CHAPTER I

INTRODUCTION

Good health basically depends on good habits. Health and Better structure are mutually dependent. A man’s posture is the index of his personality and good habits help in developing a good posture. The early years of childhood and adolescence in an individual’s life are vital stages in the process of his growth and development. A child is most impressionable and most eager and ready to learn during this period. So, for the normal development of its mind and body, it is important to provide the right opportunities in its early life. Parents deeply influence (impact) the development of the child, especially during the early stages of its life. They transmit their own behaviour codes, attitudes and values to their offspring. The child’s immediate family members, sibling and peer groups also have a bearing on its learning process. Once in a school, it is exposed (open) to carefully designed learning experiences based on a set curriculum which is devised to facilitate the achievement of definite academic goals and objectives. All academic activities aim at enabling a child to become aware of talents, sharpen its capabilities and mental faculties, realise its physical and intellectual potentialities and social skills to the maximum and ensure its emotional wellbeing.

Posture denotes a physical position and a multi segment organism, such as the human body cannot be expected to have a single (standard or
uniform) posture. As it provides an index of one’s health, posture improvement is desirable for a person to realise how it feels to stand, walk or sit the way he habitually does. Good habits also enable him to adopt a good posture while speaking, sitting, walking, standing, sleeping, lying down etc. The manner of carrying things on the arms, the back, the shoulders or the head makes for a good posture, which is often envied. However, posture varies with age, occupation, type of activity, physique and health.

A good posture helps the body to perform activities with ease and at its best the body to function properly. It can be defined as the position in which the centre of gravity of each body segment is centered over its supporting base. It is chiefly dependent on maintaining the centre of gravity in a correct way, an upright body, an alert whole, with right balance and poise.

A child cannot be compelled to acquire a good posture. Any factors, either of health or environment, that reduce muscular strength or encourage exaggerations of the spinal curve, will produce a poor posture. Children with a habitual poor posture are unhealthy, fatigued, under weight, self-conscious, fidgety etc and suffer from hearing defects, restlessness, weakness and asthma. Functional posture flows are concomitant symptoms of illness and poor health. A malnourished child, deprived of enough caloric intake to provide required energy, just does not have the strength to hold itself up; a poor posture is the inevitable (inescapable) result. A depressed mental
attitude chronic fatigue or an intestinal parasite might produce the same result.¹

The way a person carries himself makes an important impression. From his appearance, peoples draw certain conclusions about their health, their vitality and their personality. Experience teaches us to expect enthusiasm for living, initiative, self confidence and self respect from a person with an easily erect posture.

Erect posture enhances the feeling of well being. There is the ability to consciously stand well with the same joy which comes with any skill. To know that you know how to stand well, that you can and are standing well, gives a feeling of self confidence and poise.²

By good posture is meant an adjustment of body parts to each other which results in an erect, alert whole, representing readiness for mental and physical effort. Body is like machine if its parts are maintained in good balance it functions smoothly. The performance of any machine is determined by proper alignment of its parts. Good posture, in repose and in activity permits mechanically efficient function of the joints. Friction in the joints is diminished, tensions of opposing ligaments are balanced and pressures within joints are equalized. Hence the skeletal structure is


architecturally and mechanically sound and there is minimum of wear and tear on the joints.³

A child may have numerous health problems. Suppose, at age one he had an operation to repair a hernia in the right groin. In the early years, probably spread between the ages of one to five, he may have had several infectious illnesses which included chickenpox, mumps, whooping cough and diphtheria.

Where as a healthy child aged two to three years old. He has seated; with bright eyes, a healthy and robust physique, square shoulders, and a straight spine.

Between the age of three and seven he slept in a spring mesh bed which slugged in the middle. At the age of five he contracted the measles which inflicted the muscles of the left eye and caused a squint which was treated by two operators. Afterwards he was required to wear a patch over the healthy eye to force the other one to return to normal function. But these measures failed so he was prescribed spectacles with greater magnification in the left lens than the right. He also had all of his primary teeth removed in one dental operation and the permanent teeth grew crowded together. At the age of six he contracted hepatitis and was hospitalised for six months during which he lost much of his body weight. The changes in Physique which resulted are obvious looks same child at age of six to seven sitting slumped

and Crumpled forward with very rounded shoulder sloping more on the right than the left, and wearing spectacles with greater magnification in the left lens.

A child wearing spectacles with greater magnification in the left lens and his facial expression shows that he is relaxed and comfortable. His physique is thin, his spine is stooped and his body is slumped, and his right shoulder is lower than left, his chest is flattened and learning to the right, and his legs are bowed.4

The habitual sitting posture of most people is distinctly bad. A chair conductive to good posture is a rarity; much of the seating in public building and conveyances makes wholesome sitting impossible. School seats, even those designated as hygienic or posture seats, often violate the fundamentals of posture hygiene.5

It is frequently said, “Posture expresses mental as well as Physical Status.” “Posture is an index of personality.” “Erect Posture is an Expression of intelligence.” The Posture often proclaims the man.” “Posture shows the rise and fall of nation.”6

Look at your youngsters tonight as they sit reading or studying. Are their back straight? If they are learning over burden work on desk or table,

---

do they lean from the hips? Or does the spine seem to collapse at a point just below the shoulders, giving the child, whom you know to be perfectly normal, a slightly Hunch back appearance?

Posture can be defined as “Any position in which the body resides.”

As we are always in motion, even when we appear to be perfectly still, Posture is actually a fluid concept. Good posture is a series of shifts in position that make it possible for us to operate with no useless expenditure of energy, permitting optimal function of the entire body including the organs.

From a social perspective, a person with good posture and who move gracefully projects poise, confidence, and dignity. From a mechanical standpoint, in good posture the bones and joints are in position to take the stress of weight and movement and the musculative in firmly balanced to hold the boy organs in place. In poor posture the bones are out of line and muscles and ligaments take more strain than nature intended. Besides being unattractive, faulty posture may cause fatigue, muscular strain, postural deformities, and pain. In some cases, poor posture affects the position and functioning of vital organs, particularly those of the abdominal region.⁷

Good posture is help in kinetic sense. Study proposed examined the relationship between a motor skill postural and action components and balance while moving. The first experiment examined the influence of experience on the development of balance control strategies (stabilization of

---

head in space) during locomotion given varying levels of task complexity. A qualified gymnast has a good posture. It had been proved that good gymnast has a good kinetic sense.⁸

Concerted action of bones, joints and muscles direct all human movement, the three works together to operate a very efficient and effective system of motion and locomotion. This will discuss the bones and joints.

