INPLASY PROTOCOL

To cite: Domínguez-Muñoz et al. The effect of whole-body vibration on vibration perception threshold. A protocol of systematic review and meta-analysis. Inplasy protocol 202130020. doi: 10.37766/inplasy2021.3.0020

Received: 07 March 2021

Published: 07 March 2021

Corresponding author:
Francisco Javier Domínguez-Muñoz

fjdominguez@unex.es

Author Affiliation:
University of Extremadura

Support: **Fundesalud (DIABE02-2012).**

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

Conflicts of interest:
None declared.

The effect of whole-body vibration on vibration perception threshold. A protocol of systematic review and meta-analysis

Domínguez-Muñoz, FJ[1]; Hernández-Mocholi, MA[2]; Villafaina, S[3]; Garcia-Gordillo, MA[4]; Gusi, N[5]; Adsuar, JC[6].

Review question / Objective: **What is the effect of the Whole-Body Vibration training compared to placebo or control group on vibration perception threshold?**
Condition being studied: **Vibration perception threshold.**
Information sources: **The search will be carried out in the following databases: EMBASE, PubMed, Scopus, SPORTDiscus and Web of Science.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 07 March 2021 and was last updated on 07 March 2021 (registration number INPLASY202130020).

INTRODUCTION

Review question / Objective: **What is the effect of the Whole-Body Vibration training compared to placebo or control group on vibration perception threshold?**

Condition being studied: **Vibration perception threshold.**

METHODS

Participant or population: **Healthy people and people with some type of pathology.**

Intervention: **The participants were exposed to a Whole-Body Vibration training. The Whole-Body Vibration training**

is a type of neuromuscular training based on the application of mechanical vibrations on the subjects who gets on this type of machine. This type of machines can be oscillating or tilting. In this type of training, different factors are regulated. Improvements in muscle performance have been found due to these factors, which are the amplitude, frequency, duration of training, type of exposure, the protocol carried out, the type of exercise and the characteristics of the subjects.

Comparator: Placebo, control, other types of training.

Study designs to be included: Randomized controlled trial.

Eligibility criteria: Randomized controlled trial investigating the effects of Whole-Body Vibration training on the vibration perception threshold.

Information sources: The search will be carried out in the following databases: EMBASE, PubMed, Scopus, SPORTDiscus and Web of Science.

Main outcome(s): Vibration perception threshold measurements.

Quality assessment / Risk of bias analysis: To evaluate the quality will be done through the Grading of Recommendations Assessment, Development and Evaluation (short GRADE). Risk of bias analysis will be through the PEDro scale.

Strategy of data synthesis: To assess heterogeneity, the i2 will be used. To assess the publication bias, the Funnel Plot will be used. We will include both random-effects model and fixed-effects.

Subgroup analysis: Subgroup analyses will be analyzed if possible.

Sensitivity analysis: The issues suitable for sensitivity analysis are identified during the review process where the individual peculiarities of the studies under investigation are identified.

Language: English.

Country(ies) involved: Spain.

Keywords: Whole-Body Vibration, Vibration Perception Threshold, WBV, Vibration, Vibro-tactile threshold, Vibro-tactile perception.

Contributions of each author:

Author 1 - Francisco Javier Domínguez-Muñoz.
Email: fjdominguez@unex.es
Author 2 - Miguel Ángel Hernández-Mocholi.
Email: mhmocholi@unex.es
Author 3 - Santos Villafaina.
Email: svillafaina@unex.es
Author 4 - Miguel A. Garcia-Gordillo.
Email: miguel.garcia@uautonoma.cl
Author 5 - Narcis Gusi.
Email: ngusi@unex.es
Author 6 - José Carmelo Adsuar.
Email: jadssal@unex.es