CHAPTER I
INTRODUCTION

The evidence linking an active lifestyle with a reduced risk of some diseases is well documented for both adults and children. Regular weight-bearing physical activity is known to be essential for the normal growth and development of the skeleton. Most studies of physical activity as a preventative modality have, however, been carried out in relation to health related physical activity. There is no clear understanding of the mechanisms involved, but it is generally agreed that physical activity has positive effects on other coronary risk factors, amid other plausible theories include physical-activity-induced changes in blood coagulability, platelet function, fibrinolytic activity, myocardial vascularity and coronary artery size. (Gothi, 2003).

Although research data are sparse and results equivocal, evidence to support the view that children’s physical activity patterns persist into adulthood is accumulating. Engstrom appears to have carried out the only published prospective longitudinal study of physical activity through to adulthood. He interviewed 2464 randomly selected 15-year-olds about their sport activities during leisure time and followed the same group through mailed questionnaires 5, 10 and 15 years later. He obtained a full set of data on 2072 subjects, and his results indicated that early experiences of physical activity are important for psychological readiness to participate in keep-fit activities in later life. These findings reinforce the importance of adopting an active lifestyle (Gothi, 2003).

Recent attempts to promote active lifestyles through the Physical Education programme or supplements to it have generally been unsuccessful. Unequivocal
evidence from studies in the physical education activities research centre show that
despite 10 years of a supposed emphasis to the promotion of active lifestyles, both
primary and secondary British school children exhibit very low levels of habitual
health related physical activities. This reaffirmed our view that physical educators
must promote active lifestyles more explicitly and that health related physical
activities must be a central issue in physical education, physical activities should
underpins the physical education programme, and we endure the view of the British
Association of Sports Sciences. These experiences need to be supported by a
theoretical framework, and pupil should develop understanding of health related
physical activity's beneficial effects and the ways these benefits can be achieved and
sustained through adult life.

The goal of physical fitness programme is to improve the performance in
activities of daily living, job demands, sports and recreational activities which was
said by Craig Liebenson (2003).

Physical fitness is the basic fitness of all other fitness. Physical fitness is not
only the most important ways to a healthy body but it is also the basis of dynamic and
creative activity. Physical fitness is the combination of strength, speed, flexibility,
agility and endurance. It is the ability to enjoy our lives and to achieve our goals
without undue fatigue or stress. Physical fitness varies from person to person and
different types of fitness are needed for different types of profession.

The Police Force of Tamil Nadu is recognized to be among the most efficient
and best in the country. It has a commendable track record, not only in the
maintenance of law and order, but also in assisting the community whenever the need
has arisen. While remaining people-friendly, the Police Force has also been effective
in countering anti-social activities. It has been able to combat forces which seek to create communal disharmony or to promote terrorist activities and hold them at bay. The State’s Police Force has been trained and sensitized to be especially responsive to the weaker sections of Society, including Scheduled Castes, Scheduled Tribes, the disabled and women. Its efforts in combating crime and its success in bringing down the crime rate over the years are noteworthy. The valuable contributions made by its officers in the field of Community Policing have been acclaimed as role models for developing nations and are recognized internationally. Strong and consistent guidance and support from the Government have been the keys to the creditable record of the Police Force in Tamil Nadu. The days when Policemen were considered a mere sentinel of the Criminal Justice System and a symbol of security are gone. Policing has become more of a people-centered societal effort.

Regular activity, fitness and exercise, are critical for the health and well being of people of all ages. Research shows that everyone, young or old can benefit from regular exercise, either vigorous or moderate.

Health, Physical fitness and emotional stability are the objectives which bring yoga and physical education on a common platform for the benefit of human individual. Health is a more general and comprehensive term conveying the ‘felling of well being’, while physical fitness is a more specific term. Physical fitness is the capacity of an individual to perform a given task at a particular time. Health and physical fitness are not static. They are always changing. They follow ‘the law of use and disuse’. Health and physical fitness can be maintained only by carefully selected physical activities which are called ‘exercise’. The utility of the particular exercise programme can be evaluated only in terms of the effects that are obtained in
promoting a particular factor or factors of physical fitness. Through constant practice of yoga, one can overcome all difficulties and eradicate all weakness. Pain can be transmitted into bliss, sorrow into joys, and failure into success and sickness into perfect health. Determination, patience and persistence lead one to goal (Ananda, 1982).

A nation’s true wealth lies not in its land and waters, not in its forests and mines, not in its flocks and hands, not in its dollars but in its healthy and happy men, women and children.

1.1. HEALTH

The World Health Organization defined “Health as a state of complete physical, mental and social well-being and not merely the absence of disease and infirmity”

The person, who always eats wholesome food, enjoys a regular lifestyle, remains unattached to the objects of the senses, gives and forgives, loves truth, and serves others, is without disease the total body, mind and spirit. It includes physical health, mental health, emotional health, and social health.

1.2. HEALTH STATUS

The Health Status is usually measured in terms of life expectancy at birth, infant mortality rate, fertility rate, crude birth rate and crude death rate. These indicators of health are determined by numerous factors such as per capita income, nutrition, housing, sanitation, safe drinking water, social infrastructure, health and medical care services provided by government, geographical climate, employment
status, incidence of poverty and the like (Reddy and Selvaraju 1994; Dadibhavi and Bagalkoti 1994).

1.3. HEALTH STATUS IN INDIA

It is a well-known fact that India is, next only to China, the second largest country in terms of population in the world. But the health status of a great majority of the people is far from satisfactory as compared to China and other developed countries. However, over the last five decades or so, India has built up health infrastructure and manpower at primary, secondary and tertiary care in government, voluntary and private sectors and made considerable progress in improving the health of its population (Ray 2003; Bhat and Babu 2004).