Any activity running, jumping, throwing, lifting, swimming requires its own variety of movements and creates its own stresses on the skeletal system. Over the short term and long term, the skeletal system responds and adopts to this stress. Adaptability has been designed into the human skeleton, so that structure affects function and function affects structure. In other words the makeup of bone its size, has to perform.⁹

Connected with mind and mood is obvious when you think of a depressed person, eyes cast down, shoulders hunched, and compare him with someone whose mood is confident, who swing along, head , shoulders back, moving with grace and control. Active alerted posture, which is an attitude not only of the body but of the mind, is a complete way of living and moving, promoting both mental and physical equilibrium and poise.


This posture encourages the full expansion of the lungs by ensuring balanced action between the muscles of the abdominal wall and the diaphragm. The whole process is like a bellows. This means that all the waste products from the bottom as well as the top of the lungs are removed regularly.10

Advocates of school athletics often justify sports programs with the notion that healthy minds and healthy bodies go together. In this study we postulate that a sense of physical well being Physical fitness and a healthy, coordinated and energetic body is a mediator between sports participation and self-esteem. We argue that participating in a sport generates a sense of physical well being and that this positive view of one’s body and health is associated with self esteem.11

The keen body mechanics may detect tell late sign of deep seated disability or incapacity for dynamic healthful living through a postural appraisal unbalanced segments are liable to produce strain and irritation of important nerves, and can be gauged as the mental concomitants of poor posture.

The maintenance of posture and the corrective movements that restore balance involve the activities of a large portion of the skeletal musculature and many parts of the central nervous system. Every movement starts from


posture and ends in a posture, but during the execution of the movement the postural contractions are altered or abolished.\textsuperscript{12}

Normal posture, then is that posture which best suits the individual in accordance with his own condition and the condition of his environment. In a condition of distress because of sad circumstances, normal posture will be characterized by a general sagging of all body parts. In extreme fatigue the normal posture will be that which conserves energy. The normal posture of physical attractiveness is that which displays the specific qualities of the physique to the best advantage.

Mental attitudes seemingly can induce pleasing or displeasing postures. Professional people who have worked with the mentally ill have reported that there are characteristic postures with certain types of illness. Posture has been used as a potential index of clinical value. Neurotic people tend to sway more than the normal individual because of muscle tension. These tensions seemingly tend to interfere with the awareness of the individual of minor degree of sway that is normal.\textsuperscript{13}

Superior intelligence and tremendous energy are some time housed in a body that is habitually stouched. Some great athletes assume a habitual posture of extreme relaxation.\textsuperscript{14}


\textsuperscript{13} \textit{Encyclopedia of Sports Science and Measurement}, p. 1081-82.
It is commonly accepted that a person’s alertness and general outlook on life may be indicated by the likeness of the person’s posture to the ideal posture with each attitude, whether consciously or unconsciously recognized, there is an apparent accompaniment of motor response. At certain ages, feelings of shyness bash fullness, self consciousness, insecurity and inferiority may play an important part with respect to posture.

The attitudes of adults towards posture have been considered as doing much toward creating satisfactory attitudes in children. Children have been observed to imitate the mannerism of adults in sitting, standing and walking. Poor posture is also detrimental to the appearance of the Youngman. Most people with poor posture will become progressively worse as they grow older. Poor posture reduces physical fitness of a person because of the resulting pressure and thereby there is displacement of visceral and other internal organs, blood vessels and nerves, whose displacement results in imporing their organic functioning and activities. The person with poor posture is ungainly, awkward and unaesthetic.

Good posture obeys certain laws of physics in that efficiency involves the smallest possible expenditure of energy to maintain its when standing erect the centre of gravity is low in the abdomen and movement of the body requires less energy than when the posture is faulty. When one part of the posture

---

body is off centre it pulls another part off center to balance it, both of which require energy and produce fatigue.

Poor posture causes a cramped position of heart, lungs and abdominal organs. Circulation of the blood is impeded and the organs farthest from the heart fail to receive adequate oxygen. Under stretching of muscles in bad posture causes nerves and muscle fatigue. Bad posture is responsible for undue strain on joints and ligaments, which after a time results in pain. Just as lack of alignment in an automobile causes friction so poor posture causes fatigue fear and tear in humans.

The body like machine is most efficient when all its parts are maintained in good balance wealth, beauty, and brains may not be distributed to everyone but except for the cripple good posture is accessible to all who will work for it. The importance of carriage and poise at all ages cannot be over emphasized.

Mental alertness and physical efficiency certainly go together. Good posture is necessary for proper function of all the organs. Good body mechanics can be defined as the mechanical correlation of skeletal muscular, and organ system is most favorable for function. If organs are displaced or crowded by bad posture, serious disorders may develop in human body organs which are adapted to upright posture.\textsuperscript{15}

\textsuperscript{15} Encyclopaedia of Sports Science and Measurement, p. 1161-2.
There is some indication that the assumption of good posture is partly the result of understanding what good posture and partly because of the desire to have good posture. Ideal posture is that in which the various segments of the body head, neck, chest and abdomen are all balanced vertically, one on the other, so the weight is borne mainly by the bony frame work, with a minimum of efforts of and strain on the muscles and ligaments.\(^\text{16}\)

Bad body mechanics and poor posture are the result of exaggerating the cervical curve in the neck and lumbar curve in the back. These exaggerations throw the skeleton out of good alignment and consequently the organs are not properly supported. In many areas of the world where people carry burdens on their heads, they develop perfect posture. Postural defects often go undetected and therefore contribute to fatigue and muscle imbalance that often results in injury correct. Posture is therefore important as it enhances the function of the organic system. It reduces the strain on muscles ligaments and tendons and there by retards the onset of muscle fatigue. It also increases the attractiveness of the person.\(^\text{17}\)

Attention must be paid to environment. The classrooms must be correctly lighted so that children do not have to stoop forward in an attempt


\(^{17}\) *Encyclopaedia of Sports Science and Measurement*, p. 1161-62.
to see better, or to twist the body in order to avoid glare. Proper adjustment of seating equipment for each young person, regardless of age level, should encourage him to a good sitting position. Child should be taught how to sit properly. He needs changes of activities so that he will not sit for too long periods. He should use playground and equipment to make his activities and exercises pleasurable. He should be more posture conscious, without being nagged. Teaching methods should motivate children at each age level, to adopt good postural practices.

