

# Yoga and Mental Health: The Benefits of Yoga on Stress and Anxiety in Adults

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## Abstract

All forms of exercise can improve our mood by reducing stress hormone levels, increasing the synthesis of feel-good chemicals called endorphins, and increasing the amount of oxygenated blood in our brains. Yoga, on the other hand, may provide extra advantages. It can improve mood by increasing levels of gamma-aminobutyric acid (GABA), a brain chemical linked to a better mood and less anxiety. Meditation also lowers activity in the limbic system, which is responsible for emotions. When faced with stressful situations, you have a more tempered response as your emotional reactivity declines. Depression and anxiety have traditionally been treated with drugs and talk therapy. But complementary approaches, such as yoga, also help, and yoga stacks up well when compared with other complementary therapies.

Yoga has been reported to aid with post-traumatic stress disorder in several minor trials (PTSD). It is used in conjunction with other treatments to assist lessen intrusive memories and emotional reactivity, as well as generate calmer, more consistent breathing. Because it activates the parasympathetic nervous system, deep, steady breathing is linked to calmer states. This research article summarizes the current evidence on the effects of yoga interventions on various components of mental and physical health, by focussing on the evidence described in review articles. By focusing on the evidence reported in review articles, this research article summarises the current evidence on the effects of yoga therapies on several components of mental and physical health. Overall, these studies point to several areas where yoga could be useful, although further research is needed in almost all of them to prove such advantages. Meta-analysis has been limited by the variability of therapies and conditions evaluated, making it an ineffective tool for summarising the present knowledge.

**Keywords:** Yoga, Mental Health, Stress, Anxiety, Spiritualism and Meditation

Stress is a Biological Change that occurs suddenly. It has become a 21st-century curse and the silent killer of the modern world. The greatest threat in the information age is stress. Stress is a poison that can kill you. It has the potential to disrupt a person's physical, mental, emotional, and behavioural equilibrium. Stress can harm various aspects of the human body, including muscles, tissues, organs, and blood vessels. It can raise the rate of pulses and respiration. It has the potential to raise body temperature and blood pressure. The metabolism, digestion, hunger, sleep, sexuality, and even fertility of the body can all be affected. From stimulus-oriented reactions to psychodynamic insights, Indian scientists looked at the stress phenomena from many angles.

Stress is a normal physiologic reaction to circumstances that make you feel threatened or throw you off balance in some way. When you perceive danger, whether real or imagined, your body's defences kick into high gear in a fast, instinctive process known as the "fight-or-flight-or-freeze" reaction, or the stress response. Hans Selye created the term "stress" as we know it today in 1936, defining it as "the body's non-specific response to any change request." Physiological or biological stress is an organism's response to a stressor, such as an environmental situation or a stimulus. The body responds to stress by activating the sympathetic nervous system, which results in the fight-or-flight reaction, according to the stressful event. The body can't stay in this state for long, therefore the parasympathetic system kicks in to bring the body's physiological parameters back to normal.

There are different types of stress. The main type is Acute stress. It is short-term stress is the most common form of stress and arises from the demands and pressures of the recent past and expected demands and pressures of the near future. The second main is Chronic stress. It is a long-term form of stress, derives from unending feelings of despair/hopelessness, as a result of factors such as poverty, family dysfunction, feelings of helplessness, and/or traumatic early childhood experience. Perceived discrimination, neighbourhood stress, daily stress, family stress, cultural stress, environmental stress, and maternal stress are chronic stressors associated with health disparities (Djuric et al, 2010; NIH, 2011). Eustress and Distress are the third main. Stressors are somewhat difficult to categorise into objective lists of those who cause positive stress and those who cause negative stress, as different people will have different perceptions and reactions to specific situations. By generalising, however, we can compile a list of stressors that are typically experienced most of the time as negative or positive for most individuals.

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“Yoga is as effective as relaxation on seven SF-36 domains in reducing stress, anxiety, and improving health status. Yoga was more effective at improving mental health than relaxation” (2010).

