

Tai Chi for Health Purposes

Tai chi (pronounced “tie chee” and also known by some other names and spellings*) is a mind-body practice that originated in China as a martial art. A person doing tai chi moves his body slowly and gently, while breathing deeply and meditating (tai chi is sometimes called “moving meditation”). Many practitioners believe that tai chi helps the flow throughout the body of a proposed vital energy called qi (pronounced “chee,” it means “air,” “puff,” or “power”). In the United States, tai chi for health purposes is part of complementary and alternative medicine, or CAM. This Backgrounder provides a general overview of tai chi and suggests some resources you can use to find more information.

Key Points

- Many people who practice tai chi do so to improve one or more aspects of their health and to stay healthy. Resources for finding published research on this practice are listed at the end of this Backgrounder.
- It is not fully known what changes occur in the body during tai chi, whether they influence health, and, if so, how. The National Center for Complementary and Alternative Medicine (NCCAM) is sponsoring studies to find out more about tai chi’s effects, how it works, and diseases and conditions for which it may be most helpful.
- If you are considering or using any type of CAM, talk to your health care provider about it. This is for your safety and a complete treatment plan.

A Description of Tai Chi

Tai chi developed in China in about the 12th century A.D. It started as a martial art, or a practice for fighting or self-defense, usually without

weapons. Over time, people began to use tai chi for health purposes as well. Many different styles of tai chi, and variations of each style, developed. The term “tai chi” has been translated in various ways, such as “internal martial art,” “supreme ultimate boxing,” “boundless fist,” and “balance of the opposing forces of nature.” While accounts of tai chi’s history often differ, the most consistently important figure is a Taoist monk (and semilegendary figure) in 12th-century China named Chang San-Feng (or Zan Sanfeng). Chang is said to have observed five animals—tiger, dragon, leopard, snake, and crane—and to have concluded that the snake and the crane, through their movements, were the ones most able to overcome strong, unyielding opponents. Chang developed an initial set of exercises that imitated the movements of animals. He also brought flexibility and suppleness in place of strength to the martial arts, as well as some key philosophical concepts.

A person practicing tai chi moves her body in a slow, relaxed, and graceful series of movements. One can practice on one’s own or in a group. The movements make up what are called forms (or routines). Some movements are named for animals or birds, such as “White Crane Spreads Its Wings.” The simplest style of tai chi uses 13 movements; more complex styles can have dozens.

In tai chi, each movement flows into the next. The entire body is always in motion, with the movements performed gently and at uniform speed. It is considered important to keep the body upright, especially the upper body—many tai chi practitioners use the image of a string that goes from the top of the head into the heavens—and to let the body’s weight sink to the soles of the feet.

In addition to movement, two other important elements in tai chi are breathing and meditation.[†] In tai chi practice, it is considered important to concentrate; put aside distracting thoughts; and breathe in a deep, relaxed, and focused manner. Practitioners believe that this breathing and meditation have many benefits, such as:

- Massaging the internal organs
- Aiding the exchange of gases in the lungs
- Helping the digestive system work better
- Increasing calmness and awareness
- Improving balance.

Other Key Beliefs in Tai Chi

Certain concepts from Chinese philosophy were important in tai chi’s development (although not every person who practices tai chi for health purposes, especially in the West, learns or uses them). A few are as follows:

[†] For more on meditation, see NCCAM’s Backgrounder “Meditation for Health Purposes.”

- A vital energy called qi underlies all living things.
- Qi flows in people through specific channels called meridians.
- Qi is important in health and disease.
- Tai chi is a practice that supports, unblocks, and redirects the flow of qi.

Another concept in tai chi is that the forces of yin and yang should be in balance. In Chinese philosophy, yin and yang are two principles or elements that make up the universe and everything in it and that also oppose each other. Yin is believed to have the qualities of water—such as coolness, darkness, stillness, and inward and downward directions—and to be feminine in character. Yang is believed to have the qualities of fire—such as heat, light, action, and upward and outward movement—and to be masculine. In this belief system, people’s yin and yang need to be in balance in order for them to be healthy, and tai chi is a practice that supports this balance.

