Methods A literature review was performed to investigate the benefits of exercise for adolescents with disabilities, as well as the barriers and facilitators to participation. PubMed was searched for eligible articles by expanding the following search terms to include synonyms, and combining them with the Boolean operator, 'AND': adolescents; exercise; disability; benefits. Resultant articles were screened for eligibility by abstract and full-text manuscript.

Results This review included adolescents with the following conditions: neurological disabilities, particularly spinal cord injuries; cerebral palsy; epilepsy; other physical disabilities. The benefits conveyed to those teenagers engaging in sport firstly included emotional improvements: a higher sense of self-worth and improved self-esteem, improved relationships with family members. Furthermore, physical benefits of exercise were reported in these populations: increased aerobic capacity, and a general improvement in physical health; improvements in teenagers’ gross motor functions; better seizure control for adolescents with epilepsy; and improved cognitive function.

Despite these potential benefits, the literature emphasised that these teenagers faced numerous challenges which hindered their participation in sport. The first barrier to exercise was due to advice from healthcare professionals, teachers or family that their exercise should be limited or stopped due to their disability. Similarly, it was reported that confusion and conflicting advice created an uncomfortable environment for adolescents in which to explore an interest in sport. Secondly, teenagers were reported to limit their own exercise participation due to their own fears of exacerbating or worsening their physical health. Finally, embarrassment or fear about how their sporting performance would be perceived by others was a social barrier.

In order to combat these barriers to participation in sport, several facilitators were identified in the literature that increase teenagers’ likelihood to exercise. Firstly, social factors, such as exercising in a group, finding an encouraging sports coach, or having family support to exercise all increased physical activity levels. Furthermore, introducing an aspect of fun into sport increased participation; examples included exercising with people the adolescent considered fun, or including animals into exercise, for example through therapeutic horse-riding. Finally, a teenager’s self-motivation to exercise greatly increased their engagement.

Conclusions Teenagers with disabilities face numerous barriers to participation in sport, however the potential benefits of exercise are substantial. Higher levels of physical activity are associated with better mental and physical health. Several facilitators exist to improve adolescents’ involvement with exercise. Key strategies include making exercise fun, encouraging self-motivation to exercise, and creating a positive social environment around sporting activities.

Conclusions The benefits of exercise for adolescents with disabilities are substantial. Higher levels of physical activity are associated with better mental and physical health. Several facilitators exist to improve adolescents’ involvement with exercise. Key strategies include making exercise fun, encouraging self-motivation to exercise, and creating a positive social environment around sporting activities.