

ANTI-AGING: EXERCISE – THE ASIAN WAY

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ABSTRACT: Regular physical exercise is a cornerstone in the anti-aging game. In contrast to Western Exercise practice, the philosophy behind Eastern exercise practice teaches harmony of body, mind and spirit. The Eastern way of exercise practice takes into account the flow of energy to the body's meridian points and vital organs, whereas Western approach to exercise – in athletics, for instance – often creates injury, sometimes to a chronic degree.

Qigong and **Yoga** play a key role in the Eastern way of exercise practice. Most of the Asian exercises practices have its origin in Qigong or Yoga: Meditation, Ayurveda, but especially T'ai-chi, the martial art of Qigong. Today Qigong, T'ai-chi, and Yoga are the most disseminated type of physical exercise in Asia, practiced by hundreds of millions of people every day, and are becoming more and more popular in western countries.

In the past twenty years, many studies have been conducted to investigate the scientific basis of Qigong and T'ai-chi to document its medical benefits and longevity effects. Unfortunately most of the studies have been generated in China and published in Chinese. Nevertheless a few selected scientific reports have been published or presented at international conferences since the 1990's, documenting clearly the medical benefits, longevity promoting benefits of physical exercises derived from Qigong. Many studies have shown that Qigong, T'ai-chi or even Yoga may not only cure disease, but literally reverse the aging process, especially by improving the self-regulation and relaxation of the multiple cerebro-cardiovascular risk factors like changes in blood chemistry, as well as promoting regenerative function of the lymph system, increasing anti-tumorigenic function or changing the biochemistry associated with the immune system. A significant increase in T-cells and a statistically significant decrease in anxiety and depression were also found. The main conclusion is that Qigong, T'ai-chi and Yoga enable the body not only to heal itself, but to prevent age-related diseases.

Keywords: Anti-Aging, Qigong, Yoga, Exercise, T'ai-chi

In China, **Qigong** is the ancient system of healing, using breathing, meditation, repetitive physical exercise and relaxation to cleanse and strengthens the body. Qigong is the key component of traditional Chinese medicine with a recorded history of 5,000 years, practiced to improve health and longevity. **Yoga** is the ancient holistic Indian system of disciplined exercise and breathing, associated with meditation.

Those two systems have had a lasting influence on today's exercise practice in Asia. In contrast to western exercise practice, where so often there is a tendency to push the body to its limits, believing that nothing has been achieved unless the body is on the



verge of collapse, eastern exercise practice emphasizes the gentle flow and movement of the body.

The philosophy behind eastern exercise practice teaches harmony of body, mind and spirit, taking into account the flow of energy to the body's meridian points and vital organs. Asian people who practice their characteristic forms of exercise enjoy good health and vitality into old age, whereas Western approach to exercise - in athletics, for instance - often creates injury, sometimes to a chronic degree.

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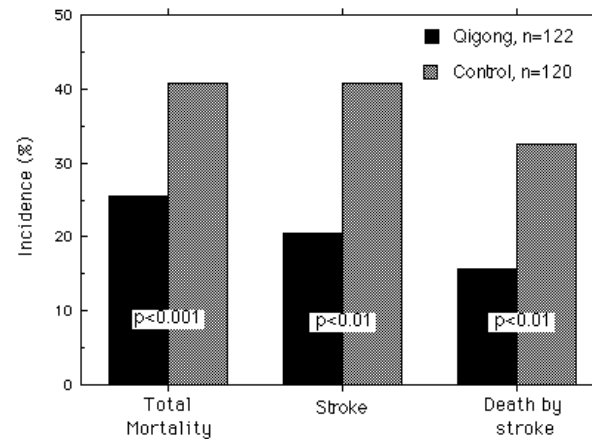


Figure 1 A 30-year follow-up of the effect of Qigong and T'ai-chi on mortality and stroke of 242 hypertensive patients. Both groups received drug therapy

practiced by hundreds of millions of people every day, becoming more and more popular in western countries, to combat the problems of busy urban lifestyles, especially stress.

In the past few years, many studies have been conducted to investigate the scientific basis of Qigong, T'ai-chi or Yoga to document its medical benefits and longevity effects. Most of the studies have been generated in China and published in Chinese, but we have today a great number of published scientific reports from this country, documenting the longevity promoting benefits of eastern exercise practice, most of them published by The Qigong Institute in Mento Park, California [1]. Its computerized database contains more than 1,500 citations [2].

