

Role of asanas as a preventive as well as curative measure for postural defects and related musculoskeletal disorders

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Abstract

The Correct posture refers to proper alignment of our body from head to toe in a straight-line fashion. Correct posture enables our body to function more effectively. Since our body is constantly subjected to the force of gravity, improper posture leads to weakened muscles, reduced endurance, discomfort, reduced physical strength and pain in neck, joints and in many other parts of the body. At mental level also it causes shyness and low self-esteem. Sedentary lifestyle, lack of exercise, overuse of gadgets has led us to reduced awareness about our bad posture. Unconsciously, we have been regularly and vigorously practicing the bad posture since long. However, little bit of awareness and regular practice of certain asanas can help improve our body posture and even we can get rid of the situation. Studies in the past have revealed beyond doubt, the importance of asanas in maintaining a healthy body and mind. Asanas are of great help in maintaining proper body posture and can be used as a curative measure for bad or improper body posture. By regular practice of asanas one can get rid of the bad posture, misalignment of the musculoskeletal disorders and can increase one's ability to function properly and more effectively.

Key Words: Sedentary lifestyle, Correct body posture, Asanas.

Introduction:

What is a good or correct posture:

Correct posture of our body generally refers to a state of our body when there is no misalignment our head, shoulder, spine, waist, thighs, legs and feet. Back is straight, shoulders squared and relaxed, chin is up and chest is out, and belly is not protruding. The whole body is aligned properly in a straight line.

According to Avery "Good posture is one in which the body is so balanced as to produce least fatigue." Correct posture of our body enables us to function more

effectively. Since our body is constantly subjected to the force of gravity, improper posture leads to weakened muscles, reduced endurance, discomfort and thereby reduces our strength to function to our fullest potential.

Musculoskeletal disorders are injuries affecting muscles, bones, tendons, ligaments, and cartilage. Work-related musculoskeletal disorders (WMSDs) are multi-factorial in nature.

Extent of the problem and causes of postural disorders.

The problem of postural disorders and related musculoskeletal dysfunction have become very common and wide-spread across the countries. Even the younger generations have developed bad postures and are ever increasingly facing back, shoulder and neck pain. According to a recently published report of WHO, almost 1.71 billion people in the world are having musculoskeletal conditions. There are more than 150 different types of diseases/conditions arising out of musculo-skeletal dysfunction, that can affect our body functions. These conditions are characterized by malfunctioning of the joints, muscles, bones, and connected tissues in the adjoining area. These conditions lead to temporary or in some cases permanent limitations in proper functioning of the body.

There are various causes of bad posture and musculoskeletal disorders. However, out of all postural and musculoskeletal disorders, those related to work or profession is the most common in today's workforce. It is common in occupations that involve prolonged static postures such as sitting or standing. Studies reveal that it is most frequent health complaint across the globe and that reasons are multifactorial and not just limited to physical causes. Psychosocial factors such as stress have also been discovered to be significant contributor to the problem. Other factors may be obesity, weak muscles of spine, improper diet, lack of proper exercise, decreased flexibility, incorrect working postures, lack of awareness etc. However, most of the postural disorders arise from a weak skeletal system. Modern lifestyle today, has strained the spine for many by keeping it curved throughout the day or for a

prolonged period of working hours. [Desktop jobs](#), excessive use of gadgets and habit of staring at the mobile smart phones all day long, etc. have made our body more slouch and hunched. We are so engulfed and busy in these activities that we have lost awareness and forgotten the proper way of sitting, walking, bending, and even sleeping. As a result, we have ended up with bad posture of our body, strained muscles, neck pain, joint pains, pain in different parts of the body and in many cases a lower self esteem.

Importance of good posture:

Our working efficiency and ability to cope with day-to-day physical need or activities depend to a great extent on the state of our body-posture. Thus, how we proceed in our life, what we can achieve or not in our life also depends on our body-posture. Importance of good posture can be understood properly by going through the following points:

- Correct body posture generally depicts absence of any musculoskeletal dysfunction and rather reflects a sound physical body with a smart upright physical appearance. The body-balance, proper coordination of different organs, flexibility of muscles etc., represent good physical appearance. Good body-posture can be said as the first prerequisite for imparting a good impression of ourselves and our personality.
- Maintaining a correct posture of our body helps prevent many musculoskeletal disorders and diseases. It even prevents psychophysiological disorders. For example- back and neck pain,

constipation, disturbance in blood circulation etc.

- Good body-posture helps improve mental attitude. Good posture affects the outlook, confidence, self-esteem, optimism. Physical fitness changes the mental attitude of a person.
- Correct posture also helps improve concentration power. Proper posture relaxes the internal organs. Heart rate, pulse rate, respiratory rate slows down. The mental activity also relaxes and individuals able to focus properly.
- Correct posture helps reduce fatigue. Due to less stress on muscles and joints, organs function more efficiently.

