
A Selection Of Scientific Studies On Qigong

A quick round up of data available on the Internet



Qigong Report

Scientific evidence for the practice of Qigong

INTRODUCTION



Is Qigong Just a Placebo?

Why Scientific Trials Are Useful

I know from my own experience and the experiences of my students that Qigong is an effective treatment for restoring and maintaining health, vitality and longevity. But you really shouldn't just take my word for it. I've collected a random sample of scientific data available from the Internet on the effectiveness of Qigong.

Scientific trials of the claims made by Qigong instructors like myself is a good thing. Here in the West Qigong is relatively unheard of and if it is to be taken seriously as a tool for overcoming disease and maintaining health, then I believe that scientific testing is a great way to validate the claims made.

Qigong is frequently dumped in the 'Alternative Medicine' category which immediately devalues its effectiveness in the eyes of many western people.

There is a mountain of data readily available on the Internet that shows that many of the claims of Qigong are indeed true and I invite you to do your own research. This 22 page report is just a small sample of what is available.

I look forward to more 'hard core' clinical trials on the effectiveness of Qigong: Randomised controlled trials, larger sample sizes, longer trials and follow ups - and I look forward to Qigong being available on prescription from your doctor!

Scientific Studies of Qigong

This document presents summaries and excerpts from various studies of Qigong. The commentaries excerpted are impressions and conclusions of the authors of the referenced articles and are provided for your information and your study of the practice of Qigong.

Medical Applications of Qigong

An original paper by Kenneth M. Sancier, Ph.D, "Medical Applications of Qigong," was published by "Alternative Therapies" in January 1996.

"This article focuses on internal Qi, because almost everyone can learn Qigong exercises for maintaining health and self-healing," writes Dr. Sancier. ("Internal" Qi involves self-practice, whereas "external" Qi involves, for example, a Qigong Master emitting Qi to someone.)

Dr. Sancier writes, in the practice of Chinese therapies such as Qigong, "the flow of Qi is regulated, and blockage of the flow of Qi is removed. Energy blocks or excess or deficient Qi may result from disease, injury, or stress."

Stroke and Mortality Rates decreased with Qigong practice

Dr. Sancier reviewed a 30-year follow-up study on hypertensive patients who were divided into a Qigong group and a control group. All patients had been given drug therapy to control blood pressure. The experimental group also practiced Qigong. The mortality rate in the Qigong group was nearly half of the group who did not practice Qigong. The incidence of stroke as well as death due to stroke was half for those who practiced Qigong. In other words, people who did not practice Qigong suffered a stroke or died from stroke at a rate twice that of those who practiced Qigong.

"Researchers also reported that over the 20-year period, blood pressure of the Qigong group stabilized, whereas that of the control group increased. Remarkably, during this period the drug dosage for the Qigong group could be decreased and for 30% of the patients, could be eliminated. However, the drug dosage for the control group had to be increased."

(Citations for this study as well as other other studies noted in this section can be found in the above-mentioned article.)

Sex Hormone Levels improved with Qigong

Dr. Sancier cited three studies that indicate the trend of estrogen increasing in males and decreasing in females with age "can be reversed by Qigong exercise."

In an auxiliary study, "changes were accompanied by improvements in symptoms such as soreness, dizziness, insomnia, hair loss, impotence, and incontinence associated with Kidney deficiency hypertension (a TCM diagnosis.)"

Bone Density increased with Qigong

Dr. Sancier reviewed a study related to aging that found, "bone density was found to increase in male subjects who practiced Qigong for one year."

He conjectured, "That Qigong therapy also would help restore the bone density of women, especially menopausal women, seems likely."

Cancer and Drug Treatment improved with Qigong practice

Dr. Sancier referenced a study of patients with "medically diagnosed malignant cancer."

They were divided into two groups, and all received drugs. One group, however, practiced Qigong. "Both groups improved, but the [Qigong] group showed improvement in strength, appetite, freedom from diarrhea, and weight gain four to nine times greater than the control group." Additionally, a measure of the immune function improved for the Qigong group and decreased for the control group.

Senility symptoms improved with Qigong practice

Dr. Sancier reported, "To study the mechanism of keeping fit by Qigong, a controlled study was made of 100 subjects classified either as pre-senile or with cerebral function impaired by senility."

The control group, which did not practice Qigong, exercised by walking, walking fast, or running slowly. "Criteria for judging outcome were based on measuring clinical signs and symptoms including cerebral function, sexual function, serum lipid levels, and function of endocrine glands."

The results: "After six months, eight of the 14 main clinical signs and symptoms in the Qigong group had improved more than 80%, whereas none of the symptoms in the control group had improved more than 45%."

Dr. Sancier wrote, "A tenet of Qigong is that the mind leads the Qi, and the Qi leads the blood. This somewhat mysterious statement can be interpreted to mean that intention (the mind) can direct the Qi within the body."

Alpha Brain Waves increase with Qigong practice

Dr. Sancier referenced two studies that show alpha brain waves dominate beta waves and spread to the frontal areas of the brain during Qigong practice.