The main conclusion from the many of these studies is that practices like Qigong, T'ai-Chi, or Yoga have profound effects on living systems and the functions and organs of the human body. The studies illustrate the scope of research on medical applications of Eastern exercise practice to treat chronic medical conditions that may affect the aging process.

EXAMPLES OF CLINICAL STUDIES DOCUMENTING ANTI-AGING BENEFITS

3 Clinical studies of effects of Qigong and T'ai-chi on hypertension

The Shanghai Institute of Hypertension [3, 4] reported a 20-year controlled study of the anti-aging effects of Qigong and T'ai-chi (for 30 minutes a day) on 204 hypertensive patients, another 30-year follow-up on 242 hypertensive patients, and a 22 year study of 536 patients. To control blood pressure, the patients were given the same drug and in the same hospital. None of the patients smoked.

In the group of 242 patients in the 30-year study (122 in the exercise group, 120 in the control group) the

blood pressure of all patients dropped in response to the hypotensive drug during the first two months.

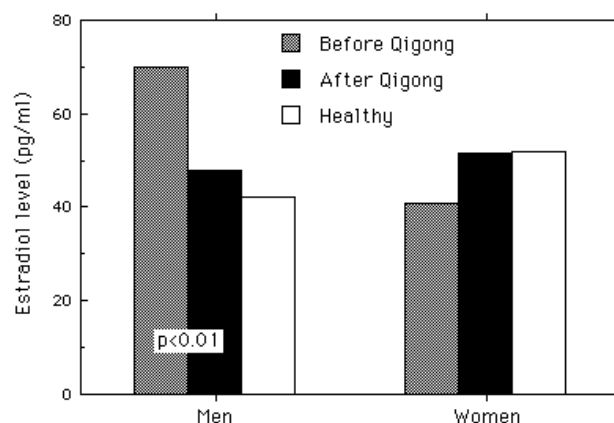
Subsequently, and over the period of twenty years, the blood pressures of the exercise group stabilized while that of the control group increased. Remarkably, during this period the drug dosage for the Qigong and T'ai-chi group could be decreased, while the dosage for the control group had to be increased.

The incidence of mortality and stroke for the same group are shown in Figure 1. These results show that Qigong or T'ai-chi exercises decreased by about 50 percent the incidence of total mortality, mortality due to stroke, and morbidity due to stroke. At the end of 30 years, 86 patients survived in the exercise group and 58 in the control group. These results clearly show that exercises such as Qigong and T'ai-chi, practiced by ten of millions of people in Asia every day, have significant potential for preventing strokes and extending life.

A different study [5] shows significant changes in blood chemistry and the researchers concluded that Qigong, T'ai-chi, but also Yoga may play a major role in improving the self regulation of multiple cerebro-cardiovascular risk factors.

Improvements in heart function and microcirculation have also been shown [6]. After practicing Qigong or T'ai-chi exercises for one year, cardiac output was increased, the total peripheral resistance decreased, and the ejection fraction mitral valve diastolic closing velocity and the mean velocity of circumferential fiber shortening tended to be increased. And the results suggest that those exercise practices have beneficial effects on heart-energy and regulation of the blood channel.

Many other studies [2] also lead to the conclusion that Qigong, T'ai-chi, Yoga or similar practices are extremely effective in improving the health of people with cardiovascular conditions, and people with cerebral arteriosclerosis, including the aged.



T'ai-chi one year compared to healthy control

Figure 2 Serum estradiol levels of hypertensive men (ages 40 – 69) and women (ages 51 – 67) who practiced Qigong**Improvement in sex hormone levels**

One consequence of aging is that the levels of sex hormones change in unfavorable directions. For example, female sex hormone (estrogen) levels tend to increase in men and decrease in women.

Three different studies [7] have shown that Qigong or T'ai-chi can reverse this trend. The effect of exercise on plasma sex hormone levels was determined for hypertensive men and women. The sex hormones levels were measured before and after exercise practice for one year (Figure 2).

In one study 70 male patients with essential hypertension were divided into two groups. For the exercise group the estradiol level decreased from 70.1 to 47.7 pg/ml, a decrease of 32% and the value of E2 approached that of healthy men (42±5 pg/ml) of the same age.

For women (ages 51 to 67), one year exercise practice resulted in an increase of E2 from 40.9 to 51.6 pg/ml, a value about equal to that of normal menopausal controls. The value of Testosterone was also increased from 25.5 to 37.2 ng/dl.