However, India is one of the major countries where communicable Diseases are still not under control. The incidence of new fatal diseases such as AIDS / HIV, hepatitis-A is on the increase and tuberculosis and malaria still take a high toll. Chronic non-communicable diseases such as heart diseases, diabetes and cancer are also in the rise (Bhat and Babu 2004). Health risk due to high prevalence of alcohol and Tobacco consumption is also increasing. India’s dream of “World Class” health care delivery system is difficult to achieve.

According to the World Health Organization 900,000 Indians die each year from drinking contaminated water and breathing in polluted air. As India grapples with these basic issues, new challenges are emerging for example there is a rise in chronic adult diseases such as cardiovascular illnesses and diabetes as a consequence of changing lifestyles.
The health sector, therefore, faces “dual” challenges: while control of communicable and non-communicable diseases is of paramount importance, the budget allocation by the government is on the gradual decline in recent years. Hence, India faces the daunting challenge of meeting health care needs of its vast population and ensuring accessibility, efficiency, equity and quality of healthcare and thereby achieving the objective of growth with equality and social justice.

1.4. YOGIC CONCEPT OF HUMAN BODY:

![Diagram of the human body](image)

**Fig. 1**

1. **Annamaya kosha (material body):**

   The Annamaya kosha is the physical frame which is the grossest of the five bodies. This Anna (matter) aspect of our physical personality is called Annamaya kosha. This is normally nourished by the gross food (also called Anna).

2. **Pranamaya kosha (life energy body):**

   This Prana is the basic fabric of this universe both inside and outside our body. A uniform harmonious flow of Prana to each and every cell of the Annamaya kosha keeps them alive and healthy. Prana has the capacity to move into demand.
3. **Manomaya Kosha (mind body):**

   Mind, which is defined as a conglomeration of thoughts responds to the inputs through sense organs. This component of the Manomaya kosha in which this rapid recycling takes place and gathers momentum is called ‘Emotions’ (Bhavana). This is characterized by feelings such as “likes or dislikes”, “love or hate”, backed by the heavy ‘I’ (the ego).

4. **Vijnanamaya Kosha (intellect body):**

   Vijnanamaya kosha is the fourth aspect of the existence. This conscience within that continuously guides us to do a thing or not to do a thing is the vijnanamaya kosha. This freedom element which is inbuilt in all human beings, guides him to discriminate what is “good and bad”, “right and wrong”, “useful and not useful” to move towards long term sukha(happiness). Thus vijnanamaya kosha (knowledge base) is the discriminating faculty.

5. **Anandamaya Kosha (Bliss body):**

   Anandamaya Kosha is the bliss layer of our existence. This is the most subtle aspect of our existence which is devoid of any form of emotions; a state of total silence – a state of complete harmony, and perfect health.

1.5. **YOGA FOR HEALTH**

   Yogic exercises recharge the body with cosmic energy. This facilitates

   - Attainment of perfect equilibrium and harmony
   - Promotes self- healing.
- Removes negative blocks from the mind and toxins from the body
- Enhances Personal power
- Increases self-awareness
- Helps in attention focus and concentration, especially important for children
- Reduces stress and tension in the physical body by activating the parasympathetic nervous system.

1.6. HEALTH RELATED PHYSICAL FITNESS

Physical fitness is a universally accepted and realized terminology. Physical fitness is a capacity to meet the present and potential physical challenges of life with success. The present concept of physical fitness is not only freedom from disease, but also to gain enough strength, agility, flexibility, endurance and skills to meet the demands of daily life and to build sufficient reserve energy to withstand stress and strain.
Fitness improves general health and it is essential for full and vigorous living. The physically fit child will be more alert and eager to do things. Children are the future citizens of our country. The wealth of a nation depends entirely upon the health of every citizen of the country. Hence physical fitness of school children is a major important factor to be considered.

Physical fitness is an important outcome of physical education and it is physical education in the school system that is most capable of bringing it out. The physical fitness over a long span and examination of the same reflect the status of health. Physical examination assesses the growth pattern and functional efficiency of sensory and Health organs, functional efficiency of the body in terms of strength, cardio respiratory endurance, flexibility, speed, agility, balance and neuromuscular co-ordination.

Physical fitness is a combination of qualities that enable a person to perform well in vigorous physical activities. These qualities include agility, endurance, flexibility and strength. Physical fitness and good health are not the same, though each influences the other.

Physical fitness represents one of the several facets of sports and physical activity, which can have definite influences on the health and the well being of children and adolescents, as well as adults. The measurement of physical fitness raises several conceptual, methodological and technical problems, which explain why surveys including such measures have been scarce until recently.

The Australian Fitness Education Award reflects a health related fitness philosophy and encourages students to set personal goals by aspiring to criterion based standards of achievement rather than by comparisons to others. With a view of turning
children on rather than off physical activity, Australian Council for Health Physical Education and Recreation (ACHPER) has developed a new fitness testing approach that reduced comparison with others eliminates embarrassment on focuses on learning about personal health and fitness. Helpful hints to encourage student participation and generally promote physical activity in school and community settings form an added feature of the Australian Fitness Education Award Resources.

The American Alliance for Health, Physical Education, Recreation and Dance had published two standardized tests for the schools: The health-related physical fitness test and the youth fitness test. According to AAHPERD, health-related physical fitness can be viewed thus: Physical fitness is a multifaceted continuum extending from birth to death. Affected by physical activity, it ranges from optimal abilities in all aspects of life through high and low levels of different physical fitness, to severely limiting disease and dysfunction. (AAHPERD, 1980:3).

