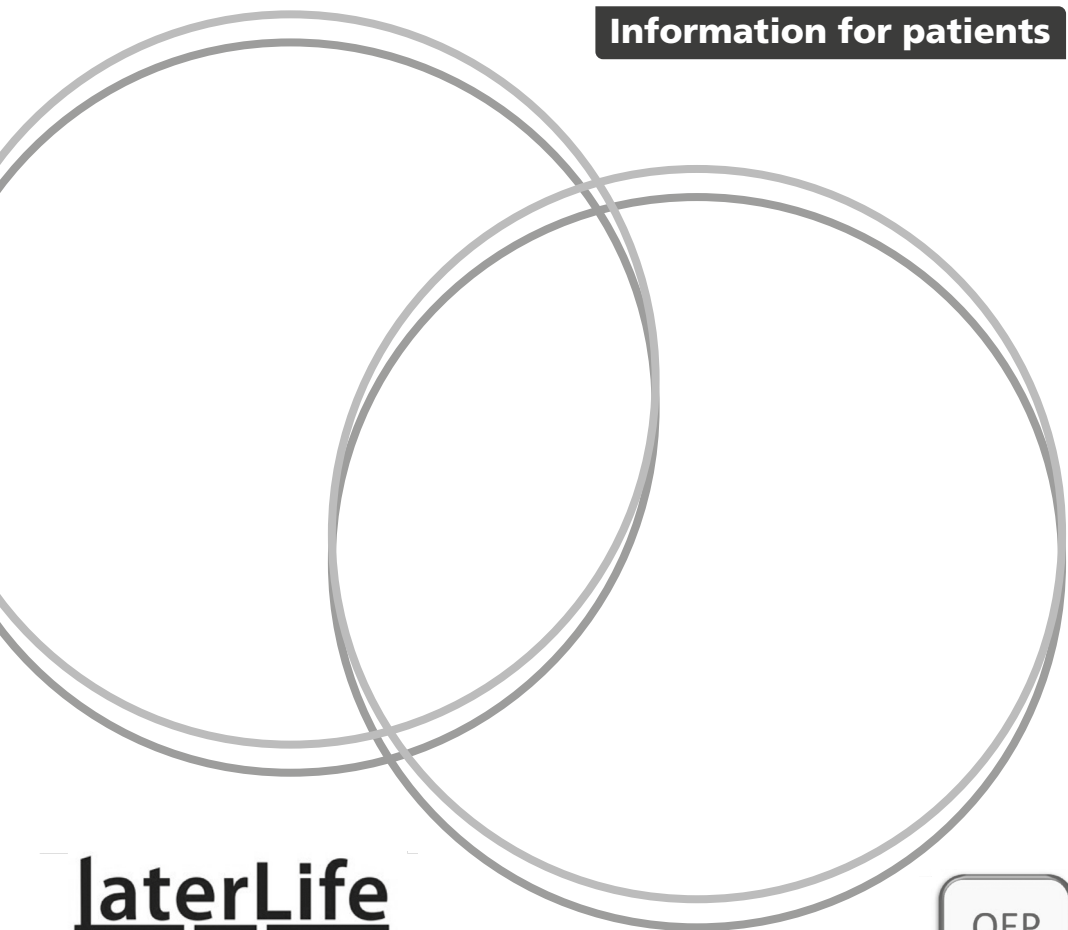


OTAGO

Strength and Balance

Home Exercise Programme

Information for patients



Do you want to live life to the full? Doing the exercises in this booklet at least twice a week, in addition to taking a daily walk can help keep you strong and walk steadily, reducing the risk of falls.

These exercises have been used in strength and balance programmes across the world and are based on the Otago Exercise Programme (OEP) which has been shown to reduce falls and injuries due to falls.

Ideally, set aside a time to do all (or some) of the exercises. Alternatively, you can do these exercises as part of your everyday routine – for example, try a one leg stand while waiting for the kettle to boil, or do the sit to stand exercise during the advertisements on television.

If you choose to do the exercises throughout the day, do a little march first to warm yourself up and prepare for exercise.

