

# The effect of exercise program for prevention of musculoskeletal disorders in the neck, upper back and low back among office workers

|                          |                             |  |
|--------------------------|-----------------------------|--|
| <b>Submission date</b>   | <b>Recruitment status</b>   | <input checked="" type="checkbox"/> Prospectively registered |
| 08/12/2010               | No longer recruiting        | <input type="checkbox"/> Protocol                            |
| <b>Registration date</b> | <b>Overall study status</b> | <input type="checkbox"/> Statistical analysis plan           |
| 23/12/2010               | Completed                   | <input checked="" type="checkbox"/> Results                  |
| <b>Last Edited</b>       | <b>Condition category</b>   | <input type="checkbox"/> Individual participant data         |
| 04/02/2014               | Musculoskeletal Diseases    |  |

## Plain English summary of protocol

Not provided at time of registration

## Contact information

### Type(s)

Scientific

### Contact name

Ms Rattaporn Sihawong

### Contact details

145 Payathai Road  
Pathumwan  
Bangkok  
Thailand  
10330  
rattaporn.s@chula.ac.th

## Additional identifiers

### Protocol serial number

N/A

## Study information

### Scientific Title

# The effect of exercise program for prevention of musculoskeletal disorders in the neck, upper back and low back among office workers: a prospective randomised controlled trial with a 12-month follow-up

## **Study objectives**

1. Office workers who receive exercise program have lower the annual incidence of neck, upper back and low back pain than a control group
2. Office workers who receive exercise program have lower of intensity of neck, upper back and low back pain during a year than control group
3. Office workers who receive exercise program have lower of frequency of neck, upper back and low back pain during a year than control group
4. Office workers who receive exercise program have lower of disability due to neck, upper back and low back pain during a year than control group
5. Office workers who receive exercise program have lower a number of days of sick leave from neck, upper back and low back pain during a year than control group

## **Ethics approval required**

Old ethics approval format

## **Ethics approval(s)**

The Ethics Review Committee for Research Involving Human Research Subjects, Health Science Group, Chulalongkorn University, approved the study protocol on the 3rd August 2010

## **Study design**

Prospective randomised controlled trial

## **Primary study design**

Interventional

## **Study type(s)**

Treatment

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

Non-specific neck, upper back and low back pain

## **Interventions**

Office workers in the study will be randomised into 2 groups: an exercise group and a control group. The exercise intervention will include stretching and endurance exercises. The stretching exercises will consist an auto stretching to neck extensor, pectoralis and hip flexor muscles. Each muscle will be stretched once by holding for 30 seconds. The endurance exercise for neck flexor, trunk extensor, multifidus and transversus abdominis muscles will be performed. Each muscle will be exercised for 10 repetitions. The 1 minute rest will be allowed between muscles. The intensity of endurance exercise will be adjusted every 2 months by increasing the number of repetition and reduction of rest time. Participants in the exercise group will performed stretching exercise twice a day at 10am and 14pm for 5 times per week for 12 months and endurance exercise twice per week on Wednesday and Sunday for 12 months. For the control group, participants will be asked not to change their current activity or begin an exercise program.

## **Intervention Type**

Other

**Phase**

Not Applicable

**Primary outcome(s)**

Incidence of neck, upper back and low back pain during the next 12 months

**Key secondary outcome(s)**

1. Intensity of neck, upper back and low back pain
2. Frequency of neck, upper back and low back pain during the next 12 months
3. Disability and sick leave due to neck, upper back and low back pain

**Completion date**

03/03/2012

## Eligibility

**Key inclusion criteria**

1. Full-time office workers
2. Age between 18 and 60 years
3. Both genders
4. Having at least 1 year of experience in the current position
5. Having neck flexor and back extensor muscle endurance lower than normal values
6. Having ranges of neck flexion and back extension movement lower than normal values

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

18 years

**Sex**

All

**Key exclusion criteria**

1. Having musculoskeletal disorders in the spine in the previous 3 months
2. Pregnant or plan to pregnant in the next 12 months
3. Having a history of spinal, intra-abdominal or femoral surgery
4. Having a history of trauma or accidents at the spinal region
5. Being diagnosed by a doctor as having abnormal spinal structures
6. Being diagnosed with rheumatoid arthritis, ankylosing spondylitis, systemic lupus erythematosus or osteoporosis
7. Plan to have a vacation during the next 12 months

**Date of first enrolment**

05/01/2011

**Date of final enrolment**

03/03/2012

## Locations

**Countries of recruitment**

Thailand

**Study participating centre**

145 Payathai Road

Bangkok

Thailand

10330

## Sponsor information

**Organisation**

Social Security Office of Thailand (Thailand)

**ROR**

<https://ror.org/02hanc252>

## Funder(s)

**Funder type**

Government

**Funder Name**

Social Security Office of Thailand (Thailand)

## 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? |
|---|-------------------------------|--------------|------------|----------------|-----------------|
| <a href="#">Results article</a>               | results                       | 01/01/2014   |            | Yes            | No              |
| <a href="#">Participant information sheet</a> | Participant information sheet | 11/11/2025   | 11/11/2025 | No             | Yes             |