Bad posture with its poor mechanics, accompanied by lack of muscle tone is a minimize threshold to fatigue and lessens the available mechanical energy. Especially in older people exaggeration of normal curve tends to become set in right patterns and to interfere with the normal physiology. Walking develop good posture in the growing child.18

Spinal deviations include Kyphosis-hunched back curvature, Lordosis-exaggerated forward curvature in the lower part of the back, and scoliosis-lateral curvature and forward tilt of the head.

The spinal column is not a straight rod. The vertebrae are aligned one above the other to form a straight line when viewed from the back, but when viewed from the side there are mild natural curves in the neck (cervical), chest (thoracic), low back (lumber), and pelvic (Sacral) regions. Exaggeration of these curves produce what is commonly termed as Poor

---

Posture.

An angulation forward of the vertebral, usually in the upper thoracic region, is referred to as Kyphosis (Hunch back, hump back). This occurs at times because of organic or structural changes and more commonly from posture. An increased inward curve, ordinarily in the low back, is labeled lordosis (sway back). The spinal column may also present a deviation laterally (side to side curve); producing scoliosis.

The period of most rapid growth of vertebrae is from 11 to 15 years of age. They are shaped as ossification continues to completion. This shaping and response to weight bearing is naturally affected by posture. The key to good posture is the lumbosacral joint in the low back. It carries the weight of the trunk, head, and upper extremities, and permits flexibility of the upper part of the body on the pelvis.

The performance of any machine is determined by the proper alignments of its parts. Consequently all directors of athletics and physical trainings should recognise that the earlier proper steps are taken to correct or ameliorate postural faults, the greater will be the proficiency in performance and coaching of an athlete to his maximum. Lack of proper attention to correctable faults in the body mechanics, may accelerate the aging process and promote disturbances in his musculoskeletal apparatus that will result in an earlier development of “wear and tear” arthritis.

The Compensatory changes in trunk caused by tilts in the pelvis usually result in scoliosis, with rotator shifts in the spinal column. The long
round back has a short lumbar lordotic curve, and the round hollow back has the dorsal Kyphosis and a longer lumbar lordosis in most persons with such deviations there usually exist a widening of the inter scapular space and corresponding adaptive shortening of the pectorals and serrate. All the movements of the arms in throwing (Javelin throw, shot put, discus throw and swimming) there is a limitation of shoulder extention.

Pronated feet with valgus ankles and some increase of outward tibial torsion result in stress on the anterior and posterior tibial muscles with shortening of their antagonists, the person that can very seriously limit the success of runners and jumpers and are prone to weakened knee conditions.¹⁹

A teacher should alert the children to health problems and environmental situations which create fatigue and slumping. One way to promote good posture is to arouse interest and pride in maintaining a good posture by arranging annual posture contests in the school.

Parents also need to be educated to provide healthy environment at home to enable a child to sit and study properly.

There are several values of good posture:

a) Hygienic: The erect straight body has its organs properly set so that bodily functions are more complete, perfect and harmonious.

b) Economic Value: May be a contributing factor for competition.

¹⁹ Ibid, p. 240.
c) Good posture can add to the work efficiency, whereas improper posture leads to decrease in work efficiency, thus affecting the economic aspects.

d) Social Value: Fine body has good and balanced shape and therefore highly attractive.

e) Spiritual Values: An individual with well balanced posture brings appreciations for the creator i.e. “God” the glory of the rising sun which has its own charm, can hardly be appreciated by a person who walking with protruded head abdomen and flat feet) with bad posture. Good health, good looks and social value develop their own forms and performances which are their charm and beauty and are less likely to develop any of the deformities.

There are three categories of posture:

1) Endomorph – Long, thin, Cylindrical with developed muscles of short stature.

2) Mesomorph – They are most stable neither tall or short, psychologically and mentally sound and stable, and move freely in the society.

Specific exercise programmes are recommended experts for correction of postural defects. The purpose of these exercises is to improve the strength, coordination and elasticity in the body. This is accomplished by developing actively the flexor muscles of the lumbosaeral spine and stretching passively
the extensor muscles and fasciae. Faulty posture must be corrected and proper posture must be maintained at all times.

The significance of posture in its relationship to emotional and intellectual behaviour as well as the laterality of cervical variances on visual perception need to be recognised before, during and after physical activity. Those who are concerned with results at the least cost of energy output would do well to investigate such applications to innate mental capacity and human movements for better use of such forces for the efficacious attainment of capabilities.\(^2^0\)

Exercises for the development and maintenance of range of motion plays an important role in rehabilitation of the handicapped and is an essential part in treatment of acute and chronic trauma in orthopedic work. Specific exercises such as those used for postural correction are the concern of Orthopedists, Pediatricians, Physical Educators and Physical Therapists. Various types of exercises are used to restore and recondition the patient. They are used to prepare athletes for the performance of physical skills. The effects of exercise apply equally to therapeutic as they do to exercise and sports generally.\(^2^1\)

The Physical Education Teacher, the Coach and the Trainer should be aware of acceptable structural differences and deviations among human

\(^{20}\) Ibid. p.240.

bodies. It is also important that the students learn to detect deformities and abnormalities in body alignment that reflect poor posture and have a thorough understanding of those differences crucial to anyone involved in the prescription of exercises.

