The Science of Tai chi

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Overview

What is tai chi?

Tai chi is a gentle exercise program that is a part of Traditional Chinese Medicine (TCM). Derived from the martial arts, tai chi is composed of slow, deliberate movements, meditation, and deep breathing, which enhance physical health and emotional well being.

As are many practices from the East, tai chi is based on spiritual and philosophical ideas that advocate a need for balance in the body, mind, and spirit. Central to tai chi is the idea that qi (pronounced "chee"), or life energy, flows throughout the body. Qi must be able to move freely for good health. The principle of yin/yang is important, too. Yin and yang are opposite and complementary forces in the universe, in the same way as light and dark are. Tai chi is meant to harmonize these pairs of opposites. Finally, tai chi imitates motion found in nature, such as the movements of animals, thereby uniting human beings with the natural world.

What is the history of tai chi?

Zhang Sanfeng, a martial artist who lived in China in the late 16th century, created the practice of tai chi. According to legend, Sanfeng had a dream about a snake and a crane engaged in battle. Their graceful movements inspired his noncombative style of martial arts. This ancient form of movement has been practiced in China for centuries and is still a daily routine for tens of thousands of people there, especially the elderly. It was first introduced to the United States in the early 1970s and has since grown in popularity.

How does tai chi work?

There are various perspectives on how tai chi works. Eastern philosophy holds that tai chi unblocks the flow of qi. When qi flows properly, the body, mind, and spirit are in balance and health is maintained. Others believe that tai chi works in the same way as other mind-body therapies, and there is ample evidence that paying attention to the connection between the mind and the body can relieve stress, combat disease, and enhance physical well being.

Tai chi has 3 major components -- movement, meditation, and deep breathing.

- **Movement** -- All of the major muscle groups and joints are needed for the slow, gentle movements in tai chi. Tai chi improves balance, agility, strength, flexibility, stamina, muscle tone, and coordination. This low impact, weight bearing exercise strengthens bones and can slow bone loss, thus preventing the development of osteoporosis.
- **Meditation** -- Research shows that meditation soothes the mind, enhances concentration, reduces anxiety, and lowers blood pressure and heart rate.
- Deep breathing -- Exhaling stale air and toxins from the lungs while inhaling a plentitude of fresh air increases lung capacity, stretches the muscles involved in breathing, and releases tension. It also enhances blood circulation to the brain, which boosts mental alertness. At the same time, the practice supplies the entire body with fresh oxygen and nutrients.

What does a tai chi session entail?

Tai chi sessions are usually group classes that last about an hour. Each session begins with a warm up exercise. Then the instructor guides the class through a series of 20 - 100 tai chi movements that together comprise a "form." A form can take up to 20 minutes to complete. Each form has a nature based name that describes its overall action -- such as "wave hands like clouds" or "grasp the bird's tail." At the same time, students are asked to focus on the point just below their navels, believed to be the center from which qi flows. The teacher encourages the class to perform all movements in a slow, meditative manner, and to focus on deep breathing. At the end of the class, there is usually a wind down exercise, relaxation, and meditation.

How many sessions will I need?

Classes are usually taught on a weekly basis. Many practitioners recommend practicing tai chi for about 15 - 20 minutes twice daily at home, since regular practice is essential for mastering the forms and achieving lasting results. Before beginning a tai chi program, you should check with your doctor and discuss your health needs with the tai chi instructor. Exercises can be modified depending on your mobility, history of injuries, chronic pain, joint swelling (if present), and medication that may affect balance.

What conditions respond well to tai chi?

Tai chi improves overall fitness, coordination, and agility. People who practice tai chi on a regular basis tend to have good posture, flexibility, and range of motion, are more mentally alert, and sleep more soundly at night.

Tai chi is both a preventive and complementary therapy for a wide range of conditions. Specifically, it is beneficial for chronic pain, gout, heart disease, high blood pressure, arthritis, osteoporosis, diabetes, headaches, fibromyalgia, rheumatoid arthritis, osteoarthritis, and sleep disorders. Tai chi is also beneficial for the immune system and the central nervous system, which makes it especially good for people with a chronic illness, anxiety, viral infections, depression, or any stress related conditions. The deep breathing of tai chi regulates the respiratory system, helping to treat respiratory ailments such as asthma, bronchitis, and emphysema. It also stimulates the abdomen, which aids digestion and helps relieve constipation and gastrointestinal conditions. Many clinical studies indicate that elderly people who practice tai chi have better hand eye coordination, and are much less prone to falls, both serious health risks to people in that age group.

Are there conditions that should not be treated with tai chi?

Tai chi is safe for everyone, regardless of age or athletic ability, and can be modified for most health problems. People with limited mobility -- even those in wheelchairs -- can learn and successfully use tai chi. In one study of 256 sedentary adults 70 - 92 years of age, tai chi
decreased the number of falls and the fear of falling compared to stretching. Those who practiced tai chi also had improved functional balance and physical performance after 6 months. However, it is not meant to replace medical care for a serious condition. Talk to your doctor and your instructor about any health problems or recent injuries you may have, or if you are pregnant.

**Is there anything I should look out for?**

Tai chi exercises muscles in areas of your body that may have been neglected. Therefore, you may feel sore in the beginning. It takes time to develop the posture, flexibility, and agility needed for tai chi, so don't get discouraged. As with any exercise program, safety is affected by proper stretching and warm up exercises, as well as correct alignment. If you experience dizziness, shortness of breath, headaches, or severe pain, stop practicing and talk to your instructor right away, and consult your doctor.

**References**