One study found differences between the practice of Zen and the practice of Qigong. Dr. Sancier writes, "According to Kawano and Wang, these differences in brain function suggest that internal Qigong is a semiconscious process that involves some awareness and activity, whereas Zen meditation is a neutral process that releases the meditator from all concerns. Perhaps because of this difference, Qigong is considered a healing art, whereas Zen is generally not."

"A Qigong master can emit Qi to heal a patient. The interaction between Qigong masters and subjects has been followed in double-blind tests in which masters and subjects were simultaneously assessed by EEG, polygraph tests, biochemical blood tests, and psychological tests. The EEG studies showed that a type of brain waves and their location were synchronized in the brains of masters and subject. Such synchronism may be required for healing by emitted Qi."

Bloodflow to the brain increased; Memory improved while dizziness, insomnia, numbness, and vertigo headaches decreased

Dr. Sancier reviews two studies where Qigong exercise has been shown to increase bloodflow to the brain. For subjects "with cerebral arteriosclerosis who practice Qigong for one to six months, improvements were noted in symptoms such as memory, dizziness, insomnia, tinnitus, numbness of limbs, and vertigo headache. During these studies, a decrease in plasma cholesterol was also noted."

Combination of Qigong and drugs is superior to that of drug therapy alone

Dr. Sancier referenced six studies saying, "There is ample evidence in the literature that therapy by a combination of self-applied Qigong and drugs is superior to that of drug therapy alone."

"The mechanism of this apparent synergism is not known but undoubtedly relates to the fundamental mechanism of Qigong. Qigong is believed to relax the body, promote the flow of Qi (energy), blood, oxygen, and nutrients to all cells of the body, and promote the removal of waste products from cells. The increases in flow of Qi and microcirculation nourished diseased or stressed tissue. We may assume that Qigong also promotes drug uptake by tissue and cells by means of increased microcirculation."

Conclusion: "Qigong enables the body to heal itself"

In the conclusion of the paper, Dr. Sancier writes, "This review encompasses only a small number of studies from a large collection of research using medical applications of Qigong, mainly in China. The main conclusion from many studies is that Qigong enables the body to heal itself."

The effects of the Qi of Qigong

This next section excerpts abstracts of scientific research that studied the affect of "external", or emitted, Qi on various substances. The subject was Qigong Master, Dr. Yan Xin of China. Specific citations are available on request. The abstracts were published by Springer-Verlag in Berlin on April 22, 1999.

Qi caused a structure change in tap water, saline, glucose, and medemycine solutions

The purpose of these experiments was to investigate whether external Qi could cause measurable changes in the property of tap water and some aqueous solutions.

Laser Raman spectroscopy is a well-known technique in the study of molecular structure. Each sample has a characteristic spectrum at a given state. A change in the spectrum is an indicates a change in the molecular structure.

"All the results showed some structural changes of the test solutions treated by external Qi, as indicated by their Raman spectra."

Qi significantly affected the processes of nucleotide polymerization, protein crystallization, and enzyme activity

"These data indicate that Qi emission is detectable using biochemical techniques and that the effects are not necessarily uniform. This suggest that the nature of Qi is more akin to particles or information than a homogenous energy field."

Qi increased the ultraviolet absorption of nucleic acids

"The UV absorption spectra of calf thymus DNA sample placed in closed lead bottle with a change of 12%."

"The observed hyperchromic effect could only be caused by the external Qi, which has provided certain basis of the objectivity of Qigong healing."

Qi caused the bromination in solution of n-hexane and bromine

"It is well known that chemical reactions play a significant role in life processes. The study of the influence of external Qi on certain organic chemical systems will provide useful information about the mechanisms of Qigong healing since the nature of Qigong and Qigong healing is highly related to life processes."

"The preliminary results revealed that the external Qi of Qigong not only caused a bromination in a n-hexane/bromine mixture, but also this effect was produced from remote distances."

"Based on the success of the external Qi experiments at the molecular level, an experiment at a deeper level, namely, the atomic and nuclear level was designed. Radio active decay rate was chosen as an experimental object."

"The decay rate of a radioactive source is usually extremely stable and cannot be altered by such physical or chemical processes as high temperature, high pressure, high electromagnetic field, strong acid, etc."

During the experiments in the laboratory, the changes of decay rate were detected much beyond the experimental uncertainty.

"While maintaining the same configuration and procedure, the experiment was conducted in six rounds. During four of the six, Qi was emitted from outside Beijing, specifically at the cities of Kunming, Shenzhen, Guangzhou, and Chengdu, 1,500 to 3,000 kilometers away from the laboratory where the sample was kept. The coordination of Qi emission was done via telephone. The results also showed significant changes on ^{241}Am radioactive decay rate obtained when Qi was emitted from ultra-long distances."

Additional Medical Applications

To follow are excerpts from an article that appeared in the "American Journal of Acupuncture", Vol. 19, No. 4, titled, "Medical Applications of Qigong and Emitted Qi on Humans, Animals, Cell Cultures, and Plants: Review of Selected Scientific Research." The article was written by Kenneth M. Sancier, Ph.D., and Bingkun Hu, Ph.D.

