INTRODUCTION

Ageing is a natural process that cannot be prevented and is characterized by declining physical performance that impairs different facets of the life and sense of wellbeing. Although old age is inevitable, it can be made more bearable. The branch of medicine that deals with the diagnosis and treatment of diseases and problems specific to the aged is called geriatrics. Geriatrics is termed as Rasayanatantra according to Ayurveda and anti ageing therapy is called Rasayana chikitsa. The vulnerability of older persons to disease and complications is to be kept in mind always.

The lifespan of man, in general, has increased, and all need the high-quality living and good health to be a part of the older years. The susceptibility to ailments is linked to ageing, and, as a result, they tend to move less. The less they move, the more susceptible they become to a variety of ailments, and so it becomes a truly vicious cycle of ill health and disease.

People fail to make the connection between undertaking healthy behaviors today and the impact of these choices later in life. Studies indicate that healthy eating, physical activity, mental stimulation, active social engagement, maintaining a safe environment, social support, and regular health care are important. Promoting the healthy lifestyles of older people is vital in helping them to maintain health and lead healthy, happy and independent lives.

IMPORTANCE OF PHYSICAL ACTIVITY

The decline in bodily function that comes with the ageing process may be delayed through appropriate physical activity. Physiological ageing comes upon man with greater rapidity if he is sedentary. Strength is vital as it is required to move the body. Many health concerns have been linked to the sedentary lifestyle which is typical of many older people.

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1 Coordinator: Outreach Programs, Yoganjali Natyalayam and ICYER, Pondicherry
2 Chairman: International Centre for Yoga Education and Research (ICYER) at Ananda Ashram, Pondicherry. www.rishiculture.org and www.icyer.com
Extended periods of sitting, lead to muscular shortening, tightening and weakening. Lack of movement leads to joint deterioration and loss of flexibility. Of grave concern for our senior population is the lack of balance which stems, from sitting rather than standing and from not challenging one’s balance in various positions.

**CHARACTERISTICS OF AGEING**

Old age is characterized by the following conditions

- Decrease in strength and power of resistance.
- Possibility of suffering serious injuries and infirmities, which take longer to recover from than during youth.
- Inadequate working of muscular system puts strain on supporting tissues of the body as well as tendons, ligaments and joints.
- Diseases of the circulatory system and heart are more likely, due to lack of exercise, over feeding, stress and abuse of stimulants and medicine.
- Common complaints of rheumatisms, insomnia, constipation, coughing, difficulty in respiration, bronchitis, prostate enlargement, high blood pressure, diabetes, paralysis.
- Mental depression, loneliness, anxiety, suspicion, self-centeredness due to wear and tear of the brain tissues.
- Sluggish metabolism associated with a gain in weight, accumulation of fat, loss of lean tissue, demineralization of bone and decrease in aerobic power.

**GUIDELINES FOR PHYSICAL ACTIVITY**

- The nature of exercise should not bring undue pressure on the muscles and the heart.
- Vigorous and jerky movements should be avoided to reduce the danger of accidents.
- Practices requiring holding of breath should be avoided.
- Abrupt stretching of muscles, excessive twisting and holding breath when working out should be avoided.
- Breathing out consciously is more important.
- Daily exercise is better than intermittent practice.

**PRECAUTIONS**

- The diet, sleep, rest and recreation should be regulated.
- Movement of joints is necessary for not allowing storage of calcium.
- Emphasize on proper relaxation and practice of controlled respiration.
- Pay special attention to the bowel movements.
- Include leafy vegetables, raw vegetables and fruits to provide roughage in diet.
- Pay more attention to spiritual activities and keep yourself busy in some favorite activity.

**KEY ELEMENTS OF YOGA**

Yoga is slowly being welcomed into modern health care systems as the understanding of its benefits for all is gaining ground all over the world. The practice of Yoga as a way of life is calming and provides a rare opportunity in our chaotic lives to leave the outside world behind and be at peace, helping one to focus inwards. Yoga is a spiritual science for the integrated and holistic development of physical, mental and spiritual aspects of our being. The recent advancements in the field of research have given evidence that Yoga helps normalize human physiological and psychological functioning. WHO defines health as “The state of complete physical, mental and social wellbeing and not merely absence of disease or infirmity” and Yoga is the vital tool that helps attain that state. The important aspect is that of “being” healthy as well as “feeling” healthy. The qualitative aspect of health is considered important in Yoga and other Indian systems of medicine.