“The death of a spouse”, for example, is an example of a negative personal stressor. Divorce petitioning, Losing communication with family and friends, The death of a member of one's family, Admission to a hospital (oneself or a family member), Illness or injury (oneself or a family member), Being abused or neglected is terrible thing to go through. Separation from a spouse or partner in a committed relationship, In interpersonal relationships, there is conflict. Bankruptcy/financial difficulties, unemployment, and so on. Receiving a promotion at work, for example, is an example of a good personal stressor. When it comes to starting a new job, marriage or a commitment ceremony, purchasing a property, having a kid, relocating, vacationing, or planning a vacation Holiday seasons, retirement, educational seminars, or acquiring a new hobby are all possibilities.

In traditional texts such as *Charak Samhita*, *Yoga Sutra* and *Bhagavat Gita*, a comprehensive description of certain concepts that relate closely to modern concepts of stress can be found. The characteristics of modern stress studies that are relevant to the holistic ancient Indian view of stress and stress management are attracting the international attention of scholars. Yoga is an ancient art defined as the soul's union with God (Anand, 2000). It is “a path of personal spiritual development that utilises meditation to bring enlightenment, self-realization, and, ultimately, the attainment of God and bliss” (109). The ultimate objective of yoga was originally called Samadhi, or self-realization (Iyengar, 2001). The word meditate comes from the word ‘meditari’ in Latin, meaning “to think or reflect upon” (Bonadonna, 2003). It is defined as a simple technique of the mind-body that allows you to gain a unique state of awareness or alertness that is restful. Mindful meditation is the tougher of the two (Bonadonna, 2003). It is defined as attempting to become aware of the entire field of perception. In recent years, more than 2 million Americans have learned to meditate (Bonadonna, 2003). Recent studies and evidence have shown that such yoga practices are effective for stress reduction.

The most well-known forms of exercise are yoga, stretching, cardiovascular activity, and meditation. Yoga is a mind-body practice that balances posture, deep breathing, stretching, and relaxation by integrating the mind and body. Hindu, Jaina, and Buddhist religious traditions have all influenced the development of yoga in India. Yoga improves self-confidence, increases one's sense of well-being, and creates a sense of relaxation and peace, as well as changing one's response to stress and attitude toward stress. Yoga is one of the most effective stress management techniques because it teaches you to stay internally focused. Yoga strengthens both your mental and physical muscles, allowing you to cope better under pressure and respond more gracefully and effectively. At the same time, yoga helps to eliminate and calm the negative effects of stress.

Some of the physiological benefits of yoga practice include better health, improved sleep, normalization of weight, a decrease of physical tension, greater flexibility and strength, increased vitality, endurance, and resilience, improved circulation and digestion, improved posture. Some of the psychological benefits include a decrease of anxiety, hostility, and depression, improved memory, attention span, and ability to concentrate, calmness, improved mood and sense of well-being, greater self-awareness, self-acceptance, and self-actualization, improved balance.

To find research studies and interventions that looked at the effects of yoga and stress, researchers used Google Scholar, Research Gate, and other databases. The following key terms were initially inserted into the database using the advanced search option: ‘yoga’, and ‘stress’. This search was conducted to find general information about yoga and stress in the existing literature. The following key terms or exact phrases were used in a second search: ‘Hatha yoga’, ‘therapeutic effects of yoga’, ‘stress’, ‘anxiety’, ‘depression’, ‘pain’ and “chronic disease.” The following criteria were used to determine which studies should be included in this review: (1) The article had to be peer-reviewed, (2) published between 2000 and 2020, (3) the intervention had to include yoga and/or meditation, and (4) the effects of yoga on specific outcomes were to be quantified. The papers included in this document were chosen through a series of stages. The title was then read first. The article was saved in a folder if it appeared to be relevant to yoga and stress. The papers describing interventions utilising yoga as a means of obtaining various health objectives were chosen for further assessment. After then, each of the papers was carefully read and reviewed. The studies chosen cover a wide spectrum of advantages, implementation, and therapeutic effects related to yoga and stress management.

