


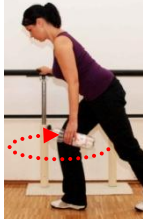


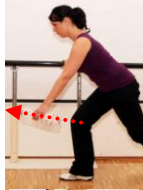



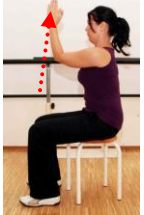
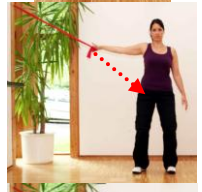




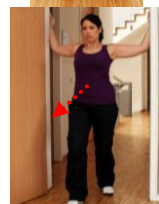








Table 1. Description of specific home-based exercises

Exercise	Description	Dosage	Weeks performed	Figure
Shoulder circles	Subject is sitting, arms at side, neutral rotation; subject performs shoulder rotation backwards in a circle	10 reps x 3	Week 1 - 8	
Shoulder elevation and depression	Subject is sitting, arms at side neutral rotation; subject shrug shoulders up, then depression	10 reps x 3	Week 1	
Straightening upper body	Subject is sitting with hands supported on the chair; subject straight the upper part of the body to raise torso	5 reps x 3	Week 1 -3	
Pendulum exercise I	Subject is standing leaning on a table or hand rail and bending forward at the waist; subject holds a dumbbell or bottle; subject relaxes the shoulder blade and let it drop , then performs relaxed circles (right arm: clockwise; left arm: anticlockwise) in a radius of 20 to 30 cm. Start with the healthy side first	15 reps x 3	Week 1	
Self-resisted isometric adduction	Subject is sitting with a folded towel between elbow and waist, elbow flexed to 90°; subject pushes towel against body. Start with the healthy side first	5 reps x 3	Week 1 & 2	
Deep inspiration	Subject is sitting with hands in front of stomach; subject takes a deep inspiration with pressing the shoulders backwards	5 reps x 3	Week 2	
Pendulum exercise II	Subject is standing leaning on a table or hand rail and bending forward at the waist; subject holds a dumbbell or bottle; subject relaxes the shoulder blade and let it drop. Then performs forward-backward swings. Start with the healthy side first	10 reps x 3	Week 2	
Pendulum exercise III	Subject is standing leaning on a table or hand rail and bending forward at the waist; subject holds a dumbbell or bottle; subject relaxes the shoulder blade and let it drop. Then performs swings from the center to the outside (series 1), afterwards to the inside (series 2). Start with the healthy side first	10 reps x 3 each series	Week 2	

Resisted adduction I	Subject is standing with 45° shoulder abduction; resistance band is fixed laterally at waist level; subject performs shoulder adduction with fixed elbow. Start with the healthy side first	10 reps x 3	Week 2	
Resisted extension I	Subject is standing with 45° shoulder flexion; resistance band is fixed anteriorly at waist level; subject performs shoulder extension with fixed elbow. Start with the healthy side first	10 reps x 3	Week 2	
Self-resisted flexion	Subject is sitting with relaxed shoulders, 90° flexed elbows and with palms together; subject is elevating arms to horizontal position with fixed elbows, palms under continuous pressure	10 reps x 3	Week 3	
Resisted adduction II	Subject is standing with 45° shoulder abduction; resistance band is fixed laterally at or over head level; subject performs shoulder adduction with fixed elbow. Start with the healthy side first	10 reps x 3	Week 3 & 4	
Resisted extension II	Subject is standing with 45° shoulder flexion; resistance band is fixed anteriorly at or over head; subject performs shoulder extension with fixed elbow. Start with the healthy side first	10 reps x 3	Week 3 & 4	
External rotation	Subject is sitting with both arms in front of stomach, elbows in 90° flexion; subject performs external shoulder rotation, elbows fixed at the waist	10 reps x 3	Week 4	
Breast stroke	Subject is sitting with hanging shoulders, flexed elbows and with palms together; subject is elevating arms to horizontal position, palms under continuous pressure. Subject is then spreading arms and descending arms in a circle toward starting position	10 reps x 3	Week 4	
Resisted external rotation	Subject is sitting with shoulders in neutral position, elbows in 90° flexion; subject holds a resistance band with both hand, then performs external shoulder rotation, elbows fixed at the waist	10 reps x 3	Week 4 -8	
Door stretch I	Subject is standing with both hands on a door frame, shoulder in max. 90° abduction and elbows flexed; subject leans in and stretches anterior shoulder	5 reps x 3	Week 5	

Resisted abduction I	Subject is sitting, holding a resistance band in hands, one hand fixing at hip level, the other with hanging shoulder and flexed elbow; subject performs abduction until horizontal position (avoiding rotation or flexion). Start with the healthy side first	10 reps x 3	Week 5	
Door stretch II	Subject is standing with both hands on a door frame, shoulder in abduction and elbows at head level; subject leans in and stretches anterior shoulder	5 reps x 3	Week 6	
Resisted abduction II	Subject is sitting with hanging shoulders and flexed elbows, holding a crossed resistance band in hands; subject performs an abduction until horizontal position (avoiding rotation or flexion)	10 reps x 3	Week 6-8	
Wall stretch I	Subject is standing sideways with one hand at a wall, shoulder in 90° abduction and elbow flexed; subject elevates arm until full elbow extension.	10 reps x 3	Week 7	
Resisted abduction II	Subject is sitting, holding a resistance band in hands, one hand fixing at hip level, the other with hanging shoulder and flexed elbow; subject performs a widest possible abduction (avoiding rotation or flexion). Start with the healthy side first	10 reps x 3	Week 7	
Wall stretch II	Subject is standing sideways with one hand at a wall, shoulder in 90° abduction and elbow flexed; subject leans in towards the wall and elevates arm as possible.	10 reps x 3	Week 8	

Note: Abbreviation: reps, repetitions