Health-related physical fitness is important to everyone and should be stressed by physical educators and medical people alike. Health related fitness is defined as the ability to perform strenuous activity without excessive fatigue showing evidence of traits that limit the risks of developing diseases and disorders which affect a person's functional capacity. Components of health related physical fitness are identified as muscular strength, endurance, flexibility, cardio respiratory endurance and body composition.

To enjoy an optimum state of health and physical fitness, exercises are quite necessary. Exercises are helpful in maintaining the sound body through out life. Health and fitness afford the people an opportunity to live longer and they add to the quality of every day life.
Physical education has long believed that exercise is essential to maintain good health. During the past twenty years a great deal of evidence has been reported by the medical researches supporting the value of vigorous exercise for the promotion of health. Health-related physical fitness components are those, development of which enrich one's health and on the other hand which are related to certain diseases.

1.7. POLICE

The police are people empowered to enforce the law, protect property and reduce civil disorder. Their powers include the legitimised use of force. The term is most commonly associated with police services of a state that are authorized to exercise the police power of that state within a defined legal or territorial area of responsibility. The word comes via medieval French police, from Latin politia "civil administration", from ancient Greek

Law enforcement, however, constitutes only part of policing activity. Policing has included an array of activities in different situations, but the predominant ones are concerned with the preservation of order. In some societies, in the late 18th century and early 19th century, these developed within the context of maintaining the class system and the protection of private property.

Alternative names for police force include constabulary, gendarmerie, police department, police service, crime prevention, protective services, law enforcement agency or Garda Síochána, and members can be police officers, troopers, sheriffs, constables, rangers, peace officers or Garda. Russian police and police of the Soviet-era Eastern Europe are (or were) called militsiya. As police are often in conflict with individuals, slang terms are numerous. Many slang terms for police officers are decades or centuries old with lost etymology.
1.7.1. TAMIL NADU POLICE

The Tamil Nadu Police is recognized as one of the finest forces in the country. It is in the forefront in most professional areas as is borne out by its performance in successive All India Police Duty Meets. The high traditions of Tamil Nadu Police include service delivery to the public at large, effective enforcement of traffic laws, with a view to ensuring safety on the roads and adoption of e-Governance with a view to bringing about more transparency in the functioning of the Police.

The administrative control of Tamil Nadu Police vests with the Chief Minister of Tamil Nadu who holds the portfolio of Home Minister. The supervision and coordination of Police is done by the Home Department Govt. of Tamil Nadu. The modern Tamil Nadu Police Force is over 150 years old. It is the fifth largest state police force in India.

The Force, headed by a Director General of Police, is responsible for maintenance of law and order and prevention and detection of crimes in an area spanning 130058 sq. Kms with a population of over 6.2 crores as per the Census 2001. Tamil Nadu has a coastline of 1076 Kms. 87,973 personnel borne on the strength of the Police Force of Tamil Nadu are deployed throughout the State.

The State is divided into 4 Police Zones - North, Central, West and South. Each Zone is headed by one Inspector General of Police. There are thirty Police districts in Tamil Nadu, each headed by a Superintendent of Police. In each City and District, the Commissioner of Police / Superintendent of Police has, besides the civil police force, Armed Reserve of Police personnel. One Deputy Inspector General
(DIG) of police supervises the work of 2-3 districts, which constitute a Police Range. There are twelve (including 1 Railway Range) Ranges in Tamil Nadu.

In each of the seven Metropolitan Cities of Tamil Nadu, the City Police force is headed by a Commissioner of Police. These cities are -- Chennai, Chennai Sub-Urban, Madurai, Coimbatore, Tiruchirapalli, Salem and Tirunelveli.

1.7.1.1. TAMIL NADU POLICE HISTORY

1659: Pedda Naik engaged by the British to Guard the town of Madraspatanam with the assistance of peons. The system was the remnant of the ‘Kaval’ organization.

1770: Board of Police constituted by the then Governor Josios DuPre to deal with removal of public nuisance, & maintenance of public health and order.

1806: Walter Grant became the first regularly appointed Superintendent of the City Police with three Police Magistrates

1923: H.G. Stokes appointed as Special Officer for re-organization of Armed Reserves and Special Police Parties. MSP equipped with "Marconi" wireless sets. First Police Organization to use wireless for operations in Madras State

1960: Police Research Center (PRC) was formed

1971: Police Computer Wing", Madras was established. Tamil Nadu was the first State to start Computerization

2008: Tamil Nadu Police Celebrated Sesquicentennial (150 Years).

The Chennai Police has been bifurcated as Chennai City Police Commissionerate and Chennai Sub- Urban Commissionerate.

The Tamil Nadu Police Academy has been inaugurated at Oonamancheri, Vandalur, Chennai.
The DGP, Tamil Nadu launched the redesigned Tamil Nadu Police Official Website with eGovernance facility.

2009:
National Security Guard hub was opened at Chennai.
Senior IPS officer Ms Letika Saran IPS became the first woman DGP in Tamil Nadu Police.

1.7.2. YOGA FOR POLICE

Yoga could superficially appear as just a physical exercise to tone the body, but its benefits lies buried only to be unraveled with persistent practice. The Police officials have turned to Yoga to beat their work stress due to their hectic lifestyle. Yoga asanas apart from contributing to the physical fitness of an individual extends to calm and soothe the mind paving way for deeper relaxation for stress management. This in turn helps for more increased productivity in one's career, here with the police department, to curb crime.

1.8. YOGA

The great sage Patanjali who was born in 200 BC systematized the science of yoga which till then was being handed down by word of mouth from one generation to another. Traditionally it said that Lord Siva was the innovator of yoga. Yoga is explained vividly in the great scriptures like Vedas, Upanishads, Gita and Ramayana.

