

# A randomised controlled trial of acupuncture for the treatment of hyperventilation syndrome

<b>Submission date</b> 29/12/2005	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 03/02/2006	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 10/05/2016	<b>Condition category</b> Signs and Symptoms	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

**Plain English summary of protocol**  
Not provided at time of registration

## Contact information

**Type(s)**  
Scientific

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## Additional identifiers

**Protocol serial number**  
PRF/04/3

## Study information

**Scientific Title**  
A randomised controlled trial of acupuncture for the treatment of hyperventilation syndrome

## **Study objectives**

Continual and subtle hyperventilation can lead to a chronic condition which has been termed hyperventilation syndrome. Patients with hyperventilation syndrome are known to breathe at lower levels of arterial carbon dioxide and only small changes in this level can produce symptoms that can mimic serious disease e.g. chest pain, breathlessness, headaches, paraesthesia.

The aim of this study is to evaluate whether the use of acupuncture complements conventional physiotherapy treatment for hyperventilation syndrome. It is hypothesised that acupuncture, as an adjunct to conventional treatment for hyperventilation syndrome, will be beneficial, in terms of reducing anxiety and symptoms of hyperventilation.

Please note that, as of 14/10/2008, the anticipated end date of this trial has been extended from 31/12/2006 to 31/03/2009. The extension is due to delays in recruitment.

## **Ethics approval required**

Old ethics approval format

## **Ethics approval(s)**

Southampton and Southwest Hampshire Research Ethics Committee, 03/05/2006, ref: 06/Q1704/28

## **Study design**

Randomised controlled single-blind trial

## **Primary study design**

Interventional

## **Study type(s)**

Treatment

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

Hyperventilation syndrome

## **Interventions**

Current interventions as of 14/10/2008:

Physiotherapy in the form of breathing retraining:

Participants will be taught relaxed diaphragmatic breathing and encouraged to reduce their breath rate to 6 - 8 breaths per minute. They will also be taught a contact-relaxation technique. They will then be advised to carry out these techniques at home at least 3 times per day.

Acupuncture:

A western approach to acupuncture therapy will be used. Participants will receive either real acupuncture or placebo acupuncture using the Streitberger needle. Needles will be placed on 8 points of the body and a draining technique will be used i.e. once inserted, the needles will be left for a period of 30 minutes. Each participant in the acupuncture group will receive twice weekly treatments for 4 weeks (therefore 8 acupuncture treatments in total).

Previous interventions:

Physiotherapy in the form of breathing retraining:

Participants will be taught relaxed diaphragmatic breathing and encouraged to reduce their

breath rate to 6 - 8 breaths per minute. They will also be taught a contact-relaxation technique. They will then be advised to carry out these techniques at home daily.

#### Acupuncture:

A western approach to acupuncture therapy will be used. Participants will receive either real acupuncture or placebo acupuncture using the Streitberger needle. Needles will be placed on 8 points of the body and a draining technique will be used i.e. once inserted, the needles will be left for a period of 30 minutes.

#### Intervention Type

Other

#### Phase

Not Specified

#### Primary outcome(s)

Hospital Anxiety and Depression scale. This is a validated questionnaire which is used to identify anxiety and depression in non-psychiatric hospital clinics.

Added as of 14/10/2008:

All primary and secondary outcomes are measured at 1) baseline 2) pre-treatment (after a 4-week wait period to ensure participant's condition is stable) and 3) post-treatment on the 9th session.

#### Key secondary outcome(s)

1. Nijmegen Questionnaire - this is a validated screening tool which has been shown to have 95% effectiveness in discriminating hyperventilators from normals
2. Measure Yourself Medical Outcome Profile (MYMOP2) - this is a validated quality of life measure, which is individualised and problem specific and also includes general wellbeing
3. Objective measures of cardiorespiratory performance will also be taken e.g. respiratory rate and pattern, resting end tidal carbon dioxide, pulse oximetry, pulse rate and blood pressure
4. Borkovec and Nau credibility rating - this will be used to assess the success of blinding

Added as of 14/10/2008:

All primary and secondary outcomes are measured at 1) baseline 2) pre-treatment (after a 4-week wait period to ensure participant's condition is stable) and 3) post-treatment on the 9th session.

#### Completion date

31/03/2009

## Eligibility

#### Key inclusion criteria

Any patient newly diagnosed with hyperventilation syndrome by the respiratory physicians at Southampton General Hospital.

Added as of 14/10/2008:

Both males and females, over 18 years old

#### Participant type(s)

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

18 years

**Sex**

All

**Key exclusion criteria**

1. Any person for whom acupuncture would be contraindicated e.g. in pregnancy, pacemaker wearers
2. Any person who is receiving conventional or alternative treatment for the condition
3. People who are allergic to sticking plaster
4. People who are unable to attend for the required treatment sessions

**Date of first enrolment**

01/03/2006

**Date of final enrolment**

31/03/2009

## **Locations**

**Countries of recruitment**

United Kingdom

England

**Study participating centre**

**Physiotherapy Department**

Southampton

United Kingdom

SO16 6YD

## **Sponsor information**

**Organisation**

Physiotherapy Research Foundation (UK)

**ROR**

<https://ror.org/04sn78z72>

## **Funder(s)**

**Funder type**

Charity

**Funder Name**

Physiotherapy Research Foundation (UK) (ref: PRF/04/3)

## **Results and Publications**

**Individual participant data (IPD) sharing plan**

**IPD sharing plan summary**

Not provided at time of registration