In another one-year study, the 24-hour urinary estradiol levels in men resulted in a decrease of 31% in E2 and a decrease of 54% in the estradiol/testosterone ratio (E2/T) and in another study interesting improvements in symptoms associated with kidney deficiency, insomnia, hair loss, and impotence has been registered.

These studies show that Qigong and T'ai-chi exercises can help restore the sex hormone levels that had deteriorated because of aging.

And in the same large study – men ranging in age 52 to 76 – an enhanced activity of the anti-aging enzyme *Superoxide dismutase* (SOD) – a free radical fighter – has been shown by a daily T'ai-chi practice of 30 minutes over a period of six months.

Reversing symptoms of senility

To study the mechanism of keeping fit by T'ai-chi, 100 subjects classified either as presenile or with

senile impaired cerebral function were divided into two groups of 50 people each with a mean age of 63 years and with a similar distribution of age and sex [8]. The control group exercised by walking fast, or running slow. According to the TCM method of classifying the vital energy, more than 80% of the participants in each group were classified as deficient in vital function and vital essence of the kidney. Criteria of judging outcome were based on measuring clinical signs and symptoms including cerebral function, sexual function, serum lipid levels, and function of endocrine glands.

After 6 months, 8 of the 14 main clinical signs and symptoms in the T'ai-chi group were improved above 80%, whereas none of the symptoms in the control group were improved above 45%. These results suggest that T'ai-chi and eastern exercise practice can successfully reverse some symptoms of aging and senility and that those practices are superior to western practice like walking or running exercises.

Various studies have clearly shown how Eastern Exercise practice can slow down or reverse the aging process of our body [9, 10]. Excitatory or inhibitory effects of the *central nervous system* have been shown. *Bone density* increased in female subjects who practiced Yoga for one year [11]. Yoga eases general *menopausal symptoms* as well by balancing the endocrine system and smoothing out the hormonal changes that take place during menopausal phase. For example, the posture *shoulder stand* has been valued for centuries in India for its cooling effect on a women's body, to counter effectively the effects of hot flashes. The position of the shoulder stand squeezes inner organs, glands, in order to produce high levels of hormones.

Cancer

Researchers also carried out clinical studies on the effects of Qigong and T'ai-chi on human subjects with cancer [12, 13]. In China, there are claims that

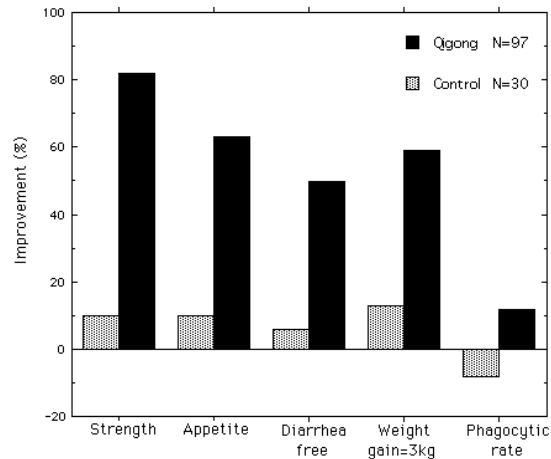


Figure 3 Improvements in patients with advanced cancer treated with Qigong & drugs compared with drugs alone

Qigong can cure cancer. Researchers, who seem to be more conservative, generally express the opinion that Qigong or similar practices can at least slow the growth of cancerous tumors and reduce their size.

Anyway, there is ample evidence - in eastern as well in western literature - that therapy by a combination of physical exercise and drugs is always superior to that of drugs alone. Figure 3 shows an example of a Clinical study - Patients with advanced cancer, control group with drug alone.

CONCLUSION

The information presented is intended to illustrate the potential of Eastern Exercise practice - Qigong, T'ai-chi, Yoga, Ayurveda, Meditation - physical activities practiced by hundreds of millions every day, the potential for restoring normal body functions in people with chronic conditions, many of which accelerate the aging process. The eastern way of exercise practice seems to be a natural anti-aging medicine.

Exercise is a cornerstone in the anti-aging game. People who exercise on a regular base are healthier and live longer. From the point of view of longevity, the Asian way of exercise seems to be the better way. It is an attractive practice that is receiving increasing interest from all over the world, as rest and physical well-being are becoming paramount to combat the problems of stressful lifestyles.

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