

## *Tai Chi for Balance & Health - Jim Concotelli*

Dawn breaks. Out of the morning mist people emerge, moving slowly and quietly, performing dance like movements. The practitioners are surprisingly agile, bending and flexing their bodies with apparent ease as they calmly practice the art often referred to as "meditation in motion." If you visit China and go for an early morning stroll in a nearby park, this is a scene you are likely to see - elders doing their morning exercises. Hundreds congregate each day, in small groups or alone, performing the elegant discipline known as Tai Chi. This has been a daily ritual for older adults in China for centuries. After seeing these seniors, many gray and wizened on the outside, yet emanating the energy and vitality of youth, you might wonder if Tai Chi is an elixir for a long and healthy life. Although Tai Chi is relatively new to the United States, it's not surprising that it has grown in popularity among America's senior population. Once thought of as a fad, it is now common for family physicians to recommend Tai Chi to their elderly patients. Fitness centers, YMCAs, senior centers and retirement communities offer Tai Chi classes. Part of Tai Chi's popularity with seniors is that almost anyone can practice its soft, slow movements with little risk of injury. Some of the movements can also be modified to accommodate functional limitations and can be performed seated.

Tai Chi can perhaps best be thought of as a moving form of yoga and meditation combined. Like yoga, certain postures must be learned, and like meditation, there is an inner focus of mindfulness. There are a number of Tai Chi forms, each of which consists of a sequence of specific movements. These movements are performed slowly, softly and in a relaxed manner with ease and grace. During Tai Chi, less attention is paid to the outer environment and more attention is given to the inner self. The mind is focused on maintaining a slow, smooth breath and coordinating body movements with the flow of the breath. Tai Chi, a Chinese mind-body exercise, may especially suit older adults who are unable to participate in more vigorous activities and who can benefit from learning breathing and relaxation techniques.

### *Fundamental Principles of Tai Chi*

The principles of Tai Chi are based on Taoism. As a philosophy, Taoism has many elements but primarily espouses a calm, reflective and relaxed view of the world steeped in the beauty and tranquility of nature. Tai Chi, in relationship with the flow of nature, teaches the "correct" or "natural" way of using the body. Through the practice of simple body mechanics such as shifting weight, taking small and calculated steps, one gains insight into the principles that govern all movement in nature and in life. This implies that while practicing Tai Chi, each movement is performed without tension, stress or straining the body. The feet are always firmly rooted in the earth, the torso and arms make graceful, deliberate, and sequenced movements that take on the form of physical poetry. These types of movements are especially beneficial to seniors as they are gentle on the joints, strengthen leg muscles, encourage proper alignment, and promote increased body awareness. In addition, Tai Chi is practiced within the capability of each individual student. Each student is encouraged to "go with the flow," and to learn and progress at their own pace. In learning Tai Chi, this principle is reassuring to the less physical able, and fosters confidence in learning a new form of exercise.

The practice of Tai Chi also promotes the circulation of "chi," or life energy. In Chinese medicine it is believed that the flow of chi can be impeded by a sedentary lifestyle. Generations of Chinese believe that Tai Chi promotes correct body movement, good posture, and is synonymous with vitality. They consider the practice of Tai Chi as a way to strengthen and balance one's internal chi, and as a result, promote good health and a long life. Tai Chi, which translates as "supreme ultimate," is rooted in the martial arts. Despite its slow, graceful appearance, the postures and forms are made up of self-defense techniques. At first glance, the slow, graceful movements of Tai Chi resemble a dance. While it seems to lack the dynamics of an aggressive martial art, Tai Chi is certainly a powerful system of exercise. Although its history is based in the martial arts, today Tai Chi is fundamentally used to maintain health and promote wellness. An eastern art, practiced in China for centuries, Tai Chi is finding acceptance and validation by modern western healthcare professionals.