Specific Health Purposes

People practice tai chi for various health purposes, such as:

- For benefits from exercise:
 - Tai chi is a low-impact form of exercise.
 - It is a weight-bearing exercise that can have certain health benefits—for example, to the bones.
 - It is an aerobic exercise.†
- To improve physical condition, muscle strength, coordination, and flexibility
- To have better balance and a lower risk for falls, especially in elderly people
- To ease pain and stiffness—for example, from arthritis
- For health benefits that may be experienced from meditation
- To improve sleep
- For overall wellness.

For research studies on tai chi for various health conditions, see “For More Information” below.

Many people practice tai chi for health purposes. In the United States, a 2002 national survey on Americans’ use of CAM found that 1.3 percent of the 31,000 survey participants had used tai chi for health reasons in the year before the survey. Tai chi is widely practiced in China (including in its hospitals and clinics) and in other countries with a substantial native-Chinese population. In Asia, many people consider tai chi to be the most beneficial exercise for older people, because it is gentle and can be modified easily if a person has health limitations.

† Aerobic exercise has benefits to the heart and possibly to cholesterol levels. This type of exercise causes the heart to work harder to pump blood more quickly and forcefully. The body adds oxygen to the blood faster, and the person breathes more quickly. Two other examples of aerobic exercise are swimming and brisk walking.

Side Effects and Risks

Tai chi is a relatively safe practice. However, there are some cautions.

- Tell your health care provider if you are considering learning tai chi for health purposes (especially if you have a health condition for which you are being treated, if you have not exercised in a while, or if you are an older person).
- If you do not position your body properly in tai chi or if you overdo practice, you may get sore muscles or sprains.
- Tai chi instructors often recommend that people not practice tai chi right after they eat, or when they are very tired, or when they have an active infection.
- Use caution if you have any of the conditions listed below, as your health care provider should advise you whether to modify or avoid certain postures in tai chi:
 - Pregnancy
 - Hernia
 - Joint problems, back pain, sprains, a fracture, or severe osteoporosis
- A CAM approach should not be used to replace conventional medical care or to delay seeking that care.

Licensing, Training, and Credentialing

In the United States, people do not have to be health professionals or to be licensed to practice or teach tai chi. The practice is not regulated by state or Federal governments. There is no standard training for tai chi teachers.

If you are considering learning tai chi, ask about the teacher's training and experience (see also NCCAM's publication "Selecting a CAM Practitioner"). Learning tai chi from a teacher, compared with learning it from videos or books, allows a student to find out whether he is performing the movements correctly and safely.

Tai Chi as a Part of CAM

The concept that sickness and disease arise out of imbalances in a vital energy field (here, qi) is part of some other CAM therapies, such as Reiki (in which the energy field is called ki) and homeopathy (vital force). Within CAM, tai chi is a type of mind-body medicine (one of the four domains, or areas of knowledge, in CAM).[§] Generally, mind-body medicine focuses on:

- The interactions among the brain, the rest of the body, the mind, and behavior
- The ways in which emotional, mental, social, spiritual, and behavioral factors can directly affect health.

[§] For an explanation of these terms, see nccam.nih.gov/news/camsurvey_fs1.htm.

Some people consider tai chi to be part of the CAM domain of energy medicine, because of the qi concept.

Some Points of Controversy

As with other CAM approaches, there are aspects of tai chi on which not everyone agrees. For example:

- Since little is known scientifically about tai chi, accepting its teachings is a matter of belief or faith rather than evidence-based science.
- In addition to more traditional styles, some offshoots and blends of tai chi styles have also evolved. There are differences of opinion over which styles represent the “truest” tai chi.

NCCAM-Funded Research on Tai Chi

Recent NCCAM-supported studies have been investigating:

- Tai chi for women recently diagnosed with breast cancer, to see if it helps them cope better, have less stress, and have an improved immune system and quality of life
- Tai chi compared with a cardiovascular exercise fitness program in terms of improving physical fitness and endurance, reducing stress, and improving well-being in adult survivors of cancer
- The effects of tai chi on physical and quality-of-life factors for patients who have chronic stable heart failure
- Tai chi for physical symptoms and psychological factors related to having osteoarthritis of the knee
- The effects of tai chi on rheumatoid arthritis, including on patients’ physical function and immunity.

