



Level 3 - Hard

Exercise Program for older adults

Ageing, physical function and exercise

With this brochure, we want to inspire you to exercise at home. You can use this exercise program as your main form of exercise or in addition to the exercise you may already include in your weekly routine, e.g. fitness classes, walking. The program includes a full-body workout and contains a combination of strength, balance and coordination exercises.

Research shows that declines in physical function (e.g. lower gait speed) among older adults can be prevented by exercise and that even a small increase in exercise can have a positive effect on your health.

In the SITLESS project, we try to motivate older adults to increase the amount of physical activity and exercise they do, while also reducing their sedentary behaviour. Read more about sedentary behaviour at the end of this brochure.

For more information about the SITLESS project visit our webpage: www.sitless.eu



Instruction

The workout in this brochure is meant for individuals with advanced training experience. The only thing you need is a chair, a carrier bag, a mat or blanket and your own body weight. If you want to do exercises with lower difficulty, please go back to level 1 or 2.

In the present exercise program, we recommend exercising twice a week. The program is divided into sessions which include a variety of exercises grouped into *blocks*. There are three sessions and we recommend following the first session (*Session 1*) for four weeks. After completing the first session for four weeks, you move on to the second session (*Session 2*) for four weeks (we encourage you to add some exercises from the blocks included in *Session 1*). Finally, you move on to the third session (*Session 3*) for the next four weeks (once again we encourage you to add some exercises from the blocks in *Sessions 1 and 2*). Once you have completed all three sessions, you can put together your own exercise program based on exercises from *Sessions 1, 2 and 3*. Remember to include exercises for both upper- and lower body as well as exercises, which improve your balance.

Each session consists of a warm-up and three blocks. Each block contains 2-3 exer-

cises, and next to each exercise you will be able to see if you need to complete the exercise for 30 seconds in a row or do 10 repetitions. Some exercises require you to do 10 repetitions on both your right and left side.

The warm-up and all blocks must be repeated three times, so you end up completing 3x10 repetitions or 3x30 seconds of each exercise.

Make sure the intensity is high – in other words, the exercise must be hard enough. In practice, this means that the exercise should feel so exhausting that you can only do it for 30 seconds or perform 10 repetitions in a row. Add more weight to your carrier bag if the exercise is too easy to perform. In general, you should have more weight in your carrier bag when exercising your lower body and less weight when exercising your arms and upper body.

Enjoy your workout!

Example of 12-week programme

Sessions can be completed on your preferred day, but it is important to incorporate rest days between sessions and add in your own exercise/physical activity to meet the recommended guidelines (150 minutes per week).

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Week 1		Session 1 Blocks 1 - 3			Session 1 Blocks 1 - 3		Walk
Week 2		Session 1 Blocks 1 - 3			Session 1 Blocks 1 - 3		Walk
Week 3		Session 1 Blocks 1 - 3			Session 1 Blocks 1 - 3		Walk
Week 4		Session 1 Blocks 1 - 3			Session 1 Blocks 1 - 3		Walk
Week 5		Session 2 Blocks 4 - 6			Session 2 Blocks 4 - 6		Walk
Week 6		Session 2 Blocks 1, 4 - 6			Session 2 Blocks 1, 4 - 6		Walk
Week 7		Session 2 Blocks 2, 4 - 6			Session 2 Blocks 2, 4 - 6		Walk
Week 8		Session 2 Blocks 3 - 6			Session 2 Blocks 3 - 6		Walk
Week 9		Session 3 Blocks 7 - 9			Session 3 Blocks 7 - 9		Walk
Week 10		Session 3 Blocks 2, 7 - 9			Session 3 Blocks 2, 7 - 9		Walk
Week 11		Session 3 Blocks 4, 7 - 9			Session 3 Blocks 4, 7 - 9		Walk
Week 12		Session 3 Blocks 6 - 9			Session 3 Blocks 6 - 9		Walk

We encourage to follow the safety rules below:

- When using a chair, it should be placed up against a wall so it cannot move or turn over.
- Exercise on solid ground: wall-to-wall carpets and wood- or linoleum flooring. Avoid exercising in rooms with smaller carpets or mats.
- If you are exercising on slippery surfaces, make sure that you have bare feet and do not train in socks.
- If you are exercising in shoes, make sure that you choose shoes you feel comfortable in. Shock-absorbing training shoes can be a good idea if you are overweight or have problems with knee- or ankle joints. Avoid clogs or high-heeled shoes.
- Make sure to drink extra fluid on the days when you are exercising. Drink approximately ½ litre more on workout days. Drink before, during and after training to prevent dizziness and falling.

