss programme could promote psychological well-being, improved nutrition habits, and weight loss.^[35] Another study found that an 8-week yoga programme improved body composition and total cholesterol levels in obese adolescent boys.^[36]

Yoga postures (particularly Suryanamaskar) were found to increase cardiorespiratory fitness in another study.^[37] Yoga resulted in a substantial drop in blood pressure (SBP/DBP: 2.0/2.6 mm Hg) in young hypertensive and pre-hypertensive subjects in a prior study.^[38] A yoga-based lifestyle intervention, on the other hand, reduced all lipid indicators except HDL. The effect began after four weeks and continued for fourteen weeks.^[39] These findings suggest that a yoga-based lifestyle intervention may have an influence on some modifiable risk factors, which could explain the CVD preventative and therapeutic benefits of yoga. Overall, lifestyle changes can slow the progression of vascular inflammation at different stages of the disease's aetiology, preventing CVD cause and progression.

4. In Lipid Profile

Ischemic heart disease is caused by high levels of serum total cholesterol, low-density lipoprotein (LDL), very low-density lipoprotein (VLDL), and triglycerides, while high-density lipoprotein (HDL) protects against it. Yoga asanas and pranayama have been proven to improve serum lipid levels in people with type 2 diabetes mellitus in studies. Following 40 days of yoga asanas and pranayama practise, a study out of Delhi found a substantial reduction in total serum cholesterol. Although there was a decreased trend in serum LDL, VLDL, and triglycerides, it was not significant.^[40] Another Bangalore study found that serum total cholesterol, triglycerides, and LDL levels all decreased significantly. The levels of HDL, on the other hand, remained unchanged. Other studies have found a significant decrease in free fatty acids, LDL, and VLDL, as well as an increase in HDL, in addition to an increase in HDL. Small sample sizes, different intervention durations, and variances in patient diets are most likely to blame for the disparities in these research' outcomes.^[41]

5. In Diabetes

India is known as the world's diabetic capital since it has the highest number of diabetic cases. Yoga asanas and pranayama can help regulate type 2 diabetes mellitus and can be used in conjunction with medical treatment.^[42] A yoga expert trained participants in yoga asanas and pranayama for three months, 1 hour every day in the morning, resulting in lower fasting and postprandial blood glucose levels and acetylated haemoglobin.^[43] In another study from India, yoga asanas and pranayama

reduced fasting blood glucose levels, postprandial blood glucose levels, and acetylated haemoglobin in individuals with non-insulin-dependent diabetes mellitus after 40 days of practise. Within 10 days, they gained a sense of well-being, and their anti-diabetic medications were reduced. Yoga has a positive influence on cognitive brain functions and can thus be used in conjunction with conventional medical therapy to improve cognitive brain functions in people with type 2 diabetes.^[40]

LIMITATIONS OF STUDIES ON YOGA

Clinical investigations on the impact of yoga on health and disease have a number of flaws. Clinical investigations investigating the therapeutic function of yoga in diabetes control have been limited by a lack of suitable control groups, small numbers of patients, and short study durations. Furthermore, several of the research just looked at blood sugar levels as an endpoint, ignoring all of yoga's other advantages. Selection bias, confounding factors' influence, a lack of adequate research methods, inconsistency of the baseline data, and a lack of appropriate statistical analysis all make it difficult to evaluate yoga studies.^[28] We can improve yoga research studies by improving study methodology, reducing bias, studying long-term adherence to yoga practise (including home practise) to assess the long-term benefits of yoga, and analysing specific components of yoga therapy to get a better understanding of different types of yoga and their benefits.

DISCUSSION AND CONCLUSION

When adopted as a way of life, yoga enhances physical, mental, intellectual, and spiritual health. Yoga is rapidly gaining popularity in the Western world as a discipline for unifying and harmonising the mind and body. Numerous studies have demonstrated that yoga is an effective strategy for controlling and lowering stress, anxiety, and depression.

However, mind-body therapies are gaining popularity as a technique of reducing stress in individuals. Yoga, a sort of mind-body exercise, has become an increasingly popular therapy used to preserve health and alleviate a wide variety of health conditions. Yoga should be considered as a complementary therapy or alternative method for medical therapy in the treatment of stress, anxiety, depression, and other mood disorders because it has been shown to create a greater sense of well-being, increase feelings of relaxation, improve self-confidence and body image, increase efficiency, improve interpersonal relationships, increase attentiveness, reduce irritability, and promote an optimistic outlook on life.

Researchers are just beginning to comprehend how disciplines such as yoga enhance human growth, health, and well-being. By recognising the connection of mind, body, and spirit, mind-body fitness programmes (such as yoga) can aid individuals in their pursuit of serenity, tranquilly, and better completeness and integration in their life. Yoga has the potential to be an integral part of

an individual's wellness programme. Although there are no specific suggestions for the frequency of practise, the more you practise, the greater the benefits. As yoga is an individualised practise, frequency and length are personal questions with unique solutions. Practice should be conducted with discernment and tailored to the requirements and objectives of the individual. In the beginning, individuals should practise as frequently as feasible. The duration of the induction period will vary based on an individual's initial level of fitness and health; the more challenging yoga is at first, the greater the body's demand for it.

While modern medicine can in many cases repair physical diseases and alleviate psychological disorders, it is maintained that a strictly medical approach is much less effective in curing the emotional, intellectual, and personality aspects of a human being. The discipline of yoga provides individuals with a timeless and holistic paradigm of health and healing, and although it may not result in the entire elimination of physical disorders and/or unfavourable situations, it provides a holistic path to healing. There is an obvious relationship between a person's entire physical and mental health and the inner serenity and well-being that yoga aims to accomplish. Yoga stills the fluctuations of the mind, and by behaving deliberately, we live a more fulfilling life with less suffering.

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