

# The Future of Qigong in Western Medicine: An Analysis of Qigong as a Measurable and Effective Therapy

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## **Abstract**

In this paper, I explore the ancient history of Qigong in China, the scientific explanations of bio-electromagnetic fields found in Qi, and its measurable and effective medical applications for self-healing and medical assisted-healing today. I assert that Qigong therapy, while prevalent in eastern medicine, presents itself as a new and emerging technique in western medicine, shifting the focus towards integrative medicine and biophysical care.

## Introduction

Current day Qigong can be categorized by purpose of practitioner. This includes usage for enlightenment, martial arts, personal health and longevity, and medical Qigong for healing others. In this paper, I will explore the history of Qigong and its measurable medical applications today. I assert that Qigong therapy, while prevalent in eastern medicine, presents itself as a new and emerging technique in western medicine, shifting the focus towards integrative medicine and biophysical care.

## Qigong history, first medical applications

Qigong (氣功), literally translated from Chinese is “energy work.” It is an ancient Chinese healing art dating back to the New Stone Age, 3000-2000 BCE, in which qigong evolved into a skill or exercise of movement, breathing, and meditation to promote self-healing and training of the mind and body. In ancient thought, “death meant separation of the soul from the body, and it was thought that the eternal souls existing in the nether, or Yin, would continue to influence the life of the Yang world. [...] Shamans emerged to make communication between the divine and [humans] possible” (*Chinese Medical Qigong*). Shamans had the ability to concentrate and enter tranquility, cultivating Qi and altered states of consciousness.

During the Sui and Tang dynasties (581-960 CE), Qigong therapy experienced significant development, with wide employment in medical treatment (as noted in many medical books of the period), flourishing traditional internal-elixir (Nei Dan) Qigong, and maturation of Qigong theory. Qigong therapy was considered so effective that even massage treatments were set up in the royal hospital (*Chinese Medical Qigong*).

The Qigong that we know today is largely due to a phase of revival from internationalization and promotion during the Great Leap Forward (1958-1963), the Cultural Revolution (1966-1976), and as daily morning exercise throughout China in the 1980s. Qigong, however, was closely controlled by the state and continues to be today. In the western world, Qigong therapy in the medical field continues to be a new idea and technique for activation self-care and self-regulation.

## Science of Qi in Qigong

Integrative medicine is a form of patient-centered medical care that addresses all aspects influencing the patient’s health, including physical, emotional, mental, social, spiritual, and environmental factors. One branch of integrative medicine includes Energy medicine (EM). Energy medicine, whether by human touch (like Qigong) or device-based (like the Infratonic device) uses the subtle energy fields of a patient’s body to encourage growth and repair of cells, tissue, and organs, bringing the body back its homeostatic resonant frequencies. All parts of the human body—down to the atomic level—have their own resonant frequencies, subtle energies that affect our health.

While western medicine focuses on the body’s physiology, it excludes the many variables influencing the body’s physiology, such as light, sound, electricity, magnetism, and other energy fields. At the cellular level, voltage potentials (VPs) are found in cellular membranes and are used by the body to control cell function. In pulsed electromagnetic field (PEMF) therapy, these VPs improve immune function and tissue repair by targeting specific frequencies for organs or chakras. These internal and external body energies create the human energy field (HEF).

When clinicians in western medicine perform diagnostic imaging exams (such as imaging procedures, including sonograms, x-rays, magnetic resonance imaging (MRI), computed tomography, positron emission tomography, and nuclear medicine), these machines detect the different types of energy to produce images that lead to diagnoses. In nuclear medicine, for instance, clinicians administer radiopharmaceuticals into a patient's organs and tissue to change the natural electromagnetic fields (EMFs) that these organs and tissue produce. Modalities can then detect and visualize these altered EMF organs and tissues, and the clinician can then make diagnoses. In western medicine, however, once the diagnosis is made via the subtle energies of EMF, clinicians revert to treatments based on biochemistry instead of the biophysics (of subtle EMFs) that facilitated the diagnosis.

Qigong is one of several modalities of EM that focus on subtle energies for healing. For western medicine to continue advancing, it must consider not just the human body (human physiology) but also the biophysics of the HEF into modern medical practice. Knowledge of the existence of and effects on the HEF will determine the future of medicine by opening new medical paradigms, integrating Western medicine with Eastern medical practices that have been time tested for thousands of years (Ross, 2019).

### **Qigong for Self-Healing (Internal Qi)**

According to the Qigong Institute, when Qigong is practiced, through a combination of movement, breathing, and meditation, the mind-body undergoes shifts in states of consciousness, ultimately leading to the channeling of Qi, or the body's natural bioelectricity. Meditation heightens the practitioner's mindful awareness internal and external stimuli, also known as interoception (inside the body) and proprioception (body alignment, spatial awareness, movement), respectively. This practice puts the body into the parasympathetic mode (automatic nervous system responsible for regulating the body's unconscious actions) and enables the body to relax and regenerate. Lastly, when meditation and movement is combined with slowed, deep breathing, Qigong facilitates a balanced movement of body fluids to strengthen the immune and lymphatic systems.

When Qigong is practiced by the self, the practitioner experiences increases to their alpha and theta brain wave activity. Increased alpha activity is associated with relaxation and well-being. Increased frontal theta activity is associated with mindfulness, an attentive state with Buddhist meditation techniques (Tomasino et al., 2014).

