

# EXERCISE OF THE WEEK 1

## RELAXATION AND REACTIVATION

### EXERCISES

# Office-Syndrom?



**Headache**





**Neck Pain**



**Shoulder pain**





**Backache**



Dann hilft die Übung der Woche!






## Overview

- **Staying fit with "Exercise Of The Week"**
- **Worksheets for weeks: 1 - 14**
- **Caspar, the couch potato**
- **Worksheet week 1**
  - **Relaxation/ "reactivation" (1)**
    - Exercise 1.1: Stretching torso and shoulders
    - Exercise 1.2: Rolling shoulders in sitting position
    - Exercise 1.3: Rotating the head
  - **Videos (in German)**
    - Stretching torso and shoulders (1.1)
    - Rolling shoulders (1.2)
    - Rotating head (Cervical spine) in sitting position (1.3)
- **List of references**

# STAYING FIT WITH EXERCISE OF THE WEEK

**At work,  
no material required**



**These effective exercises will easily become  
part of your every-day routine.**

**14 weeks**

**Each week, we will be presenting  
a new exercise.**

**The exercises are successive and  
build upon each other.**

- ▶ Each exercise will be described in 3 steps
  - **Detailed description of the exercise**
  - **Pictures of key positions of the movement**
  - **Explanation of the exercise's effects**

**The AHS-Team & KNSU** hope you enjoy  
this exercise program!  
University Koblenz-Landau, Campus Koblenz

# EXERCISE SHEET FOR 14 WEEKS

The selected exercises help relax, reactivate, strengthen, and mobilise different body parts while enhancing their circulation.

## Part 1: Relaxation and reactivation

People who spend excessive amounts of time every day sitting are more prone to injury and are at risk for circulatory and mobility problems. Sitting in a certain position at a desk for a long period of time every day can cause different health issues, such as back problems. It does not only affect the muscles (active mechanisms), but especially concerns the body's "passive mechanisms". These passive parts are those body parts that do not contract or move actively, such as ligaments, joints or discs. In order to avoid pain and injuries caused by a lack of movement, stabilizer muscles have to be reactivated regularly during the day. Without this reactivation, stabilizer muscles become weak and tense, which can also negatively affect a person's concentration at work. Therefore, relaxation and reactivation exercises are of great importance.

## Part 2: Enhancing strength and circulation

Prolonged sitting can interrupt proper circulation of the lower limbs. Easy leg exercises can help improve the circulatory flow.

## Part 3: Mobilisation and strengthening of the spine

Another aspect of importance in this matter is the "nourishment" of active and passive bodily structures. When remaining in a seated position for a long period of time, the various different structures of the body do not receive what they need in order to function properly. Mobilising and strengthening exercises can help maintain well nourished structures that are strong and functional.

### Relevant for all exercises:

- Do the exercise with flat shoes or barefoot.



# BUT BEFORE WE START...

## **Caspar, the couch potato**

**Caspar was a nice little guy  
but was rather fat and really shy  
He hated sports and ate all day  
Until his doctor had to say:**

**"You say your back and hip and leg hurt?  
And that you only fit into a size XL shirt?  
Caspar, you have to stay fit!  
You can't be in the office all day and just sit".  
Check the website KNSU  
To see what exercises at work you can do.**

**Caspar didn't understand and he didn't care  
How can doing nothing cause pain, that's not fair  
So he didn't change anything and stayed lazy  
He didn't do any sports and still ate unhealthy  
Such nonsense, I don't have to be fit  
My body will be just fine if I go to work and sit**

**Every day, Caspar got weaker and sicker  
His body ached more and he became thicker  
Maybe his doctor was right  
He should have worked on his fitness and fight**

**Don't make the same mistake  
Check KNSU, for Goodness sake  
KNSU can help you if you are lazy  
With exercises to do at work that are very easy  
It shows you what to do at work and how to sit  
To stay healthy, pain-free, more effective and fit.**

# EXERCISE SHEET: WEEK 1

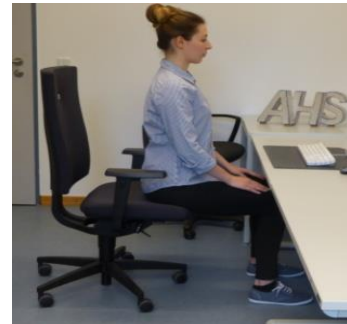
**Exercises 1- 3 activate your torso, shoulders and neck.**

