

A systematic review of the effect of plyometric training on vertical jump performance in young basketball players

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Background

Plyometric training is one of the widely used training methods for the development of the jumping ability of basketball players. The purpose of this systematic review was to provide an overview of the studies analyzing the effect of plyometric training on the vertical jump performance of young basketball players.

Method

Following the preferred reporting items for systematic reviews and meta-analyses (PRISMA) guidelines (Ardern et al., 2022), studies were collected by searching four electronic databases; Web of Science, Scopus, PubMed, and SPORTDiscus with full-text. Intervention studies investigating the influence of plyometric training on the vertical jump performance of young basketball players (<18 years old) were included.

Results

Out of 1045 studies, 6 met the inclusion criteria and were included in the review. The duration of the interventions was between six to eight weeks. The age of the included children ranged from 10 to 18 years. The results of the four reviewed studies showed that young basketball players participating in plyometric training had significantly improved their vertical jump height regardless of gender and competition level. On the contrary, the results of other studies indicated decreases or no significant changes in jump height.

Conclusion

Although the majority of the reviewed studies suggest that plyometric training may be an effective method to develop the vertical jump performance of young male and female basketball players, further studies are needed to better understand its influence.



