

INPLASY PROTOCOL

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None declared.

Effects of Blood Flow Restriction Intervention on Sports Performance in Athletes: A Systematic Review

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Review question / Objective: To explore the effects of blood flow restriction intervention combined with various training exercises on sports performance among different healthy athletes, compared to a randomized control group or a single experimental group, pre- and post-intervention.

Condition being studied: Blood flow restriction is an effective training intervention which involves restricting blood flow to the muscles through predetermined pressure by using a cuff or inflatable cuff to wrap the maximal part of the extremities during exercise, blocking venous blood flow without affecting arterial circulation. Healthy athletes improve their sports performance through this intervention

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 17 March 2023 and was last updated on 17 March 2023 (registration number INPLASY202330058).

INTRODUCTION

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experimental group, pre- and post-intervention.

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inflatable cuff to wrap the maximal part of the extremities during exercise, blocking venous blood flow without affecting arterial circulation. Healthy athletes improve their sports performance through this intervention.

METHODS

Participant or population: Healthy athletes.

Intervention: Blood Flow Restriction.

Comparator: Comparison between BFR group and non-BFR training group, between various exercises combined with BFR, and comparison within group with a single BFR group.

Study designs to be included: Pre-post test.

Eligibility criteria: Athletes with health problems (e.g., injuries); Non-BFR training; Lack of baseline and/or follow-up data; No pre-post test Athletes with health problems (e.g., injuries); Non-Kaatsu training; Lack of baseline and/or follow-up data; No pre-post test.

Information sources: electronic databases (Scopus, Web of Science, PubMed, EBSCOhost (SportDiscus) and Google Scholar.

Main outcome(s): Include varied sport performance (physical or technical) among athletes.

Quality assessment / Risk of bias analysis: Physical Therapy Evidence Database (PEDro) scale.

Strategy of data synthesis: Based on PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) statement guidelines to analyzed the data.

Subgroup analysis: No.

Sensitivity analysis: No.

Language restriction: English.

Country(ies) involved: Malaysia.

Keywords: Blood Flow Restriction; kaatsu; sports performance ; technical performance; Athletes.

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