Stretching the body and establishing various positions while keeping calm and regulated breathing are all part of yoga practice. At the same time, the body relaxes and gets rejuvenated. Different kinds of yoga exist, with some moving through the positions more quickly, almost like an athletic workout, and others relaxing profoundly in each pose. Some are employed solely as a form of practise, while others have a more spiritual bent. Yoga's physical benefits are obvious, and its practice can also give psychological benefits, such as stress reduction and a sense of well-being, as well as spiritual ones, such as a sense of connection with God or Spirit or a sense of transcendence. Some positions may be done almost anywhere, and a yoga programme might last for hours or minutes, depending on one's schedule. There are various mechanisms in yoga that have an impact on stress levels, which means that yoga can help you reduce your stress levels in a variety of ways. The most effective methods in which yoga targets stress are through elevating your mood (or positive affect), allowing for enhanced mindfulness, and promoting self-compassion, according to studies.

Extreme anxiety or tension, cramps, headaches, or digestive issues are all indications of stress, which is described as an environment-related physical or psychological condition. Stress has been linked to increased latent virus reactivation,

upper respiratory tract infection, and wound healing time in studies, indicating that stress causes significant immunological dysfunction. George F. Solomon was the first to demonstrate the impact of stress on immunological response in animals and humans in 1964. Academic stress, the stressful state of students taking exams, can be viewed as a suitable model of naturalistic stress in humans when compared to laboratory-induced stress scenarios. According to the classification of Herbert and Cohen, it is objective, discrete, short-term and non-social stress. Danner et al. and Shukla et al. have shown significant increases in pulse rate and blood pressure during examinations compared with baseline non-stressful states in their studies on examination stress in medical students. Examination stress has consistently been shown to cause changes in the levels of catecholamine, while changes in cortisol and Adrenocorticotropic Hormone (ACTH) have been somewhat contradictory, with some studies showing an increase and others showing no relation.

In reaction to stress, the Hypothalamic-Pituitary-Adrenal axis (HPA) is activated, resulting in the release of the hypothalamic Corticotrophin-Releasing Factor (CRF). CRF stimulates the pituitary gland's release of ACTH, which then activates the adrenal glands, causing them to generate glucocorticoids, which are potent immunological regulators. The effects of glucocorticoids on cellular and humoral immune responses are complicated. While glucocorticoids have an immunosuppressive effect on cellular immune/inflammatory responses, this effect could be due to the inhibition of various immune cascade-stimulating components and the stimulation of immunosuppressive or anti-inflammatory components. Because cellular immunity components are more sensitive to glucocorticoid suppression, the immune response during stress tends to shift from cellular to humoral.

Increased stress, depression, and anxiety are features of today's lifestyle. Because of the negative consequences of medications in the treatment of anxiety and depression, as well as their ineffectiveness in some circumstances, researchers are looking for non-pharmacological and non-invasive treatments for these disorders. Yoga activities increased the variables of self-description, psychological state, and quality of life. As an intellectual and cerebral activity, yoga has been shown to improve one's sense of well-being. Yoga can also help with stress and negative emotion control and monitoring, as well as increasing positive emotions and promoting mental equilibrium. Despite its popularity and the good psychological and physiological effects of yoga, little research has been done to see how effective it is at preventing and treating mental problems. This type of research is prohibited in Iran. This study concluded that Yoga is beneficial in lowering stress, anxiety, and depression and that it can be used as a supplemental medicine that lowers medical costs per treatment by minimising the usage of medications. As a result, the explanation for yoga's effect on stress, anxiety, and depression is unknown to us and maybe transitory, thus future research into the long-term effects of yoga on stress, anxiety, and depression is recommended.

One of the leading causes of illness is stress. Physical diseases such as insomnia, chronic muscle tension, digestive disorders, ulcers, high blood pressure, and heart disease can lead to prolonged exposure to stress. Mental and emotional implications include loss of memory, inability to focus, anxiety, hostility, and depression. Yoga promotes healthy interaction between the body and mind. Yoga helps to slow down the physical, emotional, mental, and spiritual aspects of human beings to appreciate and create a balance. Yoga combines several methods for combating stress. Yoga offers a combination of benefits in one technique, including breathing exercises (pranayama), stretching exercises, fitness programme, and meditation practice and guided meditations. With the practice of yoga, this individual itself can have great advantages. So, in conclusion, yoga can be a great stress remedy and can offer some stress relief.

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