Safety

Ensure that the chair you use is sturdy and stable or use a more sturdy support such as the kitchen worktop or breakfast table. Wear comfortable clothes and supportive footwear.

Prepare a space and have your exercise band and a glass of water (for afterwards) ready before you start.

While exercising, if you experience chest pain, dizziness or severe shortness of breath, **stop immediately** and contact your GP (or call an ambulance if you feel very unwell and your symptoms do not go away when you stop exercising).

If you experience pain in your joints or muscles, stop, **check your position** and try again. If the pain persists, seek advice from your Postural Stability Instructor.

However, feeling your muscles working or slight **muscle soreness** the next day after exercise is normal and shows that the exercises are working.

Breathe normally throughout and enjoy yourself. Aim to do these exercises **three times** per week.

Please read disclaimer at the back of this booklet.

Warm up exercises

Always begin with a warm up to prepare your body for the main exercises.

There are 6 warm up exercises

Complete them all if you are doing your exercises in one session.

If you decide to spread your exercises over the day, do the march exercise before you move on to do your strength, balance or stretch exercises.

Alongside the exercises are tips or suggestions of when you could do these exercises in your own daily routine, to help make them more of a habit.

March

This exercise helps warm the muscles and prepares the body for movement.

- Stand tall (holding your support if needed)
- Begin marching your legs
- If you feel steady, add an arm swing with one or both arms
- Continue marching for 1 to 2 minutes



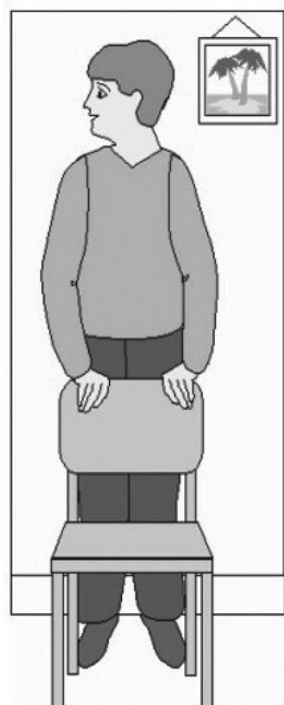
Tip: At the breakfast table

Safety Point: Hold a secure support to meet your balance needs

Head movements

This exercise helps you look over your shoulder in the car or in shops and reduces stiffness at the neck.

- Stand tall with your feet hip width apart and arms resting loosely by your sides or hold the chair
- Turn the head slowly to the left then slowly to the right
- Ensure that the shoulders stay still so only the head is moving
- Repeat 5 times



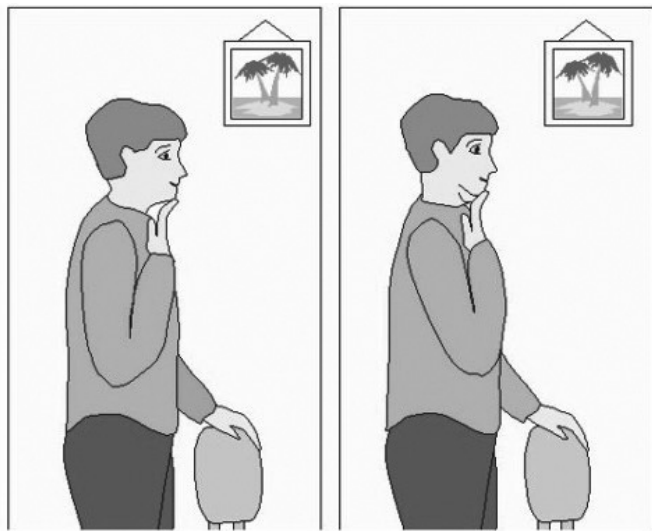
Tip: At the window and hold the sill

Safety Point: Hold a secure support to meet your balance needs

Neck movements

This exercise helps strengthen the back of the neck, improving posture.

