

# Good practices to develop physical activity programs at work

#### Consortium:





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Universidade de Coimbra









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CENTRO DE INVESTIGAÇÃO DO DESPORTO E DA ACTIVIDADE FISICA UNIVERSIDADE DE COIMBRA

# General guidelines

- ✓ Participants should be encouraged to accumulate as many time as possible in programs I and II along the day.
- ✓ The ideal is to accumulate a daily minimum of 20 minutes workout, 3-5 times per week
- ✓ The list of exercises can be extended and the individual programs will be adapted periodically, using the feedbacks of the participants along the project.
- ✓ Depending on the time available, the participants can do the whole workout, or part of the workout.

### **Program**

### I - Individual workouts guidelines

- ✓ Exercises can be done separately to alleviate some discomfort along the workday
- ✓ It is possible to do the musculoskeletal exercises at one moment and the stretching exercises at other moment
- ✓ Exercise duration: 10-20 reps
  - Stage 1 (beginner level): 10 repetitions
  - Stage 2 (intermediate level): 15 repetitions
  - Stage 3 (advanced level): 20 repetitions
- ✓ Same workout for both sides (right and left)
- ✓ Maintaining the neutral spine and good posture
- ✓ There are 2 different programs: 1 for the office workers (group 1) and other for groups 2 and 3

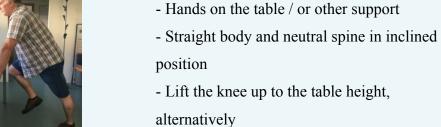
#### **GROUP 1 – OFFICE PARTICIPANTS**

#### STRENGTHENING EXERCISES

## Musculoskeletal disorders



#### **Exercises Description**





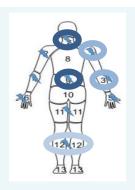
- Hands on the chair / or other support
- Straight body and neutral spine in vertical position
- Lift the calf and return



- Straight body and neutral spine in vertical position
- Lift the foot up to the chair / or other support, alternatively



- Straight body and neutral spine in vertical position
- Squat until touch the chair or other support maintaining the neutral spine





- Hands on the table / or other support
- Straight body and neutral spine in inclined position
- Approximate the scapulae



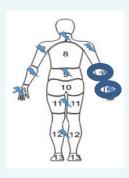
- One forearm on the table
- Straight body and neutral spine in lateral position
- Both sides, counting until 10, 15 or 20, depending on you level



- Straight body and neutral spine in vertical position
- Bend forward and lift one leg until having the body horizontal, and arms in cross maintaining the neutral spine
- 1 leg each time



- Hands on the table / or other support
- Straight body and neutral spine in inclined position
- Flex and extend the arms





- Sitting or standing position with neutral spine
- Cross the fingers between both hands and straight the arms with the back of the hand in the direction of the face



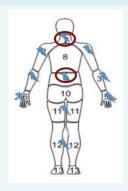
- Sitting or standing position with neutral spine
- Catch the forearm with one hand and rotate the wrist

#### STRETCHING EXERCISES

# Musculoskeletal disorders

#### **Exercises**

#### Description





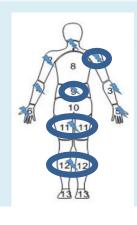
- Squat position press the wall with the whole back and shoulders
- The back side of the head presses the wall, pushing the neck backward



- Sitting position with neutral spine
- Slowly bend forward the trunk and falling down the head and arms



- Sitting position with neutral spine
- Slowly bend the trunk to the side and transfer the weight to the side
- Left and right





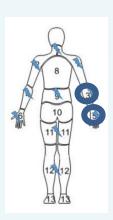
- Starting hands on the table / or other support with straight body
- Maintaining the neutral spine, bend the trunk until its parallel to the ground
- Legs stay in the vertical position and feet forward



- Hands on the chair / or other support
- Straight body and neutral spine in vertical position
- Bend one leg with the help of the hand of the same side, trying to reach the buttock with the heel



- Press one side of the body against the wall with one arm parallel to the ground
- The opposite arm pushes the wall in order to rotate the trunk





- Sitting or standing position with neutral spine
- Cross the arms and fingers between both hands and straight the arms
- Bend the arms until join the forearms in the chest



- Sitting or standing position with neutral spine
- Cross the fingers between both hands and straight the arms with the back of the hand in the direction of the face

#### OTHER PARTICIPANTS (Groups 2 and 3)

# STRENGTHENING EXERCISES Musculoskeletal **Exercises Description:** disorders - Hands on the wall or other support Straight body and neutral spine in inclined position - Lift the knee up until 90°, alternatively - Hands on the wall or other support Straight body and neutral spine in vertical position - Lift the calf and return - Straight body and neutral spine in vertical position - Hands on the table Squat 90° maintaining the neutral spine - Straight body and neutral spine in vertical position Straight body and neutral spine in vertical position - Lunge position: Move one leg backward binding the legs, until the thigh is parallel to the ground - Alternate sides - Elbows on the wall or hand on the handrail - Straight body and neutral spine in inclined position - Approximate the scapulae



- One forearm on the wall
- Straight body and neutral spine in lateral position



- Straight body and neutral spine in vertical position
- Bend forward and lift one leg until having the body horizontal, and arms in cross maintaining the neutral spine



- Hands on the wall / or other support
- Straight body and neutral spine in inclined position
- Flex and extend the arms



- Standing position with neutral spine
- Cross the fingers between both hands and straight the arms with the back of the hand in the direction of the face





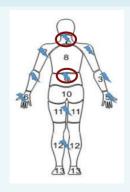
- Standing position with neutral spine
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#### STRETCHING EXERCISES

# Musculoskeletal disorders

#### **Exercises**

#### Description

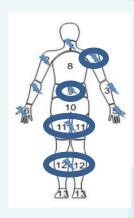




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- Standing position with neutral spine
- Slowly bend forward the trunk and falling down the head and arms





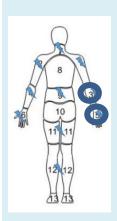
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- Standing position with neutral spine
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## Program II – Cardiovascular circuit guidelines

- ✓ The program can be completed outdoor or indoor using the stairs and has to be essentially constituted by cardiovascular exercises
- ✓ Final stretching is allowed at the end of the workout
- ✓ Small round "power walking"
- ✓ Big round to the building "power walking"
- ✓ The circuit takes about 5 minutes to complete. Participants can repeat the circuit to reach 10 minutes (2 repetitions), 15 minutes (3 repetitions) or more.

#### **CIRCUIT OF AROUND 5 MINUTES**

- Stage 1 1 small round with 1 workout (3 exercises)
- Stage 2 1 big round with workout (3 exercises)
- Stage 3 1 big round with workout (3 exercises) + 20 step up or 10 jumps with both feet at the same time

#### **EXAMPLES OF WORKOUTS:**







#### **EXAMPLES OF STRETCHING EXERCISES:**











# **Exercise Demonstrations**





vídeo 2



vídeo 3



vídeo 4



vídeo 5



vídeo 6



vídeo 7