"Abstract: In the past few years, many studies have been conducted to investigate the scientific basis of Chinese Qigong and emitted Qi and to document their medical benefits. Most of this information has been generated in China and published in Chinese. For the benefit of Western scientists and medical practitioners, we discuss selected scientific reports pertaining to the effects of Qigong exercise and emitted Qi that were presented at two

international conferences held in 1990. The reports document the medical benefits of Qigong exercise and some of the significant changes produced when Qigong practitioners or 'masters' emit Qi to living systems: humans, animals, cell cultures, and plants."

One mechanism by which Qigong practice can cure disease

A study of the effects of Qigong exercise on changes in blood chemistry and mortality of patients with hypertension. "Commentary: The researchers concluded that Qigong played a major role in improving the self-regulation and relaxation of the multiple cerebro-cardiovascular risk factors. Further, they suggest that this may be a mechanism by which to prevent stroke. The study shows the benefits of Qigong in combination with Western medicinal practice."

A study of the effect of Qigong exercise on the blood chemistry of human subjects. "Commentary: The researchers concluded that Qigong exercise had stimulated the increased activity of the enzyme, SOD, which in turn resulted in better control of the aging process by decreasing the estrogen level for men and increasing it for women. ... We believe that these results suggest one mechanism by which Qigong exercise can promote health, improve the condition of the aged, and cure disease."

A study of the effect of Qigong state on the nervous system. "Commentary: The researcher suggests that Qigong meditation may bring about excitatory or inhibitory effects of the central nervous system, thereby unmasking or enhancing the functions that are not part of the normal repertoire of the nervous system."

A study of the effects of Qi processes related to healing on body energy of human subjects. "Commentary: In Chinese medicine, healing is achieved by balancing the body energy, i.e., by dispersing or tonifying the energy along certain meridians. Such balancing is often achieved by using external or internal Qigong. The present study indicates that the Qigong Master's intent, which affects his external Qi, and subject's visualization, which affects his internal Qi, can be potent forces in affecting muscle strength and balance of body energy. The results affirm the often stated belief that visualization and positive thinking are an essential part of the healing process."

Tumors reduced or eliminated

A study of Qi on tumors implanted in rats. "Commentary: The researchers suggest that emitted Qi damages tumor cells, inhibits their growth, promotes the regenerative function of the lymph system, and increase anti-tumorigenic function in rats. ... Therefore, such studies

provide support for the numerous claims that emitted Qi and personal Qigong exercise can cure or inhibit cancer growth in humans."

Qi affects cell cultures

A study of the effects of a Qigong master's intent on biochemical reactions of cell cultures in vitro. "Commentary: ... We believe that this in vitro study provides strong support for the reality of emitted Qi and its potential for changing the metabolism of living cells. The dependence of the outcome on the intent of the Qigong master has profound implications for medical Qigong in clinical applications. Similar studies with tumor cells are in progress in the United States."

A study on pulmonary cancers cells in a cell culture. "Commentary: The researchers conclude that Qi-treated lung cancer cells tend to lose their neoplastic character, but they exhibited less of this tendency than liver cancer cells, which they also studied."

A study of human peripheral blood lymphocytes and natural killer cells. "Commentary: ... We observe that the emitted Qi affected all the functions of cell-mediated immune systems that were measured, not just one part of the system. Thus, the study offers a mechanism by which Qigong helps cure disease and promote health in a holistic way. This study provides scientific support for the popular assertion that emitted Qi can significantly change the biochemistry associated with the immune system of humans and animals."

Qi even benefits plants

A study of the germination rate of rice seeds. "The results of germination rates for three batches of seeds treated by a given Qigong master in a given 30-minute period of time were averaged. ... The results show that the percentages of seeds that germinated were generally greater for the Qi-treated seeds."

In the article "Meditation, T-Cells, Anxiety, Depression, and HIV infection," William Koar, Ph.D. wrote, the practice of meditation, specifically Qigong, was hypothesized as being helpful to HIV-infected individuals. The intervention was assumed to be stress-reducing. Anxiety, depression and T-cell counts were measured. A statistically significant increase in T-cells and a statistically significant decrease in anxiety and depression were found. A control group was not included in this study.

Complex Regional Pain Syndrome

Wen-hsien Wu, M.D. is professor of anesthesiology/pain medicine and the director of the Pain Management Center in Newark, New Jersey. The article, "The Effects of Qigong on

Late-stage Complex Regional Pain Syndrome," was published in "Alternative Therapies" in January 1999.

Dr. Wu studied patients who were taught to practice Qigong and patients who were taught an exercise that resembled Qigong (the control group). After ten weeks, "91% of the Qigong patients reported a transient drop in pain compared to only 36% of the controls. A long-term reduction in anxiety in patients suffering from treatment-resistant CRPS-I was found."