## Cervical spine problems

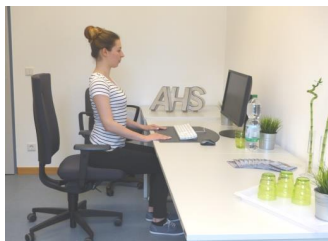
- If you suffer from spinal pain or have stiffened spine segments, please do not do exercise 1.3.


**Starting position/SP and End position/EP** ▶  **1.1-1.3**

- Sit on the edge of the chair
- Place your feet in front of the chair (hip-width); your knees should be bend approx. 90°-100°<sup>1</sup>
- Keep your upper body upright
- Place your hands on your thighs



## Exercise 1.1 Stretching your torso and shoulders



- 1 Place your hands on the front edge of the table
- 2 Slowly push yourself back on your desk chair
- 3 While pushing back, your torso will automatically go forward and your chin moves closer to your chest. Keep pushing backwards without letting go of the table  
→ This exercise stretches the muscles and the fascia of your torso and shoulders
- 4 Hold this position while taking 4 deep breaths. Breathe in through your nose and breath out through your mouth.
- 4-5 By taking little steps back towards the table and breathing slowly while moving forward, you go back to an upright position (one vertebrae at a time) ▶  **1.1**





**Repeat this exercise 3 times.**

<sup>1</sup> The angle should be higher than 90°, so nerves running across the hip are more relaxed.



1.1


# Stretching your torso and shoulders

 1.1	Sequence	Tips
<p><b>Function</b></p> <ul style="list-style-type: none"> <li>Stretching torso and shoulders</li> </ul> <p><b>Upright position</b></p> <ul style="list-style-type: none"> <li>Activation of the extension muscles</li> </ul> <p><b>Stimulation</b></p> <ul style="list-style-type: none"> <li>Cardiovascular system</li> </ul>	<p>SP</p>  <p>EP</p>  <p>1</p> <p>2-4</p>  <p>5</p> <p>3 repetitions</p>	<ol style="list-style-type: none"> <li>Place your hands on the front edge of the table</li> <li>Slowly push yourself back on your desk chair - as far as possible</li> <li>Your torso will automatically go forward and your chin moves closer to your chest - do not let go of the table</li> <li>Hold this position while taking 4 deep breaths. Breathe in through your nose and breath out through your mouth</li> <li>By taking little steps back towards the table and breathing slowly while moving forward, you go back to an upright position (one vertebrae at a time)</li> </ol>



1.1

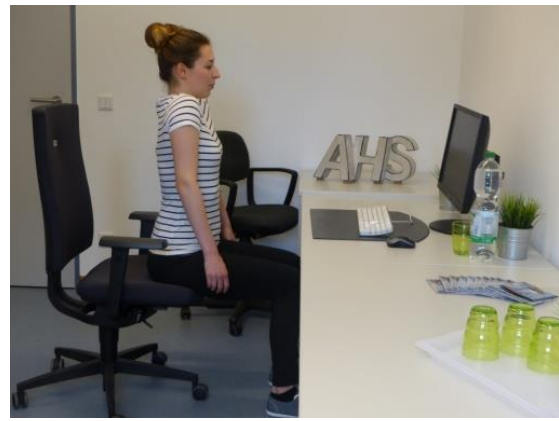
## Right - Wrong


Right	Wrong
<p><b>In position 2-4: Keep looking down</b> → in order to stretch your torso and shoulders</p> <p><b>Remember:</b> The direction you look at, is the direction your body will move towards.</p>	
<p><b>Looking up or towards the front</b></p>	<p><b>Reason</b> → When looking up or towards the front, your facet joints of the vertebral bodies are strained in an unhealthy way.</p>