Training – Session 1 (4 weeks)

Warm-up (Repeat the warm-up 3 times)



Position yourself with your side next to a wall. Support yourself with one hand on the wall. Straighten your back, keeping your chest tall and walk at a high pace on the spot.



30 sec.



Stand with your back straight and your feet together. Take a step out to the one side while stretching both arms out to the sides. Repeat this with the other side.



30 sec.

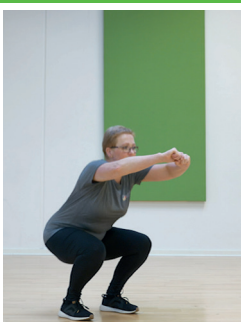
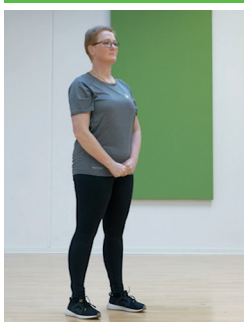


Position yourself with your side next to a wall and your back straight. Support yourself with one hand on the wall. Lift in turns the right and left knee high up in the air while raising the arm that is not leaning against the wall.



30 sec.

Block 1 (Repeat Block 1 three times)



Squat: Stand with your back straight and your feet hip width distance apart. Bend your knees and push your bottom backwards as if you are about to sit down on a chair, keeping your chest up tall. Make sure your knees point in the same direction as your toes. Get up to a standing position and repeat. Perform 10 repetitions.



10-30 sec.



1-arm upper back exercise: Position yourself with your left hand and knee on the seat of the chair. Hold your bag in your right hand and make sure your back is straight and in a horizontal position. Hold your right hand stretched down towards the floor and lift it up to your chest by bending your elbow. Lower it slowly and perform 10 repetitions. Repeat with your left arm.



10 reps.

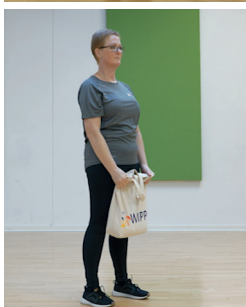
Block 2 (Repeat Block 2 three times)



Balance exercise: Straighten your back and walk on your tip-toes. Lean against a wall for support if necessary.



30 sec.



Standing shoulder exercise: Position yourself with your back straight and feet hip width distance apart. Hold the bag in your hands and lift both arms stretched in front of you. Slowly lower your arms and repeat. Perform 10 repetitions.



10 reps.



Pelvic floor muscles (lying): Find your mat. Lie down on your back with your knees bent. Tighten the pelvic floor muscles (imagine you were trying to control urine flow) and hold the tension for 3-4 seconds. Release the tension and relax for a moment. Perform 10 repetitions.



10 reps.

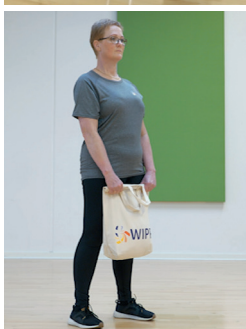
Block 3 (Repeat Block 3 three times)



Seated knee raises (cycling): Sit down on a chair with your back straight without leaning against the back of the chair. Hold on to the seat of the chair with both hands. Tighten your core and lift both legs approx. 5 cm above the floor. Now lift in turns your right and left knee up to your chest as if you were riding a bike.



30 sec.



Deadlift (whole body exercise)
Position yourself with your back straight and your feet hip-width distance apart. Hold the bag in your hands. Push your bottom backwards and bend down in your knees, so the bag gets closer to the floor. Keep your back straight and chest up tall throughout the exercise. Stand up and repeat for 10 repetitions.



10 reps.

Training – Session 2 (4 weeks)

Warm-up (Repeat the warm-up 3 times)



Stand with your back straight. Walk on the spot at high speed while lifting both arms straight up in the air and down again.



30 sec.



Stand with your back straight and your feet together. Take a step out to one side while stretching both arms out to the sides. Repeat this with the other side.



30 sec.

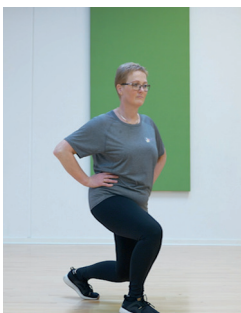


Stand up with your back straight. Have a chair beside you for support if necessary. Run on the spot while boxing with your arms in front of you.



30 sec.

Block 4 (Repeat Block 4 three times)



Lunge: Stand with your feet together and with your hands on your hips. Take a step forward with one leg and bend the knee to 90 degrees. Make sure your back is straight and your knee points in the same direction as your toe. Push yourself backwards up to a standing position. Perform 10 repetitions on both legs



10 reps.