Different types of musculoskeletal dysfunction related to Postural Disorders:

- 1) One of the most common Musculo-skeletal disorders and related postural disorders is the deformity in spinal curvature or vertebral column. It may arise due to prolonged practice of sitting in bad posture, weak muscles, ligaments. Sometimes wear and tear of spine can occur due to carrying of excessive weight.

There are three types of spinal deformities namely, a) Kyphosis, b) Lordosis, and c) Scoliosis.

(a)Kyphosis: This condition can occur due to lack of exercise, malnutrition, weak muscles posterior curve of spine increases. This posture affects not only the spine but also the mental status of individuals. It leads to lack of confidence and shyness in personality.

(b)Lordosis: This condition is characterized by increased forward curve in the lumber region. It may be due to obesity and weak muscles of spine.

(c)Scoliosis: This condition is characterized by lateral twisting or bending of the spine.

- 2) Flat foot: Sometimes it may be the cause of postural deformities.
- 3) Knock Knees: In this deformity, both the knees touch each other in normal standing posture and the gap between the ankles may thus be increased. The causes of such deformity may be deficiency of vitamins like- calcium, and vitamin-D.
- 4) Bowlegs: There is wide gap between both knees. Causes are the same as the Knock Knees.
- 5) Round shoulder: May be lack of exercise, sitting habit, heredity etc. In this condition shoulder bent forward.
- 6) Osteo-arthritis: This is a progressive or advancing disease. In this type of disorder, large joints get affected resulting in pain, stiffness and limited movement.
- 7) Myositis: This postural deformity is characterized by inflammation or disease of skeletal muscles. In this type of disease, the first muscles fibers are replaced by fibrous tissue and later by bone.

What is asana?

According to *Maharshi Patanjali*;
“स्थिरसुखम् आसनम्” ॥२.४६॥

It means ‘Posture’ is that which is firm and pleasant. There should be no discomfort

for the one who has succeeded in conquering the body and keeping it firm.

According to *Hath-yoga Pradipika* (1/17);

हठस्य परथमाङ्गत्वादासनं पूर्वमुच्यते |
कुर्यात्तदासनं सथैर्यमारोग्यं छाङ्ग-लाघवम् ॥ १९ ॥

It means; asana is the first part of Hatha Yoga Pradipika according to Maharshi Swatmaram. It should be practised for gaining steady posture, health and lightness of body. Asanas develop steadiness of body and mind, disease free body and lightness in the limbs.

Ashtang yoga (Rajyoga) describe asanas as a simply sitting posture whereas *Hath-yoga* mentions different postures for body steadiness and mental peace. However, in both the cases, lower three *koshas* i.e., *Annamaya*, *Pranamaya* and *Manomaya* Koshas are influenced by asanas.

According to *Svetasvatara Upanishad* (2/8);

त्रिरुन्नतं स्थाप्य समं शरीरं
हृदीन्द्रियाणि मनसा सन्निवेश्य ।
ब्रह्मोडुपेन प्रतरेत विद्वान्
स्रोतांसि सर्वाणि भयानकानि ॥ ८

It means placing the body in a straight posture, holding the chest, throat and head erect and drawing the senses and the mind into the heart, the knowing one should cross over all the fearful currents by means of the raft of *Braman*.

Role of asana in maintaining good posture:

How Asanas can help:

The first benefit of regular practice of asana is that it brings awareness. And a

good posture is all about being aware of our body. Here is where asanas will help. Regular practice of asanas can help improve the postural defects in many ways.

- Improves bodily alignment: Regular practice of asana keeps the body properly aligned and improves functioning of all the organs as intended. This includes the stomach, which is why a good posture is said to improve digestion.
- Eliminates root cause of bad posture: When one practises asanas regularly the musculo-skeletal system, bones and spine stay tuned and can easily and effectively balance the body weight of a person and minimise the risk of having bad posture.
- Improved breathing: To work efficiently, the lungs need room to expand in the chest. When one is slouching, the rib cage collapses a bit, leaving less room for the lungs to open causing inefficient breathing. Regular practice of asanas helps keep maintain proper shape of rib cage and thereby adequate volume of lungs for breathing.
- Improved memory and learning: Since a good posture enhances one's breathing, it also allows one to take in more oxygen and with the increased intake of oxygen, cognition improves, which facilitates better learning.
- Prevention of arthritis and joint pain: Not only does a good posture help in keeping the bones and joints in a correct alignment so that the muscles are used correctly, it also aids in decreasing the abnormal wear and tear of joint surfaces that could cause degenerative arthritis and joint pain.

