



YOGIC PRACTICE IMPROVES POSTURAL FITNESS

Ms Jaswinder Kaur

Assistant Professor, GGS College for women, Sector-26. Chandigarh.

Man is always engaged in activities to make his world a place of comfort to live with peace and happiness. Moreover, he also tries to keep his mind, body and internal will sound and strong enough to handle every situation of his life. Whatever future ventures he tries, he manages his whole ability and capacity to fulfill his goals and targets. His working and dreams shattered and comes to failure, only when the ability to handling these situations and future uncertainty becomes weak and pathetic. The unsoundness and lack of fitness is the main reason for this. Here, the unsoundness and lack of fitness is concerned with his overall personality including his mental, social and physical wellbeing. How fit a person is directly proportions to his performance. Any performance, whether routine or sporty, needs a required level of fitness. At this point, Postural fitness plays vital role. Postural Fitness may be defined as that fitness which each individual should seek to achieve, whereby he may assume and maintain proper segmental relationship in all movements of the body.

Now, when it comes to postural fitness, as mentioned earlier, it is a state of fitness that provides functional efficiency in handling the body in all postural positions undertaken work, play or everyday living. Good posture means many alignment that most favors function; it means position that requires the least muscular work to maintain, which puts the least strain on muscles, ligaments and bones. Today every nation is vitally concerned with the potential growth, development and maintenance on all its citizenry. An individual's physical ability potential varies constantly according to his age, physical and mental health status and environment. And a nation's physical potential varies according to the degree to which each individual attains maximum physical efficiency at various age levels. When the body is considered as an instrument of expression and muscles are thought of as extensions of the brain and more than mere motors to move the body about, it is realized that personality and posture are intimately associated.

The word posture comes from the Latin verb ponere, which means "to put or place" (MedicineNet.com 1999). Posture refers to the position of the human body and its orientation in space. Britnell et al. (2005) define posture as a state of skeletal and muscular balance and alignment that protects the supporting structures of the body from progressive deformity and injury. Whether a person is erect, lying, squatting or stooping, good posture allows the muscles of the body to function with maximum efficiency. In their research review, Kritz and Cronin (2008) add that with good standing posture the body's joints are in a state of equilibrium (vertical and rotational forces balanced) with the least amount of physical energy being used to maintain this upright position.

Thus, as observed in the standing position, if a vertical line tracks from the neck to the tailbone and through the lower limbs, the body will not have to adjust to counter the forces of gravity (Kritz & Cronin 2008). Furthermore, Kritz and Cronin propose that a body in equilibrium theoretically is capable of doing the most efficient work.

Posture is the foundation for fitness. "Fitness requires movement. Movement is generated by muscles working together within our body skeleton. Proper posture means our skeleton is aligned in a manner that provides for movement efficiency and grace with minimal risk of injury; the way we were designed to move, sit, and stand." In poor, or faulty, posture (aka postural dysfunction), there is an imperfect relationship among various skeletal structures of the body, and this may produce strain on the body's supporting framework (Britnell et al. 2005). Environmental factors that contribute to faulty posture include prolonged slouched sitting, ill-fitting school desks and overloaded bags and backpacks (Britnell et al. 2005). Britnell et al. (2005) note that postural changes between ages 25 and 45 are no longer impacted by structural growth. However, sports activities and occupational behaviors (e.g., prolonged sitting, standing or stooping at work, heavy manual labor or repetitive movements) may contribute to posture adaptations, some of which may promote deviations from optimal posture.

Posture refers to the relationship of the skeletal, muscular, and nervous systems when the body is in motion or at rest. There are two kinds of posture. Static posture refers to the body at rest. Dynamic posture is the posture of the body in motion, while walking, running, or moving in another way. Whether static or dynamic, posture should be such that the muscular, skeletal, and nervous system, are in position to function easily, gracefully, and efficiently. Posture can be evaluated statically (stationary position) and dynamically (in motion) (Britnell et al. 2005). In both cases, joint positions and skeletal alignment can be assessed, as well as muscle length (i.e., stretch) and force production capabilities. Kritz and Cronin (2008) note that the relationship between static posture assessment and dynamic movement screening is unclear in the research.



One benefit of good posture is aesthetic or visual. Despite the possible variation due to muscle length, thickness of tissue, and bone size and placement, good posture has been attained if you show the following characteristics.

