

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 <input type="checkbox"/> Protocol
Registration date 18/01/2006	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
Last Edited 09/11/2009	Condition category Circulatory System	<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

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers
N/A

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

Study design

Randomised controlled trial

Primary study design

Interventional

Secondary study design

Randomised controlled trial

Study setting(s)

Not specified

Study type(s)

Not Specified

Participant information sheet

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 measure

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

Secondary outcome measures

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

Overall study start date

01/03/2004

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

Age group

Adult

Sex

Both

Target number of participants

52

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

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Sponsor information

Organisation

University of Wuerzburg (Germany)

Sponsor details

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Sponsor type

University/education

ROR

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

Funder(s)

Funder type

Not defined

Funder Name

Not provided at time of registration

Results and Publications

Publication and dissemination plan

Not provided at time of registration

Intention to publish date

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