

Qigong and Related Researches

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Outline

- Overview of Qigong;
- Baduanjin health oriented Qigong;
- Qigong and related researches;
- Qigong's breathing technique — Diaphragmatic Breathing;
- Show and practice: Baduanjin Qigong;
- Osteopath and COPD.

History of Qigong

- The origins of Qigong go back to prehistoric times, and these types of practices were not called Qigong. It was called Dao Yin and Nei Kung.
 - Dao Yin means Leading and Guiding because the postures lead and guide the Qi or energy through the body for different purposes.
 - Nei Kung means internal work or internal exercises.
- Over the years there have been a vast number of Qigong systems that have been developed and practiced, and many of them have been passed down and enjoyed by each generation of practitioners.
- Today Qigong practice has spread beyond the borders of China and many people in the world are discovering the benefits that Qigong practice has to offer.

What is Qigong?

- In Traditional Chinese Medicine, Qigong purportedly allows individuals to cultivate the natural force or energy (“Qi”);
- Qigong incorporate a range of simple movements (repeated and often flowing in nature), or postures (standing or sitting) and include a focused state of relaxed awareness and a variety of breathing techniques that accompany the movements or postures.;
- From the perspective of Western science, Qigong practices activate naturally occurring physiological and psychological mechanisms of self-repair and health recovery.

Types of Qigong

There are thousands forms of Qigong in china.

Based on the goals and methods of practice:

- **Medical Qigong:** These are exercises that are specifically practiced to address a specific imbalance or disharmony in the body. The application and selection of the practice of Medical Qigong requires training and skill. This is really a part of Traditional Chinese Medicine.
- **Martial Qigong:** These are exercises that are practiced for a specific purpose but the aim is not to cure disease but instead to gain some sort of ability through training. This could be something like Iron Palm, Iron Shirt, or being able to generate more power in strikes and kicks.
- **Health oriented Qigong:** These are practices that are well rounded. They work many different aspects of the body in a holistic fashion with the goal of creating better health, strengthening the entire system, and increasing well being.

Baduanjin-Health Oriented Qigong

- Baduanjin qigong is one of the most common forms of Chinese Qigong. The name of the form generally refers to it was broken down into eight sections/eight separate exercises, each of which focuses on a different physical area.
- Baduanjin Qigong incorporate a wide range of physical movements, including slow, flowing, gentle body movement and dance-like motions;
- Baduanjin Qigong incorporate the purposeful regulation of breath, mind and activities coordinated with the regulation of the body, through the deeply focused and relaxed states;
- Baduanjin Qigong emphasis on the abdominal breathing.

Benefit of Baduanjin Qigong

Anyone can enrich their lives by adding Baduanjin Qigong to their daily routine, regardless of ability, age, belief system or life circumstances.

- **Children** learning to channel their energy and develop increased concentration;
- **Office workers** learning Qigong to reduce stress;
- **Seniors** participating in gentle movements to enhance balance and their quality of life;
- **Caregivers** embracing a practice to develop their ability to help others;

Characters of Baduanjin Qigong Practice

- **Space conditions:** can be practice indoor (at home, office) or outdoors.
- **Time is short:** the length of time can be adjusted freely, usually select items or full exercise within 5 to 15 minutes.
- **Most economical:** no aids or equipment, just need wear loose clothing.
- **Easy to learn:** simple action.
- **Easy to promotion:** slow gentle movements, suit for young and old ages, can be practice in person or group.



Researches in Qigong

Qigong and Well-Being

Well-Being (SWB) was defined by Deiner, as the general evaluation of one's quality of life.

A comparative study of mental health and well-being between Qigong practitioners and ... | 58

Applied Psychology
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[http:// www. Jourpsyc.com](http://www.Jourpsyc.com)

A comparative study of mental health and well-being between Qigong practitioners and non-practitioners

The results demonstrated that Qigong exercises have beneficial effects for the participants on a range of psychological measures of well-being and mental health among practitioners in compare with non-exercisers, including: anxiety, aggressive, obsessive-compulsive, interpersonal sensitivity, somatization disorder, depression, phobic and well-being.

Qigong and Chronic Health Problems

Qi Therapy (External Qigong) for Chronic Fatigue Syndrome: Case Studies

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COMPLEMENTARY AND ALTERNATIVE MEDICINES

Journal of
Clinical Nursing

Qigong practice among chronically ill patients during the SARS outbreak

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A Randomized Controlled Trial of Qigong Exercise on Fatigue Symptoms, Functioning, and Telomerase Activity in Persons with Chronic Fatigue or Chronic Fatigue Syndrome

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Chong-Wen Wang, Ph.D. • Benson W. M. Lau, Ph.D. •

Kwok Fai So, Ph.D. • Li Ping Yuen, B.C.M. •

Jonathan S. T. Sham, M.D. • Cecilia L. W. Chan, Ph.D.