It has been observed that habits play an important role to develop the posture. Life has become so fast that individual does not have time to take care of himself as well as of his family. If parents pay some attention on their children and note their habits engagements, they might be able to bring some improvement in their children. Schools also play an important part in developing the child’s personality and attitude. The teacher must pay special attention on the sitting, standing habits of the students because a teacher has a strong bearing on the children’s behavior. The teacher should have pleasant personality with sense of humor, ready smile, sympathetic attitude and good health, so that the children feel the sense of belongingness, love and affection. It may be noted that children implicitly emulate and try to copy the teacher’s personality. If the teaching programme is planned wisely and taught intelligently, it will contribute to sound health, pleasant habits, strong and healthy attitude of the children to develop a strong personality.

Some factors which may play havoc with a child’s personality should be carefully removed by the parents and the teachers. The children should be taught the methods of doing the thing correctly. The child should be taught how to sit, walk, sleep, run or lift weight. Wrong methods of doing things may adversely affect the body such as a child carrying a heavy bag on one
shoulder may be compelled to walk limpingly or learn on one side and with
the passage of time the child may develop bad posture which would develop
defective gait and also affect his vision. If the weight of the bag is divided on
both shoulders, it can help to reduce the bad curvature of the back and the
child would be able to walk comfortably and gracefully. Stylish way of
living has also its impression on an individual. People have become
conscious about their diets and how they dress. They want to be in tune with
modernity. They are not aware of the side effects of their doings. They think
that by wearing loose or tight clothes make them look ‘advance’ in the
society. They are not aware that too loose or tight fittings can produce odd
movements which could cause bad posture. Cushioned beddings also have
the tendency to affect the spine growth adversely. Sleeping on hard surface
helps the spine to keep straight which is very essential for good posture.
Stylish shoes or foot wear may spoil the gait of a child. They should not be
allowed to put on fancy, high healed or tight shoes because they are bound to
leave bad effect on the posture such foot wear can cause headaches or false
gait and produce shabby posture. The child should also be taught of placing
or lifting of weight because spine helps an individual move freely. If the
movements are not done correctly they will affect the balanced growth of the
body and develop certain postural defects.

School should have adequate time for studies and games. There
should be adequate study rooms with proper lighting and ventilation with
proper furniture so that the children are not subjected to any undue fatigue.
Teaching load should not be very heavy to create any sort of boredom to the children. They should have adequate play grounds with ample playing facilities and enough time for exercising. Proper care must be taken to avoid any kind of postural deformities. School should manage to have twice a year, body and health check up of the students because the spine of a child being in growth is quite flexible and with certain physical activities and exercises might bring drastic changes in the children body and personality.

The needs of primitive men were basic but not complex, his culture was relatively simple. Ability to hunt and flight with the enemy was essential for his survival. The learning of such skill was part of his education and the development of body. Though vagarious physical work was vital for survival. The need to develop strong and enduring bodies has been recognized through the ages as vital for effective living.²²

It is believed that human beings are meant for some purpose. They are responsible for some specific task like enhance the status of their nation; contribute something for human beings etc. To perform these duties one must be physically, mentally, socially, and spiritually sound and healthy. But at the same time handicapped person are not to be neglected. They also coming under the categories of human being, lack of any system does not prove that they keep isolated. They can also contribute their best for the nation, for the human beings.

In older days, up to the time of Second World War most of people and children who were physically disabled spent their lives at home or in hospitals, their capabilities were considered incapable members of society.\(^{23}\)

In the past, handicapped person had been considered as social deviants. if we track back we will find that in Spartan civilization, a handicapped children did not have any right to lead their life. They were kept in the mountain “TAYGETUS” for die. But the attitude of modern society towards the handicapped population has changed and they are receiving fair treatment to some extent in educational, vocational, and social real. The handicapped individuals have been identified as being mentally retired, emotionally disturb, deaf or hearing impaired, visually impaired anthropedically impaired learning disabled, multi handicapped or health impaired.

Actually the needs of disables in a democratic society are not different from those of normal children, such a child want acceptance for recognition from his fellow students in the school. He wants the security that grows out of acceptance in the process of growing up and living with the social groups.\(^{24}\)


Bucher\textsuperscript{25} pointed out that the time has come when we must no longer neglect the differently able people. Those people have the right to live, to work, to the best of their ability and to know the dignity which every human being is entitled to do. These are people who can and must be helped to help themselves. Recent court decisions have clearly affirmed, moreover, that this is their constitutional right.

Jangira\textsuperscript{26} Emphasized that the disabled need to be educated and prepared for the life with a reasonable level of economics independence, self help skill and social normalization in the context of modernizing society.

In fact disabled do not need pity but they need encouragement in the effort to overcome asset to the society instead of liabilities. They also have the right to grow up in the world which looks at them not with a score or pity or reliable but which welcomes them exactly as it welcomes everyone, which offer them identical prerogatives and identical responsibilities.\textsuperscript{27}

Today with the change in time and values the exceptional or disabled child needs psychological traits such as self confidence self regard, self consistency and self respect in society, in fact disabled one ordinary people with special needs or who have very extra ordinary needs. But most of the time, it has been observed that the people with special needs under estimate

\textsuperscript{25} Charles A. Bucher, \textit{Foundation of Physical Education and Sport,s} 9\textsuperscript{th} ed. (st. Louis: The C.V. Mosby Co. 1983), p. 203 – 206.

\textsuperscript{26} Ibid 203 – 206.

\textsuperscript{27} Hennery Webb, We Do Not Need Pity, \textit{Femina}, (22\textsuperscript{nd} June, 1981), p. 21.
their capabilities themselves because of psychological depression, the main thing is that how the need child views himself as a person is extremely important his total socio-psychological adjustment.\(^{28}\)

The renown psychologist Carl Rogers Mentioned that everyone is born with intact capacity and capabilities a sort of genetic blue print. The goal of the life is to fulfill this genetic blue print to become whatever of us is inherently capable of becoming and resulting in to a fully functioning person people who are deprived from the opportunity of fulfilling their inborn potentialities become constructed, rigid and defensive. They fill themselves threatened anxious and experience considerable discomfort and uneasiness, some of these people realize that they do not know who they are or what they want. But life itself is a continuous process of facing challenges. These challenges are different each time because the situations as well as the individual himself keep on changing.\(^{29}\)

Commenting on the Rig-Veda, VII, 54, iii., sayana has elucidated yoga as means of achieving the unachieved (Yoge Apraptasya Prapanes). In fact, science also would seem to be attempting the same in the field of matter. What was achieved by yoga, however, in the sphere of man- the


unknown (subjective)- has somehow remained ambiguous thanks to inadequate evaluation, application and orientation, while science in the field of man the known (objective)- has taken over as the savior of mankind thought pragmatic sanction, officialism and imposition. The significance of this odious pattern of what is known and what remains unknown about man should not be lost sight of if his future is to be guided by the present.