Pelvic floor muscles (lying): Find your mat. Lie down on your back with your knees bent. Tighten the pelvic floor muscles (imagine you were trying to control urine flow) and hold the tension for 3-4 seconds. Release the tension and relax for a moment. Perform 10 repetitions.



10 reps.

Block 5 (Repeat Block 5 three times)



Bridge: Find your mat. Lie on your back with your knees bent and your arms down along your side. Lift your buttocks as high as possible. Keep your back straight and in alignment with your hips. Hold this position for a moment before lowering yourself slowly. Perform 10 repetitions



10 reps.



Sit-ups: Find your mat. Lie down on your back with your knees bent and your hands behind your head. Tighten your core and lift your head and shoulders slightly off the mat. Make sure your chin is kept close to your chest. Lower yourself slowly and repeat for 10 repetitions.



10 reps.

Block 6 (Repeat Block 6 three times)



Deadlift (whole body exercise): Position yourself with your back straight and your feet hip-width distance apart. Hold the bag in your hands. Push your bottom backwards and bend down in your knees, so the bag gets closer to the floor. Keep your back straight and chest tall throughout the exercise. Stand up and repeat for 10 repetitions



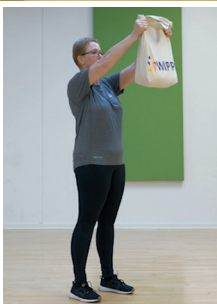
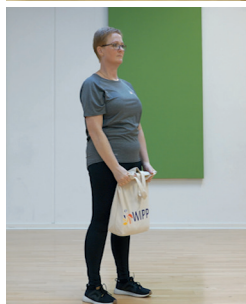
10 reps.



Balance exercise: Position yourself next to a wall. Stand with your back straight. Try to balance on one leg. Try to keep the balance as long as possible (max 30 sec.) and then repeat with the other leg.



0-30 sec.



Standing shoulder exercise: Position yourself with your back straight and feet hip width distance apart. Hold the bag in your hands and lift both arms stretched in front of you. Slowly lower your arms and repeat. Perform 10 repetitions.



10 reps.

Training – Session 3

Warm-up (Repeat the warm-up 3 times)



Stand with your back straight. Walk on the spot at high speed while lifting both arms straight up in the air and down again.



30 sec.



Stand with your back straight and your feet together. Take a step out to the one side while stretching both arms out to the sides. Repeat this with the other side.



30 sec.



Stand up with your back straight. Have a chair beside you for support if necessary. Run on the spot while boxing with your arms in front of you.



30 sec.



Block 7 (Repeat Block 7 three times)



Squat: Stand with your back straight and hip width distance between your feet. Bend down to your knees and push your bottom backwards as if you are about to sit down on a chair. Make sure your knees point in the same direction as your toes. Get up to a standing position and repeat. Perform 10 repetitions.



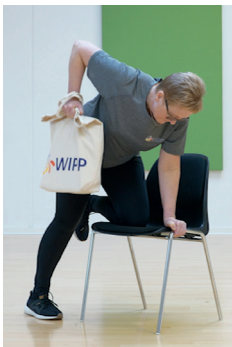
10 reps.



Balance exercise: Straighten your back and walk on your tip-toes. Lean against a wall for support if necessary .



30 sec.



1-arm upper back exercise: Position yourself with your left hand and knee on the seat of the chair. Hold your bag in your right hand and make sure your back is straight and in a horizontal position. Hold your right hand stretched down towards the floor and lift it up to your chest by bending your elbow. Lower it slowly and perform 10 repetitions. Repeat with your left arm.



10 reps.

Training – Session 3

Block 8 (Repeat Block 8 three times)



Deadlift (whole body exercise): Position yourself with your back straight and your feet hip-width distance apart. Hold the bag in your hands. Push your bottom backwards and bend down in your knees, so the bag gets closer to the floor. Keep your back straight and your chest tall throughout the exercise. Stand up and repeat for 10 repetitions



10 reps.



Sit-ups: Find your mat. Lie down on your back with your knees bent and your hands behind your head. Tighten your core and lift your head and shoulders slightly off the mat. Make sure your chin is kept close to your chest. Lower yourself slowly and repeat for 10 repetitions.



10 reps.



Back extension: Find your mat. Lie down on your stomach with your hands in front of your forehead. Lift your upper body up and legs from the mat. Look down on the mat during this exercise. Lower slowly and repeat. Perform 10 repetitions.