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These studies showed that practising Qigong not only could be as a complementary therapy or rehabilitative program, and strengthen their health, but was also a coping strategy for them to regain an active control and the sense of security in their health.

Qigong and COPD

Effectiveness of a Tai chi Qigong program in promoting health-related quality of life and perceived social support in chronic obstructive pulmonary disease clients. (Chan AW, et al, 2010)

Tai chi Qigong improves lung functions and activity tolerance in COPD clients: A single blind, randomized controlled trial. (Chan AW, et al; 2011)

Tai Chi Qigong Enhances Lung Function in COPD. (Chan AW, et al. Complement Ther Med. 2013;6:585-94.)

Effectiveness of Tai chi and Qigong on chronic obstructive pulmonary disease: a systematic review and meta-analysis . (Ding M, et al; J Altern Complement Med. 2014;20(2):79-86.)

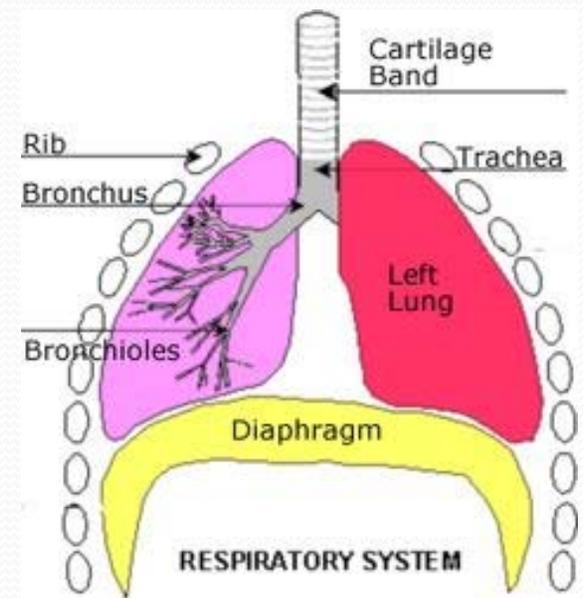
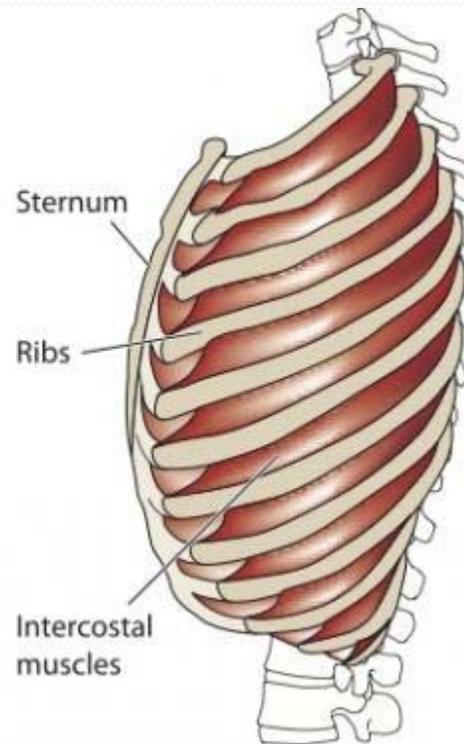
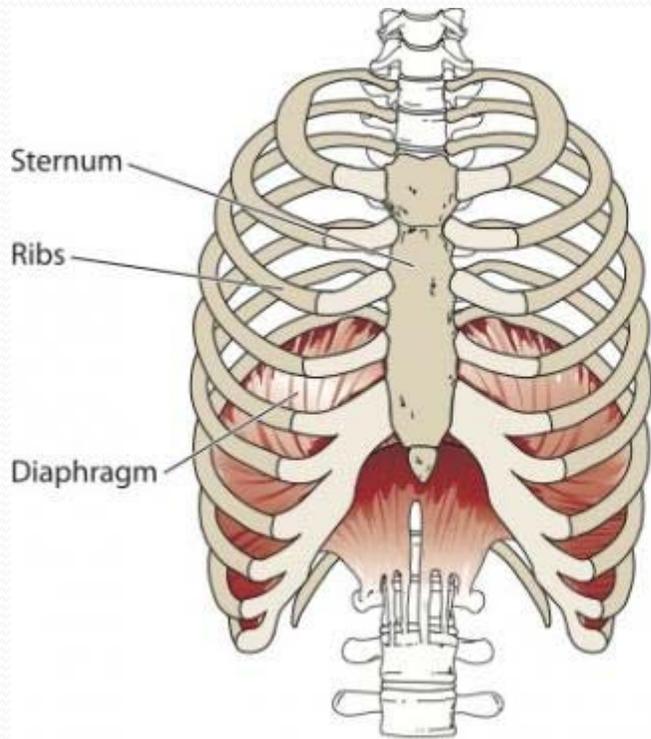
Conclusion:

1. Promote health outcomes with respect to patients' perception of their respiratory symptoms;
2. Decrease disturbances to their physical activities;
3. Be able to improve respiratory functions and activity tolerance level in COPD patients;
4. Qigong has sustaining effects in improving the physiological health and is a useful and appropriate exercise for COPD patients.

COPD and Diaphragm

- Patients with COPD frequently have a reduction of diaphragmatic mobility and enhancing the activity of chest wall respiratory muscles as a compensatory mechanism. (Iwasawa T, et al, 2002; Iwasawa T, et al, 2008; De Andrade AD, et al, 2005)
- Both a reduction in diaphragmatic mobility and a higher activity of chest wall respiratory muscles are associated with increased dyspnea and exercise intolerance. (Breslin EH, et al, 1990; Paulin E, et al, 2007)

Diaphragm



Character of Diaphragmatic Breathing

- Strengthen the diaphragm;
- More efficacy, use less effort and energy to breathe, reducing chest wall respiratory muscle activity;
- Decrease the work of breathing, decrease the energy cost of breathing, decrease the contribution of rib cage muscles and dyspnea;
- Give the internal organs a gentle massage. Pushes the abdominal organs down and forward.

Diaphragmatic Breathing





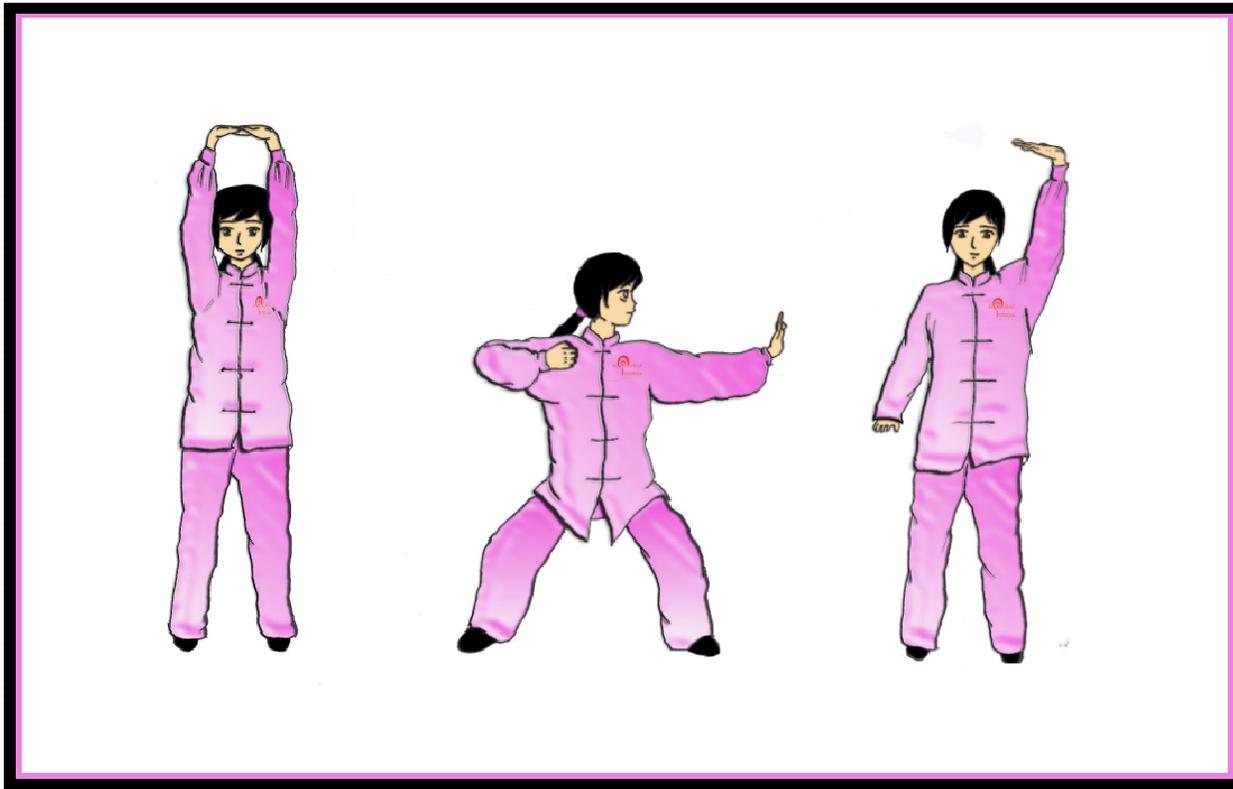
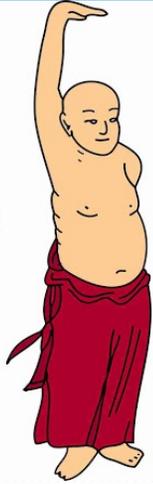
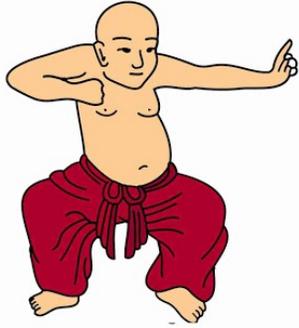
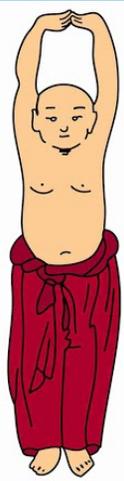
Exercise with Diaphragmatic Breathing Style

