

Review Article

Simple Asana: Yoga and the Elderly

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Abstract

Yoga is becoming very popular among young people, however it is also exceptionally beneficial for the elderly to improve mobility, strength and combat chronic ailments. It is an alternative form of medicine and can be ancillary tool for treating pain, cardiovascular issues, weight problems, depression, sleep disorders and many more. The practice goal of yoga is to challenge oneself but not be overwhelmed, develop inner awareness without judgement. In contrast to many other programs it does not involve strenuous workouts or expensive equipment and is not competitive. The simple form involves series of static positions that use isometric contraction and relaxation of different muscle groups to create specific body alignments with coordinated breathing and deep meditative relaxation. The best yoga practice for elderly or a person with limitations are that uses supporting props as blankets, pillows or chairs during asana to overcome the limitations that are coordinated with breathing exercise and meditation.

Keywords: Yoga; Hatha yoga; Complementary and alternative medicine; Elderly

Introduction

The Exercise is important for physical and mental health. During exercise the body produce chemicals known as endorphins which energize the mood, relieve stress, boost self-esteem, and trigger an overall sense of well-being. In addition regular exercise is good for mind, mood, and memory. As you age regular exercise becomes more important to preserve ones physical and mental health. Reaping the rewards of exercise doesn't have to involve strenuous workouts, expensive equipment or trips to the gym. By simply adding more movement and activity even in small ways can make a difference. No matter your age or physical condition, it's never too late to get your body moving, participating in an exercise program to boost your health, vitality, and outlook in life. Exercise improves strength, flexibility and posture, which in turn will help with balance and coordination. Starting or maintaining a regular exercise routine can be a challenge. It doesn't get any easier as you get older. One may feel discouraged by any health problems, aches and pains, or concerns about injuries or falls.

Yoga is an individualized practice, where the goal is to challenge oneself physically but not feel overwhelmed by the practice. Yoga practice develops inner awareness and focus on the experience at present moment without judging oneself. It is not a place to push through, go beyond your edge, or ignore your body. It ignores the general philosophy of 'no pain, no gain' that is common in many other exercise programs. There are many variations of yoga that are practiced. It is important to choose the right type of yoga for the individual person and increasing the level and complexity as they master the technique.

Yoga practice is considered by the National Institutes Health as a holistic approach to health, a form of Complementary and Alternative Medicine [1]. In the exercise postures of yoga (asana) one assumes a series of static positions that use isometric contraction and relaxation of different muscle groups to create specific body alignments. It

also consist of coordinated breathing and deep relaxation. Different types of yoga practiced focuses on different components of asana, breathing and meditation. Depending on the composition these can be either more physical or more spiritual. The basic components of physical activity with coordinated breathing and meditation should be included in the practice for best results. Yoga is beneficial for all age groups and among individual with physical limitations.

The origins of yoga date back to Indus Valley civilization around 3000 BCE in ancient India. The written form of Yoga sutras (rules/text) of Patanjali that date from the second century BCE is the first to condense the essence of yoga. Yoga gained prominence in the West, being first introduced by Swami Vivekananda in the 20th century [2,3]. Generally outside India it has developed into a mere posture based physical fitness, stress relief practice and relaxation technique. Nonetheless this appear to have greater value and provide benefits than many other forms of exercise.

Main Types of Yoga

There are many types of yoga practices and with different names assigned to them by either using the name of the founder, the sequence of practice or the goal and purpose of practice [4]. Broadly the following three types include the majority of the Yoga practiced in the West.

Hatha yoga

Hatha Yoga is designed to balance the opposing forces. It is more traditional in nature, focus on physical side of yoga. This includes a mix of asana, breathing exercises (pranayama) and meditation. Yoga types with specific term such as Iyenger (name of the founder of this style) alignment based practice, Asthanga, a series of specific poses in order, and Bikram-like asthanga with specific rules such as practiced in hot(105°F) humid (40% humidity) environment (Bikram, name of the founder of this style) are all types of Hatha Yoga. Off shoot of the Asthanga is Vinyasa yoga (flow yoga) which is less regimental and

links breath to movement.

Kundalini yoga

Kundalini in Sanskrit translates to 'life force energy' known as Prana or Chi. This is more of a spiritual in nature, the yoga sequences are designed to unlock the life force energy and to reduce stress and negative thinking. The practice involves challenging both mind and body with chanting, meditation and kriyas (specific series of poses paired with breath and chanting). The practice start with chanting, then breathing exercises, warm up body movements increasingly more challenging poses, relaxation and end with meditation.

Yin and yang yoga

Another variation of yoga practice is Yin Yang Yoga. This yoga has roots in martial arts and traditional Chinese medicine designed to increase circulation and improve flexibility. Yin yoga is a slower style of yoga in which poses are held for 1-5 minutes or more. Yin yoga targets the body's connective tissue and is a passive form. Holding poses longer benefits the mind as well as the body, and a chance to practice being still. Yang yoga is more active and dynamic asana focus on muscles. Yin style is intended as a complement to the more active forms of yoga.