Henz and Schollhorn further test the changes in brain wave activities specifically for mental and physical practices of Qigong. Through measures of EEGs in eyes-open and eyes-closed tests, they evaluate changes of brain activation patterns. The study finds that, in both eyes-open and eyes-closed tests, mental and physical training of Qigong increases alpha brain waves (relaxation). For only eyes-open tests (not eyes-closed tests), mental training of Qigong increases theta brain waves (mindfulness).

This aligns with other studies in which new practitioners, after 1 year of practice, significantly increase alpha brain right frontal and right temporal regions, and significantly decrease the beta index of the right frontal and right temporal regions. As the right brain is associated with creativity and spirituality, and alpha is associated with relaxation, this increase of alpha activity in the right regions shows that the relaxation and healing of Qigong simultaneously connects the practitioner to the Yin side or spirit realm. Since the brain wave changes of Qigong were measurable after 1 year of practice vs after 6 months of practice, cognitive benefits of Qigong come gradually and with training. In the fast pace of western culture and the symptom-based treatments of western medicine, patients open to alternative medicine

may choose to passively receive Qigong healing (via externally emitted Qi) with a medical Qigong practitioner before choosing to learn and practice it themselves (via internal Qi) for long-term health and wellness.

### **Qigong for Healing Others (Externally Emitted Qi)**

When Qigong masters apply Qi to their patients, they emit an energy output, bioelectricity, to help bring their patient's body back to its homeostatic resonant frequencies and promote healing.

In Lee's 1996 study, "Emitted Qi and the Frequency of Consciousness," Lee analyzes how emitted Qi alters brain wave states and contributes to the therapeutic effects of Qigong. To simulate and control for the emitted Qi, the study uses a Qigong Simulator device that produces the same low frequencies proven effective at treating the same conditions a Qigong master would treat. To measure the changes in brain wave states, they build an analyzer device that measures the low frequency sounds (infrasound) produced by the subtle trembling of hands. It correlates closely with EEGs but also shows that people tremble at different frequencies depending on their motivation and brain wave state.

Brain Wave State	Hand Tremble Frequency (Infrasound)	Motivation
Delta	0-4 Hz	motivated by fear and instinct
Theta	4-8 Hz	motivated by attachment and desire
Alpha	8-14 Hz	motivated by service
Beta	14-22 Hz	motivated by organization and planning

Qigong masters emit a low frequency sound at the Alpha state (8-14 Hz), sharing the same tremble as those motivated by service. Meanwhile, attachment and desire are associated with the Theta state (4-8 Hz)—Buddha claims that attachment and desire are the source of human suffering. Those experiencing nervous overload, anxiety, overthinking, and overplanning also suffer when in the Beta state (14-22 Hz). The study finds that when the simulator emits Qi frequencies, the test subject first increases trembling at all frequencies and subsequently reduces all frequencies but the Alpha. This continues when treatment stops, with peak trembling frequencies shifted to the Alpha. "The subject experiences deep relaxation and clarity of mind, in addition to relief from chronic pain and other symptoms associated with 'low qi'. Thus, it appears that the infrasonic sound produced by qigong masters is effective because it causes decreased trembling in the Theta and Beta ranges. This simultaneously decreases attachments and desires (calming the emotions), and reducing excess thinking (calming the mind), thereby freeing the patient's vital resources to be redirected toward healing." (Lee, 1996, Emitted Qi and the Frequency of Consciousness).

To increase access to and simulate the energy output (Qi) of Qigong Masters, scientists created the Infratonic, an electromagnetic machine producing sound frequencies in alpha (7-14 Hz) with peak of 10 Hz. When applied, this device regulates the circulation of Qi in the meridians to strengthen the body's immune response. In a 1985 study, scientists study the effectiveness of Infratonic therapy in the immune system of rabbits with a respiratory infection. To evaluate the effect on the immune system, they measure changes to body temperature and antibody levels on the Infratonic treatment group and the control group. They find that Infratonic group had fewer fluctuations in body temperature and experienced accelerated immune response, allowing the rabbits to recover faster from bacterial infection. Similar results were found in Qigong studies using different measurements—other investigations of physical manifestations, including "far infrared radiation or heat (Gu and Lin, 1978, Lin

et al., 1980), bio-magnetism (Wu et al, 1991), static electricity (Gu and Cheng, 1980), and electrical particle flow or light (Gu and Zhao, 1979, Wang et al., 1995)” (Liu and Lee, 2018).

### **Conclusion**

In the fast-paced culture of today, people have turned to clinicians in search of instant and powerful remedies, often in the form of strong pharmaceuticals or invasive procedures, to address any symptoms slowing down their lives. In the wake of COVID-19, a dramatic shift has begun, towards accepting and embracing the slow-down, and a growing desire to address root cause of problems instead of symptoms. With this shift, Western medicine has the opportunity to integrate and normalize integrative medicine, as opposed to labeling it as ‘alternative medicine;’ promote mindfulness, relaxation, and healing that comes with Qigong in internal self-healing or external medical. In the first steps to undertake this shift, Western medicine (and health insurance companies) will need to recognize the existence of bio-electromagnetic fields, accept the extensive research studies on Qigong effectiveness in healing, and incorporate Qigong under preventative care.

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