The little word yoga encompasses all that concerns man himself, and its ramifications though diverse schools reach such colossal proportions that the total yoga borders on the incomprehensible. The fact of there being over a hundred textual definitions of the word covering as many as one hundred and twenty schools of yoga explains why yoga is confounded with all and sundry attainments. It is therefore imperative that yoga be salvaged from its antiquated sophistry and platitudes by representing both its ideology and technology in the light of modern life and achievements. If yoga can still stand the challenge of time, space and circumstance, it should certainly warrant its rightful place in human affairs. The slant towards individualism warped its social character, and yoga remained the holding of only a few not – with-standing its avowed universalism. This megleet of society finally turned itself into apathy; each looked to other with suspicion and reservation. The time came when the link between yoga of the past and society would have snapped but for the efforts in the present to assure its place in the future, it is imperative in the interest of mankind that this vacuum be filled through proper evaluation and application of yoga technology. It is equally
essential that a comparative study be conducted on what is available through science in modern life and what is lacking can yoga supply it.

The process of social evolution might in due course adjust itself to what man needs and the time may not be long before it is realized that something like yoga is in demand for rehabilitating not only the individual but also the society. Before this happens, yoga should be ready with its norms for various age groups, its educational methodology, and experimental data, eenvising these factors. The yoga institute undertook such an experiment of socializing yoga over fifty years ago and holds cumulative evidence on major issue. What is urgently needed at present is rethinking, re-appraisal and re-orientation of yoga as an integral process of education and a way of life.  

Today we know that a lot of our ailments are of psychosomatic origin. This means that they are created in the mind and are then manifested in the various parts and organs of the body. Many of the patients had for some years earlier taken treatment from the consultants of modern medicine before they came for one to yoga experts.

But is yoga a therapy in the same sense as we understand allopathy. Homeopathy or ayurveda? One cannot think so. One difference between modern medical therapy and yoga is that the former is curative while the latter is a preventive methodology, in a sense yoga is a discipline which can

---

be practiced by a person belonging to any religious conviction. This discipline trains both the mind and the body. As Patanjali has stated, “Yogah Cittavriti Nirodhah”, controlling the wavering mind is yoga. This control brings about a total education, evolution and development of the human personality which could surely help in the cure of ailments.

Another important feature is that in yoga there are practically no drugs prescribed. Occasionally some harmless herbs or dietary modifications may be advised but there are no harmful side effects as we observe in connection with many of the drugs commonly used in other therapies.

A third feature is that in yoga there are no specific Asanas or Kriyas for curing specific diseases. This often creates a problem in as much as people, both scientists and laymen, want definite cure for definite diseases e.g. typhoid, tuberculosis, Malaria, etc, so one wonders what in yoga could have cured the disease! I believe that the entire science of Yoga produces the desired results and not any single practice. The yoga hygiene and its preventive methodology transform the physical mental, moral, intellectual, emotional and spiritual life of man.

Yoga teaches one to conquer the inner space rather than the outer space. It claims that health can be mentioned by removing impediments to it such as Vyadhi, Roga, Asuddhi, Vighna, which one obstacle along the spiritual path. Thus the re-education in methods of living which yoga provides will cure diseases, through greater relaxation when we face stressful conditions increased power of concentration and steadiness of
mind, and discipline in daily routine with moderation in diet. Yoga ensures health of body and mind. Yoga also insists on a disciplined life. This discipline makes can a healthy nation and hence yoga education is necessary for everyone from childhood to old age.

As we enter the 21st century, one of the greatest accomplishments to be celebrated is the continuous pursuit of fitness since the beginning of man’s existence. Throughout prehistoric time, man's quest for fitness has been driven by a desire to survive through hunting and gathering. Today, though no longer driven by subsistence requirements, fitness remains paramount to health and well-being. This article will highlight historical events and influential individuals who have shaped the history of fitness beginning with primitive man up to the foundation of the modern fitness movement.

In India, individual pursuit of fitness was discouraged as the religious beliefs of Buddhism and Hinduism emphasized spirituality and tended to neglect development of the body. Consequently, the importance of fitness within society in general was relatively low. Translated, yoga means union, and refers to one of the classic systems of Hindu philosophy that strives to bring together and personally develop the body, mind, and spirit. Yoga was originally developed by Hindu priests who lived frugal lifestyles characterized by discipline and meditation. Through observing and mimicking the movement and patterns of animals, priests hoped to achieve the same balance with nature that animals seemed to possess. This aspect of
Yoga, known as Hatha Yoga, is the form with which Westerners are most familiar and is defined by a series of exercises in physical posture and breathing patterns. Besides balance with nature, ancient Indian philosophers recognized health benefits of Yoga including proper organ functioning and whole well-being. These health benefits have also been acknowledged in the modern-day United States, with an estimated 12 million individuals regularly participating in Yoga.

The primary aims of physical education have varied, based on the needs of the time and place. Most modern schools' goal is to provide students with knowledge, and enthusiasm to maintain a healthy lifestyle into adulthood. Activities included in the program are designed to promote physical fitness, to instill knowledge and understanding of rules, concepts, and strategies. Many schools use the "Five for Life" principle to do this. Students learn to either work as individuals, in a wide variety of competitive activities. Throughout the United States, physical education is offered to students from grades Kg-12. Most states do require physical education from 6th through 9th grades and offer "elective" physical education classes from 10th through 12th grades.\(^3\)

Health is not merely the absence of disease but is influenced and shaped by the access to basic needs like food security; safe water supply, housing, sanitation and health services. Within this broader definition of

health, individual health is intrinsically interrelated with social factors. Therefore while individual health is important it is necessary to delineate its linkages with the physical, social and economic environment in which people live.