In the Western hemisphere the most common aspects of yoga practiced are the physical postures and breathing of Hatha yoga and meditation. Other variations of the yoga practices includes, power yoga (faster paced practice), Sivananda yoga (named after founder Swami Sivananda a relaxing practice with breathing and a series of basic asana), Raja yoga, Restorative yoga a practice relaxing into poses doing only a handful of them (good for de-stress or chill), Acro yoga or partner yoga adding a partner to the practice making it more fun and explore the mind body connection and communication. Regular yoga practice promote muscle strength, endurance, flexibility, self-control and cultivate a sense of calmness. Every style of yoga has its unique benefits and one can mix and match different styles in one class.

Known Benefits

There are many benefits that can be gained by yoga. With increasing age one become susceptible to ailments much easier. Risk for cardiovascular disease, cancer and metabolic disorders including diabetes obesity, mood disorders, as well as sleep and overall quality of life can be impaired. As a person gets older metabolism slows down and maintaining a healthy weight becomes a challenge. Any regular exercise can help to increase metabolism and maintain a healthy body weight as one grows older. Many of the asana are amenable to easy adaptation using props such as blocks, pillows, blanket and chairs particularly for beginners and for elderly or for people who are with various physical limitations.

Yoga leads to inhibition of the sympathetic area of the hypothalamus affecting the fight-or-flight stress response and promote the opposite parasympathetic response resulting in lowering anxiety, heart rate, blood pressure and cardiac output [5-8]. Studies have found yoga to have a positive effect on cardiovascular risk factors: It helped lower blood pressure in people who have hypertension. It's likely that the yoga restores "baroreceptor sensitivity." This helps the body to sense imbalances in blood pressure and maintain balance.

Patil et al. demonstrated in a randomized study with weekly yoga practice for 3 months significant improvement in diastolic heart function compared to walking alone [9]. Practicing yoga improved lipid profiles in healthy patients as well as in patients with known coronary artery disease [10]. Yoga is now being included in many cardiac rehabilitation programs due to its cardiovascular and stress-relieving benefits. It also lower excessive blood sugar levels in people with non-insulin dependent diabetes and reduce their need for medications [11,12].

Yoga integrates an individual's physical, mental and spiritual components thereby improves aspects of health that is related to stress. Consistent practice increases serotonin levels coupled with reduction in the monoamine oxidase, an enzyme that breakdown neurotransmitters and cortisol, thereby improving symptoms of depression, produce a sense of wellbeing, promote a better sleep pattern and overall quality of life [13-16].

Maintaining mobility and independence is an important goal for most elderly. Impaired mobility often leads to disability affecting activities of daily living [13,17,18]. Seniors have unique health challenges and limitations. Yoga have more impact compared to other exercise programs on balance, core strength, breathing, relaxation and focused attention. A systematic review by Moveethan et al. revealed various health related benefits of yoga in elderly, these include and not limited to improved sleep, mental and physical wellbeing, resulting in a broader quality of life [19].

Not only physical, metabolic impairment but also psychological symptoms are commonly experienced in later life. There are multiple randomized studies that had demonstrated various yoga practices improving cognition, balance, quality of life and reduced depression among elderly when compared to regular exercise activities such as walking or stretching exercises [20-22]. Both Hatha Yoga and Kundalini yoga have been shown to improve cognition in the elderly [23]. Yoga has such a powerful effect on mood that it can treat mild to moderate depression and anxiety as effectively as medication. Cramer et al. performed a systematic review that included twelve randomized studies and concluded yoga could be considered an ancillary treatment option for individuals with depressive disorders [24]. Benefits of yoga are realized even among patients suffering from cancer, or individuals on chemotherapy or patients with limited mobility due to injury [25-28].

Limitations of this Review

This review about yoga and benefits in no way comprehensive, however an attempt to highlight the benefits of including yoga practice in one's daily life regardless of age. The purpose of this article is to encourage the elderly and people with limitation to practice yoga for a healthy life. Some of the studies referred to here have used different types of yoga asana and some did not include the meditative components of the yoga practice. By nature yoga is an individualized practice and therefore difficult to standardize or make it uniform practice and not suitable for strict protocols. Nevertheless all yoga program leads to better health overall and this limited review illustrates how yoga can be easily adapted compared to other exercise program and how it is particularly suited for the elderly and for adults with underlying health or physical limitations [29].

Conclusion

In the current environment we are in an unparalleled position to engage in yoga practice through a multitude of channels. There are countless ways to practice: from studios, gyms, community centers, schools, outdoor venues, online videos and social media channels. This allow all age groups and people with desire to choose one or many avenues to practice. Individually supervised programs are best however they can be costly or inconvenient for all. We have an increasing percentage of elderly among us and over 50% of them suffer from some form of a medical or physical limitation. Yoga offers the opportunity and a space to all, to slow the mind down and restore a sense of balance in life regardless of age or physical condition. Yoga practice by its nature can be tailored with appropriate guidance, according to the ability, governed by individual limitations to promote both mental and physical health.

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