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# Tai chi can help people with diabetes lower glucose levels

September 30 2009

(PhysOrg.com) -- A regular tai chi exercise program can help people better control their diabetes and lower glucose levels, according to a University of Florida study.

In a study of adults diagnosed with type 2 diabetes, those who participated in a supervised tai chi exercise program two days a week with three days of home practice for six months significantly lowered their fasting blood glucose levels, improved their management of the disease, and enhanced their overall quality of life, including mental health, vitality and energy.

“Tai chi really has similar effects as other aerobic exercises on diabetic control. The difference is tai chi is a low-impact exercise, which means that it’s less stressful on the bones, joints and muscles than more strenuous exercise,” said Beverly Roberts, the Annabel Davis Jenks endowed professor at the UF College of Nursing.

Roberts, with Rhayun Song, of Chungnam National University, studied tai chi’s effect on older Korean residents. The research was featured in the June issue of *The Journal of Alternative and Complementary Medicine.*

About 23.6 million children and adults in the United States, or 7.8 percent of the population, have diabetes. It occurs when the body does not produce or properly use insulin, a hormone that is needed to convert sugar, starches and other food into energy needed for daily life.

Risk factors include obesity, sedentary lifestyle, unhealthy eating habits, high blood pressure and cholesterol, a history of gestational diabetes and increased age, many of which can be reduced through exercise.

“People assume that for exercise to be beneficial you have to be huffing and puffing, sweating and red-faced afterward,” Roberts said. “This may turn people off, particularly older adults. However, we have found that activities like tai chi can be just as beneficial in improving health.”
Tai chi is an ancient Chinese martial art that combines deep breathing and relaxation with slow, gentle circular movements. This low impact exercise uses shifts in body position and stepping in coordination with arm movements.

Sixty-two participants, mostly Korean women, took part in the study. Half the group participated in at least 80 percent of two supervised sessions one hour per week, with three days of home practice for six months, and the other half served as a control group. Those who completed the sessions had significantly improved glucose control and reported higher levels of vitality and energy.

“Those who participated in the tai chi sessions actually had lower blood glucose at three and six months,” Roberts said. “Those individuals also had lower hemoglobin A1c, which means they had better diabetic control.”

In addition to improved blood glucose levels, participants also reported significantly improved mental health. This was very encouraging especially since people with less depression are typically more active and independent, Roberts said.

Tai chi has also been used for people with arthritis and disabilities to increase balance, muscle strength and mobility and to reduce the risk of falls. It is worth investigating its effects in other conditions, especially in

older people, Roberts said.

“Tai chi provides a great alternative for people who may want the benefits of exercise on diabetic control but may be physically unable to complete strenuous activities due to age, condition or injury,” Roberts said. “Future studies could examine if tai chi could similarly benefit conditions such as osteoporosis or heart disease.”

Since tai chi is an exercise that involves so many parts of the body and also helps to relax the mind, it is more likely participants will adhere to the exercise, said Paul Lam, a lecturer with the University of South Wales School of Public Health and Community Medicine and a practicing family physician in Sydney, Australia.

“This study shows that tai chi can have a significant effect on the management and treatment of diabetes — a significant and growing health challenge for all Western countries,” Lam said.

Provided by University of Florida (news : web)