- Stand tall with your feet hip width apart and arms resting loosely by your sides or hold the chair
- Place 2 fingers onto your chin then gently guide the chin back until you feel a stretch in the back of the neck
- Repeat 5 times



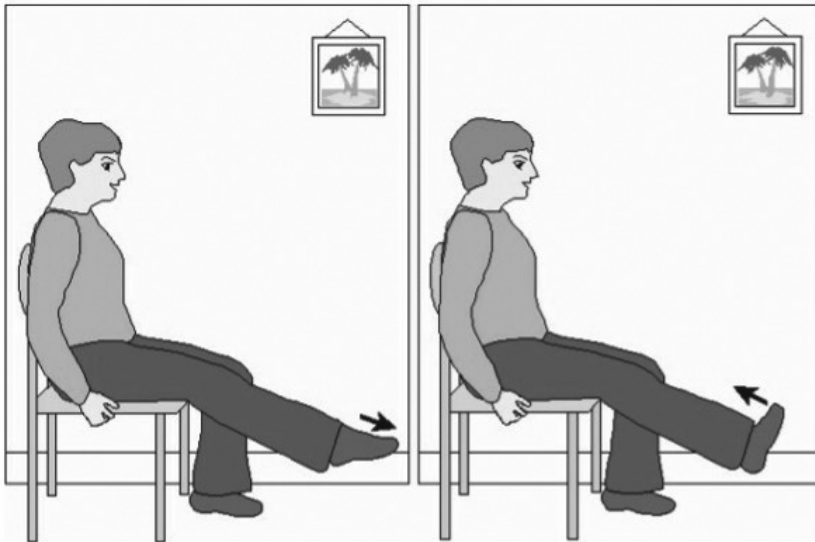
Tip: While watching TV

Safety Point: Hold a secure support to meet your balance needs

Ankle movements

This exercise helps loosen ankles and improves the heel/toe walking action.

- Sit with your back supported by the chair
- Straighten one leg so the foot is held off the floor
- Keep the leg in this position whilst pointing the toes forwards then pulling them back
- Do this 5 times then repeat on the other leg
- If the pull behind the knee is too intense, perform this exercise with the foot closer to the floor



Tip: While watching TV

Safety Point: Hold a secure support to meet your balance needs

Strength exercises

The following exercises are to help improve your bone and muscle strength.

Complete them all, unless advised not to, by your doctor.

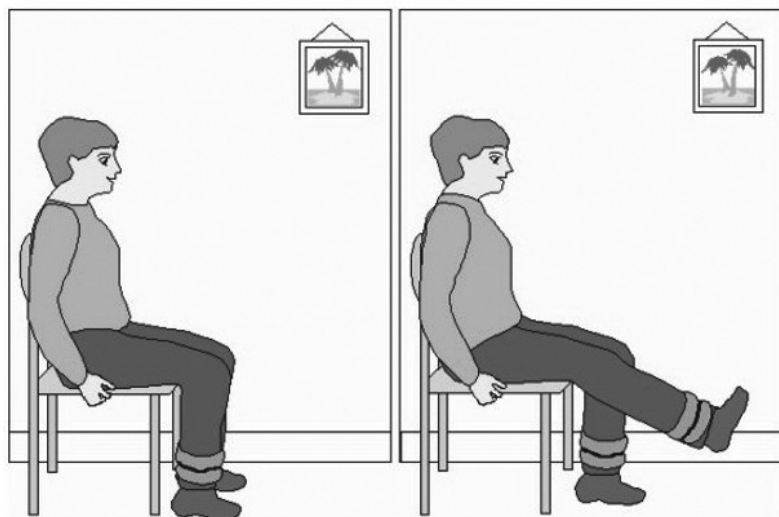
If you choose to do the exercises throughout the day, do a little march first to warm yourself up and prepare for exercise.

To make the exercises more difficult, you can add ankle weights

Front knee strengthener

This exercise will strengthen your leg muscles making getting out of a low chair and using stairs easier.

- Sit back in the chair with your back supported and your feet under your knees
- Brush one foot along the floor then lift the weight slowly and straighten (but do not lock out) your knee
- Lower the foot with control
- Repeat 10 times on one leg then change legs
- Aim to lift for a slow count of 3 and lower for a slow count of 5 each time



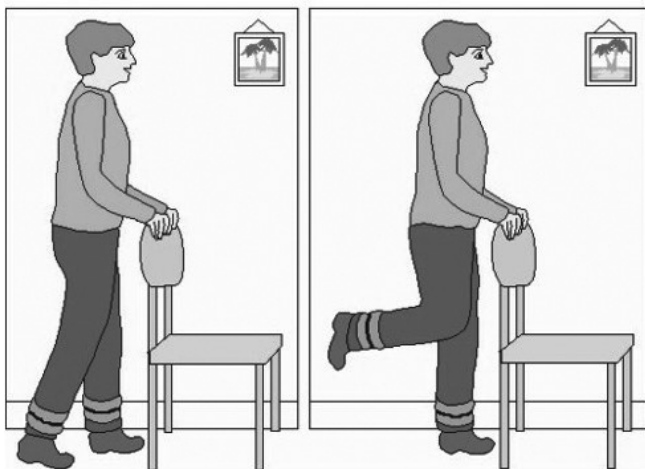
Tip: While watching TV

Safety Point: Hold a secure support to meet your balance needs

Back knee strengthener

This exercise strengthens the back of the leg, helping you on stairs or stepping backwards.

- Stand tall close to and holding your support
- Feet hip width apart and knees soft
- Brush the foot backwards along the floor then lift the heel slowly towards the bottom
- Keep the knees close together
- Lower the foot slowly
- Place the weight back over both feet to rest briefly
- Repeat 10 times on one leg then change legs
- Aim to lift for a slow count of 3 and lower for a slow count of 5 each time



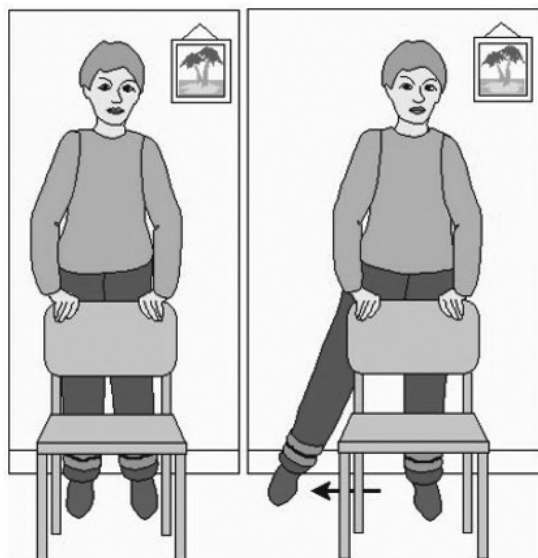
Tip: At the dining table

Safety Point: Hold a secure support to meet your balance needs

Side hip strengthener

This exercise helps strengthen the side of the leg muscles so it will be easier to get out of a car or the bath or step sideways

- Stand tall with your feet hip width apart holding your support
- Lift the leg slowly out to the side keeping the toes pointing forwards
- Avoid leaning the body to the side
- Place the weight back over both feet to rest briefly
- Repeat 10 times on one leg then change legs
- Aim to lift for a slow count of 3 and lower for a slow count of 5 each time



Tip: At the kitchen worktop

Safety Point: Hold a secure support to meet your balance needs

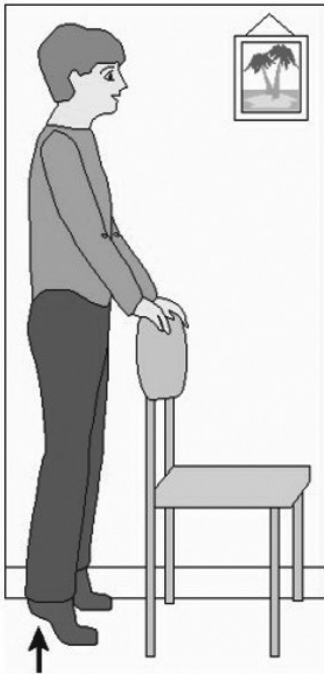
Important!

If you are using ankle weights, take them off now for the following exercises.

Calf raises

This exercise will help your balance if you have to step over objects and improve your steadiness when walking.