Integrative Cancer Therapies 1(4); 2002

"Qigong therapy from TCM (Traditional Chinese Medicine) shows promise in treating cancer, and preliminary studies report immediate improvement without side effects, even recording complete remission in patients who engaged in ongoing practice of qigong. "

"Unlike other alternative medicines, which are only able to cope with symptoms, qigong therapy focuses on the entire body and its health system. Our review suggests that qigong therapy may actually stop and prevent cancer growth, and help patients recover from many different diseases at the same time. Many research studies suggest that qigong therapy and/or qigong practice may help cancer patients improve their immune function. "

Anxiety

Myeong Soo Lee, Chang-Won Kang, Hyun-Ja Lim, Myung-Suk Lee. (2004, Aug.) Effects of Qi-training on anxiety and plasma concentrations of cortisol, ACTH and aldosterone: a randomized placebo-controlled pilot study. Stress and Health. 20(5): 243-248.

The effects of Qi-training on anxiety, and plasma concentrations of adrenocorticotrophic hormone (ACTH), cortisol, and aldosterone in healthy young men was investigated. Thirty-two subjects were randomly assigned to a sham control group or a Qi-training group. Although the basal level of anxiety did not differ between the groups, there was a significant group by time interaction of the 1-hour intervention; anxiety decreased by 26 per cent in the Qi-training group and by 9 per cent in the control group. After Qi-training, the plasma concentrations of ACTH, cortisol, and aldosterone decreased, but these levels did not change in the control group. These findings suggest that Qi-training improves anxiety and has a significant effect on the hypothalamic-pituitary-adrenal axis. Copyright © 2004 John Wiley & Sons, Ltd.

Arthritis

Kevin W. Chen and Tianjun Liu. (2004, June). Effects of Qigong Therapy on Arthritis: A Review and Report of a Pilot Trial. Medical Paradigm. 1(1): 36-48.

There are two parts to this article, a literature review and a pilot study of external Qi therapy for arthritis. After three treatments, all six subjects of the study reported some degree of symptom relief, reduction in pain and negative mood, a decreased anxiety score, reduced active pain/tenderness in joints (with one exception) and reduced movement difficulty scores. Two participants reported complete relief without any pain one month after treatment.

It is well known that Qigong practice is beneficial in preventing disease and strengthening immunity, but it is less known, even in China, that this therapy can be an effective means for relieving pain and treating arthritis. The literature review suggests there is strong evidence for a therapeutic effect of Qigong on reducing pain and relieving the symptoms of arthritis without side effects and with an enhanced sense of self-efficacy.

Blood Gas Concentrations

Myeung Soo Lee, Hoon Ryu, Jeho Song, Sun-Rock Moon. (2004, November). International Journal of Neuroscience. 114 (11): 1503-1510.

Using an ABA' design, the authors investigated the effects of Qi-training on blood gas concentrations with a 20 min control rest period (A), 1 h of Qi-training (B), and a 20-min rest period (A'). The blood partial pressures of oxygen (PO₂) and carbon dioxide (PCO₂), and oxygen content, oxygen saturation, and pH were significantly altered. The mean PO₂ value increased significantly during Qi-training by 14 mmHg (about 24%, $p < .01$) compared with control A. During Qi-training, the mean decrease in PCO₂ was 3 mmHg (about 10%). These results suggest that the practical application of Qi-training may exert a positive regulatory function on physiological status.

Blood Pressure and Taking Responsibility for Your Health

Myung-Suk Lee, Hyun-Ja Lim, Myeong Soo Lee. Impact of Qigong Exercise on Self-Efficacy and Other Cognitive Perceptual Variables in Patients with Essential Hypertension. Journal of Alternative and Complementary Medicine. (2004, August), 10(4): 675-680.

The purpose of this study was to investigate the impact of practicing Qigong on middle-age subjects with essential hypertension. Impacts on blood pressure, reported self-efficacy, perceived benefit and emotion were observed. Systolic and diastolic blood pressure were significantly reduced in members of the Qigong group after eight weeks exercise.

Significant improvements in self-efficacy and other cognitive perceptual efficacy variables were also documented in the Qigong group compared to the original situation. This pilot study demonstrates the positive effects of practicing Qigong on controlling blood pressure and enhancing perceptions of self-efficacy.

Cancer

Kevin Chen and Raphael Yeung. (2002). Exploratory Studies on Qigong Therapy for Cancer in China. Integrative Cancer Therapies. 1(4): 345-370.

The authors reviewed more than 50 studies of Qigong therapy for cancer in China, in three categories: clinical studies on cancer patients, in vitro studies on laboratory-prepared cancer cells, and in vivo studies on cancer-infected animals. Most of the clinical studies involved observations of cancer patients' self-practice of Qigong. Although no double-blind clinical trials were found among patient studies, many had a control. The Qigong groups showed more improvement or had a better survival rate than conventional methods alone. In vitro studies report the inhibitory effect of Qi emission on cancer growth and in vivo studies find that Qigong-treated groups have significantly reduced tumor growth or longer survival among cancer-infected animals. However, there is much room for improvement in these studies and some require replication to verify the findings. Qigong therapy is an area that is often neglected by mainstream medicine and research but our review strongly suggests that Qigong deserves further study as a supplement to conventional cancer treatment.