The principal aim of designed COPD exercise should be to improve abdominal motion while reducing chest wall respiratory muscle activity.



Show and Practice:

Baduanjin Qigong





**Another complementary and alternative medicine
(CAM) way to treatment COPD patients
— Osteopath**

- Increase exercise capacity;
- Improve oxygen tension, pulse oxymetry, total lung capacity and residual volume.

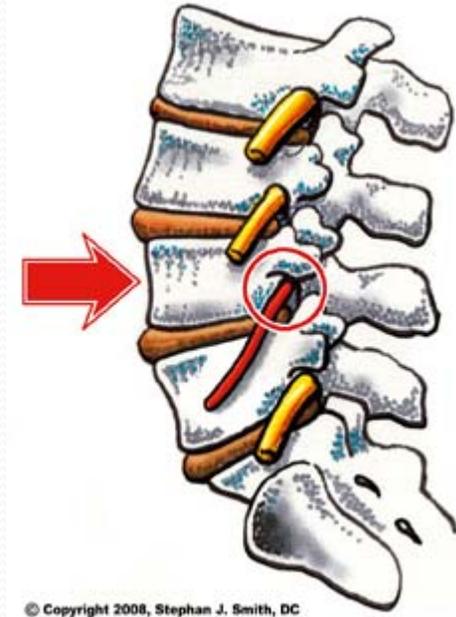
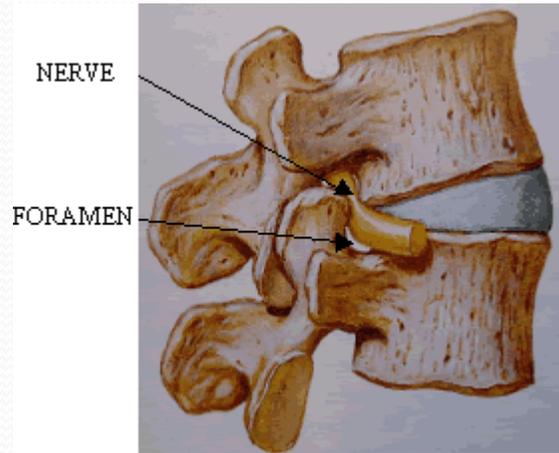
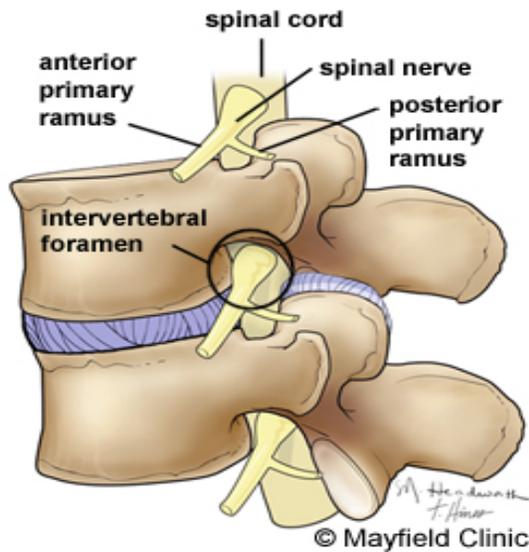
Signs and Symptoms of COPD

- Ongoing Cough;
- Sputum production/mucus production;
- Shortness of Breath;
- Tiredness or fatigue;
- Wheezing.