## Exercise 1.2

### Rolling your shoulders



- 1 Chose an upright position on the chair that is comfortable for you. Try to sit on the edge of the chair.
- 2 Place your feet in front of the chair (hip-width); your knees should be bend approx. 90°- 100°
- 3 Your arms hang down loosely
- 4 Now slowly roll your shoulders back; your shoulder muscles should be doing all the work.  
Make sure you breathe in and out slowly and adjust your breathing rhythm to your movements.
- 5 Put your head back into an upright position and change sides ►  1.2


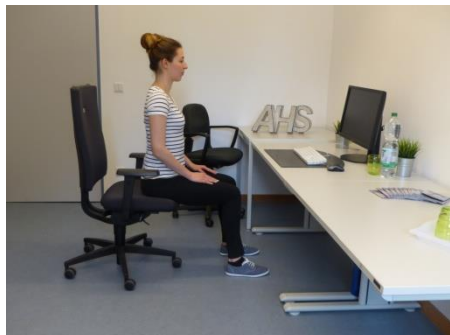


**Roll your shoulders only back<sup>2</sup>- repeat this 12- 15 times**

<sup>2</sup> Please only roll your shoulders b a c k → Reason: Most people working in an office have their shoulders in an unhealthy position as their shoulders tend to be held down and in front. As a result, the ventral muscles are shortened whereas the dorsal muscles are stretched. Rolling your shoulders back helps reactivate the upper back muscles and puts the shoulders back into a physiological position.




1.2

# Rolling your shoulders

 1.2	Sequence	Tips
<p><b>Function</b></p> <ul style="list-style-type: none"> <li>Stretching and loosening of shoulders</li> </ul> <p><b>Upright position</b></p> <ul style="list-style-type: none"> <li>See: tip 1</li> </ul>	<p><b>SP</b></p>  <p>1 - 3</p> <p><b>EP</b></p>  <p>4 - 5</p>  <p>12-15 repetitions 6</p>	<ol style="list-style-type: none"> <li>Chose an upright position, sit on the edge of the chair.</li> <li>Place your feet in front of the chair (hip-width); your knees should be bend approx. 90°-100°</li> <li>Your arms hang down loosely</li> <li>Slowly roll your shoulders back; your shoulder muscles should be doing all the work.</li> <li>Make sure you breathe in and out slowly and adjust your breathing rhythm to your movement</li> <li>Only roll shoulders back</li> </ol>

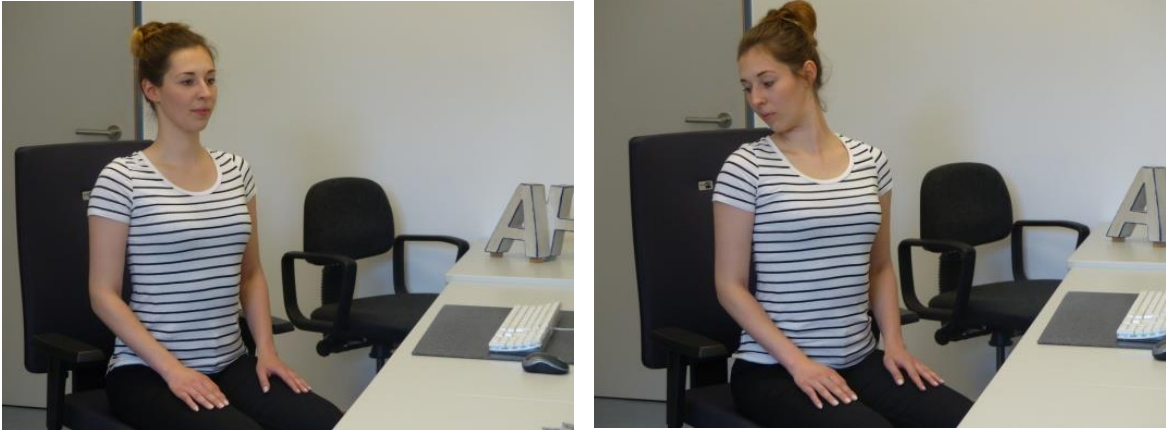


## Right - Wrong

Right	Wrong	
<p>Only roll shoulders back</p> <div>  </div>	<p>Rolling shoulders forward</p>	<p><b>Reason:</b>            → Most people working in an office have their shoulders in an unhealthy position as their shoulders tend to be held down and in front. As a result, the ventral muscles are shortened whereas the dorsal muscles are stretched. Rolling your shoulders back helps reactivate the upper back muscles and puts the shoulders back into a physiological position</p>

