

# Tai Chi, Qigong and the Treatment of Disease

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## ABSTRACT

Qigong has been around for more than 4,000 years. It contains aspects of martial arts, philosophy, theology, mindfulness, meditation, exercise, and Traditional Chinese Medicine (TCM). It is a subfield of both tai chi and health economics. Practicing qigong exercises on a regular basis can improve health and cause the body to function more efficiently. Thus, it is also a subfield of applied microeconomics in the sense that it increases efficiency. Numerous medical studies have been done on the effect of qigong and tai chi on various health conditions. The present paper presents a brief overview of some recent applications of qigong to the treatment of various diseases.

**Keywords:** Qigong; Tai Chi; Ba Duan Jin; TCM; Traditional Chinese Medicine; Treatment of Disease

## Introduction

Qi (pronounced chee) can be translated as energy. Gong can be translated as work. Thus, qigong can be translated as energy work. The history of qigong goes back thousands of years [1,2]. Qigong exercises have become a part of Traditional Chinese Medicine (TCM), which focuses more on prevention rather than treatment of disease [2-11]. Entire hospitals in China are devoted to using qigong to treat diseases. Several organizations focus much or all their attention either to research on the health benefits of qigong or to teach health qigong to the masses [12-44]. Qigong has both physical and mental components. It is a form of dynamic meditation, in the sense that it involves movement. It also involves breathing and mindfulness. Qigong exercises can be performed from both standing and sitting positions. There are literally thousands of qigong exercises, and medical qigong practitioners often mix and match qigong exercises to customize a training regimen for their patients.

The most popular set of qigong exercises is ba duan jin, a set of eight qigong exercises that cover all the main energy meridians [45,46]. Millions of people all over the world perform the ba duan jin exercises daily to maintain and improve health. Performing all eight exercises takes between 10-15 minutes, depending on the speed with which they are performed and the number of repetitions. Of all the qigong exercise sets that exist, the ba duan jin exercises are probably the set that is most prescribed to patients. According to one recent survey of 886 clinical studies of qigong, ba duan jin was studied in 55.5 percent of the cases [47]. However, ba duan jin is

not the only set of qigong exercises that medical practitioners prescribe to their patients. Other popular qigong sets include Liu Zi Jue [48], Wu Qin Xi [49,50], Yi Jin Jing [51,52], Da Wu [53], Shi Er Duan Jin [54], Daoyin Yangsheng Gong Shi Er Fa [55], Mawangdui [56], and Taiji Yangsheng Zhang [57]. Much medical research has been conducted in recent years on the use of qigong to treat various diseases [58-61], Tai chi is related to qigong, but it is not qigong [62]. Tai chi also involves dynamic meditation and breathing, if performed properly, but the movements are different than those of qigong, as is the emphasis. Tai chi is also part of TCM and is used in the treatment of various diseases. The present paper provides a brief overview of some of the applications of qigong that have been used in the treatment of various diseases.

## Anxiety

Liu, et al. [63] surveyed the literature and found that qigong exercises had an improvement effect on individuals suffering from anxiety compared to medication. A study by Li, et al. [64] found that qigong, tai chi and yoga exercises had a beneficial effect on COPD patients suffering from anxiety and depression.

## Arthritis

Chen, et al. [65] found that dao yin (qigong) exercises had a beneficial effect on several kinds of arthritis. Marks [66] found that qigong can be used to alleviate longstanding or chronic musculoskeletal pain. Xie, et al. [67] found that qigong exercises

improved symptoms of ankylosing spondylitis. At least three studies found that baduanjin had a beneficial effect on knee osteoarthritis [68-70].

### Attention Deficit

Duarte, et al. [71] found that “White Ball” qigong was able to improve the attention of adolescents after four weeks of practice.

### Autism

Rodrigues, et al. [72] Found that qigong was able to decrease the severity of sensory, behavioral and language components of autism, and improve sociability, self-control, cognitive and sensory awareness on children and adolescents.

### Back Pain

Chen, et al. [73] found that qigong exercises were beneficial in relieving low back pain. Zou, et al. [74] found that tai chi and qigong exercises were more beneficial at relieving low back pain than yoga.

### Blood Pressure

Liu, et al. [75] found that tai chi and qigong were effective in reducing systolic and diastolic blood pressure and concluded that they could be effective complementary or alternative therapies for essential hypertension (EH). Park, et al. [76] conducted a four-week study of expert-led qigong, and found a significant reduction in DBP, indicating that qigong can be a safe and effective intervention for patients with prehypertension and stage I hypertension. However, patients doing self-practice qigong showed no significant change in SBP and DBP, indicating that an expert-led qigong program is recommended for blood pressure management.