Cardiovascular System

Myeong Soo Lee, Byung Gi Kim, Hwa Jeong Huh, Hoon Ryu, Ho-Sub Lee and Huntaeg Chung. (2002, May). Effect of Qi-training on blood pressure, heart rate and respiration rate. Clinical Physiology. 20(3): 173.

To examine the physiological effects of Korean traditional Qi-training, we investigated the changes in blood pressure, heart and respiratory rates before, during and after ChunDoSunBup Qi-training. Heart rate, respiratory rate, systolic blood pressure and rate-pressure product were significantly decreased during Qi-training. From these results we suggest that CDSB Qi-training has physiological effects that indicate stabilization of the cardiovascular system.

Chronic Illnesses Among the Elderly

Hector W. H. Tsang, C. K. Mok, Y. T. Au Yeung, Samuel Y. C. Chan. (2003, May). The effect of Qigong on general and psychosocial health of elderly with chronic physical illnesses: a randomized clinical trial. International Journal of Geriatric Psychiatry. 18(5): 441-449.

Objectives: Based on the model by Tsang et al. ([2002]) which summarized the etiological factors and consequences of depression in elderly with chronic physical illnesses, a randomized clinical trial of a special form of Qigong (The Eight Section Brocades) was conducted to assess if it improved the biopsychosocial health of participants. Design: 50 geriatric patients in sub-acute stage of chronic physical illnesses were recruited and randomly assigned into the intervention and control group. The intervention group was given a 12-week period of Qigong practice while the control group was given traditional remedial rehabilitation activities. Results: The intervention group participants expressed improvement in physical health, ADL, psychological health, social relationship, and health in general as reflected by scores of the Perceived Benefit Questionnaire and informal feedback.

Conclusion: Although results are not significant in the generalization measures, it may be due to small effect size, small sample size, and short intervention period. Although not all of the hypotheses are supported, this report shows that Qigong (the Eight Section Brocades) is promising as an alternative intervention for elderly with chronic physical illness to improve their biopsychosocial health. More systematic evaluation with larger sample size and longer period of intervention is now underway in Hong Kong. Results will be reported once available. Copyright © 2003 John Wiley & Sons, Ltd.

Chronic Pain and Mood Disturbances

Kyung Hee Yang, Young Hee Kim, Myeong Soo Lee. (2005, July). Efficacy of Qi- Therapy (External Qigong) for Elderly People with Chronic Pain. International Journal of Neuroscience. 115(7): 949-963.

The intervention group was given four weeks of Qi-therapy whereas the control group was given standard care. Compared with the control group, Qi-Therapy participants experienced improvements in positive mood and psychological variables over the four- week program. Compared with baseline values, pain and psychological benefits remained significantly improved after two weeks of follow up. These findings suggest that Qi- therapy may help the elderly cope with pain and associated mood disturbances.

Diabetes

Takuya Tsujiuchi, Hiroaki Kumano, Kaxuiro Yoshiuchi, DeGuang He, Yuko Tsujiuchi, Tomisfusa Kuboki, Hiroyuki Suematsu and Koichi Hirao. (2002). The Effect of QiGong Relaxation Exercise on the Control of Type 2 Diabetes Mellitus. Diabetes Care. 25: 241- 242.

A study of twenty-six diabetes patients receiving conventional care concludes that Qigong may be a beneficial adjunctive treatment for individuals with type 2 diabetes. Qigong can improve glucose metabolism by the benefits of relaxation response. Significant improvement in C-peptide levels was shown compared with the control. Patients' moods were significantly enhanced.

Effects of External Qi

Kevin Chen. (2004, July/Aug.). An Analytic Review of Studies on Measuring Effects of External Qi in China. Alternative Therapies. 10(4): 38-50.

This is a review article of the major Chinese research into measuring external Qi. Studies of five different categories of detectors of external Qi are reviewed: physical signal detectors, chemical methods, biological materials, life sensors and the human body.

Physical signal detectors. (a) Infrared radiation was detected 50 cm. from the hand of a Qigong healer. (b) When a Qigong healer emitted Qi to a patient, an AGA thermogram could display the entire procedure of Qi emission by reading the thermal flow moving from his arm to his palm and finally to his finger tips. Then the surface temperature of the patient's afflicted area, although one meter away from the healer, was raised by 3 degrees C. (c) Using a microwave radiation meter in 50 trials of emissions from a Qigong healer, formal records of radiation curves were recorded in 28 trials whereas the control group reported no change. (d) There was significant difference between the typical curves of magnetic signals during Qi emission by Qigong practitioners than during simulated Qi emission by non-practitioners. (e) Significantly higher infrasonic (<16Hz) sound pressure was recorded from the Qigong healer group than from the control group. (f) Other exploratory studies have used Gamma ray, microwave, high frequency X- ray and other detectors with positive results.

Chemical dynamic methods. External Qi can affect the dynamic process of chemical reactions, for example by accelerating the reaction process. Qigong healers can speed up the reaction time by 400%.