1. Good body alignment
2. Ease of stance
3. Good balance
4. Readiness for movement

The muscular and structural development of a being brings him in to another state of maturity. Further, an effective citizenry, who is passing through these periods and transitional stages of different ages, have to take care of his dietary patterns too. The process of maturation take time and such changes may continue into early adulthood. If the body segments are out of their optimal alignment for extended periods of time, the muscles eventually adapt by either shortening or lengthening (depending on the position) (Hrysmallis & Goodman 2001). Novak (2004) adds that prolonged misalignment adversely affects nerve tissue and function and that the adaptive changes in muscle tissue (whether lengthening or shortening) result in muscle imbalances, which can have a number of health consequences. The particular health issues caused by posture dysfunction tend to vary by population.

The body position is related to its environment by the registration of visual, auditory, tactile and kinesthetic sensations over the afferent sensory nerve tracts to the brain and spinal cord. Position is retained or altered by stimuli through the neuro-motor mechanism to whatever muscles need to be activated. This is dynamic aspect of good posture. Good body mechanics refers to the function of all the parts of human body, including bones, joints, muscles, viscera, and nerves. While postural strain and fatigue problem, diminishes free motion resulting in some immobility. Undue stress if continue over a long period of time, bring chronic conditional state. For different extenuating circumstances various favorable positions emerges. And it is of paramount importance to know the significance of body positions. Good posture permits efficient circulation of the blood, efficient heart action, and the proper functioning of bodily organs.

Yoga practice includes all-round development as well as specific muscle groups. Different yogic postures and other techniques have been designed with variations and modulations according to the need of individual, groups and consider every aspect whether physiological, anatomical, biological and dynamic. It's therapeutic value aid in correction of minor weaknesses. It further makes preventive measures against tear-wear and injuries. A yogic session blended with other physical activity prepares oneself for more strenuous activities. By providing improved muscle toning and organic efficiency yogic trainings results in good postural fitness.

Yoga is a 5,000 year old practice that began in ancient India. It is receiving growing recognition by Western science and health professionals as a powerful tool for promoting mental and physical well-being. Essentially, yoga is a preventative and cost-effective approach to overall well-being. The word Yoga is derived from the Sanskrit root "Yuj" meaning to bind the yoke. According to Yoga experts, the union referred to by the name is that of the individual soul with the cosmos, or the Supreme. By tradition, lord Shiva is considered to be the propagator of yogic science. He taught the Yoga to his first disciple Parvati and tradition has continued from that line. Practically speaking, Yoga must be started when man become aware of himself; as an individual being as he thought of himself as human and not merely a creature like anything from that point the path of yoga which of self discovery must have begun.

It is a system of mental and physical training, concerns with postures, breathing exercises, meditations, which claim to give knowledge of reality. It's a method of physical and psychic culture. The ultimate aim of Yoga is control. After attaining such a stage man becomes the complete master of his senses, his body, his mind, his own being. Yoga enhances every facet of physical fitness the mind/body energy exchange supports a mental clarity and concentration. The practice of yoga teaches us how to quiet the mind by placing attention on the breath, and also on the movement (stillness) of the body. The practice of yoga is directed long three distinct lines – physical, mental and spiritual. The physical, however, is considered only a means to the end: mental and spiritual harmony. In the physical the chief aim is to establish a healthy and balanced condition in the body through postures, or asanas, and by regulating the breathing.

In yogic practice the practitioner usually performs certain yogic postures (yogasananas), breathing exercises (pranayamas) and various meditation and relaxation techniques. While doing yoga practice, the practitioner starts with a state of complete willingness and readiness, which further leads to modification in his body, mind and spirit. Yogic postures and pranayamas rebalance the physical, Emotional, pranic, mental and psychic aspects of being. Yogic poses are classified into three basic types these are physical, meditative yogic postures. Here the main concern is on any physical postures like backward bending, front bending, twisting, sitting poses, standing poses or balancing poses. Selection of pranayamas can be from



Chandra Anuloma-Viloma, Surya Anuloma-Viloma, Ujjayi and Nadi-Shodhana pranayamas. Yoga Nidra can give best results if practiced under a qualified teacher. Meditation induces relaxation and develops self-knowledge. It further makes awareness and understanding more refined and perfect. These practices help to cultivate a positive attitude towards life and yourself. Optimum motor development can be attained with the proper knowledge of biomechanics and in the practice of yogasanas, a practitioner is actually working with the concept and principles of biomechanics. When mechanics is applied to the study of human motion it is called biomechanics – “the science that examines the internal and external forces acting on a human body and the effects produced by these forces.”

