

INPLASY PROTOCOL

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Beneficial Effect of Time-Restricted Eating on Blood Pressure

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None declared.

Review question / Objective: P:People I: Time-Restricted Eating C:unrestricted eating O:Blood Pressure S:RCTs.
Condition being studied: Time-Restricted Eating (TRE) has brought about enormous promise in fighting against obesity and metabolic disease. The concept of TRE stems from studies of the effects of food timing on the circadian system. One of the major adverse consequences of circadian rhythm disturbances is an increased risk of cardiovascular disease.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 15 August 2022 and was last updated on 15 August 2022 (registration number INPLASY202280057).

INTRODUCTION

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Condition being studied: Time-Restricted Eating (TRE) has brought about enormous promise in fighting against obesity and metabolic disease. The concept of TRE stems from studies of the effects of food timing on the circadian system. One of the

major adverse consequences of circadian rhythm disturbances is an increased risk of cardiovascular disease.

METHODS

Participant or population: People.

Intervention: Time-Restricted Eating.

Comparator: unrestricted eating.

Study designs to be included: RCTs.

Eligibility criteria: Study metrics must cover blood pressure, including baseline and post-intervention values. Above values were expressed as mean and standard deviation (SD).

Information sources: Electronic databases, contact with authors, trial registers, or grey literature.

Main outcome(s): Blood Pressure.

Quality assessment / Risk of bias analysis: Risk of bias tool (RoB2) Revman5.4 risk of bias.

Strategy of data synthesis: The meta-analysis and meta-regression were performed by Stata version 16.

Subgroup analysis: Upon stratification by the duration of TRE intervention, we divided the studies into 8 weeks and 12 weeks.

Sensitivity analysis: Excluding studies one by one, the combined effect size before and after did not change significantly.

Country(ies) involved: China.

Keywords: time-restricted eating; blood pressure; meta-analysis.

Contributions of each author:

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