Bhagavad Gita says

“Yoga is equanimity in success and failure (2/48)
Yoga is skill and efficiency in action (2/50)
Yoga is supreme success of life (4/3)
Yoga is the giver of untold happiness (5/2)
Yoga is serenity (6/3)
Yoga is the destroyer of pain (6/17)”.
Yoga means the experience of oneness or unity with inner being. This unity comes after dissolving the duality of mind and matter into supreme reality. It is a science by which the individual approaches truth. The aim of all yoga practice is to achieve truth where the individual soul identifies itself with the supreme soul or God. Yoga has the surest remedies for man’s physical as well as psychological ailments. It makes the organs of the body active in their functioning and has good effect on internal functioning of the human body. Yoga is a re-education of one’s mental process, along with the physical.

Yoga has been practiced in India for over two millennia. Stories and legends from ancient times testify to the existence of yoga, and to the practitioners and divinities associated with it. India literature is a storehouse of knowledge about yoga covering every conceivable level. Roughly in chronological order are the vocals (books of scriptural knowledge), the Upanishada (Philosophical cosmologies), and their commentaries; then the Puranas (ancient cosmologies), and the two epics, the Ramayana and the Mahabharata. The Mahabharata contains within itself that master piece of Indian scripture the Bagawad Gita. Towards the end of Vedic period comes the aphoristic literature, with the “yoga Aphorisms” of Patanjali of special interest to yoga students. Besides, whole bodies of works both ancient (Pre-Christian) and more modern with various aspects of yoga and yoga philosophy is to testify the continued relevance of yoga as a discipline (Mira Mehta, 1998).

In other systems of physical exercises, the internal organs of the body mostly do not get proper exercises, while yogic practices gives sufficient exercises to the internal organs of the body. Yoga practices have a greater impact on the mind and control the senses. Yogic practices make possible not only physical and mental development but also intellectual and spiritual development. Yoga practices are called a ‘non-violent activity’ (Sharma, 1984).
1.8.1. ORIGIN OF YOGA

Yoga’ -the very word radiates peace and tranquility. This feeling probably stems from the etymology of the word. The word Yoga is derived from the Sanskrit word 'Yuj' which essentially means “to join or unite”. The union referred to is that of the individual self uniting with Cosmic Consciousness or the Universal Spirit. Yoga is a means to achieving this goal.

Born in India, almost 26,000 years ago, Yoga is believed to have evolved during the period of the ‘Sat Yuga’, also called the Golden age. This period became known as a time of everlasting peace and abundant blessings, filled with seekers of the Eternal Truth. That is why, probably, even today we associate yoga with sages and hermits.

It was not until the discovery of the Indus- valley civilization, the largest civilization that knowledge about the origin of Yoga surfaced. Excavations give evidence of yoga’s existence during this period; yogi - like figures engraved on soapstone seals have been unearthed. In fact, it was the Aryans, migrating from the north- west, who were instrumental in discovering yoga.

1.8.2. HISTORY OF YOGA:

a) History of yoga in Indus valley civilization:

The archeological excavations of ancient civilization shows that even before 3000 BC yoga had evolved. The artifacts and the “Yogi glyptic” are testimony to the fact. The various yoga postured relic’s depicts, some of the noteworthy yoga postures in them.
b) **History of yoga in Vedic period:**

With evolution of Vedas the foundation of Hinduism was laid. The Vedas hold the ancient yogic teachings and hence is known as Vedic yoga. While some vague references of history of yoga could be found in the Vedas but practices could be found in the Brahmanas. The Rig Veda mentions yoga’s practice as yoga was essential with Vedic ritual. This dates back to 900 BC.

c) **History of yoga in the Upanishad:**

This period is also known as pre-classical yoga period. The Brihadaranyaka Upanishad makes the reference of yoga meditation and is clearly reflected in 900 BC to 400 BC. The Mahabharata and the Bhagavad-Gita (oldest Yoga scripture) shows the yoga history in 500 BC and 200 BC respectively. Even in Buddhism, the importance of yoga meditation and various yoga postures have been mentioned.

d) **History of yoga in the Patanjali “Yoga Sutra’s”:**

This period is also known as the Classical period of yoga. The main attempt of Patanjali was to define and normalize classical yoga form and is known as Patanjali eight fold path of yoga (Eight Limbs of Classical Yoga).

e) **Post classical yoga:**

Numerous sovereign yoga schools were developed during this period after the Yoga sutra period, hence the name Post classical yoga. The human body became filled of study along with the meditation which was missing is the previous years. A new system with numerous yoga exercises was developed. And thus Hatha yoga, Raja yoga and other branches emerged.
f) Modern yoga and its history:

The Chicago summit and the famous lecture of Swami Vivekananda became a turning point with the introduction of Yoga to the Western world. Thus various yoga schools emerged and more and more people learnt this yogic form of exercise.

g) Yoga today in modern world:

Yoga has gained immense popularity in recent years. Yoga has become a health movement. The westerner’s views and spirituality has changed a lot. Yoga’s has become a mandatory fitness regime. Yoga has evolved into more modern form like power yoga or Zen yoga. Yoga has revealed through its long history. The vast oceans of Yogic literature and the motivation and drive makes all follow the true Yogic path.

1.8.3. MEANING OF YOGA

The literal meaning of the word yoga is yoke. It means for uniting the individual spirit with the universal spirit, or God. The work yoga is derived from the roots of Sanskrit ‘Yuj’ which means to join, to attach, to bind, and yoke, and to concentrate on one’s attention.

