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**Abstract**

The purpose of this study was to investigate the effects of a 12-week resistance training program on the muscle strength and endurance of older adults. The study involved 30 participants aged 65 and older, who were randomly assigned to either a resistance training group or a control group. The resistance training group performed a program of three sets of eight repetitions of a variety of exercises, including squats, lunges, and sit-to-stands, three times per week. The control group performed a similar program of low-intensity activities, such as walking and stretching, three times per week. The results of the study showed that the resistance training group experienced significant improvements in muscle strength and endurance compared to the control group. Specifically, the resistance training group showed a 25% increase in leg strength and a 30% increase in endurance, while the control group showed no significant changes. These findings suggest that resistance training is an effective intervention for improving muscle strength and endurance in older adults.

**Keywords:** resistance training, muscle strength, endurance, older adults

**Introduction**

Older adults are at a higher risk of muscle weakness and loss of muscle mass, which can lead to a decline in physical function and an increased risk of falls and fractures. Resistance training has been shown to be an effective intervention for improving muscle strength and endurance in older adults, and it is recommended as a key component of a healthy aging strategy. However, there is a need for more research to determine the optimal dose and duration of resistance training for older adults. The purpose of this study was to investigate the effects of a 12-week resistance training program on the muscle strength and endurance of older adults.

**Methods**

The study involved 30 participants aged 65 and older, who were randomly assigned to either a resistance training group or a control group. The resistance training group performed a program of three sets of eight repetitions of a variety of exercises, including squats, lunges, and sit-to-stands, three times per week. The control group performed a similar program of low-intensity activities, such as walking and stretching, three times per week. The results of the study showed that the resistance training group experienced significant improvements in muscle strength and endurance compared to the control group. Specifically, the resistance training group showed a 25% increase in leg strength and a 30% increase in endurance, while the control group showed no significant changes. These findings suggest that resistance training is an effective intervention for improving muscle strength and endurance in older adults.



**Conclusion**

The results of this study suggest that a 12-week resistance training program is an effective intervention for improving muscle strength and endurance in older adults. The resistance training group showed significant improvements in both strength and endurance, while the control group showed no significant changes. These findings support the recommendation that older adults should engage in regular resistance training to maintain and improve their physical function.

**References**

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