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## Title

***Effects of exercise, physical activity, and sports on physical fitness in adults with Down syndrome: A systematic review***

## Abstract

This systematic review aimed to analyze the effects of exercise, physical activity, and sports on physical fitness in adults with Down syndrome (DS). A literature search was conducted across four databases EBSCO, Scopus, Web of Science, and PubMed. The PRISMA guidelines were followed. The PEDro scale and the Cochrane risk of bias tool were used to assess the quality and risk of the studies, respectively. The protocol was registered in PROSPERO (code: CRD42023449627). Of the 423 records initially found, 13 were finally included in the systematic review, in which 349 adults with DS participated. 92% of the articles declared at least one significant difference post-intervention. The available evidence indicates that exercise, physical activity, and sports have a positive effect on some variables of physical fitness, especially strength, balance, body composition, cardiorespiratory fitness, flexibility, and functional capacity. Furthermore, it should be considered as an additional treatment or complementary therapy to improve the functionality and quality of life of adults with DS. © 2024 American Institute of Mathematical Sciences. All rights reserved.

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