10 reps.



Block 9 (Repeat Block 9 three times)



Lunges: Stand with your feet together and with your hands on your hips. Take a step forward with one leg and bend the knee to 90 degrees. Make sure your back is straight and your knee points in the same direction as your toe. Push yourself backwards up to a standing position. Perform 10 repetitions on both legs



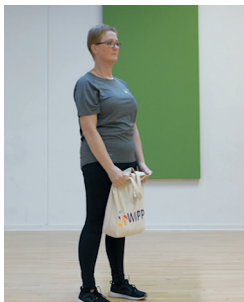
10 reps.



Coordination and balance exercise: Position yourself with your back straight and feet hip-width distance apart. Hold your bag in your right hand. Lift the left knee up and move the bag from your right hand to your left below your knee. Perform 10 repetition on each leg.



10 reps.



Standing shoulder exercise: Position yourself with your back straight and feet hip width distance apart. Hold the bag in your hands and lift both arms stretched in front of you. Slowly lower your arms and repeat. Perform 10 repetitions.



10 reps.





Sedentary behaviour

What is sedentary behaviour?

Sedentary behaviour occurs whilst sitting or lying down and involves very low energy activities (e.g. watching TV, reading a book or driving).

Even a person who meets the physical activity guidelines can still be defined as being sedentary if the rest of their day is spent sitting rather than completing some light activities.

Why is it important for me to sit down less?

Current evidence suggests that prolonged sitting is linked to an increased risk of early death and a wide range of chronic diseases, including:

- Cardiovascular diseases
- Type-2 diabetes
- Stroke
- Obesity
- Certain types of cancer such as colon cancer and cervical cancer
- Osteoporosis

By replacing some sitting with standing and light physical activities (e.g. doing the dishes, cleaning, shopping, etc.), it may be possible to:

- Reduce the risk of being affected by the above-mentioned diseases
- Reduce blood pressure
- Reduce cholesterol levels
- Improve physical function (i.e. increased ability to do daily activities)
- Improve mental health

Frequently asked questions about sedentary behaviour

What counts as too much sitting?

Unfortunately, there is currently not enough evidence to set a daily time limit on the sitting behaviour of older people. However, results from the SITLESS project show that older adults in Europe are sitting for more than 11 hours a day corresponding to approximately 80% of an older adults' waking time. This is viewed as high levels of sitting.

Are you telling me I should never be sitting?

Definitely not! Sitting is a natural behaviour which gives the body time to rest and recover after performing daily activities. However, what we are saying is that small, regular reductions in current sitting time are likely to have a positive impact on health.

Am I going to exercise all the time to reduce my sitting time?

Not at all! Any activity which does not involve sitting can be used. This means very light physical activity such as standing and gentle walking can all be used to reduce sitting time as well as more moderate and vigorous physical activities.

Are there seated or reclining activities which are not counted as sitting behaviours?

Sleeping, chair-based exercise and seated exercise machines (e.g. static bikes and fixed weight machines) are NOT counted as sedentary activities.









How can I reduce my sitting time?

1. Identify how much you are sitting and when you are sitting the most during the day to understand the possibilities to reduce your sedentary behaviour (e.g. decrease the amount of TV in the evening).
2. Organize walks or physical activities with your family, friends or neighbours.
3. Try breaking up screen time (e.g. watching television or sitting in front of your computer or tablet).
4. Take advantage of commercial breaks when watching TV (get coffee or water).
5. Dance to the music on the television
6. Ask yourself: Is it necessary to sit down for this activity?
 - Stand up instead of sitting down when it is possible.
7. A good rule of thumb would be to break up long periods of sitting (i.e. one hour or more) with at least five minutes of any physical activity.
8. Schedule daily life activities when you usually are sitting the most.
9. Buy a pedometer or activity monitor to monitor how many steps you are walking each day. Walk with the pedometer for a week under regular circumstances and slowly try to increase the number of steps you take each day.
10. Incorporate new habits into your daily life activities:
 - Park your car far away from the supermarket entrance.
 - Carry your shopping bags instead of using a trolley.
 - Use a manual lawn mower instead of a robotic lawn mower.
 - Pick up the coffee/tea from the kitchen instead of using a thermos

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Want to know more about SITLESS?

www.sitless.eu, www.twitter.com/sitlesseu

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Thanks to Heidi Juul Jensen who has been the model in all the pictures in the exercise program, and thanks to Ida Petersen who has been a model in all the pictures to the front page.

www.sdu.dk/grafiskcenter



In the picture you see representatives from all the European countries that have participated in The SITLESS project.

Partners:

