

INPLASY PROTOCOL

To cite: Deng et al. Effects of Plyometric Training on Skill and Physical performance in Tennis Players. Inplasy protocol 202250146. doi: 10.37766/inplasy2022.5.0146

Effects of Plyometric Training on Skill and Physical performance in Tennis Players

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Received: 26 May 2022

Published: 26 May 2022

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Support: None.

Review Stage at time of this submission: Piloting of the study selection process.

Conflicts of interest:
None declared.

Review question / Objective: The purpose of this systematic review is to determine the effects of plyometric training on skill and physical performance in tennis players.

Condition being studied: As a consequence of the increasing popularity of tennis, the sport is getting more competitive in all age groups. Since technique, tactical skills, and physical abilities are important predictors of success in competition. Plyometric training consists of the dynamic and rapid stretching of muscles (eccentric action) immediately followed by a concentric shortening action of the same muscles and connective tissues. Plyometric training has also been utilized to help prevent knee injuries, and enhance speed, muscular strength, power, balance, body composition, agility, flexibility, and muscular endurance.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 26 May 2022 and was last updated on 26 May 2022 (registration number INPLASY202250146).

INTRODUCTION

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sport is getting more competitive in all age groups. Since technique, tactical skills, and physical abilities are important predictors of success in competition. Plyometric training consists of the dynamic and rapid stretching of muscles (eccentric action) immediately followed by a concentric shortening action of the same muscles and connective tissues. Plyometric training has

also been utilized to help prevent knee injuries, and enhance speed, muscular strength, power, balance, body composition, agility, flexibility, and muscular endurance.

METHODS

Search strategy: Four electronic databases were searched: SCOPUS, PubMed, EBSCOhost (SPORT Discus), and Web of Science. The keywords are as follows: (“Plyometric training” OR “plyometric exercise*” OR “plyometric drill*” OR “plyometr*” OR “ballistic six” OR “ballistic training” OR “explosive” OR “stretch-shortening cycle” OR “stretch-shortening exercise” OR “complex training” OR jump training) AND (“tennis” OR “tennis player*” OR “tennis athlete*”).

Participant or population: Healthy tennis players, with no restrictions on their gender or age.

Intervention: The plyometric training with the intention of improving physical performance will be included. Plyometric training.

Comparator: Two or more groups and single-group trials.

Study designs to be included: Randomization control design or non-randomization control design.

Eligibility criteria: Only full-text, peer-reviewed, original studies written in English were considered, excluding cross-sectional, review papers, or training-related studies that did not focus on the effects of PT exercises). Retrospective studies, prospective studies, studies for which only the abstract was available, case reports, special communications, letters to the editor, invited commentaries, errata, overtraining studies, patent were excluded.

Information sources: Four electronic databases were searched: SCOPUS, PubMed, EBSCOhost (SPORTDiscus), and Web of Sciences. In addition, the reference lists of included studies and previous

reviews and meta-analyses were examined to detect studies potentially eligible for inclusion.

Main outcome(s): The main outcomes are tennis skill and physical performance.

Quality assessment / Risk of bias analysis: The instrument used to assess the quality of reviews was PEDro scale.

Strategy of data synthesis: A summary of scop and findings reported of each included study, such as study title, author, publication year, characteristics of participants, exercise training and measurement index, and findings.

Subgroup analysis: None.

Sensitivity analysis: None.

Language: Only articles published in English were considered.

Country(ies) involved: China: Malaysia.

Keywords: plyometric training:skill:physical performance:tennis.

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