Studies have shown that poor health and nutritional status of children is a barrier to attendance and educational attainment and therefore plays a crucial role in enrollment, retention, and completion of school education. Physical education is an important part of every school curriculum and a class every pupil awaits. Physical education is that segment of the daily timetable that every student eagerly waits to attend, as it is the only official time when the students can be on the grounds, engaged in their favorite sports.

The physical training class, as it is also called, involves sports, games, exercise and most importantly, a break from the sedentary learning indoors. One of the other important objectives of physical education is to instill in the students the values and skills of maintaining a healthy lifestyle. Daily physical activity promotes an awareness of health and well-being among students. It boosts them to engage in physical activities on a daily basis. It promotes them to lead a healthy life in adulthood.

A very vital factor in physical education is to develop interpersonal skills in children. Sports aim at making them team players, developing a sportsman spirit in them and enhancing their competitive spirit. Sports that
form a part of physical education classes help the students invest time in fruitful and competitive activities.

The sports, which are a part of the physical education class, help in developing motor skills in children. The ability to hold a racket or a bat, the ability to catch a ball and the ability to swing a bat are some examples of the motor abilities that can develop with the help of sports. The physical activity that is involved in physical education helps the students in bringing discipline to body posture and body movements.

Fitness is a term which is used to help define the ability to stay in the best physical shape. You may ask, then, “What am I staying in shape for?” To each person, this will be something different. For most, it is a matter of staying healthy as long as possible and to be able to enjoy your life for as long as possible. To put it very basically, your body is very much like that of a machine. When each part of the machine is cared for, the whole machine works the best that it can. When the machine is neglected, either in part or on the whole, then the machine will not run as well and, eventually, won’t run at all.

Fitness is the ability to live a full and balanced life. The totally fit person has a healthy and happy outlook on life. Fitness is the young man’s absolute necessity. It breeds self-reliance and keeps man mentally alert. Physical fitness is essential for human beings to adjust well with his environment as his mind and body are in complete harmony. Clarke and Clarke (1989) found that physical fitness is not a static factor and it varies
from individual to individual and in the same person from time to time depending on factors.  

It is generally agreed that physical fitness is an important part of the normal growth and development of a child, a generic definition regarding the precise nature of physical fitness has not been universally accepted. Through research and scholarly inquiry, it is clear that the multi-dimensional characteristics of physical fitness can be divided into two areas: health related physical fitness and skill related physical fitness. 

Physical fitness is probably the most popular and frequently used term in physical education. The most important objective of physical educators is to develop physical fitness in students. According to Nixon and cozens, it was the desire to establish a scientific approach to the development of physical fitness which formed the basis of the first meeting of physical educators in 1885 when the profession of physical education originated.

The United States president’s Council on physical fitness and sports defined the terms “physical fitness as the ability to carry out daily task with vigor and alertness, without undue fatigue, with ample energy to enjoy

---


leisure time pursuits and to meet unforeseen emergencies” (Clarke, 1971). General fitness implies the ability of a person to live most effectively with his and her potentials, which depend upon the physical, mental, emotional, social and spiritual components of fitness which are highly interrelated. The primary components of physical fitness identified by the president’s council on physical fitness and sports were muscular strength, muscular endurance and cardio respiratory endurance. However, later on the president council also included some other motor performance components namely agility, speed, flexibility and balance in physical fitness. But keeping in view the general opinion of the majority of the researchers, the author has not included the components such as speed, agility, power and balance (which are more important for success in specified sports) as essential components of basic physical fitness. However, author is as defines physical fitness by group of five components, namely muscular strength, muscular endurance, cardio respiratory endurance, flexibility and body composition. It is important to mention here that some experts (e.g. Clarke and Clarke, 1987; AAHPERD, 1980, 1984) call such fitness tests which include the measurement of percentage body fat, as health related physical fitness tests.\footnote{Devinder K. Kansal, \textit{Test and Measurement in Sports and Physical Education}, (New Delhi: D.V.S Publications, 1996), p.112.}

The wise men of all ages and races, white, brown, yellow, and black, civilized or barbarians, savages, back to the cave men, made use of the power of mind over body. As you advance with your training you will find
that mind is the most important part of training. Fitness as: - Exercise scientists have identified nine elements that comprise the definition of fitness, the following list each of the nine elements and an example of how they are used:

- **Endurance** - A muscles ability to perform a maximum contracture time after time. (Continuous explosive rebounding through an entire Basketball game.)

- **Coordination** – the ability to integrate the above listed components, so that effective.

- **Strength** – The extent to which muscles can exert force by contracting against resistance. (holding or restraining an object or person.)

- **Power** – The ability to exert maximum muscular contraction instantly in an explosive burst of movements. (Jumping, sprint/starting.)

- **Agility** - The ability to perform a series of explosive power movements in rapid succession in opposing directions.

- **Balance** – the ability to control the body position, either stationery or while moving.

- **Flexibility** – The ability to achieve an extended range of motion without being impeded by excess tissue, i.e. fat or muscle. (Executing a leg split.)
- Local muscle endurance – A single muscle's ability to perform sustained work.

- Cardiovascular Endurance – The heart's ability to deliver blood to working muscle and their ability to use it.

Strength movements are achieved of all the nine elements of fitness; cardiac respiratory qualities are the most important to develop as it enhances all the other components of the condition equations.

If so, then you need to begin by understanding that change needs to happen. There are several tools that you need to use to determine your health level currently. You can find calculators for many of these available to you free of charge on the web. You need to use them to understand exactly where you stand right now.

**Your Blood Pressure:** The pressure in which your heart pumps blood throughout your body. You need this number to be there, but it needs to be in a certain range to be healthy. For adults, this is generally 120 to 139/80 to 89. Ask your doctor where your blood pressure is.

**Body Mass Index:** Your BMI is a measure of the percentage of fat on your body. The higher this number is, the more prone you are to health risks.

