



## Think India (Quarterly Journal)

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in collaboration with

**Indira Gandhi Government Post Graduate College,**

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### **Low-Income Families, Processed Foods and Health**

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#### **Abstract:**

*Yoga is a multifaceted spiritual tool with enhanced health and well-being as one of its positive effects. The components of yoga which are very commonly applied for health benefits are asanas (physical postures), pranayama (regulated breathing) and meditation. In the context of asanas, yoga resembles more of a physical exercise, which may lead to the perception that yoga is another kind of physical exercise. This article aims at exploring the commonalities and differences between yoga and physical exercise in terms of concepts, possible mechanisms and effectiveness for health benefits. A narrative review is undertaken based on traditional and contemporary literature for yoga, along with scientific articles available on yoga and exercise including head-to-head comparative trials with healthy volunteers and patients with various disease conditions. Physical exercises and the physical components of yoga practices have several similarities, but also important differences. Evidence suggests that yoga interventions appear to be equal and/or superior to exercise in most outcome measures. Emphasis on breath regulation, mindfulness during practice, and importance given to maintenance of postures are some of the elements which differentiate yoga practices from physical exercises.*

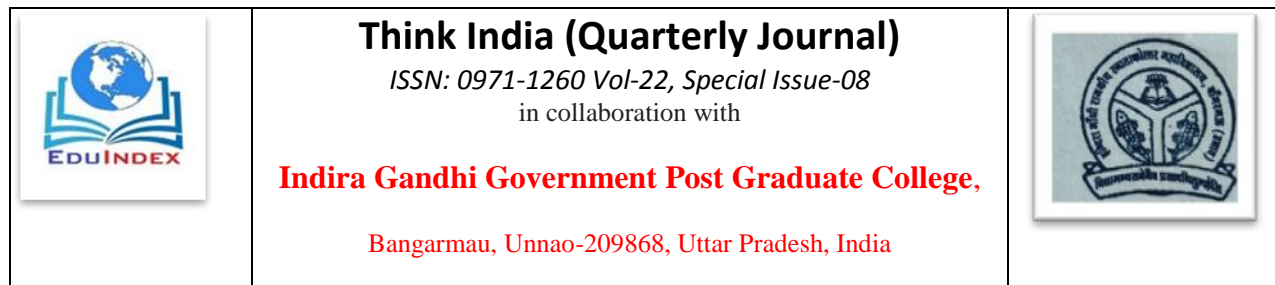
**Keywords:** Yoga, Asana, Pranayama, Physical Exercise, Mindfulness.

#### **Introduction**

Yoga, as it gains popularity from people of all walks of life, is also compared with many movement based practices, especially physical fitness exercises. The apparent similarity of external movements makes one sometimes to equate yoga with exercises. This article aims at comparing and contrasting yoga with physical exercises from the physiological, psychological, and spiritual perspectives.

#### **Origin and intention**

The very meaning of the word yoga (controlling the mental modifications; communion with the universal) (Iyengar, 2007 Iyengar BKS. (2007). Light on yoga sutras of patanjali 13th ed. New Delhi: Harper Collins Publishers India. [Google Scholar]) signifies the importance it attaches to mental and spiritual well-being, stretching beyond just physical well-being. Though the practice of yoga was in existence from the pre-vedic period, it was around 2500-3000 years ago that it got a structured format when Sage Patanjali consolidated the theory and practical concepts of yoga, assimilating ideas mainly from samkhya and vedic philosophy (Radhakrishnan, 2008 Radhakrishnan, S. (2008). Indian Philosophy, 2nd ed. New Delhi: Oxford University Press. [Google Scholar]). During the times of Patanjali, though *asanas* (physical postures) were in practice, they were not given much significance, as the focus was more on meditation and hence some postures conducive to the practice of meditation alone



were incorporated in their spiritual practices. This is very much evident, as one does not find even a single named *asana* in the whole of the Patanjali yoga sutras.

Sages who followed Patanjali tried to modify the practices of yoga by incorporating more physical components, as it is little easier to focus on movements than just directly on the mind. In spite of adding more physical components in the name of *asanas*, the aim remained the same – ‘controlling the mental modifications’ with physical postures as one of the scaffolds. This is apparent from the way the asanas are practiced (slow with synchronized breathing and mindful awareness of the movements), unlike other physical exercises

