TAI CHI AND QI GONG

WHAT ARE TAI CHI AND QI GONG?

Tai chi, also known as t'ai chi ch'uan, is an ancient Chinese martial art, recognized widely in modern times by its slow graceful gestures and flowing movements. Tai chi is a form or expression of qi gong, and some even argue that research about the two should not be treated separately, but rather as a unified whole. Key features of tai chi include mindfulness, use of imagery (tai chi moves are based on using images as learning strategy), structural alignment, flexibility, relaxation, rhythmic breathing, social support, and integration of body, mind, and spirit.[1]

Qi gong is a broader term. It is often applied to practices of movement that have many similarities to tai chi, but it traditionally encompasses more than that. Qi gong translates to "cultivation of vital energy." Working with that energy (qi or chi) can take many forms, including movements and other activities intended to improve chi flow. External qi gong involves a practitioner directing the flow of chi; it perhaps is better classed as an energy medicine (biofield) therapy rather than as a movement-based one.

HOW TAI CHI AND QI GONG WORK

Tai chi and qi gong are said to work through a number of mechanisms.[2] As with any types of movement, they can improve strength, range of motion, and overall physical function. Benefits for fall prevention are likely due to improvements in strength and balance. They also boost immunity[3] and reduce chronic inflammation.[4] Both can also be considered forms of movement meditation; as such, they likely have benefit in terms of mindful awareness and the mind-body connection. Proponents of energy medicine also suggest that they enhance subtle energy (qi) movement, which can positively influence health in many ways. Tai chi is also known to have beneficial effects on brain function in neuroimaging studies.[5]

HOW TO USE THEM

Tai chi and qi gong are often taught in a classroom format. As is the case for yoga, it is best for beginners to start in a class format to ensure safety and good technique. People can learn a variety of forms. They should start with the basics and then advance over time.

WHO CAN USE TAI CHI AND QI GONG

2.5 million people practice tai chi in the U.S., and 500,000 more do qi gong.[6] It is particularly popular within elderly populations. If fall risk and range of motion are respected, tai chi can be tailored to almost anyone; wheelchair tai chi is popular at several VA facilities.[7] Tai chi and qi gong are offered in 82% of VA facilities (not counting community care).

WHEN TO USE THEM

There are a number of studies of the health benefits of tai chi and qi gong.[4,8-10] Remember, as is the case with many complementary approaches, these therapies are intended to benefit overall quality of life, not necessarily as a cure for any one problem or illness.

- Tai chi increases overall well-being and improves sleep.[4]
- For tai chi, some of the strongest evidence relates to the elderly, particularly for fall prevention (it reduces falls by 43-50%).[11,12] It also helps to reduce fear of falling. It also benefits balance in people who have had strokes.[13]
- Tai chi benefits mobility and balance and disease progression in people with Parkinson's disease.[14] Tai chi improves osteoarthritis pain and is recommended by the American College of Rheumatology for osteoarthritis of the hip, hand, and knee.[15] Data is limited regarding tai chi for rheumatoid arthritis[16] but promising for fibromyalgia.[17]
- Tai chi supports cardiac rehabilitation after myocardial infarction.[18,19] There is a small to medium treatment effect for improvements in BMI.[20]
- Tai chi improves cognitive function.[21]
- Tai chi promotes general mental well-being.[22] It reduces the prevalence and severity of depression.[22]
- Tai chi lowers heart rate, blood pressure, and cholesterol levels.
- Preliminary research shows promise for preventing and treating osteoporosis.[23]
- It can also improve glucose management and hemoglobin A1c in type 2 diabetes.[24,25]
- A recent review found tai chi shows promise for reducing fatigue.[26]
- Another review noted more research is still needed regarding tai chi and its effects on chronic pain.[27]
- A 2018 study found that tai chi is equivalent to pulmonary rehabilitation when it comes to outcomes for patients with COPD.[28]
- Data is less clear for the benefits for tai chi related to chronic heart failure and hypertension.
- Qi gong has not been studied as extensively, but it shows promise for helping people with cancer with managing their symptoms and improving physical ability, functional ability, depression, anxiety, and balance.[29] More study is needed.

WHAT TO WATCH OUT FOR (HARMS)

Tai chi and qi gong both seem to be quite safe, when used under the guidance of a skilled teacher. Both have enough of an aerobic component to merit the same cautions that would apply to other aerobic activities, though they can be tailored for different people's needs.[10]

TIPS ON TAI CHI AND QI GONG FROM YOUR COLLEAGUES

• Many VA facilities have classes available. If they do not, **look around for classes and teachers in your community**. Some health clubs have classes, as do many

university settings. You can find an instructor on the <u>American Tai Chi and Qigong</u> <u>Association</u> website.

