

## Taiji Quan Study Very Positive for Elderly Practitioners As Reported in Martial Arts Professional

Exercise physiologists in the Department of Physical Medicine and Rehabilitation at National Taiwan University Hospital and Chang Gung Memorial Hospital in Taipei studied the effects of a Yang-style Taiji Quan program on the fitness of older individuals.

Previous studies have shown that Taiji Quan can improve balance and coordination and decrease the frequency of falls in the elderly. This latest study, however, is among the first to demonstrate a significant increase in measured aerobic capacity in this population. Taiji Quan, with its gentle and graded intensity, may be an ideal form of exercise for older persons.

39 community-dwelling people ages 58 to 70 completed the study. The Taiji Quan group consisted of nine men and eleven women; the control group included nine men and nine women. The exercise group practiced Taiji Quan three to five times a week for approximately a year. Each session included a 20-minute warm-up, 24 minutes of Taiji Quan practices, and a ten minute cool-down. Each Taiji Quan set included 108 postures.

The exercise intensity was 52 to 63% of heart rate maximum. Cardiorespiratory function (VO<sub>2</sub> max), thoracic/lumbar flexibility, knee extensor and flexor strength, and percent body fat (%BF) were evaluated at the start and end of the study.

Among the men in the Taiji Quan group, VO<sub>2</sub> max increased by 16.1% ( $p < 0.01$ ), thoracic/lumbar flexibility increased eleven degrees ( $p < 0.05$ ) knee extensor strength increased by 18.1% ( $p < 0.01$ ) and knee flexor strength increased by 15.4% ( $p < 0.05$ ).

Among the women in the group, VO<sub>2</sub> max increased by 23.3% ( $p < 0.01$ ), thoracic/lumbar flexibility increased 8.8 degrees ( $p < 0.05$ ) knee extensor strength increased by 20.3% ( $p < 0.01$ ) and knee flexor strength increased by 15.9% ( $p < 0.05$ ).

Changes in body fat percentage were not significant for either men or women in the Taiji Quan group. Members of the control group showed no significant changes in any of the variables measured. The researchers concluded that a twelve month Taiji Quan program provides fitness benefits for the elderly.

The results were published in the *Medicine & Science in Sports & Exercise Journal* as "12-Month Training in the Elderly: Its Effect on Health Fitness."

The report suggested that interested participants should learn directly from knowledgeable and credentialed Taiji Quan instructors, rather than using only video or text instruction.