Health Related Benefits of Hatha Yoga

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Yoga is an ancient Indian practice that has been utilized in various ways, for various reasons, among many groups of people for centuries. The practice of yoga can help an individual to improve their full potential and increase consciousness. Regular practice of Yoga, increase in the size of fibers and connective tissue. Vital capacity, breathing capacity and total lung capacity increases due to Yoga. The amount of air ventilated at the maximum efforts, increasing with training the heart size increase, increase in the thickness of ventricle walls thereby increasing the efficiency of heart, increase cardiac output and stork volume. In other effects includes Decreased body fat, decreased blood levels of cholesterol and tryglecyrides. Increased heat acclimatization and increased breaking strength of bone, Ligaments and Tendon.

Hatha Yoga is powerful, but difficult whose whole principle of action is founded on an intimate connection between the body and soul. Hata &Yoga is, in its own way, a system of knowledge, this is a science of being, a psycho system. Hatha &Yoga is a discipline and its aim is to ensure perfect health by and mental purification through the control of mind and body. If there is balance and harmony between the body and mind, the power of concentration can be developed, leading to the realization of the self. It is the greatest strength to awaken the mind and animate the body. Hatha Yoga means to attain and mental purification and balance. It is the most common Yoga. The aim of the Hatha Yoga is to eliminate toxin and impurities within the body that accumulate due to dietry habit. Once the toxins are eliminated the body reaches a state of purification which helps to bring about a state of balance in the functioning and performance of the internal organs and system.

According to Sanskrit, "Ha" means "Sun" i.e. positive energy; the word "Yoga" comes from the Sanskrit root, "Yug" meaning "to link" join or unite. Hatya Yoga is composed of Ashana , Pranayama and Meditation

Introduction

Yoga is an ancient Indian science designed to bring balance and health to the , mental, emotional, and spiritual dimensions of the individual. Yoga has multiple , mental and spiritual benefits and holds that the influence of the mind on body is far more powerful than the influence of body on mind. Yoga helps in gentle and automatic massaging of internal organs and thus helps in enhancing functioning of nervous system, and endocrine system, (Khalsa, et.al 2012). The physiological response to Yoga is dependent on the intensity, duration and frequency of the Yoga as well as the environmental conditions. Yoga present the material essential for understanding relevant effects in various mechanism of body physiological change describe the immediate and Long term effect of Yoga and specific training on the function of muscle, organs, systems of the body and the relationship of activity and fitness to health

Effects of yoga on Blood Vassals

Yoga is an ancient Indian practice that has been utilized in various ways, for various reasons, among many groups of people for centuries (Tran, Holly, Lashbrook, & Amsterdam, 2001). Arteries in your working muscles dilate to accommodate their increased need for blood. At the same time, the heart's increased output causes your blood pressure to rise. Arterioles (tiny arteries) in your skin expand, allowing for more blood flow there. As you continue to Yoga, especially in hot, humid weather, more blood is diverted to your skin to maintain a safe body temperature.

Effects Body Mass Index

Fatty acids are more energy dense than glycogen and there are very large stores of fat in adipose tissue. although fat is the preferred substrate and dominates the energy contribution to resting metabolism, carbohydrate stores are available when energy requirements increase, for example at the onset of Yoga. As Yoga continues, however, fat metabolism may become more important,

particularly if muscle glycogen stores become depleted

The regular Yoga as in athletes is reflected in a slightly elevated basal metabolic rate (sinku,2012). Increased metabolic rate causes burning of fat and content of muscle protein increases. Each mole of ATP releases 7.3 kcal (30.7 kJ), and a small amount of ATP is stored in the muscle.

Effects on muscle fiber

Many fibers are not able to contract and they are known as dormant/inactive fibers. Yoga improves transmission of nerve impulses and thereby cause dormant fiber to become active. The individual muscle fibers increase in thickness as a result of strength training. If the slow twitch fiber type are experientially stimulated at the steady low frequency over extended period as in long distance running, the fiber becomes predominately slow twitch type.

Respiratory function

The increase in pulmonary ventilation is attributable to a combination of increases in tidal volume and respiratory rate and closely matches the increase in oxygen uptake and carbon dioxide output. Regular practice of Yoga increase Vital capacity, breathing capacity and total lung capacity. The amount of air ventilated at the maximum efforts, increase with training. Normally, the maximum minute ventilation is about 70-100 liters per minute. In case of a trained athlete minute ventilation increases to 120 liters per minute in highly trained endurance athletes, the volumes have been found even upto 180 liters/minute. During Yoga, ventilation might increase from resting values of around 5–6 litre min1 to >100 litre min1 . Ventilation increases linearly with increases in work rate at submaximal Yoga intensities . Increase in pulmonary ventilation with training is caused partially by increase in the maximal oxygen uptake, which leads to an increased production of carbon dioxide and due to a higher level of locate. Tidal volume with Yoga, breathing frequency is reduced with training this leads to extraction of more oxygen from the inspired air diffusion of oxygen through the alveoli membrane is increased; the mainly due to increase in the number of pulmonary capillaries and increased area of alveoli.

Yoga improves Cardio vascular

As result Yoga, the size of the heart change Regular practice of Yoga increased cardiac output by 40-60% of maximal capacity during rest it is around liters/min. whereas while exercising, it increases upto 40 liters/minute. In addition, decreased pH and increased temperature shift the oxygen dissociation curve for haemoglobin to the right in exercising muscle. This assists in unloading more oxygen from the blood into the muscle. During muscular contraction, blood flow is restricted briefly but overall it is enhanced by the pumping action of the muscle Blood pressure control due to Yoga as the requirement of blood by the muscles is increased. The pressure exerted on the walls of the blood vessels increases as the heart pumps more and more blood to meet the requirement of muscles. Yoga resulting as new capillaries are formed within the muscle fibers. The additional capillaries increase the supply of oxygen to tissues and the latent capillary become active and start. The quantity of R.B.C.'s increases with regular training. Heart rate and stroke volume increase to about 90% of their maximum values during strenuous Yoga and cardiovascular function is the limiting factor for oxygen delivery to the tissues. Oxygen utilization by the body can never be more than the rate at which the cardiovascular system can transport oxygen to the tissues. Stroke volume increases progressively from rest to moderate work and than it levels off at about 30 to 40% of the maximum aerobic power..

Other effects of yoga

Yoga causes additional stress on connective tissue of muscles and makes then thicker and tougher as Yoga multiplies tendons and ligaments Yoga and specific training tones up muscles improve the body shape by increasing the , physiological and biochemical potential of muscle (sinku,2012,sinku&2014). Trained muscles are less many to injury during strenuous and vigorous Yoga like stretching, jumping punching etc. The practice of yoga can help an individual to improve their full potential and increase consciousness. Apart from the achieving health through pranayama and posture, one of the aims of the practice of the yoga is the ability to maintain cognitive ability and control,

specifically the areas of memory, well-being, attention, and arousal control.

Conclusion

The regular practice of Yoga is reflected in a slight elevated basal metabolic rat, e Bio mechanical effects increase in the size and number of mitochondria, myoglobin and hemoglobin content and thereby increased oxidative capacity. The increased oxidative capacity of the trained muscle has greater ability to use non-carbohydrates for energy. Increased metabolic rate causes burning of fat and content of muscle protein increases. Regular Yoga conditions the lungs, heart, and blood vessels, enabling them to deliver oxygen to muscle cells more quickly and efficiently. Apart from the achieving health through pranayama and posture, one of the aims of the practice of the yoga is the ability to maintain cognitive ability and control, specifically the areas of memory, well-being, attention, and arousal control.

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