Mahadev Desai, says in his introduction to the Gita and according to Gandhi, the yoking of all the powers of body, the mind, the emotion, the will which the yoga presupposes, it means pose of the soul which enables one to look at life in all its aspect evenly. In Indian culture or thought human beings or everyone on this earth is guided by the supreme universal spirit, i.e., Pramatma or God of which the individual human spirit, i.e., Jivatma is a part. Yoga is a way to secure liberation (Moska) because it is the means by which the jivatma can be united to the pramatma.
The science of yoga works on physical, mental, emotional, psychic and spiritual aspects of a person. When imbalance is experienced at this level, the organs, and muscles and nerves no longer functions in harmony, rather they at in opposition to each other. Therefore yoga aims at bringing the different body functions into perfect co-ordination so that they work for the God of the whole body.

Yoga has a complete message for humanity. It is a message for the human body, human mind and human body, human mind and human soul. (Swami Kuvalayananda, 1977)

1.8.4. IMPORTANCE OF YOGA

Yoga is not a religion; it is a way of living whose aim is ‘a healthy mind in a healthy body’. Man is a physical, mental and spiritual being; yoga helps promote a balanced development of all the three. Other forms of physical exercises, like aerobics, assure only physical well-being. They have little to do with the development of the spiritual or astral body.

Yogic exercises recharge the body with cosmic energy. This facilitates

- Attainment of perfect equilibrium and harmony
- Promotes self-healing.
- Removes negative blocks from the mind and toxins from the body
- Enhances Personal power
- Increases self-awareness
- Helps in attention focus and concentration, especially important for children
- Reduces stress and tension in the physical body by activating the parasympathetic nervous system
The aspirant feels rejuvenated and energized. Thus, Yoga bestows upon every aspirant the powers to control body and mind.

1.8.5. CHARACTERISTICS OF YOGA

In the Thoughts of Modern Thinkers we find yoga as a System of Conscious Evolution and Self perfection –

1. **Swami Vivekananda** has defined the Yoga as – “Yoga as "It's a means of compressing one’s evolution into a single life or a few months or even a few hours of one's bodily existence”.

2. **Sri Aurobindo** defines Yoga as Integral Yoga. He says “By Yoga, meant a methodological effort towards self perfection by the development of potentialities latent in the individual”.

3. **Patañjali**, “Yoga is the restraint of modifications of Mind” -- Realizing the ultimate reality.

4. **Bhagavad-Gita** defines Yoga as "Yoga is skill in action" also “Equanimity of mind”.

5. “Skilful method to calm down the mind” - **Yogavasisht**.

1.8.6. THE CONCEPT OF YOGA

Although the word ‘yoga’ has many connotations, etymologically it means, “Integration:. The term “Samatava” of Bhagavat Gita conveys the same meaning. Other terms like homeostasis, equilibrium, balance, harmonious development etc. more or less suggest the same things. The aim of yoga itself is an integration of
personality in its all aspects. In order to help the development of such integration, various techniques are employed. These techniques or practices enjoined in yogic literature and handed down in different traditions also go under the name of yoga. (Gharote, 1976).

1.8.7. NATURE OF YOGA

We may sum up the true nature with these, as yoga is

- **Health (Holistic Health)** - Physical, Emotional, Mental, Intellectual, Social and Spiritual Well being

- **Harmony** - Inner Harmony (Body, mind and emotion) and Outer Harmony (Social, Professional)

- **Bliss** – beyond happiness or permanent state of happiness. This is the stage of Self-realization.

1.8.8. COMMON OBJECTIVES OF YOGA AND PHYSICAL EDUCATION

Health, Physical fitness and emotional stability are the objectives which bring yoga and physical education on a common platform for the benefit of human individual. Health is a more general and comprehensive term conveying the ‘felling of well being’, while physical fitness is a more specific term. Physical fitness is the capacity of an individual to perform a given task at a particular time. Health and physical fitness are not static. They are always changing. They follow ‘the law of use and disuse’. Health and physical fitness can be maintained only by carefully selected physical activities which are called ‘exercise’. The utility of the particular exercise programme can be evaluated only in terms of the effects that are obtained in promoting a particular factor or factors of physical fitness. Through constant practice
of yoga, one can overcome all difficulties and eradicate all weakness. Pain can be transmitted into bliss, sorrow into joys, and failure into success and sickness into perfect health. Determination, patience and persistence lead one to goal (Ananda, 1982).

1.9. YOGIC PRACTICES:

1.9.1. SURYANAMASKAR:

Surya Namaskara (IAST: Sūrya namaskāra) or Sun Salutation (lit. "Salute to the sun"), is a common sequence of Hatha yoga asanas. Its origins lie in a worship of Surya, the Hindu solar deity. This sequence of movements and poses can be practiced on varying levels of awareness, ranging from that of physical exercise in various styles, to a complete sadhana which incorporates asana, pranayama, mantra and chakra meditation.
The physical base of the practice links together twelve asanas in a dynamically performed series. These asanas are ordered so that they alternately stretch the spine backwards and forwards. When performed in the usual way, each asana is moved into with alternate inhalation and exhalation (except for the sixth asana where the breath is held in external suspension). A full round of Surya namaskara is considered to be two sets of the twelve poses with a change in the second set to moving the opposite leg first through the series.

The 12 Names of Surya { the Sun God }

1. Om Mitraya namah (The friend of all)
2. Om Ravaye namah (Praised by all)
3. Om Suryaya namah (The guide of all)
4. Om Bhanave namah (The bestower of beauty)
5. Om Khagaya namah (Stimulator of the senses)
6. Om Pushne namah (The nourisher of all)
7. Om Hiranyagarbha namah (The creator)
8. Om Marichaye namah (Destroyer of disease)
9. Om Adityaya namah (The inspirer)
10. Om Savitre namah (The purifier)
11. Om Arkaya namah (The radiant)
12. Om Bhaskaraya namah (The illuminator)
Surya Namaskar Benefits

When performed properly, Surya Namaskar gives immense benefits and purifies the body, mind and soul. Following are the benefits of Surya Namaskar:

- The strength in the back and legs is increased to a great extent. The waist is shaped perfectly and any skin disorder is cured off completely. When done with immense concentration, it increases confidence and boosts the personality.