**Exercise**

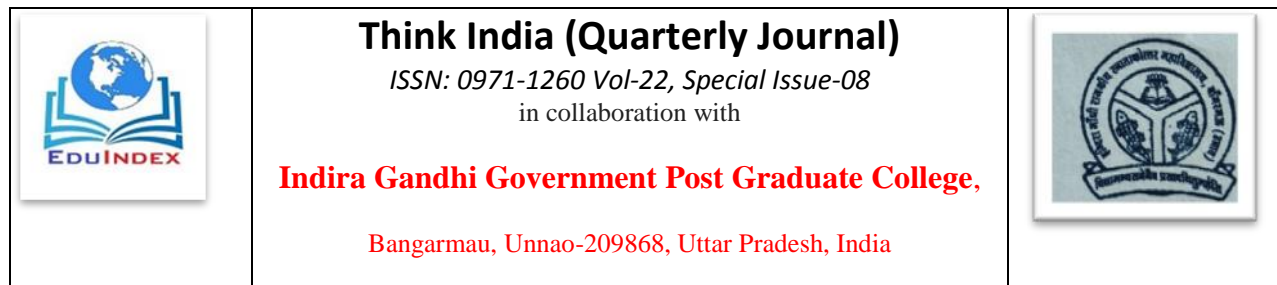
The Oxford English dictionary defines exercise as ‘activity requiring physical effort, carried out to sustain or improve health and fitness’. However, if we consider exercise to be any form of physical activity, then exercise surely dates back to the origin of the species, when humans exercised regularly, even if they may not have understood the concept of exercise at the time. Hunting, ritualistic dancing, and building shelter were – and still are - various forms of exercise. However, exercise including sports, athletics and gymnastics as a profession started developing only in the 18<sup>th</sup> century (Berryman, 2010 Berryman, J.W. (2010). Exercise is medicine: A historical perspective. Current Sports Medicine Reports, 9,195–201.[CrossRef], [PubMed], [Web of Science ®], [Google Scholar]). Until the development of exercise as a profession, it was mainly used for training warriors; as a recreation in the form of demonstration in public gatherings as sports or gymnastics, and by few like Confucius, Hippocrates and Galen as a therapeutic or preventive tool (Tipton, 2014 Tipton, C.M. (2014). The history of “Exercise Is Medicine” in ancient civilizations. AJP: Advances in Physiology Education, 38, 109–117. doi:10.1152/advan.00136.2013[CrossRef], [PubMed], [Web of Science ®], [Google Scholar]).

Therefore, from the historical point of view, exercise and related activities were mainly a form of recreation in earlier civilizations and slowly emerged as a form of therapy (preventive/curative) in recent times.

**Effect on mind and body:**

The effect of yoga on the mind is manifold, and it depends not only on the yoga practice, but also the yoga teacher, as both teaching competence and value inculcation are important. Effects on mind from the different components of yoga can be listed as follows, (Iyengar, 1979 Iyengar, B.K.S. (1979). Light on yoga Revised ed. New York: Schocken Books. [Google Scholar]; Iyengar, 2012 Iyengar, B. (2012). Core of the yoga sutras, 1st ed. London: Harper Collins Publishers Ltd. [Google Scholar])

1. Starting and ending prayer is a powerful positive suggestion, especially when done in groups.
2. *Yama* and *Niyama* being universal values, have profound impact on one’s inner peace.
3. *Asanas*, if done systematically and mindfully, not only impact the body, but become a form of meditation for advanced practitioners.
4. *Pranayama* is a powerful technique to still the mind, making it ready for the advanced practices of contemplation.



5. *Prathyahara, Dharana and Dhyana* reduce the speed of thought and help in streamlining the mind with more concentration.
6. *Samadhi* is a state of transcendence and union with the universal consciousness.

Hypothetically, mindful awareness of all the components of yoga gradually shifts the autonomic nervous system more towards the parasympathetic side or a balanced sympathetic-parasympathetic tone, finally leading to overall positive health in a cascading manner

#### Exercise

Exercise, considering its wide range of practices including sports, gymnastics, athletics, weight lifting, etc. has a higher chance of causing injuries by the nature of the work out itself compared to yogasana practices. It may range from a simple sprain to a serious fracture, depending on the nature of the exercise.

#### **Yoga and Exercise-Evidence from comparative trials**

Choosing a proper control for yoga is a challenge for many reasons (Gangadhar & Varambally, 2011; Gangadhar, B.N., & Varambally, S.(2011). Yoga as therapy in psychiatric disorders: Past, present, and future. *Biofeedback*, 39, 60–63.[CrossRef], [Google Scholar]). Nevertheless, attempts have been made to use exercise as a control for yoga in some of the studies with many of them favouring yoga as not only an effective alternate but also with additional benefits compared to exercise.

#### **Conclusion**

Physical exercises and the physical components of yoga practices have several similarities, but also important differences. Evidence suggests that yoga interventions appear to be equal and/or superior to exercise in nearly every outcome measured (Ross & Thomas, 2010; Ross, A., & Thomas, S. (2010). The health benefits of yoga and exercise: a review of comparison studies. *Journal of Alternative and Complementary Medicine* (New York, N.Y.), 16, 3–12. doi:10.1089/acm.2009.0044[CrossRef], [PubMed], [Web of Science ®], [Google Scholar]). Emphasis on breath regulation, mindfulness during practice, and importance given to maintenance of postures differentiates yoga practices from physical exercises. They also have differential effects on the body and the brain, both in healthy subjects and in persons suffering from various physical and mental disorders. In addition, yoga offers significant advantages in terms of enhancing positive mental health in the healthy population, and providing therapeutic benefit as a sole or adjunct therapy in a range of physical and neuropsychiatric disorders. It is possible that yoga might not only be an acceptable addition to care, but an effective, feasible, and accepted alternative to exercise.

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