

# INPLASY PROTOCOL

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**Review Stage at time of this submission:** The review has not yet started.

## Conflicts of interest:

None declared.

## Effect of ST36 acupoint in overweight and obese patients: a protocol for systematic review and meta-analysis

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**Review question / Objective:** The purpose of this review is to explore the effect of ST36 on weight loss in obese patients.

**Condition being studied:** Obesity has been classified as one of the top five risk factors for death and disability. With the advantage of economical, simple and safe, acupoint therapies like massage, acupuncture, electro-acupuncture and acupoint injection are particularly suitable for obese patients. Among them, ST36 is the most frequency used acupoint, but the effect of ST36 on weight loss in obese patients has not been systematic reviewed.

**Information sources:** Pubmed, Web of science, Scopus, Embase, Cochrane Library and China National Knowledge Infrastructure.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 10 March 2022 and was last updated on 10 March 2022 (registration number INPLASY202230041).

## INTRODUCTION

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**Condition being studied:** Obesity has been classified as one of the top five risk factors for death and disability. With the advantage of economical, simple and safe, acupoint therapies like massage, acupuncture, electro-acupuncture and acupoint injection

are particularly suitable for obese patients. Among them, ST36 is the most frequency used acupoint, but the effect of ST36 on weight loss in obese patients has not been systematic reviewed.

## METHODS

**Participant or population:** This review will consider studies that include patients who are overweight or obese (i.e. have a BMI greater than or equal to 25 or above).

**Intervention:** This intervention will include any RCT with any type therapy of ST36 (massage, acupuncture, electro-acupuncture or acupoint injection). The study will not limit to the frequency or duration of intervention.

**Comparator:** Obese patients received on therapy or other therapy without ST36 acupoint.

**Study designs to be included:** Only randomized controlled trials will be included.

**Eligibility criteria:** The participants must be obese patients(BMI $\geq$ 25). Only randomized controlled trials will be included. There is no limitation on gender, age or region.

**Information sources:** Pubmed, Web of science, Scopus, Embase, Cochrane Library and China National Knowledge Infrastructure.

**Main outcome(s):** 1. Weight 2. Waist circumference 3. Body mass index (BMI) 4. Body fat percentages.

**Additional outcome(s):** 1. The outcomes related with blood lipid 2. Effects of different intervention with ST36 3. Health-related quality of life 4. Psychological impact 5. Adverse events (e.g. muscle strain).

**Data management:** A standard data extraction form will be created before data extraction. Two reviewers will independently extract the following information: (1) General information (title, first author, year of publication, funding). (2) Study characteristics (design, randomization, allocation, blinding, inclusion and exclusion criteria, sample size). (3) Participant characteristics (age, ethnicity, diagnosis criteria, number in each group). (4) Intervention characteristics (intervention, comparator intervention, dosage, frequency and duration). (5) Outcomes (primary and secondary outcomes, time points, methods of outcome assessments, blinding of outcome assessment, adverse events). Only the latest report will be

included when a same trial was described by multiple publications. Data not available in the publications will be obtained by contacting corresponding authors for more information.

**Quality assessment / Risk of bias analysis:** The methodological quality of each individual study will be independently assessed by two reviewers according to the Cochrane ROB tool. The following seven domains will be assessed: random sequence generation, allocation concealment, blinding of participants and personnel, blinding of outcome assessment, incomplete outcome data, selective outcome reporting, and other potential sources of bias. The risk of bias for each domain will be graded as low, high or unclear for each included study. The consistency will be checked by a third reviewer and the disagreements were resolved by discussion with methodologists.

**Strategy of data synthesis:** We will perform the meta-analysis when more than one trial examines the same intervention and outcomes with comparable methods in similar populations. If the statistical heterogeneity is not identified, the fixed-effect model will be built to estimate the overall intervention effects. Otherwise, the random-effect model will be used to provide more conservative results. When multiple intervention groups are used in a study, we will make pair-wise comparisons by combining groups if possible. All statistical analyses will be performed by the RevMan V.5.3 software. The statistical significance is defined as  $p < 0.05$ . If the meta-analysis is not feasible, we will provide a narrative description of the results.

**Subgroup analysis:** Subgroup analyses will be divided by other basic disease, literature quality and type of outcome reported.

**Sensitivity analysis:** If there is significant heterogeneity in the included studies, sensitivity analysis will be performed to check the reliability of the results.

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**Language:** No language limitation.

**Country(ies) involved:** China.

**Other relevant information:** This review will consider studies that include free-living (not hospitalized) male and female adults aged 18 years and over (adults of any age will be included) who are overweight or obese (i.e. have a BMI greater than or equal to 25 or above).

**Keywords:** ST36.

**Contributions of each author:**

Author 1 - Zepeng Zhang.

Author 2 - Haipeng Huang.

Author 3 - Xiaoru Xu.

Author 4 - Xiangyan Li.

Author 5 - Xingquan Wu.

Author 6 - Zhihong Wang.