

# Nordic walking to improve functional exercise capacity and daily physical activities in chronic obstructive pulmonary disease (COPD)

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<b>Registration date</b> 21/04/2009	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 21/04/2009	<b>Condition category</b> Respiratory	<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

**EudraCT/CTIS number**

**IRAS number**

**ClinicalTrials.gov number**

**Secondary identifying numbers**  
NA

# Study information

## Scientific Title

Nordic walking to improve functional exercise capacity and daily physical activities in chronic obstructive pulmonary disease (COPD): a randomised controlled trial

## Study objectives

The aim of the present study was to determine whether and to what extent Nordic walking is feasible in increasing functional exercise capacity in patients with chronic obstructive pulmonary disease (COPD). Additionally, we aimed to determine short- and long-term effects of Nordic walking on daily physical activity level, exercise performance and mood status in patients with COPD.

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

Ethics Committee of Vienna (Ethikkommission der Stadt Wien), approved on 15/03/2006 (ref: EK 06-058-VK)

## Study design

Randomised controlled trial

## Primary study design

Interventional

## Secondary study design

Randomised controlled trial

## Study setting(s)

Hospital

## Study type(s)

Treatment

## Participant information sheet

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

Chronic obstructive pulmonary disease (COPD)

## Interventions

The participants were randomised to either the intervention or control group:

Intervention group: 12 weeks outdoor Nordic walking exercise programme (1 hour per session, 3 times/week)

Control group: no exercise intervention

Patients randomised to the intervention group trained 3 times a week for 1 hour at recommended 75% of their initial maximum heart frequency obtained during initial maximum exercise test. In addition, the participants in the intervention group attended 1 hour/week

educational sessions on pulmonary pathophysiology, management of breathlessness and exacerbations, clearance of pulmonary secretions, smoking cessation, medication and nutrition.

The control group received 1 hour/month educational sessions.

**Intervention Type**

Other

**Phase**

Not Applicable

**Primary outcome measure**

Functional exercise capacity, assessed using the six minute walking test (6MWT).

All primary and secondary outcome measures will be assessed at baseline and after 3, 6, and 9 month.

**Secondary outcome measures**

1. Daily physical activities, assessed using a tri-axial accelerometer (DynaPort® Activity Monitor; McRoberts BV, Netherlands)
2. Exercise-induced dyspnoea, assessed using the modified Borg Dyspnoea Scale
3. Mood status, assessed using the Hospital Anxiety and Depression Scale (HADS)

All primary and secondary outcome measures will be assessed at baseline and after 3, 6, and 9 month.

**Overall study start date**

01/03/2006

**Completion date**

01/03/2007

**Eligibility****Key inclusion criteria**

1. Both males and females, age >18 years
2. Stable COPD (no infection or exacerbation for at least 12 weeks)
3. Absence of severe and/or unstable cardiac diseases (myocardial infarction within the last 6 month, cardiac arrhythmia Lown classification >IIIb, as shown by electrocardiogram during rest and maximal exercise test)
4. Absence of other pathologic conditions that could impair daily physical activities (cerebrovascular diseases, rheumatism, symptomatic osteoporosis and others)

**Participant type(s)**

Patient

**Age group**

Adult

**Lower age limit**

18 Years

**Sex**

Both

**Target number of participants**

60

**Key exclusion criteria**

Does not meet inclusion criteria

**Date of first enrolment**

01/03/2006

**Date of final enrolment**

01/03/2007

## **Locations**

**Countries of recruitment**

Austria

**Study participating centre**

Ludwig Boltzmann Institute for COPD

Vienna

Austria

1140

## **Sponsor information**

**Organisation**

Ludwig Boltzmann Institute for COPD (Ludwig Boltzmann Institut für COPD) (Austria)

**Sponsor details**

Sanatoriumstrasse 2

Vienna

Austria

1140

**Sponsor type**

Research organisation

**Website**

<http://www.lbg.ac.at>

**ROR**

<https://ror.org/01tf5aq62>

## **Funder(s)**

### **Funder type**

Research organisation

### **Funder Name**

Ludwig Boltzmann Institute for COPD (Ludwig Boltzmann Institut für COPD) (Austria) -

<http://www.lbg.ac.at>

## **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