

Resistance training improves muscular strength in individuals after stroke: A review of reviews

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Introduction: Cerebral Vascular Accident (CVA) is a global public health problem. It directly or indirectly results in high costs for health agencies, and its negative impacts on the functional and biopsychosocial aspects of the population affected by this clinical condition should be mentioned. It is noteworthy that each year, 13.7 million individuals have a stroke worldwide and 5.5 million die. There are 80.1 million prevalent cases of stroke in the world, a fact that makes it an important global health condition, requiring interventions aimed at the individual's rehabilitation. Thus, much is said about resistance training in this subpopulation. However, studies present inconclusive results. **Objectives:** To summarize systematic reviews that analyzed the effectiveness of resistance training in adult individuals after stroke. **Materials and Methods:** Systematic review, PROSPERO (CRD42020208823), carried out in the following databases: PUBMED, EBSCO, LILACS, MEDLINE, Portal VHL, SciELO, Cochrane, SPORTDiscus and PEDro. Descriptors: Resistance Training, Stroke and Systematic Review. Included: Systematic reviews; composed of randomized clinical trials and/or controlled intervention studies; who tested resistance training interventions; compared to other neuromuscular interventions, conventional treatment, or sham or placebo techniques; in adults who have had a stroke, regardless of the stage of the disease; for outcomes such as: muscle strength and functionality. Such studies should be available in full. There were no restrictions regarding the language and publication time of the studies. The risk of bias was assessed using the AMSTAR-2 scale. Results: The searches identified 139 articles. However, after analysis, 10 were included. These were reviews with meta-analysis, published between 2009 and 2020. Resistance training interventions were statistically significant for increasing upper and lower limb muscle strength, gains in 1 repetition maximum and performance on the 6-minute walk test. Resistance training was not statistically significant for increasing activity, maximum gait speed and preferred gait speed. The studies were at high/moderate risk of bias. **Conclusions:** Although resistance training is statistically significant for increasing muscle strength and performance in the 6-minute walk test, these results do not appear to be clinically relevant. There was no improvement in preferred walking speed and maximum walking speed.