

STRENGTH TRAINING AND CEREBRAL PALSY: THE STATE OF THE ART

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Cerebral Palsy (CP) is “a group of permanent disorders of the development of movement and posture, causing activity limitation, that are attributed to non-progressive disturbances that occurred in the developing fetal or infant brain” (Rosenbaum et al., 2007). Therefore, is reasonable to assume that people with CP have weaker muscles (Verschuren et al., 2011). However, even though the number of studies regarding the effects of strength training on people with CP is high, conclusions among the scientific community remain unclear (Fleeton et al., 2020). Moreover, recommendations concerning athletes with CP are missing, due to the lack of studies with the specific sample (Fleeton et al., 2020). Goal: To provide an overview of the recommendations for strength training in cerebral palsy from the last 5 years. Methods: One electronic database (PubMed) was searched for systematic reviews using the following keywords: ‘cerebral palsy’ AND ‘strength training’ AND ‘systematic

review’. Results: Ten articles were found but only eight comprised the final sample (published in the last five years). Studies show that the recommendations for the most optimal strength training interventions are not consensual: programs can be in the range from four to six weeks, with one to five sessions per week. Moreover, the volume and intensity also varied between 2-5 sets of 5-20 repetitions at 20%-85% RM. Also, it appears that the upper limbs have been less studied than the lower limbs and core. Conclusion: People with CP are increasing their participation in high competition level. Due to the specificity of this disorder, recommendations for strength training should be clearer so that coaches could potentiate the athletic performance of their athletes.

Keywords: *Cerebral palsy, strength, strength training.*