- **Try taking some classes yourself**, so that you can speak with more knowledge about them to others.
- While there is less research on **other martial arts**, it is reasonable to assume that they can have similar benefits to tai chi.

RESOURCES

VA WHOLE HEALTH AND RELATED SITES

- Evidence Map for Tai Chi:
 - http://www.hsrd.research.va.gov/publications/esp/taichi-REPORT.pdf
 - Compilation of systematic review data by VA Health Services Research and Development (HSR&D)
- <u>Whole Health Veteran Handouts</u>: https://www.va.gov/WHOLEHEALTH/veteranhandouts/index.asp
 - Introduction to Tai Chi and Qi Gong for Whole Health
- <u>Integrative Health Coordinating Center SharePoint on Tai Chi/Qi Gong</u>: https://dvagov.sharepoint.com/sites/VHAOPCC/IHCC/SitePages/Tai-Chi---Qi-Gong.aspx
- CIH Listservs. To be added, contact:
 - Tai Chi/Qi Gong listserv: <u>VHAOPCC&CTTaiChiQiGong@va.gov</u>
 - Other listservs: <u>Lana.Frankenfield@va.gov</u>
- National CIH Subject Matter Experts, as of FY2020
 - Tai Chi/Qi Gong: Kavitha Reddy or Alison Whitehead. Kavitha.Reddy@va.gov; Alison.Whitehead@va.gov

OTHER WEBSITES

- <u>American Tai Chi and Qigong Association</u>: http://www.americantaichi.org/
- <u>Supreme Chi Living</u>: http://www.americantaichi.net/
 - An online journal and community run by American Tai Chi and QiGong Association
- <u>Tai Chi Health</u>: https://taichihealth.com/
 - Introduction videos under Tai Chi Fundamentals tab
- <u>Tai Chi: A Gentle Way to Fight Stress</u>: http://www.mayoclinic.org/tai-chi/ART-20045184
 - Mayo Clinic's introduction to tai chi
- <u>Tai Chi for Beginners 01: Tai Chi Fundamentals</u>: https://www.youtube.com/watch?v=oCnCSOWgIUU
 - YouTube video
- <u>Tai Chi Fundamentals Adapted Program Seated Basic Moves Part 1</u>: https://www.youtube.com/watch?v=UCTjyqX_vZ0
 - YouTube video

- <u>Tai Chi Fundamentals® Basic Moves Part One</u>:
 - https://www.youtube.com/watch?v=dSsqgdRsf5U
 - YouTube video led by Tricia Yu

BOOKS

- *Harvard Medical School Guide to Tai Chi*, Peter Wayne (2013)
- *Qi Gong for Beginners*, Stanley Wilson (2007)
- The Tai Chi Workbook, Paul Crompton (1987)
- The Way of Qigong: The Art and Science of Chinese Energy Healing, Ken Cohen (1999)

APPS AND MONITORING SOFTWARE

• 7 Minute Chi. Demonstrates various tai chi exercises.

AUTHOR(S)

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REFERENCES

- 1. Wayne PM, Fuerst ML. *The Harvard Medical School Guide to Tai Chi: 12 Weeks to a Healthy Body, Strong Hearts & Sharp Mind.* Boston: Shambhala; 2013.
- 2. Jahnke R, Larkey L, Rogers C, Etnier J, Lin F. A comprehensive review of health benefits of qigong and tai chi. *Am J Health Promot.* 2010;24(6):e1-e25.
- 3. Ho RT, Wang CW, Ng SM, et al. The effect of t'ai chi exercise on immunity and infections: a systematic review of controlled trials. *J Altern Complement Med.* 2013;19(5):389-396.
- 4. Huston P, McFarlane B. Health benefits of tai chi: what is the evidence? *Can Fam Physician.* 2016;62(11):881-890.
- 5. Yu AP, Tam BT, Lai CW, et al. Revealing the neural mechanisms underlying the beneficial effects of tai chi: a neuroimaging perspective. *Am J Chin Med.* 2018;46(2):231-259.
- 6. Clarke TC, Black LI, Stussman BJ, Barnes PM, Nahin RL. Trends in the use of complementary health approaches among adults: United States, 2002-2012. *Natl Health Stat Report.* 2015(79):1-16.
- 7. Disabled Sports USA. Tai Chi. <u>https://www.disabledsportsusa.org/sport/tai-chi/</u>. Accessed July 27, 2020.
- 8. Lee MS, Ernst E. Systematic reviews of t'ai chi: an overview. *Br J Sports Med.* 2012;46(10):713-718.
- 9. Hempel S, Taylor SL, Solloway M, et al. Evidence map of tai chi. 2014; VA Evidencebased Synthesis Program Reports. Available at:

http://www.hsrd.research.va.gov/publications/esp/taichi-REPORT.pdf. Accessed July 27,2020.