How asanas work at physical level:

Asanas not only improved the blood circulation, balances hormonal and nervous system but also removes toxins from the body. Spine is the backbone of our body that help us to assume posture, gait and protect us from injuries. Spinal health is important for all age groups for physical fitness and for mental peace also. It is important to understand the anatomy of proper posture whether you are sitting or standing. Your natural curves should be maintained. To enhance the strength, flexibility and endurance of spine different categories of asanas are mentioned. Numbers of research studies have shown that different types of asanas regulate the hypothalamic-pituitary-adrenal axis and autonomic nervous system. This affects not only the internal organs of body but also skeletal framework. By regularly practising backbends the spine natural flexibility can restore and reduce the chance of injury. The muscles, ligaments and the osteoarthritis disorders can remove. Lordosis and kyphosis can be cure by reducing weight and develop healthy muscles and bones by different groups of asanas. Every cell in our body has memory and intelligence.

Many asanas like-*Gomukhasana*, *Trikonasana*, *Dhanurasana* etc., work on proprioceptor mechanisms of the skeletal body. The backword bending asanas like *Bhujangasana* and *Chakrasana* help improve conditions of the vertebral column, strengthen the spine as well as back-muscles and improve the drooping shoulders. Another asana belonging to a twisting group of asanas namely *Ardhamatsyendrasana* tones the nerve roots of spine and helps realign the

vertebral column. Forward bending asanas like *Paschimottanasana* and *Paadhastanasana* are helpful in toning the hamstrings and calf muscles and are helpful for knee joints and Bowlegs.

Regular practice of these asanas can transform the body and change the texture of the body. Every asana when practised regularly can change the fundamental structure of the body inside out for a complete transformation.

How asanas work at mental level:

When our body is not comfortable, we cannot expect peace of mind and similarly when our mind is restless, we cannot expect bodily comfort. Thus, we can say that when the aches and bodily discomfort are removed, one becomes emotionally and mentally relaxed. Spinal column health and alignment is important so that nervous impulse can pass freely to the brain. The main nadi, i.e., the sushumna nadi is also situated within the spinal cord, which carry energy towards higher chakras for better health and prosperity in spiritual life.

Erect spines allow each internal organs in proper position and allow breath to move freely without any compression of diaphragm. The natural and slow breathing allow practitioners to focus on his inner environment and develop self-awareness. So, enhancing and balancing various physiological function of the body and developing inner awareness help in reducing emotional blockage and negative habitual patterns of mind. Here one can control the entire involuntary process or psychophysiological system according to will. Different classical asanas influence

our three aspects of existence- body, mind and consciousness.

According to Srimad Bhagwat Gita (6/12,13)-

तत्रैकाग्रं मनः कृत्वा यतचित्तेन्द्रियक्रियः |
उपविश्यासने युञ्ज्याद्योगमात्मविशुद्धये || 12||
समं कायशिरोग्रीवं धारयन्नचलं स्थिरः |
सम्प्रेक्ष्य नासिकाग्रं स्वं दिशश्चानवलोकयन् || 13||

Seated firmly on it, the yogi should strive to purify the mind by focusing it in meditation with one pointed concentration, controlling all thoughts and activities. He must hold the body, neck, and head firmly in a straight line, and gaze at the tip of the nose, without allowing the eyes to wonder.

Seated in meditative asana gives firm foundation to the body and makes it stable and still .

According to the sutra (II/47) of Maharshi Patanjali

प्रयत्नशैथिल्यानन्तसमापत्तिभ्याम् ॥ २.४७॥

means- by relaxation of effort and meditating on the infinite, posture becomes form and pleasant.

Conclusion:

Looking at the pace at which the Musculo-skeletal dysfunction and related postural

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disorder is increasing globally, urgent attention is required to improve the situation before it gets worse. It is beyond doubt that nothing from outer world or any virus or bacteria is responsible for the situation. It is us, our lack of awareness, our attitude about our own health and body-posture is at the root of the causes. We all are guilty of not paying adequate attention to our own posture as we work for long hours or stay engrossed in our smartphones. Slouching and incorrect posture leads to serious health hazards. And these can be avoided by fixing our posture issues. It is important for one to relax these stress muscles. A good posture helps one mitigate a lot of health disorders, including damage to the spine and several lifestyle issues as well. These postures can be corrected through asana.

Studies in the past have revealed beyond doubt, the importance of asanas in maintaining a healthy body and mind. Asanas are of great help in maintaining proper body posture and can be used as a curative measure for bad or improper body posture. By regular practice of asanas one can get rid of the bad posture, misalignment of the Musculo-skeletal disorders and can increase one's ability to function properly and more effectively.

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