## Exercise 1.3

### Turning your head



- 1-2 Sit upright with sitting bones on the edge of the chair; Place your feet in front of the chair (hip width); your knees should be bend approx. 90°- 100°
- 3 Move your shoulders slightly back and down into a relaxed position; hold this position
- 4 With the mouth closed, move your chin towards your chest; do not bend your cervical spine
- 5 Turn your head right and left; remain on each side for about 4 breaths in and out  
→ Please make sure, you only feel the muscle stretch but do not cause any severe pain.
- 6 Bring your head back into an upright position and turn your head to the other side.




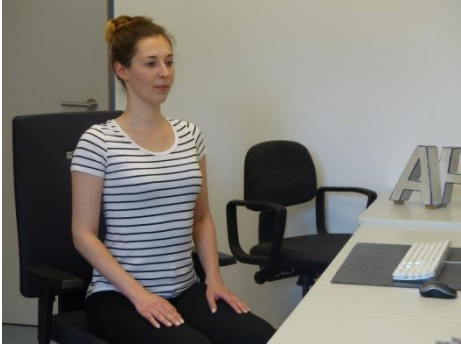
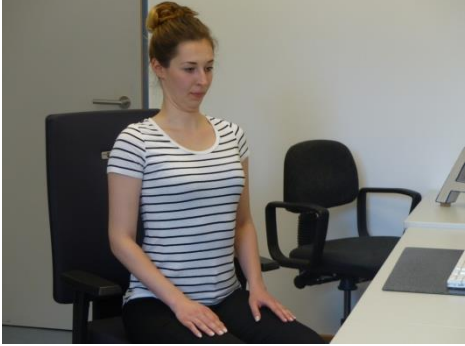


**Repeat 8-10 times on each side.**

**If this exercise causes severe pain, do not continue the exercise or only turn your head up to the point where it still does not hurt.**



1.3


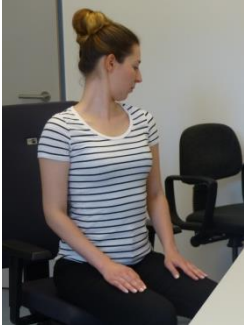
# Turning your head

 1.3	Sequence	Tips
<p><b>Function</b></p> <ul style="list-style-type: none"> <li>• Stretch neck muscles</li> </ul> <p><b>Upright position</b></p> <ul style="list-style-type: none"> <li>• See: tip 1</li> </ul>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="text-align: center;"> <p>SP</p>  <p>1-3</p> </div> <div style="text-align: center;">  <p>4</p> </div> </div> <div style="display: flex; justify-content: space-around; width: 100%; margin-top: 20px;"> <div style="text-align: center;">  <p>5</p> </div> <div style="text-align: center;">  <p>5</p> </div> </div> <div style="margin-top: 20px;"> <p>8-10 repetitions on each side</p> </div> </div>	<ol style="list-style-type: none"> <li>1 Sit upright with sitting bones placed on the edge of the chair</li> <li>2 Place your feet in front of the chair (hip width); your knees should be bend approx. 90°-100°</li> <li>3 Move your shoulders slightly back and down into a relaxed position; hold this position</li> <li>4 With the mouth closed, move your chin towards your chest; do not bend your cervical spine</li> <li>5 Turn your head right and left; remain on each side for about 4 breaths in and out</li> </ol>



1.3

## Right - Wrong

Right		Wrong	
Keep chin in correct position			<p><b>Reason</b> → The joint surfaces of the upper head joints are compressed</p>

## List of references

### Illustrations/ images

Number	Creator
All pictures	Caroline Richter
Illustration: titel	www.colourbox.de (ID#18474676); modified by Jan-Holger Nahler
Illustration: page 3	Jan-Holger Nahler

### Videos

Number	Creator
1.1-1.3	Caroline Richter / Sprecher: Frank Uwe Heinze

### German narration and music

Video	Narrator/ Composer	Track title
1.1-1.3	Frank Uwe Heinze	Enjoy the Moment

### Story/ poem

Name	Creator
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