

# Lower your blood pressure with dance: a study on the effectiveness of at-home dance exercise for hypertensive patients

<b>Submission date</b> 30/08/2024	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 13/09/2024	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 16/10/2025	<b>Condition category</b> Circulatory System	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

High blood pressure (hypertension) is a leading risk factor for cardiovascular, brain, and kidney diseases. The treatment is medications and exercise. This study aimed to investigate the effect of regular dance therapy interventions on blood pressure in hypertensive patients.

### Who can participate?

Outpatients aged 20 years and over with high blood pressure

### What does the study involve?

Patients were randomly assigned to either an intervention group (dance) or a control group (self-selected exercise). The intervention group performed daily dance exercises using modern dance videos (10 minutes per video) uploaded to YouTube. The control group performed non-dance exercises for 10 min daily. Blood pressure and body composition were measured at baseline and after 2 months. The dance intervention for the intervention group was primarily conducted at the patients' homes, while the exercise for the control group was performed at a location of the patients' choosing.

### What are the possible benefits and risks of participating?

By participating in this study, one potential benefit is the improvement of blood pressure. As for the risks, there is a possibility of injury during exercise.

### Where is the study run from?

Juntendo University (Japan)

### When is the study starting and how long is it expected to run for?

December 2022 to March 2026

### Who is funding the study?

Juntendo University (Japan)

Who is the main contact?

Taiju Miyagami, tmiyaga@juntendo.ac.jp

## Contact information

### Type(s)

Public, Scientific

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## Additional identifiers

### Clinical Trials Information System (CTIS)

Nil known

### Protocol serial number

Nil known

## Study information

### Scientific Title

Dance your way to lower blood pressure: a randomized controlled trial on the efficacy of unsupervised dance exercise for hypertensive patients

### Study objectives

Performing the same movements without monitoring using self-made dance videos could lower blood pressure and be useful as a non-pharmacological treatment for high blood pressure.

### **Ethics approval required**

Ethics approval required

### **Ethics approval(s)**

approved 28/12/2022, Ethics Committee of Juntendo University (Bunkyo-ku Hongo 3-1-3, Tokyo, 113-8421, Japan; +81 (0)3 5802 1584; hongo-rinri@juntendo.ac.jp), ref: E22-0387

### **Study design**

Non-blinded two-armed randomized trial

### **Primary study design**

Interventional

### **Study type(s)**

Treatment

### **Health condition(s) or problem(s) studied**

Hypertension

### **Interventions**

A random number table was created in Excel, and the intervention and control groups were divided based on whether the number was greater than or less than 0.5. Hypertensive patients were randomly assigned to either an intervention group (dance) or a control group (self-selected exercise), with each group comprising 20 participants. The intervention group performed daily dance exercises using modern dance videos (10 minutes per video) uploaded to YouTube. The control group performed non-dance exercises for 10 min daily. The activity levels of the participants were monitored using a triaxial accelerometer. Blood pressure and body composition were measured at baseline and after 2 months.

### **Intervention Type**

Behavioural

### **Primary outcome(s)**

Blood pressure measured using HBP-9035 KENTARO™ (OMRON HEALTHCARE Co., Ltd., Kyoto City, Kyoto Prefecture, Japan) at baseline and after 2 months

### **Key secondary outcome(s)**

Body weight and muscle mass measured using multi-frequency body composition analyzer MC-780A (Tanita Corporation, Itabashi City, Tokyo Prefecture, Japan) at baseline and after 2 months

### **Completion date**

31/03/2026

## **Eligibility**

### **Key inclusion criteria**

Outpatients with high blood pressure from the Juntendo University Department of General Medicine

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

20 years

**Upper age limit**

99 years

**Sex**

All

**Total final enrolment**

40

**Key exclusion criteria**

1. Patients with complications rendering them unsuitable for exercise, such as cardiovascular disease and cerebral vascular disease
2. Patients on newly prescribed antihypertensive drugs or who were administered anti-hypertensives later
3. Unable to balance on one leg

**Date of first enrolment**

01/04/2023

**Date of final enrolment**

30/06/2024

## **Locations**

**Countries of recruitment**

Japan

**Study participating centre**

**Juntndo University Hospital**

Bunkyo-ku Hogno 3-1-3

Tokyo

Japan

113-8421

# Sponsor information

## Organisation

Juntendo University

## ROR

<https://ror.org/01692sz90>

# Funder(s)

## Funder type

University/education

## Funder Name

Juntendo University

## Alternative Name(s)

## Funding Body Type

Private sector organisation

## Funding Body Subtype

Universities (academic only)

## Location

Japan

# Results and Publications

## Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study will be available from Taiju Miyagami (tmiyaga@juntendo.ac.jp)

## IPD sharing plan summary

Available on request

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>		09/01/2025	16/10/2025	Yes	No