Almost all these signs and symptoms related with **airway narrowing and mucus production**, which mostly due to the **autonomic dysfunction**.

Autonomic Dysfunction and COPD

- The autonomic nervous system regulates multiple physiological processes (vagally mediated reflex constriction of airway smooth muscle, secretion from submucosal glands, capillary permeability and blood flow in the bronchial circulation.) (Arnoldus JR van Gestel, et al, 2010)
- 40% -60% of chronic bronchitis patients have autonomic dysfunction, manifested as parasympathetic hyperactivity and sympathetic suppression.
- Parasympathetic hyperactivity and sympathetic suppression will lead to airway narrowing, mucus production, swelling or mucus accumulating in the airways. This will worsen the symptoms of COPD.



The spinal dislocation can lead the narrowing and deformation of cervical and thoracic intervertebral foramen, which will direct hurt the paravertebral sympathetic preganglionic fiber, and **led to autonomic dysfunction.**

PARASYMPATHETIC NERVES
"Rest and digest"

SYMPATHETIC NERVES
"Fight or flight"

Constrict pupils

Stimulate saliva

Slow heartbeat

Constrict airways

Stimulate activity of stomach

Inhibit release of glucose; stimulate gallbladder

Stimulate activity of intestines

Contract bladder

Promote erection of genitals

Dilate pupils

Inhibit salivation

Increase heartbeat

Relax airways

Inhibit activity of stomach

Stimulate release of glucose; inhibit gallbladder

Inhibit activity of intestines

Secrete epinephrine and norepinephrine

Relax bladder

Promote ejaculation and vaginal contraction

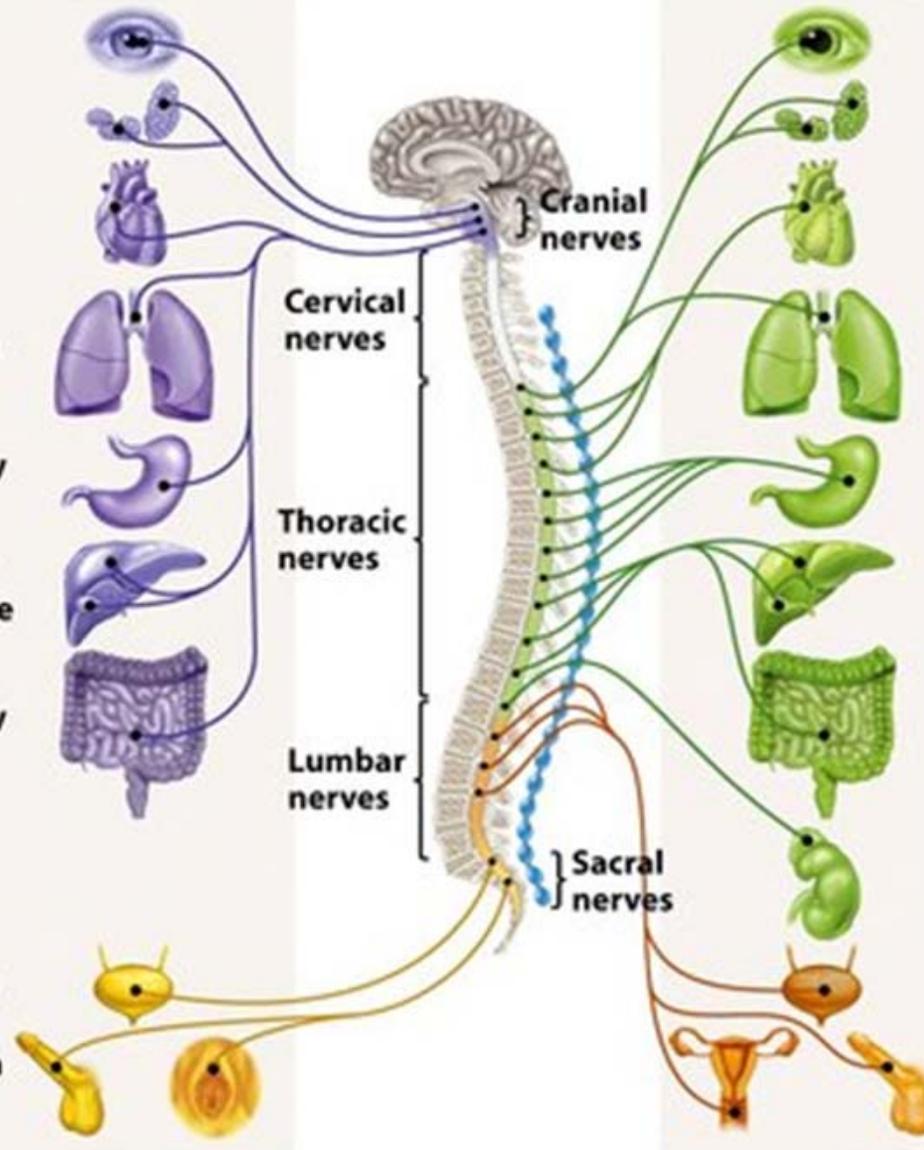


Figure 45-20 Biological Science, 2/e
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Research in Osteopath and COPD

Complementary Therapies in Medicine (2012) 20, 16–22



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journal homepage: www.elsevierhealth.com/journals/ctim



Osteopathic manipulative treatment effectiveness in severe chronic obstructive pulmonary disease: A pilot study

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Andrea Civardi^c, Andrea Manstretta^c, Sabina Rossetti^c, Claudio Fracchia^a

Design: Comparing the effects of the combination of pulmonary rehabilitation and OMT compared with pulmonary rehabilitation (PR) in patients with severely impaired COPD.

