

EXERCISE OF THE WEEK 11 MOBILISATION AND STRENGTHENING OF THE SPINE

**Get fit at work
No equipment**

Office-Syndrom?



Headache





Neck Pain



Shoulder pain





Backache



Dann hilft die Übung der Woche!




Cooperative Project of AHS and KNSU

Authors: Frank Uwe Heinze, Caroline Richter, Mara Hammes
Translator: Mara Hammes



Overview

- **Exercise card week 11**
 - **Mobilisation and strengthening of the spine**
 - Exercise 11.1: Standing rotation of the torso with immobilisation of the pelvic muscles
 - Exercise 11.2: Standing rotation of the torso with immobilisation of the upper body
 - **Videos (in German)**
 - Standing rotation of the torso with immobilisation of the pelvic muscles (11.1)
 - Standing rotation of the torso with immobilisation of the upper body (11.2)
- **List of references**

EXERCISE CARD WEEK 11

Exercise 11.1

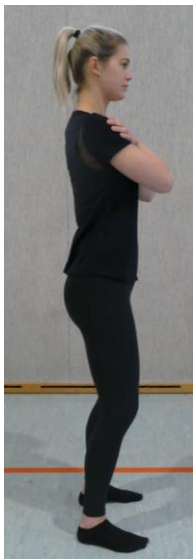
Standing rotation of the torso with immobilisation of the pelvic muscles

Exercise 11.2


Standing rotation of the torso with immobilisation of the upper body


The exercises consist of a static-dynamic combination.

Starting position/SP 1



Your feet are hip width apart and positioned by a 5°-10° angle outwards, knees and hips are slightly bent, the spine is adapted to the hip, the arms are crossed on the chest and the palms lie on the opposite shoulder.

11.1 The lower body is static while the upper body rotates about the spine axis. Due to physiological causes, the hip slightly moves as well. The movement is performed in a calm manner and with the known breathing technique. ▶  **11.1**

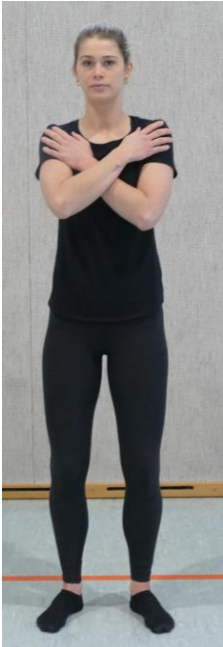
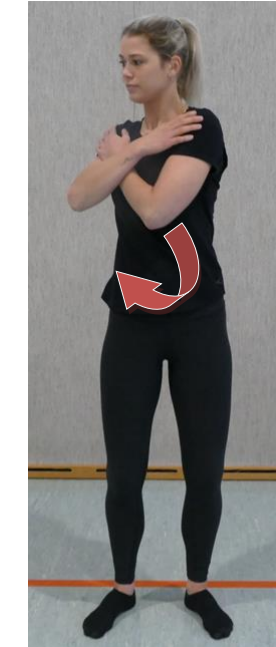
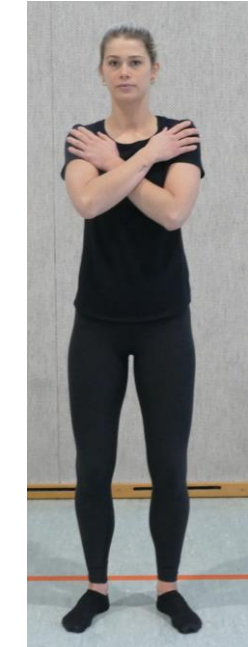
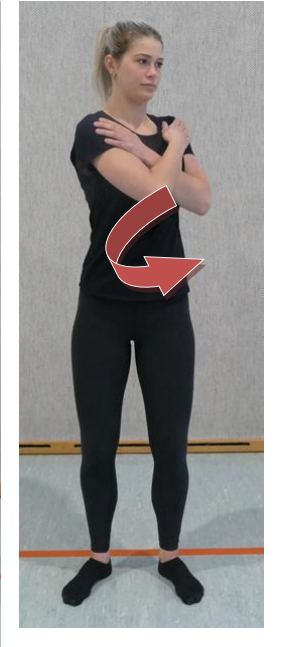
11.2 Now the upper body is static and the hip initiates the rotation, so the movement takes place in the lower body mainly. It is important, that the shoulder girdle is absolutely fixed. ▶  **11.2**

3-5 sets of 8-10 repetitions



11.1





Standing rotation of the torso with immobilisation of the pelvic muscles

▶ 11.1	Sequence				Tips	
<p>Function</p> <ul style="list-style-type: none"> Mobilisation of the vertebral joint in the thoracic spine and strengthening of the muscles involved. 	<p>SP EP</p>	 <p>1</p>	 <p>2</p>	 <p>3</p>	 <p>3</p>	<ol style="list-style-type: none"> Starting position: Standing; arms crossed and hands on shoulders. Lower body static up to the hip. Upper body rotates about spine axis while slowly exhaling. While inhaling upper body is turned back to starting position, to rotate to the other side during the next exhalation.
<p>8 repetitions</p>						



11.2


Standing rotation of the torso with immobilisation of the upper body

11.2	Sequence	Tips
<p>Function</p> <ul style="list-style-type: none"> • Mobilisation of the vertebral joint in the lumbar spine, strengthening of the stabilizers of the lumbar spine. Relaying mobilisation of the hip joints in internal and external rotation. 	<p>SP EP</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>1</p> </div> <div style="text-align: center;">  <p>2</p> </div> <div style="text-align: center;">  <p>3</p> </div> <div style="text-align: center;">  <p>3</p> </div> </div> <p>8 repetitions</p>	<ol style="list-style-type: none"> 1 Starting position: Standing; arms crossed and hands on shoulders. 2 The upper body stays static. The hip initiates the rotation to the right while exhaling. The shoulder girdle is fixed. 3 While inhaling the hip is turned back to the starting position to rotate to the left side during the next exhalation.



11.1/11.2

Functional Zusammenspiel

Correct		False	
Rotation of the spine, especially the thoracic spine		Strongly using your hip while rotating	<p>Explanation</p> <ul style="list-style-type: none"> → unphysiological rotation load of capsule and ligaments of the knee → Not fixing your upper body leads to a subjective impression of a large extent of movement (self-deception)
5-10° external rotation of the feet		Feet are parallel	

List of references

Illustrations/ images

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

Videos

Number	Creator
11.1-11.2	Caroline Richter / Narrator: Frank Uwe Heinze

German narration and music

Video	Narrator/ Composer	Track title
11.1-11.2	Frank Uwe Heinze	Enjoy the Moment

Creators of the article

Author	Counsellor	Institution
Frank Uwe Heinze		Physiotherapist Institute for Preventive Medicine of the Bundeswehr/ Koblenz
Caroline Richter, Mara Hammes/ students	Minnich, Marlis	Institute of Sports Sciences, University of Koblenz- Landau, Campus Koblenz
Jan-Holger Nahler	Bauer, Sabine	Head of the AHS, Universität Koblenz - Landau, Campus Koblenz

Translation

Translator	Counsellor	Institution
Mara Hammes/ student	Philipp Hähle /student	Institute of Sports Sciences, University of Koblenz- Landau, Campus Koblenz