**VIEWS FROM THE TRADITIONAL ANGLE**

The Yogic concept of health and disease (as explained in Yoga Vasishtha) enables us to understand that the cause of physical disorder sprouts from the higher levels of the mind and beyond. Adhi - the disturbed mind is the cause and Vyadhi - the disease is the effect manifested in the physical body. Maharishi Patanjali mentions “Vyadhi” as a hindrance to the complete integration of the individual personality. He doesn’t directly refer to the treatment of particular diseases as his approach is more holistic and expanded rather than analytical and limited. Patanjali prefers to integrate rather than deal exclusively with individual symptoms of dis-integration. The diseases are merely gross symptoms that accompany disturbances of the mind called Vikshepas, which appear as Dukkha (misery or pain); Daurmanya (dejection); Angamejayatva, (tremors); and Shvasaprapshvasa, (disturbances in breathing). Through Yoga, one can control these disturbances before they become powerful enough to cause breakdown. The two-pronged attack advised by Patanjali is holistic; Yamas and Niyamas on the psychological side and Asanas and Pranayama on the physical.
The Bhagavad Gita defines Yoga as equanimity at all levels which may also be taken as the perfect state of health where there is physical homeostasis and mental equanimity giving rise to a healthy harmony between the body and mind.

Hatha Yoga Pradipika, states that “Yoga improves the health of all alike and wards off diseases of one who tirelessly practices Yoga whether they are young, old, decrepit, diseased or weak, provided they abide to the rules and regulations properly”.

Lord Buddha, who was a great physician too, advised people to try to withdraw the mind from the body; not to dwell on their illnesses. An old man complained to him: “I am an old one; suffering from several disorders. I am unhappy.” Buddha advised him; “even if your body is ill, let your mind not be ill.”

**YOGA AS THERAPY**

*Pujya Swamiji Gitananda Giri Guru Maharaj* states, "Yoga is the science and art of right-useness of body, emotions and mind". Yoga is concerned more with the mind than the body. Any sign of disease manifested in the body is a result of a mental imbalance or an unhealthy attitude. If we look into the classical Yogic literature, there is no mention of Yoga as a therapy. Though Yoga does not really have a distinct branch called therapy, it could be considered as an applied aspect in the form of Yoga Chikitsa. The findings of many scientific investigations show that the Yogic practices could be applied in a variety of situations which have never been considered before. The main principle of Yoga therapy is that it seems to establish homoeostasis in the organism as a whole. However, it has not been established exactly how this is accomplished. But when proper investigation along scientific lines has been set up in several places throughout the world, Yoga therapy will be properly recognized a valid form of treatment. Yoga has proven to be immensely therapeutic, in preventing the deterioration through ageing.

As one grows older the transformation back into the childhood begins. Feeling sad, lonely, worried, or bored may be more common for older people; facing retirement or coping with the death of a spouse, relative, or friend. Adapting to these changes leaves them feeling lonely. They carry a notion that they are of no use anymore to the family or the society and hence start feeling inferior and depressed. Emotional problems can be eased by supportive friends and family.

The mobility, range of movement, flexibility and the ability to turn (used to call it the turn-ability, a standard joke in the senior citizen class) is comparatively low now. The physical stiffness radiates to their mind too. Hence, before starting over the practice sessions for them, it is very vital to talk to them on a
personal basis. **Yogic Counseling** is the first and foremost step before starting the Yogic curriculum.

**TEACHING YOGA TO THE SENIORS**

Yoga has been proved to help alleviate or reduce many of the health challenges, making it an increasingly popular choice for the older adult population. Yoga classes for the seniors are popping up everywhere. Among the many benefits of Yoga, it has been shown to slow or even slowly reverse the ageing process. This is undoubtedly a good part of the reason that this traditional practice survives and flourishes all over the world.

The seniors need to be motivated, encouraged and praised for their efforts and improvement in the postures. Creating a supportive environment will make them practice regularly for both the health benefits and the psychological perks. Any form of group activity, be it Yoga or otherwise, is mood-elevating for seniors. The social aspect of attending a group practice is invaluable. The contact group provides a sense of belonging driving the loneliness away.

Yogic practices aim at maintaining and improving the various motor skills. Simple warming up practices, the *Jathis* and the *Kriyas* is essential to induce the flexibility.

