

Effect of meditation combined with breathing technique on mental and exercise-induced hypertension

Submission date 21/09/2005	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
Registration date 18/01/2006	Overall study status Completed	<input type="checkbox"/> Protocol
Last Edited 09/11/2009	Condition category Circulatory System	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Study information

Scientific Title

Acronym
Meditation Study

Study objectives

Meditation in the Christian tradition combined with breathing techniques reduces ambulatory and stress-induced blood pressure in essential hypertension

Ethics approval required

Old ethics approval format

Ethics approval(s)

Not provided at time of registration

Primary study design

Interventional

Study design

Randomised controlled trial

Study type(s)

Not Specified

Health condition(s) or problem(s) studied

Essential untreated hypertension

Interventions

Randomisation 1:1 into meditation versus no meditation. The intervention consists of a four-week introductory course and a four-week intensive training phase. During these eight weeks, meditation in the Christian tradition and breathing techniques are taught by a certified meditation facilitator. Meditation sessions (40 minutes) are held daily as group meetings in the early evening. In addition, meditation is practiced daily individually at home in the morning. At baseline and after eight weeks, all participants undergo the following tests:

1. Standardised computerised mental stress test
2. Bicycle ergometry
3. 24 hour ambulatory blood pressure (BP) measurement
4. 24 hour Holter electrocardiogram (ECG)
5. Echocardiography

Intervention Type

Other

Phase

Not Specified

Primary outcome(s)

Median change in systolic BP during mental stress in the intervention group compared with controls.

Key secondary outcome(s)

1. Median change in systolic and diastolic resting BP, during 24 hour ambulatory BP monitoring, exercise test (intervention group versus controls, respectively)
2. Difference in heart rate variability (Holter)
3. Diastolic function in echocardiography

Completion date

30/06/2004

Eligibility

Key inclusion criteria

1. Age between 30 and 65 years
2. Written informed consent
3. Elevated resting blood pressure (more than 140/85 mmHg) on three occasions within four weeks
4. Primary hypertension confirmed by laboratory testing, clinical history and examination, abdominal ultrasound

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

1. Previous training in contemplative meditation
2. Secondary hypertension
3. Blood pressure more than 180/110 mmHg
4. Antihypertensive therapy within the last 12 months
5. Pregnancy
6. Alcohol abuse
7. Immunosuppressive medication
8. Diabetes

Date of first enrolment

01/03/2004

Date of final enrolment

30/06/2004

Locations

Countries of recruitment

Germany

Study participating centre

Joseph-Schneider-Strasse 2
Wuerzburg
Germany
97070

Sponsor information

Organisation

University of Wuerzburg (Germany)

ROR

<https://ror.org/00fbnyb24>

Funder(s)

Funder type

Not defined

Funder Name

Not provided at time of registration

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/02/2008		Yes	No