- Stand tall with your feet hip width apart holding your support
- Slowly lift the heels keeping the weight over the big toes
- Avoid locking the knees
- Aim to lift for a slow count of 3 and lower for a slow count of 5 each time
- Repeat 10 to 20 times



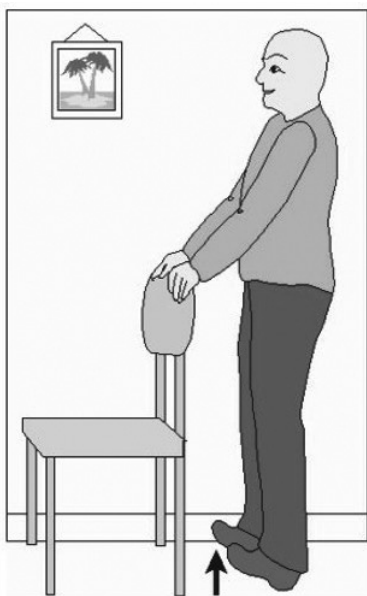
Tip: At the bathroom basin

Safety Point: Hold a secure support to meet your balance needs

Toe raises

This exercise will help ensure you lift your toes more easily when stepping over objects and reduce your chance of falling backwards.

- Stand tall with the feet hip width apart, holding your support
- Slowly lift the toes keeping your knees soft
- Avoid sticking your bottom out
- Lower the toes slowly
- Aim to lift for a slow count of 3 and lower for a slow count of 5 each time
- Repeat 10 to 20 times



Tip: At the window and hold the sill

Safety Point: Hold a secure support to meet your balance needs

Balance exercises

These are to help improve your balance and stability and prevent falls.

Knee bends supported

This exercise will help you comfortably reach down to pick objects up and improve your balance.

- Feet should be hip width apart, toes facing forwards
- Hold your support
- Bend the knees and push your bottom backwards as though you are going to sit down
- Ensure the heels do not lift
- Make sure your knees do not turn in
- Come back up to the start position
- Repeat 10 times



Tip: At the window and hold the sill

Safety Point: Hold a secure support to meet your balance needs

Knee bends no support

This exercise will help you comfortably reach down to pick objects up and improve your balance.

- Feet should be hip width apart, toes facing forwards
- Bend the knees and push your bottom backwards as though you are going to sit down
- Ensure the heels do not lift
- Ensure the knees do not roll inwards
- Come back up to the start position
- Repeat 10 times



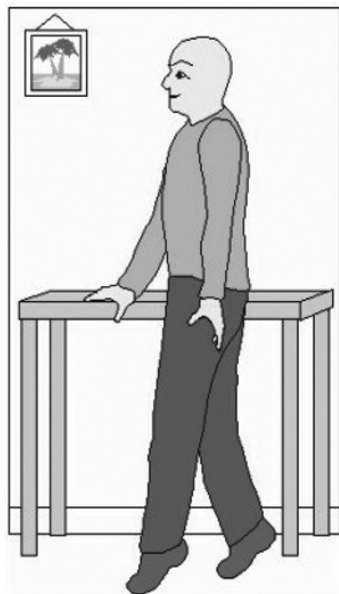
Tip: At the kitchen sink

Safety Point: Hold a secure support to meet your balance needs

Toe walking supported

This exercise will help your balance if you have to step over objects and improve your steadiness when walking.

- Stand side on to a support with feet hip width apart
- Lift the heels keeping the weight over the big toes
- Walk up to 10 steps forwards on your toes
- Bring the feet level before lowering the heels to the floor
- Turn around towards the support then repeat the toe walking in the other direction
- Move steadily and with control



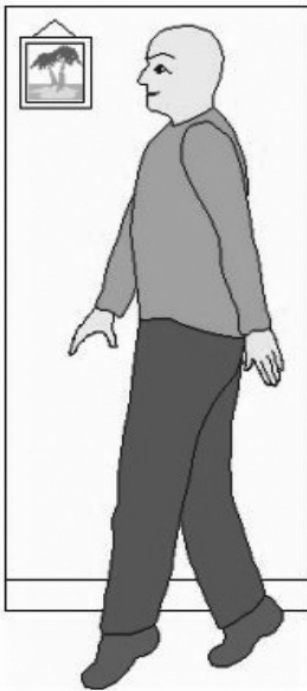
Tip: Along the kitchen worktop

Safety Point: Hold a secure support to meet your balance needs

Toe walking no support

This exercise helps improve balance when you have a narrow base of support (in crowds or narrow spaces) Stand with feet hip width apart.