References

Sources are primarily recent reviews on the general topic of tai chi in the peer-reviewed medical and scientific literature in English in the PubMed database, selected evidence-based databases, and Federal Government sources.

Adler PA, Roberts BL. The use of tai chi to improve health in older adults. *Orthopaedic Nursing*. 2006;25(2):122-126.

Barnes PM, Powell-Griner E, McFann K, Nahin RL. Complementary and alternative medicine use among adults: United States, 2002. *CDC Advance Data Report* 343. 2004. Accessed at <http://nccam.nih.gov/news/report.pdf> on May 25, 2006.

Chu DA. Tai chi, qi gong and Reiki. *Physical Medicine and Rehabilitation Clinics of North America*. 2004;15(4):773-781.

Effect of tai chi vs. structured exercise on physical fitness and stress in cancer survivors. Description of a clinical trial at the National Institutes of Health Clinical Center sponsored by NCCAM. Accessed at <http://www.clinicaltrials.gov/ct/show/NCT00246818> on May 2, 2006.

Farrell SJ, Ross AD, Sehgal KV. Eastern movement therapies. *Physical Medicine and Rehabilitation Clinics of North America*. 1999;10(3):617-629.

Lan C, Lai JS, Chen SY. Tai chi chuan: an ancient wisdom on exercise and health promotion. *Sports Medicine*. 2002;32(4):217-224.

Lewis D. T'ai chi ch'uan. *Complementary Therapies in Nursing & Midwifery*. 2000;6(4):204-206.

National Center for Complementary and Alternative Medicine. Expanding Horizons of Health Care: Strategic Plan 2005-2009. Bethesda, MD: National Institutes of Health; 2005. NIH publication no. 04-5568.

National Center for Complementary and Alternative Medicine. Mind-Body Medicine: An Overview. National Center for Complementary and Alternative Medicine Web site. Accessed at <http://nccam.nih.gov/health/backgrounds/mindbody.htm> on August 8, 2005.

Robins JL, McCain NL, Gray DP, et al. Research on psychoneuroimmunology: tai chi as a stress management approach for individuals with HIV disease. *Applied Nursing Research*. 2006;19(1):2-9.

Tai chi 101. American Tai Chi Association Web site. Accessed at <http://www.americantaichi.net> on February 2, 2006.

Tai chi: Bottom Line monograph. Natural Standard Database Web site. Accessed at <http://www.naturalstandard.com> on August 8, 2005.

Tai chi: Natural Standard/Harvard Medical School monograph. Natural Standard Database Web site. Accessed at <http://www.naturalstandard.com> on August 8, 2005.

Wang C, Collet JP, Lau J. The effect of tai chi on health outcomes in patients with chronic conditions: a systemic review. *Archives of Internal Medicine*. 2004;164(5):493-501.

For More Information

NCCAM Clearinghouse

The NCCAM Clearinghouse provides information on CAM and on NCCAM, including publications and searches of Federal databases of scientific and medical literature. Examples of publications include "Mind-Body Medicine: An Overview." The Clearinghouse does not provide medical advice, treatment recommendations, or referrals to practitioners.

Toll-free in the U.S.: 1-888-644-6226

TTY (for deaf and hard-of-hearing callers): 1-866-464-3615

Web site: nccam.nih.gov

E-mail: info@nccam.nih.gov

PubMed®

A service of the National Library of Medicine (NLM), PubMed contains publication information and (in most cases) abstracts of articles from scientific and medical journals. CAM on PubMed, developed jointly by NCCAM and NLM, is a subset of PubMed and focuses on the topic of CAM.

Web site: www.ncbi.nlm.nih.gov/entrez

CAM on PubMed: www.nccam.nih.gov/camonpubmed/

CRISP (Computer Retrieval of Information on Scientific Projects)

CRISP is a database of information on federally funded scientific and medical research projects being conducted at research institutions.

Web site: www.crisp.cit.nih.gov

ClinicalTrials.gov

ClinicalTrials.gov is a database of information on federally and privately supported clinical trials, for a wide range of diseases and conditions. It is sponsored by the National Institutes of Health and the U.S. Food and Drug Administration.

Web site: www.clinicaltrials.gov

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