

# Soft vs Hard Martial Arts for Improving Functional Fitness in Older Adults

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## Abstract

This mini-review article compares the effectiveness of soft and hard martial arts in improving functional fitness in older adults. Soft martial arts, such as tai chi, are low-impact and focus on controlled movements, deep breathing, and meditation. Several studies have demonstrated the effectiveness of tai chi in improving functional fitness in older adults. Hard martial arts, such as karate and Taekwondo, involve striking, kicking, and blocking techniques and may provide more intense cardiovascular exercise and be more effective in improving muscle strength and power. However, they may come with a higher risk of injury. Research has demonstrated the effectiveness of hard martial arts in improving functional fitness in older adults. Despite the differences between the two, both soft and hard martial arts have been shown to improve functional fitness in older adults.

**Keywords:** Cardiovascular Exercise; Muscle Strength; Functional Fitness; Karate; Taekwondo

## Introduction

Physical activity has improved physical health, mental health, and overall quality of life for older adults [1]. Martial arts have become increasingly popular among older adults as a form of exercise due to the perceived benefits of increased strength, flexibility, and balance [2]. There are two main types of martial arts: hard martial arts, which focuses on striking and grappling techniques, and soft martial arts, which focuses on breathing, meditation, and slow, controlled movements. This mini review compares soft martial arts, such as tai chi, and hard martial arts in improving functional fitness in older adults.

### Soft Martial Arts: Tai Chi

Tai chi is a soft martial art that involves slow, controlled movements, deep breathing, and meditation [2]. It has become a popular form of exercise for older adults due to its low-impact nature and its focus on improving balance and flexibility. Several studies have demonstrated the effectiveness of tai chi in improving functional fitness in older adults [3,4]. A randomised controlled trial by Taylor-Piliae et al. [5] found that a 12-week tai chi intervention significantly improved balance, flexibility, and lower-limb strength in older adults compared to a control group. Another study by Sungkarat et al. [6] found that a 12-week tai chi program significantly improved balance and lower-limb strength in older adults with mild cognitive impairment. Taken together, these data suggest that soft martial arts such as tai chi improve

measures of functional fitness, including balance, flexibility, and lower-limb strength, paving the way for a comparison with hard martial arts.

### Hard Martial Arts: Karate and Taekwondo

Hard martial arts such as Karate and Taekwondo involve various physical techniques like striking, kicking, and grappling [7,8]. Despite the high-impact nature of these activities, research has demonstrated their effectiveness in improving functional fitness in older adults. For instance, a pilot study by Del Vecchio et al. [9] investigated the effects of modified Taekwondo on measures of functional fitness in older adults. The results showed that participating in modified Taekwondo for ten weeks significantly improved functional fitness in older adults, as evidenced by increased muscular endurance, flexibility, balance, and agility scores. Moreover, found that adapted karate training improved the quality of life and body balance in 50-year-old men. These findings align with a preliminary investigation by Mustafa et al. [10], which demonstrated that five weeks of Yuishinkai karate training could improve balance and neuromuscular function in older adults. Further research is needed to determine the long-term effects of hard martial arts training on the functional fitness of older adults, but the findings thus far suggest that these interventions may provide an effective and enjoyable form of exercise for this population.

## Comparison of Soft and Hard Martial Arts

Although both soft and hard martial arts have been shown to improve functional fitness in older adults, there are some key differences between the two. Soft martial arts, such as tai chi, involve low-impact, controlled movements that can promote relaxation, stress reduction, and physical benefits [11]. On the other hand, hard martial arts like karate involve high-impact movements that include striking, kicking, and grappling techniques, primarily aimed at self-defense, but more recently, they have been recognized for their potential to improve functional fitness in older people adults [9-12]. In a scoping review by Miller et al. [12], examined the functional benefits of hard martial arts for older adults and found that they can effectively enhance measures of muscular strength, balance, and mobility, as well as improve cardiovascular and cognitive function.

Soft martial arts are generally considered safer for older adults due to their emphasis on balance and flexibility, essential for maintaining functional independence later in life [3]. However, they may not provide the same level of cardiovascular exercise as hard martial arts. In contrast, hard martial arts can offer more intense cardiovascular exercise and can be more effective in improving muscle strength and power. Nonetheless, they also come with a higher risk of injury, particularly for older adults with pre-existing medical conditions or limited mobility. Therefore, it is crucial to take appropriate measures to minimize the risk of injury [13-18].

## Conclusion

In conclusion, martial arts, whether soft or hard, can be an effective form of exercise for improving functional fitness in older adults. Soft martial arts like tai chi can improve balance, flexibility, and lower-limb strength while also promoting relaxation and stress reduction. In contrast, hard martial arts such as karate and Taekwondo can enhance muscular strength, balance, and mobility and improve cardiovascular and cognitive function. Although soft martial arts are generally considered safer for older adults, hard martial arts can offer more intense cardiovascular exercise and may be more effective in improving muscle strength and power. However, taking appropriate precautions to minimize the risk of injury is essential, especially for older adults with pre-existing medical conditions or limited mobility. Ultimately, choosing between soft and hard martial arts should depend on individual preferences, abilities, and overall health status. Overall, the evidence suggests that martial arts can be an effective and enjoyable form of exercise for older adults looking to improve their physical abilities and maintain functional independence later in life.

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