### Cancer

Numerous studies have been conducted on the effects of tai chi and qigong exercises on the treatment of cancer, cancer fatigue [77,78], pain management [79,80], mindfulness and cognitive impairment [81-84], sleep [85], heart rate variability [86], quality of life [87] and bio sociality [88]. Generally, it was found that tai chi and qigong exercises had a beneficial effect. Some studies examined the effect that tai chi or qigong exercises had on specific types of cancer. Breast cancer patients used tai chi or qigong exercises to alleviate sleep problems [89] and pain [90]. Zhang, et al. did a study on the effects of qigong exercises on cognitive impairment in breast cancer patients [91]. Another study examined the effectiveness of exercised-based interventions in reducing fatigue, dyspnea and depression in lung cancer patients [92]. The effects of qigong or tai chi exercises on prostate cancer patients were also examined [93,94].

### Chronic Fatigue Syndrome, Cognitive Impairment and COPD

Other studies involved chronic fatigue syndrome [95], cognitive impairment [96-101], COPD [102].

### Covid-19

Qigong exercises tended to have a beneficial effect on Covid-19 patients [103-105].

### Depression

Numerous studies have been done on the effect of qigong or tai chi exercises on depressions. Results have generally shown to be positive [106-115].

### Fibromyalgia

A study of the effects of regular qigong exercises on fibromyalgia patients found that their mean score differences for pain, sleep quality, chronic fatigue, anxiety, depression and fibromyalgia impact were all significantly better than those of the control group ( $p < 0.05$ ) [116].

### Frailty

A study of frailty in elderly patients found that a steady regimen of ba duan jin exercises improved physical and cognitive function, reduced fall risk, improved psychological well-being and reversed frailty status [117].

### Heart Disease

Mao, et al. [118] found that the regular practice of ba duan jin exercises in STEMI patients could alleviate the adverse LV remodeling that is associated with beneficial energy metabolism adaptation, inflammation, curbing, and extracellular matrix organization adjustment.

### Immune System

Studies have found that the regular practice of qigong exercises can strengthen the immune system [119,120].

### Parkinson's Disease

Several studies found that the practice of qigong exercises can have a positive effect motor function, walking ability and balance for individuals having Parkinson's disease [121-126].

### Pulmonary Disease

Several studies have examined the effect that qigong or tai chi exercises have on patients with pulmonary diseases of various kinds. The results have generally been positive [127-131].

### Quality of Life

Several studies have found that the regular practice of qigong exercises have a positive effect on the quality of life for patients who have a wide range of diseases or illnesses [132-135].

### Schizophrenia

Meditation-based mind-body therapies such as tai chi and qigong might have a beneficial effect on the negative symptoms of schizophrenia, but more research is needed [136].

## Stress

Bischoff, et al. [137] found that yoga and qigong might be an effective method for reducing stress in healthcare professionals.

## Stroke

Some studies have found that qigong exercises can improve the physical and mental state of patients who have had a stroke, could reduce the effects of sleep and mental disorders and improve muscle function [138-141].

## Substance Abuse

Liu, et al. [142] found that qigong exercises could have a beneficial effect on anxiety among drug abusers. However, there were weaknesses in their study, so more research is needed on this topic.

## Unilateral Vocal Fold Paralysis

Tang, et al. [143] found that Liuzijue qigong exercises could improve the vocal function of patients with unilateral vocal fold paralysis, but that there was not a significant difference between the liuzijue patients and those who received the conventional treatment for the ailment, which might lead one to conclude that the qigong exercises could be used as an alternative to conventional treatment.

## Conclusion

Many studies have found that tai chi and qigong exercises can have a beneficial effect for patients having a wide range of ailments. In some cases, the results from qigong and tai chi approaches were significantly better than those of other approaches, while in other cases, the results were comparable, leading one to conclude that tai chi and qigong exercises might be used as alternative therapies in some cases, depending on the ailment.

## Conflict of Interest

There is no conflict of interest.

## Author Bio

Robert W. McGee is a professor in the business school of Fayetteville State University, USA. He holds 13 earned doctorates from universities in the United States and four European countries, and has published more than 60 books, as well as more than 700 scholarly papers. He holds black belt/duan rank in eight martial arts, including tai chi, and is a world champion in tai chi (both Sun and Yang styles), taekwondo, kung-fu, karate and qigong.

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