*Asanas*, the isometric passive stretching practices in Yoga, are non-strenuous, non-fatiguing and can be performed comfortably even at an advanced age. Talasana, Katichakrasana, Ardhakatichakrasana and Trikonasana stretch and twist giving an excellent effect of traction. Asanas like Mehruasana and Padahastasana help normalize blood pressure by resetting the baro-reflex sensitivity. Vajrasana, Sukhasana, Paschimotanasana, Purvottanasana, Vakrasana, ArdhaMatsyendrasana, Navasana, Matsyasana, Makarasana, Bhujangasana, Ardhashalabhasana, Ekapadauittanasana Dwipadauittanasana, Pavamukthasana also have a tremendous effect on normalizing the various physiological functions. The shortened muscles are stretched gradually and pain in joints is reduced thus relieving a general complaint found in the elderly. Asanas build up proper tone in the muscles while the function of the vital organs is also improved simultaneously.

Controlled breathing in *Pranayama* helps in adjusting the circulatory-respiratory complex of the body towards noraml activity. Some of the practices recommended are Mukhabhasatrika Pranayama, Chandranadi Pranayama, Nadi Shuddhi, Pranava Pranayama, Bhramari Pranayama, Sukha Purvaka Pranayama and the Savitri Pranayama. These practices improve the flow of the life force (Prana), open energy channels, thus harmonizing functions of the body-mind-
emotion complex with increased awareness. It also calms and relaxes the mind, alleviates mood and creates healthy attitudes resulting in emotional stability.

Purificatory processes of Yoga called Shat Kriyas are helpful in removing the imbalance in the various secretions of the body. They also help in balancing the Tridoshas (Vata, Pitta and Kapha) the three humors. Kriyas like Neti help improve the immunity reducing the chances of infectious attacks.

Mudras and Bandhas are the psychic, emotional, devotional gestures. They are attitudes of energy flow. Practices like Brahma Mudra working with breath and sound vibration induces a sense of relaxation and reinvigorates the head and neck region which reduces stress, Viparita Karani Mudra (the topsy turvy pose that has an excellent effect on the psycho-neuro-immuno-endocrine normalization) Shanmuki Mudra, Ashwini Mudra, Moola Bandha and Jalandhara Bandha may be given to them. Regular practice calms and stabilizes the mind, and also directs the flow of Prana to the heart, lungs and brain. This in turn improves vitality of all organs and drives away depression, producing a great sense of joy and happiness.

The practice of meditation in any form reduces the feeling of loneliness and gives peace of mind. Directing attention to the different parts of the body during meditation helps increase the blood flow and channelize energy to those parts.

Yogic relaxation techniques like Spanda Nishpanda, Kaya Kriya in Shavasana and Marmanasthanam Kriya helps rejuvenate the body and mind creating a sense of awareness and relaxation.

RESEARCH FINDINGS

A study by Manjunath NK et al in 2005 found that those subjects who practiced Yoga for six months had a significant decrease in the time taken to fall asleep, an increase in the total number of hours slept and increase in the feeling of being rested in the morning. Another cluster randomized trial by Chen KM et al (2009) also showed that 6 months of a silver Yoga programme improved the sleep quality, and reduced the depression while improving the health status of older adults.

Dash M et al (2001) reported that Yoga practice improves hand grip strength in both normal persons and in patients with rheumatoid arthritis, though the magnitude of improvement varies with factors such as gender and age.

Kristal AR et al (2005) found that regular Yoga practice was associated with attenuated weight gain, most strongly among individuals who were overweight.
A randomized controlled study by Greendale GA et al in 2009 reported that Yoga decreases kyphosis in senior men and women with adult-onset hyperkyphosis. They suggested that targeting individuals with more-malleable spines and using longitudinally precise measures of kyphosis could strengthen the treatment effect.

The effects of Yoga and Ayurveda on geriatric depression were evaluated by Krishnamurthy MN et al (2007) in 69 persons older than 60 who were living in a residential home. The depression symptom scores of the Yoga Group at both 3 and 6 months decreased significantly. It was recommended that an integrated approach of Yoga including the mental and philosophical aspects in addition to the physical practices was useful for institutionalized older persons.

