## INPLASY PROTOCOL

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# Effects of KAATSU Training On Sports Performance In Athletes: A Systematic Review

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Review question / Objective: The aim of this study was to perform a systematic review of the effects of kaatsu training on the sports performance (physical performance and sport technical performance) of a group or groups of healthy athletes, pretest and post-test at least 2 weeks of kaatsu training or other training methods in combination with kaatsu. Condition being studied: The kaatsu training is conducted by taping blood flow restriction bands at different pressures (mmHg) to the proximal portion extremities of the athletes and reviewing the changes and effects after this training on the physical and technical sports performance in one or more groups of healthy athletes.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 09 February 2023 and was last updated on 09 February 2023 (registration number INPLASY202320041).

#### INTRODUCTION

Review question / Objective: The aim of this study was to perform a systematic review of the effects of kaatsu training on the sports performance (physical performance and sport technical performance) of a group or groups of healthy athletes, pretest and post-test at least 2 weeks of kaatsu training or other training methods in combination with kaatsu.

Condition being studied: The kaatsu training is conducted by taping blood flow restriction bands at different pressures (mmHg) to the proximal portion extremities of the athletes and reviewing the changes

and effects after this training on the physical and technical sports performance in one or more groups of healthy athletes.

#### **METHODS**

Participant or population: Healthy athletes.

Intervention: Kaatsu training.

Comparator: Comparison between Kaatsu training group and non-Kaatsu training group; Comparison between different exercises combined with Kaatsu training groups; Comparison within group with a single Kaatsu training group.

Study designs to be included: Pre-post test.

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

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

Main outcome(s): A systematic review of the effects on physical performance (strength, stamina, speed, agility) or technical performance (confrontational and non-confrontational sports performance) of one or more groups among healthy athletes before and after a period of at least two weeks of kaatsu training.

Quality assessment / Risk of bias analysis: Physiotherapy Evidence Database (PEDro) scale ratings.

Strategy of data synthesis: A systematic review.

Subgroup analysis: The sport performance of healthy athletes after other training combined with kaatsu.

Sensitivity analysis: No.

Language restriction: English.

Country(ies) involved: China, Malaysia.

**Keywords:** Kaatsu training; BFR; sports performance; technical performance; Athletes.

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