Biological materials. More comprehensive results are produced using biological detectors, e.g. liver cancer cells, lung cancer cell cultures, cells of living organisms, blood plasma,

Vitamin C, DNA synthesis of liver cancer cells, FAB protein crystals, E-coli bacteria, tumor cells in mice, hepatitis B virus in vitro, and the inhibition of growth of human liver cancer cells. Tree leaves connected by probes to a signal amplifier registered the Qi emitted by a healer's hands at 50 cm. at several times stronger than baseline. The germination and growth of various plant seeds can be significantly accelerated. The growth of E-coli bacteria can be inhibited or accelerated according to the intent of the Qigong healer. Several studies show an inhibitory effect of external Qi on human cancer cells both in vitro and in vivo.

Living sensors. Many studies have been carried out on various species, largely to respond to the criticism that Qigong healing relies on psychological suggestion. (a) External Qi has a significant inhibitory effect on cancer cells in tumor-bearing mice. (b) Qi can prolong the lives of laboratory flies. (c) Animal studies on hypertension and diabetes show positive results. (d) In one study, 18 pigs with surgically induced paralysis were divided into three equal groups. One group received Qigong healing within twelve hours, three treatments for the first week and two treatments daily for 84 days. Another group started Qigong treatment seven days after the injury and received two treatments a day for 84 days. A third group was the control with no treatment. After 90 days the first group could walk around freely and two of them could run and jump. In the second group all but one pig could stand and one could run. In the control group none of the pigs could stand up and only two had some avoidance response to stimulation.

Human bodies. Frequently reported and well-documented successes in Qigong therapy include: the complete remission of degenerative disc diseases, rheumatoid arthritis, myoma of the uterus, cataracts, asthma, shoulder peripheral neuritis, significant improvement in fractures, cardiovascular diseases, irregular pulse, hemi-paralysis "and many more too numerous to list here." **One of the common characteristics of these diseases is that they are considered incurable by Western medicine.**

Heart Rate Variability

Myeong Soo Lee, Mo Kyung Kim, Yong-Heum Lee. (2005, September). Effects of Qi-therapy (external Qigong) on cardiac autonomic tone: a randomized placebo controlled study. International Journal of Neuroscience. 115(9): 1345-1350.

Qi-therapy reduced the heart-rate and increased heart-rate variability as indicated by a reduced low frequency/high frequency power ratio of heart-rate variability. These findings suggest that Qi-therapy stabilizes the sympathovagal function more than placebo therapy.

Heroin Detoxification

Ming Li, Kevin Chen and Zhixian Mo. (2002, Jan/Feb). Use of Qigong Therapy in the Detoxification of Heroin Addicts. Alternative Therapies. 8(1): 1-9.

Eighty-six male heroin addicts, aged 18 to 52 years. The Qigong group practiced Pan Gu Qigong and received Qi adjustments from a Qigong master daily. The medication group received the detoxification drug, lofexidine-HCl, by a ten-day gradual reduction method. The control group received only basic care and medications to treat severe withdrawal symptoms. Reduction of withdrawal symptoms in the Qigong group occurred more rapidly than in the other groups. From day one, the Qigong group had significantly lower mean symptom scores than did the other groups. Both the Qigong and medication groups had much lower anxiety scores than did the control group and the Qigong group had significantly lower anxiety scores than did the medication group. All subjects had a positive response to the urine morphine test before treatment. On day three 50% of the Qigong group had negative urine tests compared to the 23% in the control group and 8% in the medication group. By day five of treatment all subjects in the Qigong group had negative urine tests compared to day nine for the medication group and day eleven for the control group. Results suggest that Qigong may be an effective alternative for heroin detoxification without side effects, though we cannot completely eliminate the possibility of the placebo effect from the current study.

Hypertension (Chronic High Blood Pressure)

Myung-Suk Lee, Myeong Soo Lee, Hye-Jung Kim, Euy-Soon Choi. (2004). Effects of Qigong on blood pressure, high-density lipoprotein cholesterol and other lipid levels in essential hypertension patients. International Journal of Neuroscience. 114(7): 777-786.

Blood pressures decreased significantly after eight weeks of Qigong. The levels of total cholesterol, high-density lipoprotein and apolipoprotein A1 were changed significantly in the Qigong group post-treatment compared with before treatment. Qigong acts as an antihypertensive and may reduce blood pressure by the modulation of lipid metabolism.

Hypertension (Chronic High Blood Pressure)

Cheung B.M., Lo J.L., Fong D.Y., Chan M.Y., Wong S.H., Wong V.C., Lam K.S., Lau C.P., Karlberg J.P. (2005, Sept.) Journal of Human Hypertension. 19 (9): 697-704.

We conducted a randomised controlled trial to study the effect of Guolin qigong on blood pressure. In all, 88 patients with mild essential hypertension were recruited from the community and randomized to Goulin qigong or conventional exercise for 16 weeks.

