

The role of protein intake and exercise on muscle strength in older adults with sarcopenia

Introduction: Sarcopenia is the age-related loss of muscle mass in older adults over the age of 65 that is related to decreased muscle strength and potential functional decline. A contributing factor to sarcopenia is inadequate intake of protein, which is associated with improving and maintaining muscle mass. The inclusion of supplemental protein with an exercise program as an intervention for older adults with sarcopenia is not well known. The purpose of this review is to assess the efficacy of protein intake and exercise on muscle strength on sarcopenia in older adults.

Methods: The databases Google Scholar, PubMed, and ScienceDirect were used for this review using the keywords sarcopenia, protein intake, exercise, muscle strength, and older adults. The inclusion criteria included: peer-reviewed journals in the English language, a medical diagnosis of sarcopenia, a measurement of muscular strength using some form of a standardized outcome measure, and a quantifiable amount of supplemental protein consumed. The exclusion criteria included: studies measuring sarcopenia in adults under the age of 55, studies not utilizing standardized outcome measures to assess muscular strength, and studies with insufficient information to evaluate the methodology.

Results: Six studies met all criteria for inclusion. The results suggested supplemental protein intake in conjunction with other interventions such as exercise, may play a role in mitigating the effects of sarcopenia.

Discussion: Protein supplementation for older adults with sarcopenia is a subject not thoroughly investigated in the current literature. It is possible its inclusion, along with a resistance training program, can yield superior results in remediating age-related muscle loss. However, guidelines for the optimal amount of protein intake are currently lacking. Currently, health care providers such as physical therapists can provide limited guidance when it comes to nutrition.

Conclusion: The studies in this review suggest protein supplementation intake, when combined with exercise, may mitigate the effects of Sarcopenia. However, additional research is need to provide patients and clinicians specific guidance on the ideal parameters.