

Tai Chi Reduces Stress & Inflammation

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AsianScientist (Oct. 29, 2014) – In a study published in *Journal of Psychotherapy and Psychosomatics*, researchers have determined that the stress-relieving benefits of practicing Tai Chi may be a result of the ancient art's positive effects on human inflammatory systems.

In older adults, high levels of loneliness and psychological stress are associated with increased levels of NF- κ B, a protein which controls the production of multiple inflammatory cytokines and is stimulated by stress activation of the sympathetic nervous system.

Tai Chi is thought to act on stress response pathways by reducing markers of inflammation as well as inhibiting the expression of genes bearing NF- κ B response elements. Tai Chi is a multidimensional behavioral therapy that integrates moderate physical activity, deep breathing and meditation to promote regulation of emotional and affective responses to stress.

An international team of researchers hypothesized that Tai Chi would reduce stress and slow the rate of increase in NF- κ B levels in lonely older adults, as compared to those who receive a stress and health education intervention. To test this hypothesis, they conducted a randomized controlled trial in "lonely" adults.

Twenty six adults aged over 60 years old, and new to the art of Tai Chi, participated in this study. All participants scored over 40 points on the UCLA Loneliness Scale, which is a commonly used measure of loneliness.

Findings showed that the adults who received health education rather than the Tai Chi program did not report a decrease in levels of psychological stress. Moreover, these elderly showed significant increases in nuclear levels of activated NF- κ B between the intervention period.

Conversely, among the lonely older adults who did receive Tai Chi, psychological stress was seen to decrease. Meanwhile, NF- κ B levels remained constant. Changes in psychological stress between the Tai Chi session also correlated with corresponding changes in NF- κ B activation.

Together, these findings suggest that treatment-induced reduction in stress may dampen NF- κ B activation and that Tai Chi has positive effects on the inflammatory system.

The full article can be found at: [Black et al. \(2014\) Tai Chi Meditation Effects on Nuclear Factor- \$\kappa\$ B Signaling in Lonely Older Adults: A Randomized Controlled Trial.](#)

Source: [Journal of Psychotherapy and Psychosomatics](#); Photo: Edwin Lee/Flickr/CC.

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