The main outcome measurements were blood pressure, health status (SF-36 scores), Beck Anxiety and Depression Inventory scores. In the qigong group, blood pressure decreased significantly from 146.3 \pm 7.8/93.0 \pm 4.1 mmHg at baseline to 135.5 \pm 10.0/87.1 \pm 7.7 mmHg at week 16. In the exercise group, blood pressure also decreased significantly from 140.9 \pm 10.9/93.1 \pm 3.5 mmHg to 129.7 \pm 11.1/86.0 \pm 7.0 mmHg. Heart rate, weight, BMI, waist circumference, total cholesterol, renin and 24 h urinary albumin excretion significantly decreased in both groups after 16 weeks. General health, bodily pain, social functioning and depression also improved in both groups. No significant differences between qigong and conventional exercise were found. In conclusion, Guolin qigong and conventional exercise have similar effects on blood pressure in patients with mild hypertension. While no additional benefits were identified, it is nevertheless an alternative to conventional exercise in the nondrug treatment of hypertension.

Immune System Function

Juan M. Manzanique, Francisca M. Vera, Enrique F. Maldonado, Gabriel Carranque, Victor M. Cubero, Miguel Morell, Maria J. Blanca. (2004). Assessment of immunological parameters following a Qigong training program. Medical Science Monitor, 10(6): CR264- 270.

Statistically significant differences were found between the control and experimental groups, with the experimental group showing lower numbers of total leukocytes and eosinophils, number and percentage of monocytes, as well as complement C3 concentration. In addition, a similar result with a trend towards significance was observed in the number of eosinophils. These findings demonstrate that after one month of practicing Qigong, significant immunological changes occurred between the experimental and control groups, with a consistently lower and broadly significant profile of these measures within the Qigong practitioner group.

Immunity

Brian M. Jones. (2001). Changes in cytokine production in healthy subjects practicing Guolin Qigong: a pilot study. Complementary and Alternative Medicine. 1(8).

These preliminary studies in healthy subjects, although not necessarily representative of a randomized healthy population and not including a separate control group, have indicated that blood levels of the stress- related hormone cortisol may be lowered by short-term practice of Qigong and that there are concomitant changes in numbers of cytokine- secreting cells.

Pain and Anxiety

Wu W.H., Bandilla E., Ciccone D.S., Yang J., Cheng S.C., Carner N., Wu Y., Shen R.
Alternative therapies in health and medicine. 1999 Jan;5(1):45-54.

CONTEXT: Despite the growing popularity of qigong in the West, few well-controlled studies using a sham master to assess the clinical efficacy of qigong have been conducted.

OBJECTIVE: To study the effect of qigong on treatment-resistant patients with late-stage complex regional pain syndrome type I. **DESIGN:** Block-random placebo- controlled clinical trial.

SETTING: Pain Management Center at New Jersey Medical School. **PATIENTS:** 26 adult patients (aged 18 to 65 years) with complex regional pain syndrome type I.

INTERVENTIONS: The experimental group received qi emission and qigong instruction (including home exercise) by a qigong master. The control group received a similar set of instructions by a sham master. The experimental protocol included 6 forty- minute qigong sessions over 3 weeks, with reevaluation at 6 and 10 weeks. Assessment included comprehensive medical history, physical exam, psychological evaluation, necessary diagnostic testing. Symptom Check List 90, and the Carleton University Responsiveness to Suggestion Scale.

MAIN OUTCOME MEASURES: Thermography, swelling, discoloration, muscle wasting, range of motion, pain intensity rating, medication usage, behavior assessment (activity level and domestic disability), frequency of pain awakening, mood assessment, and anxiety assessment.

RESULTS: 22 subjects completed the protocol. Among the genuine qigong group, 82% reported less pain by the end of the first training session compared to 45% of control patients. By the last training session, 91% of qigong patients reported analgesia compared to 36% of control patients. Anxiety was reduced in both groups over time, but the reduction was significantly greater in the experimental group than in the control group.

CONCLUSIONS: Using a credible placebo to control for nonspecific treatment effects, qigong training was found to result in transient pain reduction and long-term anxiety reduction. The positive findings were not related to pre-experimental differences between groups in hypnotizability. Future studies of qigong should control for possible confounding influences and perhaps use clinical disorders more responsive to psychological intervention.

Premenstrual Syndrome (PMS)

Hye-Sook Jang, Myeong Soo Lee, Myung-Ja Kim, Elizabeth S. Chong. (2004, Aug.) Effects of Qi-therapy on premenstrual syndrome. International Journal of Neuroscience. 114(8): 909-921.

Qi-therapy had a significant effect on pain and water retention. In addition, there were significant short-term effects on pain mental depression and anxiety. These results suggest that Qi-therapy might be useful as a nursing intervention for women who suffer from PMS to maintain or restore a balance of Qi.

Relaxation Through Meditation

Hong-Zhen He, Da-Lin Li, Wen-Bin Xi, Chang-Lin Zhang. (1999). A "Stress Meter" Assessment of the Degree of Relaxation in Qigong vs. Non-Qigong Meditation. Frontier Perspectives, 3(1), 37- 42.

Many subjects were able to reach deep levels of relaxation through meditation. But, the subjects using Qigong training were able to reach deeper levels of relaxation than those using non-Qigong techniques. However, when the inducement language of experienced Qigong masters was used with the non-Qigong subjects they were able to reach deeper levels of relaxation.