- Any disease or disorder of the throat is corrected and the food pipe or esophagus is strengthened. Eyes are made stronger and sharper and the vision improves.

- The digestive system and the stomach become stronger and improve the overall metabolism. Your body becomes balanced with the correct amount of energy being released whenever wanted.

- Due to the stretching, the intestines are strengthened and the abdomen walls become stronger.

- The back muscles are toned up and strengthened to a great extent and the spine and arms become stronger.

1.9.2. ASANAS

Asana means holding the body in a particular posture to bring stability to the body and poise to the mind. The practice of asana purify in tubular channels, firmness to the body and vitality to the body and the mind.
Yogasanas are simple actions for keeping the internal and external parts of the body in good health. No activity can be performed well so long as the internal and external parts of the body are not in good health. The body and the mind are closely related. The people of ancient Greece believed in the principle “A sound mind in a sound body.” By practicing asanas one possesses himself from physical disabilities and mental distractions. It is a state of complete equilibrium of body, mind and spirit.

Asana means a state of being in which one can remain steady, calm, quiet, and comfortable, physically and mentally. Yogasana are practiced to develop one’s ability to sit in one position without discomfort for extended lengths of time, as this is necessary during meditation.

1.9.3. PRANAYAMA

Pranayama means control and regulation of breath. “Prana” is Sanskrit word which means ‘vital force’, “Ayana”, means the control of the Prana so Pranayama means the control of vital force (Prana) by concentration and regulated breathing. Prana is the vital power or force which is motivating every element on the earth and is the origin of the force of thought. There is a deep affinity between prana and mental force, between mental force and intellect, between intellect to soul, and between soul and God. The control of Prana through Pranayama, that each part of the body can be filled with Prana. Once, one is capable of performing it, one is matter of body and can dominate illness and suffering. Prana is accumulated where our mind is concentrated. As a wind drives smoke and impurities from the atmosphere, pranayama drives away the impurities of the body and mind.
1.9.4. BANDHA

The word bandha, may be defined in several ways: ‘binding, tying a bond, tie, chain, fetter, to catch, hold captive, arrest, imprison, fix, fasten, hold back, restrain, stop, shut, close, redirect, check, obstruct, clot and lock.’ Bandha may also be defined analogously and is likened to the ‘damning of a river’, ‘building a bridge’ or ‘building over the sea’. This can be interpreted as meaning that a bandha is a vehicle to traverse the ocean of samsara, worldly existence, and to reach the other shore of enlightenment.

The true meaning of bandha is essentially paradoxical, for it is said that by locking or contracting certain muscles on the physical level a subtle process of ‘unlocking’ goes on simultaneously on physical, mental and pranic levels and within the psychic and causal bodies. Contracting or squeezing of muscles groups form three main groups: Perineal muscles, abdominal muscles and cervical muscles. Contraction of these specific muscles affects the nervous, circulatory, respiratory, endocrine and energy systems.

1.9.5. MUDRA

'Mudra' as mystic hand gestures used to focus subtle energy, transmit teachings through symbols and confer psychic protection

A mudrā (Sanskrit: lit. "Seal") is a symbolic or ritual gesture in Hinduism and Buddhism. While some mudrās involve the entire body, most are performed with the hands and fingers. Mudrā (Sanskrit) is a 'spiritual gesture' and energetic 'seal of authenticity' employed in the iconography and sadhana of Dharmic Traditions and Taoist Traditions; particularly those influenced by Tantra, Shinto and Shamanism.
1.9.6. TRANSCENDENTAL MEDITATION

The Transcendental Meditation or TM technique is a form of mantra meditation introduced in India in 1955 by Maharishi Mahesh Yogi (1917–2008). Taught in a standardized, seven-step course over 4 days by certified teachers, it involves the use of a sound or mantra and is practiced for 15–20 minutes twice per day, while sitting comfortably with closed eyes. The fees of learning the technique vary from country to country.

1.9.7. BENEFITS OF YOGIC PRACTICES

1. At the physical level asanas, kriyas, mudras and pranayama stabilize and balance the lop-sided physical drills necessary for sporting activity.

2. Yoga helps to develop all system of human body such as cardiovascular, respiratory, digestive, eliminative, endocrine, nervous and muscle-skeletal system thus strengthening, cleansing and purifying the body so that it is brought under our conscious will.

3. Yoga is isometric and internal. It is content between our inherent inertia and the power of the will. Parts of the body are pitted against one another and a unique harmony of body, mind and breath is developed. This internal struggle when handled successfully deepens the consciousness of not only the working of the body but also of mind and emotion.

4. Yoga reduces anxiety, aggression, tension, ego weakness, guilt feelings, frustration (Oaketal, 1981). It brings complete changes in body and mind so that the practitioner feels fresh remarkably, relaxed and full of vitality (Saraswati, 1994).
5. Yoga especially pranayama causes expansion of consciousness. This helps to attain mental clarity, awareness and creativity (Bera, 1994). As a result it improves concentration, attention, memory etc.

6. Lung functions can be improved as a result of yogic exercise (Bhole, 1982). Yoga is also useful for improving the breath holding time (Bhole, 1979).

7. Yogic exercises are beneficial in removing postural defects and physical disabilities. Yogic training is a useful therapeutic system in managing chronic diseases.

8. Yoga prevents as ell as reduces the intensity of drug abuse and alcohol addiction by decreasing autoimmune arousal (Parker et al. 1978).

