

**To study the effects of Tai Chi**  
**in community dwelling elders**  
**on fear of fall and physical ability:**  
**a prospective study**

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Fear of fall that leads to restriction of functional activities is common in fallers as well as in non-fallers while falling is a well-recognized public health problem among community dwelling elders. Inability to get up after non-injurious falls by community-dwelling elders is frequent and perhaps underestimated. A medical study in the United State has affirmed that practicing the simplified Tai Chi 10 movements (TC 10) helps reduce the risk of falls by 47.5%.

**Objectives:** To evaluate the effect of Tai Chi to reduce fear of fall, occurrence of fall, as well as to decrease inability to get up after falls.

**Study subjects:** 60 subjects at the age of 60 or above are to be recruited from elderly centers or elderly functions. Half of them are fallers and half of them non-fallers. They are equally divided into two groups: the control and study group. Inside each group, half are fallers and half are non-fallers.

**Method:** For the control group, baseline assessment (Appendix I) will be done at the beginning of six week and final assessment (Appendix II) at the end of six week with no intervention. For the subject group, baseline assessment will be done at the beginning of the study, and then they will undergo a course of 4-week Tai Chi practice and will be reassessed at the end of the course. They will be then be followed by another 6 weeks, at the end of which they will be assessed on their physical ability and fear of fall using on the final assessment form. For fallers in the both control and study groups, they will be followed up weekly by researcher on the telephone about their fall pattern and will undergo a post fall assessment (Appendix III) just in case falls occur. Visual Analogue Scale and Fear of Fall Efficacy Scale will measure fear of fall. Physical ability will be measured by single leg stand, handgrip power and Timed Up and Go Test.

**Data and results:** Primary data like epidemiological data; incidence of fall, and fear of fall pattern based on the baseline assessment of all subjects will be computed by SPSS. Then comparison will be made between the control and study groups, the fallers and non-fallers on incidence of fall, on fear of fall by t-test. Risks factors of fall and inability to get up after a fall will be studied and analyzed by logistic regression or Chi Square depending on the parametric and non-parametric nature of data.