



Tai Chi Offers Many Health Benefits

Perhaps you've caught sight of them in a park on a sunny day—people moving in synchrony as they perform a series of graceful, flowing movements. Most likely, they're practicing tai chi, an ancient Chinese form of exercise that can help people of all ages improve their flexibility, balance, and muscle strength. Now recent studies indicate this exercise may help with a range of medical problems, including Parkinson's disease, hypertension, and rehabilitation after knee replacement surgery. So you shouldn't be surprised if your doctor or physical therapist recommends some version of the exercise as part of your treatment plan.

AN ANCIENT ART

Tai chi was developed more than 700 years ago as a method of self-defense. Over the centuries, however, tai chi has evolved into an art that exercises both the body and the mind, so that it is no longer just one of the martial arts. Often referred to as meditation in motion, tai chi combines deep breathing with pos-

tures that flow from one to another through a series of slow, relaxed, and continuous movements that are termed a "form." The postures are based on the movements of animals and birds and carry descriptive names such as "white crane spreads its wings" or "swallow skims the water." An average tai chi routine requires about 10 minutes, whereas a more advanced form may include as many as 100 movements and take up to 20 minutes to complete.

A simplified version of tai chi, referred to as tai chi fundamentals, combines elements of traditional tai chi with physical therapy techniques and can be used in rehabilitation programs for people recovering from total knee replacement as well as those who have cardiovascular or lung conditions. Even people confined to wheelchairs can participate.

POTENTIAL HEALTH BENEFITS

- **Improved balance and fall prevention.** Because tai chi increases muscle

strength in the legs and arms and helps improve balance and flexibility, it can reduce the risk of falls. This effect may be particularly helpful for people with Parkinson's disease—a condition that can cause instability. Adults age 70 and older assigned to a 6-month program of tai chi exercises reduced their risk of falls by more than 70% compared with a group who did only stretching exercises, according to findings reported last December in *Medicine & Science in Sports & Exercise*. An earlier study also found that regular practice of tai chi cut the risk of multiple falls by more than 47% among adults age 70 and older.

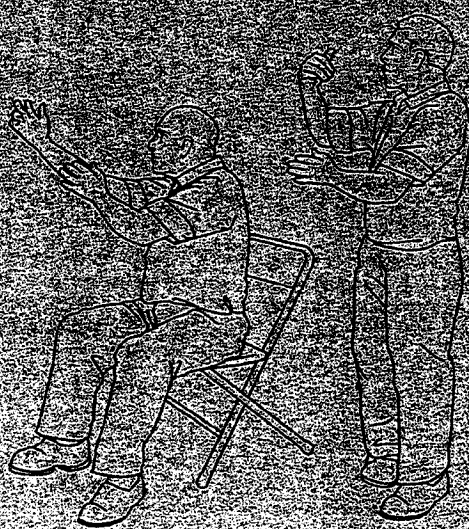
- **Blood pressure reduction.** A recent study has raised some questions about the effectiveness of exercise alone for controlling hypertension in older adults, but there is some evidence that the regular practice of tai chi may achieve a modest reduction in blood pressure. A study conducted several years ago by Johns Hopkins researchers found that tai chi lowered systolic blood pressure almost as much as moderate aerobic exercise in individuals age 60 and older who previously were sedentary. And in a 2003 trial, researchers found that people participating in a 12-week program of tai chi achieved a significant reduction in their systolic and diastolic blood pressures, compared with a sedentary control group.

- **Pain reduction.** A 2003 randomized controlled trial published in the *Journal of Rheumatology* found that a 12-week program of tai chi significantly reduced arthritis pain and joint stiffness and improved physical functioning in a group of older women with osteoarthritis, compared with women in a control group.

- **Cardiovascular benefits.** Similar to what is seen with other types of exercise, the long-term practice of tai chi appears to improve cardiovascular fitness and oxygen uptake and may delay

A Healing Martial Art

Tai chi is traditionally performed while standing, but the technique has been adapted so that people who find it difficult to stand—because they are recovering from surgery or have severe arthritis, for example—can perform several of the movements while in a sitting position.



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the decline of cardiovascular and respiratory function.

- **Improved sleep quality.** Tai chi exercise also appears helpful for easing sleep disturbances. In a 2004 study reported in the *Journal of the American Geriatrics Society*, the regular practice of tai chi helped the participants, who ranged in age from 60 to 92, sleep better and reduced daytime sleepiness, compared with a program consisting of seated exercises combined with controlled breathing and stretching.

- **Immune function benefits.** There is some recent evidence that tai

chi may also boost immunity to shingles, which is caused by reactivation of the chickenpox (varicella) virus. In a 2003 study, 36 adults age 60 or older were randomly assigned to either a 15-week program of tai chi or a control group. One week after completion of the study, blood tests revealed that immunity to the shingles virus had increased by half in the tai chi participants but remained unchanged in the control group.

- **Stress relief.** The slow, deep breathing practiced in tai chi can help people relax, and several trials have

shown that people doing tai chi had lower levels of depression and psychological distress and improved well-being compared with the control groups. Tai chi classes can also be a relaxing means of socializing.

FINAL THOUGHTS

You don't have to be a world-class athlete to do tai chi. The movements are less jarring than those in a low-impact aerobic exercise class, and with proper training even the most sedentary among us can safely embark on a program of tai chi. 