



Aging & Chronic Diseases

Tai Chi and osteoporosis

Is it beneficial?

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With an ageing global population, the medical and socio-economic costs of fragility fractures are likely to increase significantly over the next 50 years. The main driving force behind fragility fractures is the disease osteoporosis, in which a progressive and often age-related decline in bone mineral density (BMD) is seen. There is currently a significant research effort deployed which seeks to develop new treatments to increase BMD and decrease fracture rate among the elderly. Non- pharmacological treatment methods such as supervised progressive resistance training have shown to be effective at increasing BMD, but financial and logistical barriers may prevent the widespread use of these treatments. As such, finding lower cost treatments that can be completed independently is a research area of interest for reducing the global burden of fragility fractures.

A recent systematic review looked at the effects of the Chinese martial art Tai Chi on BMD in elders with, or at risk of, osteoporosis. Tai Chi practice consists of numerous slow and controlled movements through various postures and has recently become popular globally as a means of gentle exercise for elders. The authors gathered data from 9 eligible studies and assess the effect of regular Tai Chi practice on BMD in elders. The results of the data analysis showed that regular Tai Chi practice has a significant positive effect on BMD in elders. The effect size was dose dependent with individuals who completed more than 185 hours of Tai Chi over the course of one year showing greatest improvements in BMD.



These data suggest that fostering a regular practice of Tai Chi in elders is safe and has a positive effect on BMD. Although no conclusions were made regarding fracture rates within these specific groups. As such therapists should educate their elderly patients with, or at risk of, osteoporosis accordingly on the benefits on developing and maintaining a regular a Tai Chi practice. Further research is also required to assess the impact of Tai Chi as an adjunct to specific pharmacological and or progressive resistance training programs.

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