- 10. Shah S. Moving the Body. 2018; Whole Health Library website. Available at: <u>https://wholehealth.wisc.edu/overviews/moving-the-body/</u>. Accessed July 27, 2020.
- 11. Lomas-Vega R, Obrero-Gaitan E, Molina-Ortega FJ, Del-Pino-Casado R. Tai chi for risk of falls. A meta-analysis. *J Am Geriatr Soc.* 2017;65(9):2037-2043.
- 12. Hallisy K. Tai chi beyond balance and fall prevention: health benefits and its potential role in combatting social isolation in the aging population. *Curr Geriatr Rep.* 2018;7.
- 13. Wu S, Chen J, Wang S, Jiang M, Wang X, Wen Y. Effect of tai chi exercise on balance function of stroke patients: a meta-analysis. *Med Sci Monit Basic Res.* 2018;24:210-215.
- 14. Li Q, Liu J, Dai F, Dai F. Tai chi versus routine exercise in patients with early- or mildstage parkinson's disease: a retrospective cohort analysis. *Braz J Med Biol Res.* 2020;53(2):e9171.
- 15. Hochberg MC, Altman RD, April KT, et al. American College of Rheumatology 2012 recommendations for the use of nonpharmacologic and pharmacologic therapies in osteoarthritis of the hand, hip, and knee. *Arthritis Care Res (Hoboken).* 2012;64(4):465-474.
- 16. Mudano AS, Tugwell P, Wells GA, Singh JA. Tai Chi for rheumatoid arthritis. *Cochrane Database Syst Rev.* 2019;9(9):Cd004849.
- 17. Cheng CA, Chiu YW, Wu D, Kuan YC, Chen SN, Tam KW. Effectiveness of tai chi on fibromyalgia patients: a meta-analysis of randomized controlled trials. *Complement Ther Med.* 2019;46:1-8.
- 18. Ng SM, Wang CW, Ho RT, et al. Tai chi exercise for patients with heart disease: a systematic review of controlled clinical trials. *Altern Ther Health Med.* 2012;18(3):16-22.
- 19. Song QH, Xu RM, Shen GQ, et al. Influence of tai chi exercise cycle on the senile respiratory and cardiovascular circulatory function. *Int J Clin Exp Med.* 2014;7(3):770-774.
- 20. Larkey LK, James D, Belyea M, Jeong M, Smith LL. Body composition outcomes of tai chi and qigong practice: a systematic review and meta-analysis of randomized controlled trials. *Int J Behav Med.* 2018;25(5):487-501.
- 21. Kelly ME, Loughrey D, Lawlor BA, Robertson IH, Walsh C, Brennan S. The impact of exercise on the cognitive functioning of healthy older adults: a systematic review and meta-analysis. *Ageing Res Rev.* 2014;16:12-31.
- 22. Liu X, Clark J, Siskind D, et al. A systematic review and meta-analysis of the effects of Qigong and Tai Chi for depressive symptoms. *Complement Ther Med.* 2015;23(4):516-534.
- 23. Zou L, Wang C, Chen K, et al. The effect of taichi practice on attenuating bone mineral density loss: a systematic review and meta-analysis of randomized controlled trials. *Int J Environ Res Public Health.* 2017;14(9).
- 24. Chao M, Wang C, Dong X, Ding M. The effects of tai chi on type 2 diabetes mellitus: a meta-analysis. *J Diabetes Res.* 2018;2018:9.

- 25. Xia T-W, Yang Y, Li W-H, Tang Z-H, Li Z-R, Qiao L-J. Different training durations and styles of tai chi for glucose control in patients with type 2 diabetes: a systematic review and meta-analysis of controlled trials. *BMC Complement Altern Med.* 2019;19(1):63.
- 26. Xiang Y, Lu L, Chen X, Wen Z. Does tai chi relieve fatigue? A systematic review and meta-analysis of randomized controlled trials. *PLoS One.* 2017;12(4):e0174872.
- 27. Hall A, Copsey B, Richmond H, et al. Effectiveness of tai chi for chronic musculoskeletal pain conditions: updated systematic review and meta-analysis. *Phys Ther.* 2017;97(2):227-238.
- 28. Polkey MI, Qiu ZH, Zhou L, et al. Tai chi and pulmonary rehabilitation compared for treatment-naive patients with COPD: a randomized controlled trial. *Chest.* 2018;153(5):1116-1124.
- 29. Chang PS, Knobf T, Oh B, Funk M. Physical and psychological health outcomes of Qigong exercise in older adults: A systematic review and meta-analysis. *Am J Chin Med.* 2019;47(2):301-322.