Table-1, Basic Skills Correction Through Yogic Suggestions

Technique	Common Error	Probable Result	Corrective Yogic Suggestion
Standing	Improper balancing of head	Forward head	Halasana, Sashankasana, Vipritkarni Mudra, Brahm Mudra, Jalandhar Bandh, Balmachalan Kriya
	Failing to keep shoulders straight	Round shoulders	Bhujangasana, Matsyasana, Dhanurasana, Ushtrasana, Yogic Clavical Breathing, Skandh Sanchalan Sukshmvayam
Sitting at Desk	Sitting too far forward	Rounding shoulders and back	Bhujangasana, Matsyasana, Dhanurasana, Ushtrasana, Skandh Sanchalan Sukshmvayam, Ardh Chandrasana, Chakrasana, Ashwasanchalanasana, Marjariasana
	Sitting on one foot	Shifting weight to one side	Padhastasana, Merudandasana, Trikonasana, Parshvtrikonasana, Titaliasana, Katiasna, Goumukhasana, Vakrasana,

Freeman et al. (2009) suggest that the factors affecting balance include muscle weakness, diminished vision, vestibular disorders (referring to the inner ear, which helps regulate balance), bone integrity, spinal injury and somatosensory (pertaining to the processing of stimuli related to touch) deficit. Balance training and proper eyewear can markedly reduce many factors related to loss of balance control. There are various balancing yogasanas that can improve balance too.

The main purpose of yogic practice in brief are as mentioned below:

1. Deep relaxation and stress reduction;
2. Relief of muscle tension and stiffness;
3. Reduced muscle spasm and tension;
4. Greater joint flexibility and range of motion;
5. Increased ease and efficiency of movement;
6. Promotes deeper and easier breathing;
7. Better circulation of both blood and lymph fluids;
8. Reduced blood pressure;
9. Healthier, better nourished skin;
10. Improved posture;
11. Faster healing time from pulled muscles and strained ligaments;
12. Reduced spasm, pain and swelling;
13. Reduced formation of scar tissue;
14. Strengthened immune system and disease prevention;
15. Relaxed state of alertness;
16. Reduced mental stress; a calmer mind;
17. Greater ability to monitor stress signals and respond appropriately;
18. Increased capacity for clearer thinking;
19. Satisfying the need for caring and nurturing touch;
20. Feeling of well being;
21. Greater ease of emotional expression;
22. Enhanced self-image; 23. Reduced level of anxiety;
23. Increased awareness of the mind-body connection;
24. A sense of being unified and in harmony.

Exercise of all the muscles and organs of the body requires oxygen to be brought to them through the capillaries, and the toxins or carbon dioxide to be taken away by the venous system and returned to the heart and lungs to be purified or oxygenated. Fault posture affects directly the integrity of the breathing process and yogic exercises take care of this aspect



and bring good postural fitness. Various yogic postures rectify various faults in alignment for standing, walking and all other related unsoundness in body segmental alignments. Organic fitness is in large measure depends upon the three previous factors plus muscles tonicity, and has considerable real effect in postural fitness. Weakness in any of the internal organs brings a corresponding lassitude, early fatigue, and a psychosomatic influence, and inability to maintain posture. Yogic purification processes i.e. shatkarmas, also known as shudhikriyas, enhances the internal organs and improves there efficiency. Overall yogic practice provides activities which may be used by the individual in maintaining postural fitness.

The body is not a single mass of materials but is made up of many different parts. How the individual parts are used in relation to other parts makes the difference between good and poor body posture. Because of the anatomical structure of the body, certain segments of the best serve postural efficiency when aligned in a specific way; postural strain occurs when they are out of good alignment. The most efficient procedure procedures of some physical activities like lifting, carrying, pushing, and pulling should also suffers, if lack of postural fitness is there. There are three basic capacities on which you can draw to help you move efficiently. They are muscular capacity, your capacity for balancing your body, and your capacity for timing your movements.

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