School Children

Claudia Witt, Matthias Becker, Karin Bandelin, Renate Soeliner, Stefan N. Willich. (2005, Feb.) Qigong for schoolchildren: a pilot study. Journal for Alternative and Complementary Medicine. 11(1): 41-47.

Six months after starting Qigong lessons, schoolchildren improved in social behaviour and showed stable grades while inappropriate behaviour decreased, compared with the control.

Spontaneous Remission: Case Study

Kevin W. Chen. (2004, Feb.) A case study of simultaneous recovery from multiple physical symptoms with medical Qigong therapy. Journal for Alternative and Complementary Medicine. 10(1): 159-162.

This report documents the story of a 58-year-old Caucasian male patient with a series of chronic conditions, including high prostate-specific antigen levels (but not a confirmed cancer), atrial septal defect, asthma, allergies, multiple injuries following an automobile accident, high blood pressure, and edema in the legs.

The patient received external Qi healing from a Qigong master and practiced Qigong four-plus hours per day during intensive training and approximately one to two hours daily thereafter. After the workshop and Qigong therapy the patient discontinued all medications (8 in total) and lost 35 pounds. His blood pressure dropped from 220/110 with medication to 120/75 without medication in two weeks. Pulse rate dropped from 88 beats per minute resting to 68 beats per minute in the mornings and 55 bpm in the evening. Edema in his legs went away. Symptoms of asthma or allergies disappeared. PSA level dropped from 11 to 4 (normal). All of this occurred without medications. This kind of simultaneous recovery from multiple "incurable" conditions and other documented successes cannot be explained by any known medical theories and call for formal clinical trials to closely examine Qigong self-healing therapy.

Stimulation of Killer Cells

Myeong Soo Lee, Chang-Won Kang, Hoon Ryu. (2005, February). Acute Effect of Qi-Training on Natural Killer Cell Subsets and Cytotoxic Activity. International Journal of Neuroscience. 115(2): 285-297.

Natural killer cell cytotoxicity increased 60% immediately after one-hour Qi-training and returned to the basal level within two hours after training. Natural killer cell subset number did not change after Qi-training. Natural killer cell cytotoxicity and cell number were not significantly correlated. These data suggest that Qi-training has an acute stimulatory effect on natural killer cell activity but has no effect on phenotypical changes in the natural killer cell subset.

Stress

M.S. Lee, H. Ryu, H-T Chung. (2000). Stress management by psychosomatic training: effects of ChunDoSunBup Qi-training on symptoms of stress. A cross-sectional study. Stress and Health. 16(3): 161- 166.

Qi-trainees with over 13 months training had significantly lower scores in all the Symptoms of Stress inventory subscales compared to the controls. A significant negative correlation was found between the Qi- training period and all SOS subscales. The total stress scores of the Qi-trainee groups was substantially lower than those of the controls and there was further reduction with longer training periods. These results suggest CDSB Qi-training is effective in stress management and in decreasing symptoms of stress.

Stress Hormone, Growth Hormone, Melatonin

Myeong Soo Lee and Hoon Ryu. (2004, October). Qi-Training Enhances Neutrophil Function by Increasing Growth Hormone Levels in Elderly Men. International Journal of Neuroscience. 114(10): 1313-1322.

In healthy elderly men one hour of Qi-training significantly reduced the plasma concentration of cortisol and increased plasma concentrations of growth hormone and melatonin.

Generation of superoxide by neutrophils increased significantly immediately after Qi-training. The change in neutrophil superoxide generation was significantly correlated with the change in growth hormone concentration after Qi-training. These data indicate that, in elderly men, Qi-training enhances superoxide generation by neutrophils, possibly via the changes in plasma growth hormone concentration.

Suicide Prevention

H.W.H. Tsang. (2003). Qigong and suicide prevention. The British Journal of Psychiatry 182: 266-267.

This preliminary report showed that Qigong is promising as an alternative intervention for elderly people with depression and with chronic physical illness to improve their biopsychosocial health and possibly reduce their suicide rate. The improvement from Qigong practice included feeling more relaxed, more comfortable, better sleep and being more optimistic. All of these reported improvements in psychosocial functioning are indicative of less depressed mood and improved quality of life. "<http://www.jackrisk.ca/QigongandHealing.html>

Improve your immune system with daily qigong practice per research studies Assessment of Immunological Parameters following a Qigong training program

<http://www.nqa.org/articles/assessment.html>

The experimental subjects underwent a qigong training program, conducted by a qualified instructor, consisting of half an hour of daily practice for one month. The day before the experiment commenced and the day after it finished, blood samples were drawn from all subjects for the quantification of immunological parameters (leukocytes, immunoglobulins, and complement). As statistical analysis, analysis of covariance (ANCOVA) was carried out.

RESULTS: Statistically significant differences were found between the control and experimental groups, with the experimental group showing lower numbers of total leukocytes and eosinophils, number and percentage of monocytes, as well as complement C₃

concentration. In addition, a similar result with a trend towards significance was observed in the number of eosinophils.

CONCLUSIONS: These findings demonstrate that after one month of practicing qigong, significant immunological changes occurred between the experimental and control groups, with a consistently lower and broadly significant profile of these measures within the qigong practitioner group.