

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

Submission date 08/12/2010	Recruitment status No longer recruiting	☒ Prospectively registered ☐ Protocol
Registration date 23/12/2010	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 04/02/2014	Condition category Musculoskeletal Diseases	☐ 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

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

Primary study design

Interventional

Study design

Prospective randomised controlled trial

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 erythymatosus 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?
Results article	results	01/01/2014		Yes	No