1.9.8. EFFECTS OF YOGIC TRAINING

It is necessary to note that the nature of all yogic practices is psychological and physiological. Some exercises emphasizing the control of mental processes directly are more psychological. Other exercises are more physical or physiological. It is this later part of yogic practices that has become more popular and is being extensively used for the development and promotion of health and fitness. The yogic exercises in general differ from the physical exercises and the important differences are:

1. The physical exercises are repetitive in character and utilize a lot of energy whereas yogic exercise helps to conserve energy. The caloric requirement of yogic exercises is only 0.9 to 3 calories per minute depending upon the severity of exertion.
2. Relaxation forms the most important aspect of yogic exercise unlike physical exercises, during the practice of asanas, muscles which do not support weight or which are not actively involved are relaxed. With relaxation, the muscles return to normality after contraction and therefore yogic exercises keep the body more flexible. Physical exercises improve the circulation of blood in voluntary system, thereby resulting in better muscular development as a result of improved function of the muscles. Yogic exercises aims at improving blood circulation to all vital organs thus improve their function.

3. Unlike physical exercises, in yogic exercises spine has been given an important place and various exercises for the spine aim at keeping the spine flexible and joints supple.

4. Yogic exercises influence both mind and body whereas physical exercises have their effect mainly on the body. They have more positive reaction to stress, thus minimizing its ill effects.

1.10. OBJECTIVES OF THE STUDY

1. To find out whether there would be any significant difference in Health fitness component variables due to the yogic practices of Experimental group I & Experimental group II among Policemen in Chennai.

2. To find out whether there would be any significant difference in Physiological variables due to the yogic practices of Experimental group I & Experimental group II among Policemen in Chennai.
3. To find out whether there would be any significant difference in Psychological variables due to the yogic practices of Experimental group I & Experimental group II among Policemen in Chennai.

1.11. REASONS FOR SELECTION OF TOPIC

The topic which I have selected for my thesis is highly significance once. Because today people are living with so many environment, backgrounds, that cause for many health problems. However, the police men that to, those working in a lower stage are highly vulnerable / prevalence of more diseases like hypertension, mental stress and arthritis, aggression which will affect human organs. In order to avoid, the present study would help to reduce those problems, definitely help them to get improved in their health as because yoga is for total living.

In this study, the researcher was interested to find out the influence of varied packages of yogic practices on selected Health fitness components, Physiological and Psychological variables among police men in Chennai.

1.12. REASONS FOR THE SELECTION OF VARIABLES

Health fitness components like Endurance, Strength, Flexibility and Body composition and Physiological variables like Resting Pulse Rate, VO2 Max, Breath holding time and Blood pressure are important to determine the health fitness components of the police men. Psychological variables like Anxiety, Job satisfaction, Job involvement and Organizational climate are essential for their behavioral Health. For the same Health fitness components, Physiological and Psychological variables are considered for the study.
1.13. **STATEMENT OF THE PROBLEM**

The purpose of the study was to find out the effects of different packages of yogic practices on selected Health fitness components, Physiological and Psychological variables among Policemen in Chennai to eradicate their ill – health and a lack of structured Physical Activity.

1.14. **HYPOTHESES**

To impart different packages of yoga practices the investigator intends to select three groups namely, Experimental group I, Experimental group II and control group.

The following are hypothesized for the study:

1. It was hypothesized that there would be significant differences in yogic practices of Experimental group I and Experimental group II than the control group on selected Health fitness components, physiological and psychological variables among Policemen in Chennai.

2. It was hypothesized that there would be significant differences in yogic practices between the Experimental group I and Experimental group II on selected Health fitness components, physiological and psychological variables among Policemen in Chennai.

1.15. **SIGNIFICANCE OF THE STUDY**

The study is significant in the following ways:
1. This study is unique in suggesting different packages of yogic practices among Police in Chennai.

2. The study is unique in determining the effects of different packages of yogic practices on selected Health fitness components and physiological and psychological variables.

3. The study may help to understand the differences existed among different yogic practices on Police men in Chennai.

4. The study may help to introduce suitable yogic practices in administrating and strengthening the policemen in Chennai.

1.16. DELIMITATIONS

The study was delimited to the following:

1. The study was restricted to the Policemen only;

2. The samples were restricted to Chennai city only;

3. The age groups between 30 to 45 years only were selected for the purpose of the study.

4. The subjects were selected from Tamil Nadu Police Academy at vandalur, Chennai only.

5. The study was restricted to the following dependent and independent variables:
DEPENDENT VARIABLES

a. Health Fitness Variables
   - Endurance
   - Strength
   - Flexibility
   - Body composition.

b. Physiological Variables
   - Resting Pulse Rate
   - VO₂ max
   - Breath Holding Time
   - Blood pressure

c. Psychological Variables
   - Anxiety
   - Job satisfaction
   - Job involvement
   - Organizational climate.
INDEPENDENT VARIABLES

a. Yogic practices of package - I (Experimental group A)

(Swami Sathyananda Saraswathi)

- Suryanamaskar
- Asana
- Pranayama
- Mudra
- Transcendental Meditation

b. Yogic practices of package - II (Experimental group B)

(Swami Kuvalayananda)

- Asana
- Pranayama
- Bandha
- Mudra
- Relaxation
1.17. LIMITATIONS

This study will be limited in the following aspects and these limitations have to be taken into consideration.

1. Socio-economic and cultural status of the subjects will not be taken into consideration.

2. Factors like nutrients, heredity, environment, life style habits of the policemen will not be taken into consideration.

3. The height and weight of the subjects will not be taken into consideration.

1.18. MEANING AND DEFINITION OF THE TERMS

1.18.1. YOGA

Yoga is a way of life which can be practiced by any human being regardless of age and condition of health. Yoga is a gaining process of control over the mind. Thereby improving the physiological and psychological behavior of an individual.