**Ideal Weight:** In comparison to your height and body structure, your ideal weight is the weight that you should be. These three things are critical
elements for you to take into account when considering where you stand right now. But, there’s much more for you to consider.\footnote{Jerome Carter, \textit{Fitness and Health, The Definitive Guide to Staying Fit and Healthy}, (New York: A Division of Simon and Schuster, Inc.2006), p. 3-9.}

Workout chalked out in correspondence to the physical needs of the body, if observed regularly, may help the body get into the desired shape and develop resistance power in the body. The major benefits derived from fitness training programs are bringing down the weight of the bulky body to right proportion, increases the resistance power in the body which results in decreasing the risks of getting attacked by diseases, helps in cutting down the fat from the body and finally gives the body a toned shape. Not only these, but also helps in frequently getting caught in depressions, cures insomnia by helping enhance the sleeping routine, releases positive vibes in the body and thus increases self-esteem and apart from these also gives more energy.

The training helps increase fit muscles in body, by burning the calories. After the body grows senile, the body loses its muscles and the metabolism of the body slows down gradually, which means the calories of the body is not burnt and get concentrated which results in increasing the weight of the body. So to keep the metabolism from slowing down and not
letting the fat concentrate in the body one can opt for some fitness training and take some aerobic activities.\(^{36}\)

Taking exercises not only helps one maintain a strong and toned look from outside but also helps in keeping the mental peace and content. It also helps in reducing symptoms of menopause, cardiac diseases and keeps the level of cholesterol in control.

Physical activity offers a broad range of benefits, including the prevention of obesity, improved self-confidence, and an overall sense of well-being. Physical education programs within the school setting can set the stage for how children view physical fitness, activity levels, and future health. Physical education programs also include general health and safety information in addition to providing opportunities for students to learn how to cooperate with one another in a team setting. Studies indicate that promotion of a healthy lifestyle taught in physical education classes can influence long-term health benefits such as reduced rates of obesity, heart disease, high cholesterol, diabetes.\(^{37}\)

Perhaps just as importantly, physical education programs can teach students that physical activity can be fun. With a broad range of games and activities, children are exposed to forms of exercise that don't simply involve


running around a track. Games and other activities incorporate teamwork, strategy, skill-building exercises, and fun.

Regular activity, fitness and exercise, are critical for the health and well-being of people of all ages. Even very old adults can improve mobility and function through physical activity. It should be a priority for everyone. Millions of people suffer from chronic illnesses that can significantly improve through activity. Exercise reduces the risk of heart disease, diabetes, colon cancer, and high blood pressure. People who are active outlive those who are inactive.\textsuperscript{38}

In ancient times, the desire for greater personal freedom, health and long life, and heightened self-understanding gave birth to this system of physical and mental exercise which has since spread throughout the world. The word Yoga means “to join or yoke together,” and it brings the body and mind together into one harmonious experience.

Yoga may be considered very challenging. The challenge is to your will power. It is a challenging journey of self-improvement. Most types of activity require the body to make fast forceful movements. They have repeated actions, which often lead to tension and fatigue. Yoga poses on the other hand, involve movements, which bring stability and energy to the body, the senses, the mind, and the consciousness. In yoga practice, the brain

is quieted; the senses are stilled, generating a calm feeling of well-being. With practice, the student of yoga learns to treat the brain as an object and the body as a subject. The brain and body then work together and energy is evenly balanced between the two. No other form of exercise so completely involves the mind and spirit with the body, resulting in total well-being. Other forms of exercise address only particular parts of the body. You only enter the mental gym when you practice yoga.\textsuperscript{39}

The exercises of Yoga are designed to put pressure on the glandular systems of the body, thereby increasing its efficiency and total health. The body is looked upon as the primary instrument that enables us to work and evolve in the world, and so a Yoga student treats it with great care and respect. Breathing techniques are based on the concept that breath is the source of life in the body. The Yoga student gently increases breath control to improve the health and function of both body and mind. These two systems of exercise and breathing then prepare the body and mind for meditate, and the student finds an easy approach to a quiet mind that allows silence and healing from everyday stress. Regular daily practice of all three parts of this structure of Yoga produce a clear, bright mind and a strong, capable body.\textsuperscript{40}


\textsuperscript{40} Stephen Cope, \textit{Yoga and Quest for the True Self}, (Bantam, 5 September 2000), p. 7-19.
There is no doubt that Yoga postures (asana) and breathing techniques affect the physical body. People these days commonly accept the fact that such therapies as acupressure, neuromuscular massage, and reflexology can have systemic effects due to pressure applied to certain areas of the body. The physical basis for the effects of Yoga asana may be related. The asana and breathing techniques provide a deep massage and strong compression of the parts of the body where endocrine glands are located. Many Yoga stretches seem to target the nerves in the legs, arms, neck, and spine. In some, our position is that growth is in large measure controlled by the glandular system. It is a vastly complicated process, and the powerful physical and mental effects of Yoga asana may interfere with natural growth.\textsuperscript{41}

The dimensions of yoga are sometimes depicted as a tree with eight limbs:

- Yama (Restraint)
- Niyama (Healthy Observances)
- Asana (Postures)
- Pranayama (Breathing)
- Pratyahara (Sensory Withdrawal)
- Dharana (Concentration)
- Dhyana (Meditation)

• Samadhi (Higher Consciousness)

Yoga may be considered very challenging. The challenge is to your will power. It is a challenging journey of self-improvement. Most types of activity require the body to make fast forceful movements. They have repeated actions, which often lead to tension and fatigue. Yoga poses on the other hand, involve movements, which bring stability and energy to the body, the senses, the mind, and the consciousness.

In yoga practice, the brain is quieted; the senses are stilled, generating a calm feeling of well-being. With practice, the student of yoga learns to treat the brain as an object and the body as a subject. Energy is distributed from the brain to the other parts of the body. The asana and breathing techniques provide a deep massage and strong compression of the parts of the body where endocrine glands are located. Many Yoga stretches seem to target the nerves in the legs, arms, neck, and spine. The brain and body then work together and energy is evenly balanced between the two. No other form of exercise so completely involves the mind and spirit with the body, resulting in total well-being. Other forms of exercise address only particular parts of the body. You only enter the mental gym when you practice yoga.