### *Tai Chi and Arthritis*

Older adults who are looking for a gentle, low impact form of physical activity to help manage their osteoarthritis may benefit from Tai Chi. To investigate the effects of Tai Chi on arthritic adults, Catherine Hartman and her colleagues at the Dana-Farber Cancer Institute in Boston performed a study of participants who were randomly divided into two groups. One group received two one-hour Tai Chi classes per week for three months. A comparison group received no Tai Chi training. At the end of the study period, the Tai Chi group reported a significant decrease in their level of tension and an increased satisfaction with their general health status. They also improved their walking speed, bending ability, arm function, self-care activities, and ability to perform household tasks. According to Hartman, Tai Chi was beneficial to both patients with severe limitations (obesity, the use of a walker, and the use of an oxygen tank) and to the more active and fit people in the class. Overall, Tai Chi participants reported a higher "total arthritis self-efficacy," including better management of arthritic

symptoms and fatigue control. Reported in *The Journal of the American Geriatrics Society*, the study demonstrates that older adults with osteoarthritis can realize meaningful improvements in their mental and physical health through regular Tai Chi practice. Hartman and her colleagues suggest that individuals who are interested in Tai Chi as a therapy for their arthritis should "look for an experienced Tai Chi practitioner who is comfortable teaching to a wide range of students and is able to modify the forms as necessary for people with arthritis."

#### *Tai Chi Improves Balance*

According to another study, Tai Chi was shown to be effective in improving balance and reducing falls in older adults. Reported in *The Journal of the American Geriatrics Society*, researchers at Emory University in Atlanta found that Tai Chi reduced falls in a group of older adults 65 to 92 years old. Four months after 15 weeks of Tai Chi training, the experimental group reported nearly 50% less falls than a comparative group that practiced other forms of balance exercises.

The study also found that the fear of falling was reduced. When compared to the control group, the Tai Chi participants in the study were found to take more deliberate steps. After the intervention, only eight percent of the Tai Chi group said they feared falling, compared with 23 percent before they had the training. "The Tai Chi group seemed to have more confidence in their balance," says Stephen Wolf, the primary investigator for the study. Studies like this emphasize that in Tai Chi, slow movements, small steps and precise weight shifting can increase confidence in balance and reduce the fear of falling. These results are encouraging for older adults as more than 300,000 individuals 65 years and over suffer hip fractures related to falls each year. Wolf was also encouraged that almost half of the Tai Chi participants chose to continue meeting informally after the study was finished. This is a testament to the physical and social wellness that Tai Chi promotes.

#### *Tai Chi Lowers Blood Pressure*

According to a study presented recently at a meeting sponsored by the American Heart Association, Tai Chi lowered people's blood pressure almost as well as moderate intensity aerobic exercise. "You better believe we were surprised by those results," one of the researchers, Dr. Deborah Young from Johns Hopkins University School of Medicine in Baltimore, MD, said in a statement. "We were expecting to see significant changes in the aerobic exercise group and minimal changes in the Tai Chi group." The scientists studied 62 sedentary adults, aged 60 years and older, assigning half to a program of brisk walking and low-impact aerobics and the other half to learning Tai Chi. After 12 weeks, systolic blood pressure (the first number in a blood pressure reading) had fallen significantly in both groups, an average of 8.4 millimeters in the aerobic exercise group and seven millimeters in the Tai Chi group. "It could be that in elderly, sedentary people, just getting up and doing some slow movement could be associated with beneficial reductions in high blood pressure," Young theorizes. The results are significant though, as high blood pressure is a leading risk factor for strokes and heart attacks.

#### *Psychological Benefits of Tai Chi*

Exercises that engage the mind as well as the body, like Tai Chi, have been found to produce psychological benefits that improve mood states. Another medical journal, *Medicine and Science in Sports and Exercise*, reviewed findings from a study in which women who practiced Tai Chi reported enhanced well-being and less depression. The researchers found "mindful exercises" were effective in promoting relaxation, reducing stress, decreasing depression, and improving feelings of well-being. "When class is over, most students feel a sense of calmness, relaxation and energy that lasts several days," says Tai Chi instructor and nurse practitioner Robin Rodgers. These results suggest that Tai Chi is a great way to reduce tension, promote relaxation, and encourage an overall sense of well-being.

Western medical research is rapidly discovering what the Chinese people realized centuries ago - Tai Chi is a system of exercise that can provide many health benefits to older adults. Emerging scientific research is validating that the art of Tai Chi can improve overall health, balance and enhance the quality of life. Due to these results, mind-body exercise programs like Tai Chi should be considered an alternative to traditional exercise programs and offered as an integral part of a comprehensive fitness and wellness program. As the importance of self-care becomes more widely recognized, proven traditional exercises like Tai Chi make sense.