According to Antonovsky, the sense of coherence (SOC) determines health and wellbeing. This life orientation is shaped up to the age of 30 and is supposed to remain constant up to senior age. In a field study done by Wiesmann U et al (2006) the SOC, psycho-social resources and subjective health were assessed at three points in time. It was perhaps shown for the first time that the SOC in old age can be malleable and expanding. A 14-week program focusing on physical activity and/or self-reflection (endurance training, strength training, Yoga, or meditation) revealed that the elderly's SOC was significantly strengthened - independently of the program they took part in. Correspondingly, participants' wellbeing, subjective health and psycho-social resources were enhanced. It was concluded that a systematic, age-based and group-oriented program encouraging an active and productive every-day life brings about coherence-promoting and health-promoting life experiences in old age.

A exploratory study on the effects of a gentle Iyengar Yoga program on gait in the elderly suggested that Yoga practice may improve hip extension, increase stride length, and decrease anterior pelvic tilt in healthy elders, and that Yoga programs tailored to elderly adults may offer a cost-effective means of preventing or reducing age-related changes in these indices of gait function (DiBenedetto M et al 2005).

Oken BS et al (2006) reported that Yoga intervention programme produced improvements in physical measures (eg, timed 1-legged standing, forward flexibility) as well as a number of quality-of-life measures related to sense of well-being and energy and fatigue compared to controls.

It has been reported by Bharshankar JR et al in 2003 that there is evidence that Yoga reduces the age related deterioration in cardiovascular functions.

An exploratory study done by Haber D in 1983 showed differences in a ten-week Yoga program implemented for white and black elders. It was found that white elders attended class regularly, practiced Yoga on their own on a daily
basis, improved psychological well-being, and lowered their systolic blood pressure level, in comparison to a control group. Black elders, on the other hand, attended the once-a-week class regularly but did not practice on their own on a daily basis. Thus, they did not improve psychological well-being nor reduce blood pressure level in comparison to a control group. Social analysts suggest that low-income minority elders need more frequent contact with structured leadership in order to adhere to a daily routine that may lead to psychological and physical change.

A paper by Olivo EL in 2009 has made the following observations about the traditional healing methods of Asia with focus on Indo-Tibetan traditions. “The Indo-Tibetan tradition claims that proficiency in the suggested longevity practices of meditation, diet, and physical exercise (Yoga), will result in profound anti-aging, stress-mediating and health enhancing effects. Western biomedical research has begun to demonstrate that the psychobiological states induced and cultivated by cognitive behavioral practices which are emblematic of those contained within the Indo-Tibetan tradition (hypnosis, meditation, visualization, systematic relaxation), indeed do have a profound impact on the body’s protective and regulatory systems. Although continued study is necessary, much of the early research illuminating the mechanisms responsible for the life-span extending and health-enhancing effects of these cognitive behavioral practices points to the importance of their anti-inflammatory, anti-stress, and antioxidant effects as well as their impact in enhancing the production of endogenous substances that possess general longevity-enhancing, regenerative properties”.

CONCLUSION

Whatever activity one is engaged in- be it Yoga or any other form, should provide contentment, satisfaction and self confidence. Learn to maintain a youthful mind, cultivate flexibility, strengthen the immune system, nourish the body, and much more. As one begins to reverse the biological age, tapping into the inner reservoirs of unlimited energy, creativity, and vitality becomes easy and natural, improving the sense of well-being. Yoga certainly helps change the habits of thinking and behaving and alter the experience of the body and the ageing process. Teaching the silver citizen is quite a challenge as well as pleasure too. Motivating them for the regular practice is difficult initially. But once they start over, there is nothing that can stop them. Their enthusiasm is quite a contagion. They need to feel important, that people are giving their undivided attention to them. Once the confidence is gained, they are easy and relaxed. The determination, commitment they show and their experiences of life teach a very silent, salient, valuable lesson. This requires a lot of patience
from the teacher’s side. But it is worth it when we get to see their faces beaming with a big confident smile!!

Old age can be made not only bearable but also pleasurable. After all, old age is not a matter of years but a condition of mind and Yoga brings a healthy state of mind. Yoga aims at enabling the individual to attain and maintain the “**Sukhasthanam**”, which enables one to achieve the sense of physical, mental and spiritual wellbeing.

_Yoga may not only add a few years to life but also may add life to the years. Therefore, practice of Yoga should become an integral part of old age._

REFERENCES