Therefore a need was felt to check the effects of Yogasana Training on Postural Defected Student’s Physical Fitness prevail or not. In order to attain this objective, the researcher had compared the effects of Yogasana on Physical Fitness.
Statement of The Problem

The purpose of the study was to observe the Effects of Yogasana Training on Postural Defected Student’s Physical Fitness.

Delimitations

- The study was delimited to the 5th to 8th standard School students only.
- The study was delimited to the age group 9 to 14 years only.
- The study was delimited to the student residing in Halol city of Panchmahals District, Gujarat only.
- The study was delimited to boys’ students only.
- The present study was further being confined to only the following postural defects:-
  1) Flat-foot
  2) Knock knee
  3) Scoliosis
  4) Lordosis
  5) Kyphosis

Limitations

- Dietary habit of the subjects acted as limitation of the study.
- In this study, the caste related difference was not taken into consideration.
• In this study, the students’ physical efficiency due to which their performance increases was not taken into consideration.

• The activities other than the training programme of the students’ were considered as the limitations of the study.

• Hereditary factors and motivational factor during the training program as the limitation of the study.

**Hypotheses**

1. It was hypothesized that there may not be any effect of Yogasanas training on the postural defected students’ on 50 meters. sprint performance.

2. It was hypothesized that there may not be any effect of Yogasanas training on the postural defected students’ on standing broad jump performance.

3. It was hypothesized that there may not be any effect of Yogasanas training on the postural defected students’ on shuttle run performance.

4. It was hypothesized that there may not be any effect of Yogasanas training on the postural defected students’ on shot put throw performance.

5. It was hypothesized that there may not be any effect of Yogasanas training on the postural defected students’ on sit and reach test performance.
Definition of the Terms

Posture

Posture is described as one in which the head is held erect, the chest is forward, the shoulders are drawn back and the abdomen is retracted.\(^{42}\)

Posture involves the alignment of parts of the body to achieve balance in sitting, standing, walking or physical activity. The bony skeleton and muscle govern the balance, which varies with age, occupation, type of activity, physique and health.\(^{43}\)

Postural Defects

Postural defects are typically seen in children at birth and early infancy. In cases of noticeable postural defects the head of the child is settled forward out of line with the spine and pelvis. In turn, the chest is "caved", so to speak, and the abdominal muscles are relaxed causing a protrusion of the belly. Corrective exercises should be put in place early on for children who suffer from postural defects. One important exercise is the pelvic tilt. This exercise will help align the spine in the proper way.\(^{44}\)


\(^{44}\) www.reference.com/motif/health/postural-defects.
Flat Foot

If the medial longitudinal arch of the foot touches the ground on weight bearing or is nearer the ground, then the foot is considered to be flat. 45

Knock Knee

Inward curvatures of the knees which make the knees knock or rub together during walking. 46

Scoliosis

Scoliosis has been defined as curvature of the spine in a lateral or coronal plane or it is lateral displacement of the spine in the coronal. 47

Lordosis

Lordosis is an exaggeration of norms lumber curve accompanied by forward tilt of the pelvis. 48

Kyphosis


47 Ibid., p. 147.

Kyphosis is an exaggeration or increase in amount of normal convexity of the thoracic region of the spine.\textsuperscript{49}

**Physical Fitness**

Physical Fitness is the ability to carry out daily tasks with vigor and alertness, without undue fatigue and with ample energy to engage in leisure time pursuits and to meet emergency situations. \textsuperscript{50}

**50 Meter Sprint**

Sprint or speed tests can be performed over varying distances, depending on the factors being tested and the relevance to the sport. The 50 Meter Sprint is part of the International Physical Fitness Test. \textsuperscript{51}

**Standing Broad Jump**

The Standing long jump, also called the Broad Jump, is a common and easy to administer test of explosive leg power. It is one of the fitness tests in the NFL Combine. \textsuperscript{52}


\textsuperscript{51} http://www.topendsports.com/testing/international-physical-fitness-test.html.

\textsuperscript{52} http://www.topendsports.com/testing/presidents-challenge.html.
Shuttle Run

This is a test of speed and agility, which is important in many sports. This test requires the person to run back and forth between two parallel lines as fast as possible. Set up two lines of cones 30 feet apart or use line markings, and place two blocks of wood or a similar object behind one of the lines. Starting at the line opposite the blocks, on the signal "Ready? Go!" the participant runs to the other line, picks up a block and returns to place it behind the starting line, then returns to pick up the second block, then runs with it back across the line.\(^{53}\)

Shot Put

This test involves throwing an 8 pound shot put for maximum distance. The Throw Test is one of the tests used in the International Physical Fitness Test. This test measures core body strength and total body power.\(^{54}\)

Sit and Reach Flexibility Test

The sit and reach test is a common measure of flexibility, and specifically measures the flexibility of the lower back and hamstring muscles. This test is important as because tightness in this area is implicated

\(^{53}\) Ibid.

\(^{54}\) Ibid.
in lumbar lordosis, forward pelvic tilt and lower back pain. This test was first described by Wells and Dillon (1952) and is now widely used as a general test of flexibility.  

**Significance of The Study**

A good posture is an asset in achieving a healthy life and high performance in games and sports. It has been observed that those suffering from postural deformities are unable to put up good performance which they otherwise could make depending upon their abilities and capacities. Postural deformities also hinder in the optimal application of various motor components in a competitive situation. Therefore, teachers of physical education should be vigilant and identify postural defects and take necessary steps to remove them so as to enable each child to excel in the field of games and sports. Yogasanas may put impact on postural defect as the remedial procedure can enhance the performance level.

The present study would be of significance in the following ways:

1. The study may help to identify common postural deformities among school children.
2. The study may provide guidelines to parents, physical education teachers and other people for correcting the postural deformities of school children.

---

55 Ibid.
3. The present study would throw light on the Yogasanas training as means to overcome postural deformities of the school children.

4. The results of the study may help the students’ to achieve ideal posture which leads to healthy life.