Conclusions: This study suggests that OMT + PR may improve exercise capacity and reduce RV in severely impaired COPD patients with respect to PR alone.

Research in Osteopath and COPD

The influence of osteopathic manipulative therapy in the management of patients with chronic obstructive lung disease.

[Howell RK, Allen TW, Kappler RE. J Am Osteopath Assoc. 1975 Apr;74\(8\):757-60.](#)

Result showed a statistical significant improvements in oxygen tension, pulse oxymetry, total lung capacity and residual volume in patients with COPD who underwent osteopathic manipulative treatment (OMT).



Future....

Qigong, Osteopath, Well-being, and COPD ...

References

Chan AW, Lee A, Suen LK, Tam WW. Tai chi Qigong improves lung functions and activity tolerance in COPD clients: A single blind, randomized controlled trial; *Complement Ther Med*. 2011 Feb; 19(1):3-11. doi: 10.1016/j.ctim.2010.12.007. Epub 2011 Jan 17.

Chan AW, Lee A, Suen LK, Tam WW. Effectiveness of a Tai chi Qigong program in promoting health-related quality of life and perceived social support in chronic obstructive pulmonary disease clients. *Qual Life Res*. 2010 Jun;19(5):653-64. doi: 10.1007/s11136-010-9632-6. Epub 2010 Mar 15. Erratum in: *Qual Life Res*. 2010 Oct;19(8):1241.

Ding M, Zhang W, Li K, Chen X. Effectiveness of t'ai chi and qigong on chronic obstructive pulmonary disease: a systematic review and meta-analysis. *J Altern Complement Med*. 2014;20(2):79-86.

Fondazione Salvatore Maugeri et al, Osteopathic manipulative treatment effectiveness in severe chronic obstructive pulmonary disease: a pilot study; *Complementary Therapies in Medicine* (2012) 20, 16—22.

Judy Yuen-man Siu, Huei-chuan Sung and Wen-li Lee; Qigong practice among chronically ill patients during the SARS outbreak; *Journal of clinical nursing*, 2006.

Khosravi M., Esmaeili Abhari F. (2014). A comparative study of mental health and well-being between Qigong practitioners and non-practitioners. *Applied Psychology*, 10, 57-69.

Rainbow T. H. Ho, et al; A Randomized Controlled Trial of Qigong Exercise on Fatigue Symptoms, Functioning, and Telomerase Activity in Persons with Chronic Fatigue or Chronic Fatigue Syndrome; *ann. behav. med.* (2012) 44:160-170; DOI 10.1007/s12160-012-9381-6.

Roger Jahnke, Linda Larkey, Carol Rogers, Jennifer Etnier, and Fang Lin. A Comprehensive Review of Health Benefits of Qigong and Tai Chi; *Am J Health Promot*. 2010 ; 24(6): e1-e25. doi:10.4278/ajhp.081013-LIT-248.