1.18.2. YOGIC PRACTICES

“Yogic practice is a system or a method of doing or achieving something is based on logic and rational consideration, it qualifies to be scientific.”

1.18.3. SURYA NAMASKAR

Surya Namaskar is a special sequence of yoga postures and chants that together comprise the traditional Sun Salutation. (TheresaAnn, 2002)
1.18.4. **ASANA**

Asana means holding the body in a particular posture to bring stability to the body and poise to the mind. The practices of asana bring purity in tabular channels firmness to the body and vitality to the body and the mind.

1.18.5. **PRANAYAMA**

Pranayama means control and regulation of breath. “Prana” is a Sanskrit work which means ‘Vital force’, “Ayana” means the control of the prana, so Pranayama means the control of the vital force (Prana) by concentration and regulated breathing.

1.18.6. **BANDHA**

The word *bandha*, may be defined in several ways: ‘binding, tying a bond, tie, chain, fetter, to catch, hold captive, arrest, imprison, fix, fasten, hold back, restrain, stop, shut, close, redirect, check, obstruct, clot and lock.’ Bandha may also be defined analogously and is likened to the ‘damming of a river’, ‘building a bridge’ or ‘building over the sea’. This can be interpreted as meaning that a bandha is a vehicle to traverse the ocean of samsara, worldly existence, and to reach the other shore of enlightenment.

1.18.7. **MUDRA**

'Mudra' as mystic hand gestures used to focus subtle energy, transmit teachings through symbols and confer psychic protection
1.18.8. TRANSCENDENTAL MEDITATION

TM is to be practiced fifteen to twenty minutes twice daily while sitting comfortably in a chair. In essence, the TM technique comprises the silent mental repetition of a simple sound known as a mantra, allowing the repetition to become quieter and quieter, until it disappears and one is left conscious, but without thoughts. This is the goal of the inward stroke of meditation and is called pure consciousness (in Sanskrit: turiya or Samadhi with Abraham Maslow: peak experience). Together with the mind, the body has come to rest too, and starts to clear out "stress".

1.18.9. ENDURANCE

Muscular endurance is the ability of the muscle to continue to perform without fatigue. (Mathews 1981).

1.18.10. MUSCULAR STRENGTH

Muscular strength is the ability of the muscle to exert force during an activity. The key to making your muscles stronger is working them against resistance, whether that is from weights or gravity. (Mathews, 1981) For the purpose of this study, sit ups for one minute test was conducted to measure muscular strength.

1.18.11. FLEXIBILITY

Flexibility is the range of motion around a joint. Good flexibility in the joints can help prevent injuries through all stages of life (Johnson and Nelson 1988).
1.18.12. BODY COMPOSITION

The human body is made of water, fat, proteins, sugars, and various vitamins and minerals. Maintaining these substances in the proper ratios is essential for a healthy life. One component of particular importance is body fat. Too much fat places you at risk for diseases such as diabetes, heart disease, and high blood pressure. Too little fat can indicate a serious health problem that needs to be addressed. Body composition testing can be used to monitor lip dystrophy and wasting. Two such tests are Body Mass Index (BMI) and Anthropometry.

1.18.13. RESTING PULSE RATE

The time from the end of one contraction to the end of the next contraction is a complete heart beat or pulse or cardiac cycle. The complete cardiac cycle takes less than one second (about 0.08 sec) in a normal adult at rest and it shortened by exercise. (Eva Lurie Weinerb, 1984).

1.18.14. VO₂ MAX

VO₂ max is the maximum capacity of an individual's body to transport and utilize oxygen during incremental exercise, which reflects the physical fitness of the individual.

1.18.15. BREATH HOLDING TIME

Breath holding time is defined as the duration of time through which one can hold his breath without the study of all living things. (Laurence E. Morehouse and Augustus T. Miller, 1967).
1.18.16. BLOOD PRESSURE

Blood Pressure is the measurement of pressure of the blood flowing through your blood vessels (called arteries) against the vessel walls. Arterial pressure is most commonly measured via a sphygmomanometer, which historically used the height of a column of mercury to reflect the circulating pressure.

1.18.17. PSYCHOLOGY

Psychology is a ‘science of mind’, the study of the human behavior and personality, character traits and attitude in all its aspects: physical, psychological, genetic, interaction with environment, and personality.

1.18.18. ANXIETY

Anxiety is complex emotional state characterized by a general fear of bonding usually accompanied by tension. It often has to do with interpersonal relation social situation and feeling of rejection and insecurity and usually a part of anxiety. (Lewelly and Blucker, 1979).

1.18.19. JOB SATISFACTION

"Job satisfaction is defined as "the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs" (Spector, 1997, p. 2). This definition suggests job satisfaction is a general or global affective reaction that individuals hold about their job. While researchers and practitioners most often measure global job satisfaction, there is also interest in measuring different "facets" or "dimensions" of satisfaction. Examination of these facet conditions is often useful for a more careful examination of employee satisfaction with critical job factors. Traditional job satisfaction facets include: co-workers, pay, job conditions, supervision, nature of the work and benefits." (Williams)
1.18.20. JOB INVOLVEMENT

Job involvement measures the degree to which the person identifies with his / her job, actively participates in it, and considers his/ her performance improvement to his/ her self-worth.

1.18.21. ORGANIZATIONAL CLIMATE

Benjamin Schneider (1975) defined organizational climate as a mutually agreed internal (or molar) environmental description of an organization’s practices and procedures. Within this definition, it should be noted that the focus is on organizational members’ agreed perceptions of their organizational environment. This is what distinguishes climate from culture, where the focus is on judgments and values, rather than perceived practices and procedures.