

Strength and balance

– exercise program to prevent falling

Advanced
program

This program is based on the OTAGO exercise program (Campbell & Robertson 2003), which has been proven effective in fall prevention.

- Do the exercises three times per week.
- Start by doing 10 repetitions of each exercise. Take a break and repeat the exercise 2 times. If you do not have ankle cuff weights, you can also do the weight exercises using a resistance band.
- If you use a table or chair for support during the exercises, make sure that it is sturdy and will stay in place. As you progress, stay close to the table or chair but use it less.
- Warm up a bit before starting the exercises. You can take a short walk or, for example, march in place for a few minutes while sitting or standing.

Knee extension

- Strap the weight on to your ankle. Sit on a chair with your back straight and well supported.
- Extend your knee until your leg is completely straight and then slowly lower the leg to the starting position.
- Switch the weight to the other ankle and repeat the exercise.

Alternatively, you can make a loop out of a resistance band and place it around your ankle and the leg of the chair. The band resists the movement when you extend your knee.

Repeat
10 times. Take a
break and repeat
the exercise
2 times.



Knee flexion

- Strap the weight on to your ankle. Stand up tall, keep your back straight and look ahead. Hold on to, for example, the back of a chair or a table.
- Bend the knee and lift your foot up towards your bottom. Slowly lower your foot.
- Switch the weight to the other ankle and repeat the exercise.

Alternatively, you can make a loop out of a resistance band and place it around your ankle and the leg of the chair or table. The band resists the movement when you flex your knee.



Repeat
10 times. Take a
break and repeat
the exercise
2 times.

Squats

- Stand up tall, keep your back straight and look ahead. Make sure your legs are shoulder-width apart. Place your hands on your hips or in a relaxed position beside your body.
- Squat by leaning your upper body forward, bending your knees and pushing your bottom back as if you were sitting on a chair. Keep your knees and toes pointing forward and your heels on the floor throughout the movement.
- Return to an upright position.



Repeat
12–15 times.
Take a break
and repeat
the exercise
2 times.

Standing side leg raise

- Strap the weight on to your ankle. Stand beside a table or chair and hold on to it with one hand. Stand up tall and keep your back straight throughout the movement, without leaning on the table or chair.
- Keep the exercising leg completely straight and lift it to the side. Slowly lower the leg.
- Switch the weight to the other leg, turn around and repeat with the other leg.

Alternatively, you can make a loop out of a resistance band and place it around both of your legs. The band resists the movement when you lift your leg to the side.



Repeat
10 times. Take a
break and repeat
the exercise
2 times.

Sideways walking – over a barrier

- Stand up tall, keep your back straight and look ahead. Place your hands on your hips.
- With your right leg, take a step to the side as if you were stepping over a barrier. Do the same with your left leg.
- Take 10 side steps to the right and then take 10 side steps to the left.



Take a break
and repeat
the exercise
2 times.

Heel toe walking

- Stand up tall, keep your back straight and look ahead.
- Take a step by placing one foot directly in front of the other as if you were walking along a line.
- Take 10 steps in this way.
Count the repetitions out loud
backward: 10, 9, 8, ...0.
- Turn around. Take 10 steps back in the same way.
Count the repetitions out loud
backward: 10, 9, 8, ...0



Take a
break and
repeat
the exercise
2 times.

Heel walking

- Stand up tall, keep your back straight and look ahead.
- Shift your weight to your heels and take 10 steps forward by walking on your heels.
- Turn around and take 10 steps back in the same way.

Take a
break and
repeat
the exercise
2 times.



Heel toe walking backward

- Stand up tall, keep your back straight and look ahead. Take a step by placing one foot directly behind the other as if you were walking along a line.
- Take 10 steps, turn around and take 10 steps back in the same way.



Take a
break and
repeat
the exercise
2 times.