- Lift the heels keeping the weight over the big toes
- Walk up to 10 steps forwards on your toes
- Bring the feet level before lowering the heels to the floor
- Turn around then repeat the toe walking in the other direction
- Move steadily and with control



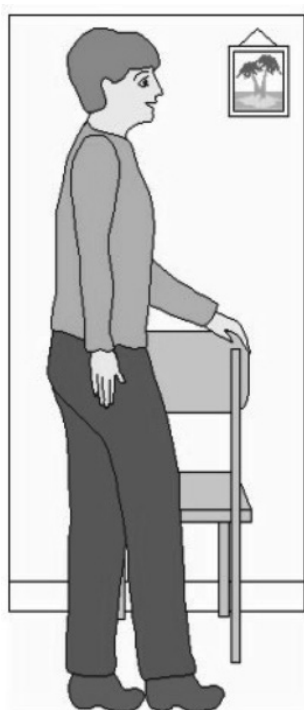
Tip: Along the kitchen worktop

Safety Point: Hold a secure support to meet your balance needs

Heel toe stand supported

This exercise helps improve balance when you have a narrow base of support (in crowds or narrow spaces).

- Stand tall, side on to the support
- Place one foot directly in front of the other so that the feet form a straight line
- Look ahead and balance for 10 seconds
- Take the feet back to hip width apart before placing the other foot in front and balancing for another 10 seconds



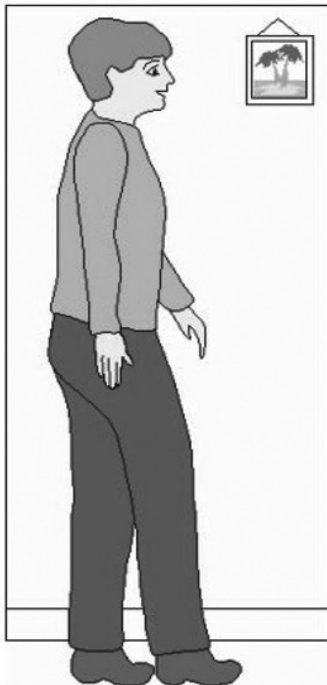
Tip: At the dining table

Safety Point: Hold a secure support to meet your balance needs

Heel toe stand no support

This exercise helps improve balance when you have a narrow base of support (in crowds or narrow spaces).

- Stand tall
- Place one foot directly in front of the other so that the feet form a straight line
- Look ahead and balance for 10 seconds
- Take the feet back to hip width apart before placing the other foot in front and balancing for another 10 seconds



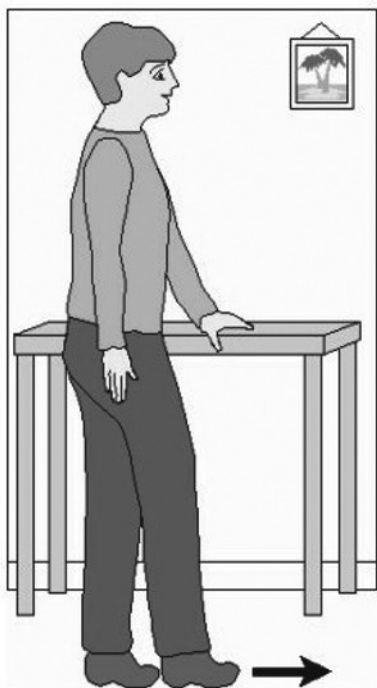
Tip: At the dining table

Safety Point: Hold a secure support to meet your balance needs

Heel toe walking supported

This exercise will help your balance when you walk in narrow spaces or in crowds.

- Stand tall, side on to the support
- Walk up to 10 steps forwards placing one foot directly in front of the other so that the feet form a straight line
- Look ahead and aim for a steady walking action
- Take the feet back to hip width apart before turning towards your support then repeat the steps in the other direction



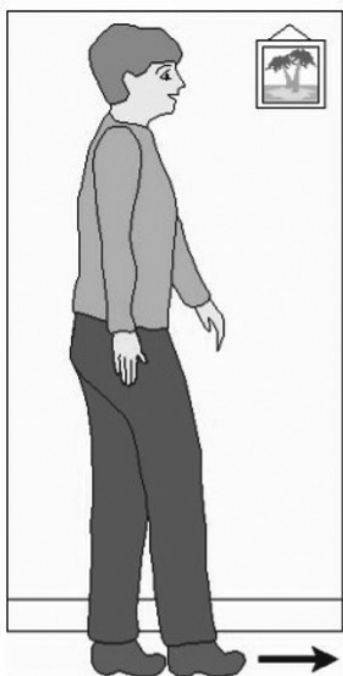
Tip: Along the kitchen worktop

Safety Point: Hold a secure support to meet your balance needs

Heel toe walking no support

This exercise will help your balance when you walk in narrow spaces or in crowds.

- Stand tall
- Walk up to 10 steps forwards placing one foot directly in front of the other so that the feet form a straight line
- Look ahead and aim for a steady walking action
- Take the feet back to hip width apart before turning around then repeat the steps in the other direction



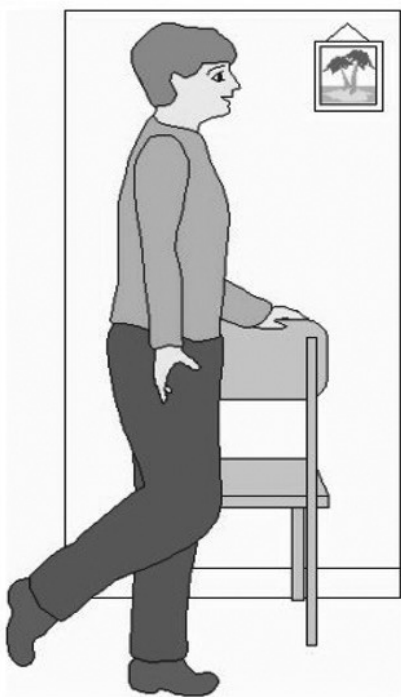
Tip: Along the kitchen worktop

Safety Point: Hold a secure support to meet your balance needs

One leg stand supported

This exercise will help your balance and strength around the hip.

- Stand close to and holding on to your support
- Balance on one leg keeping the support knee soft and upright posture
- Hold the position for 10 seconds
- Repeat on the other leg



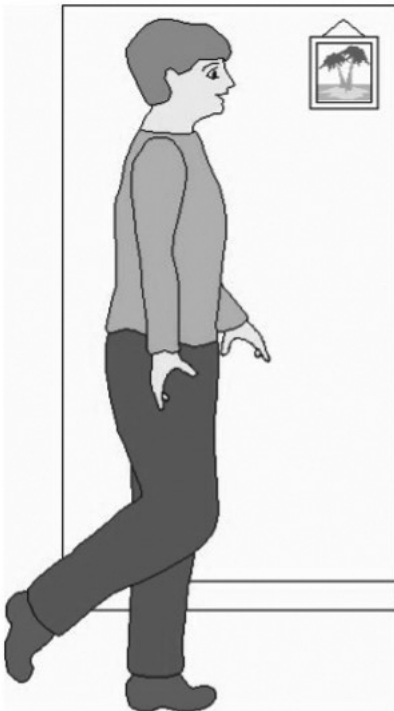
Tip: At the kitchen sink

Safety Point: Hold a secure support to meet your balance needs

One leg stand no support

This exercise will help your balance and strength around the hip.

- Stand tall
- Balance on one leg keeping the support knee soft and upright posture
- Hold the position for 10 seconds
- Repeat on the other leg



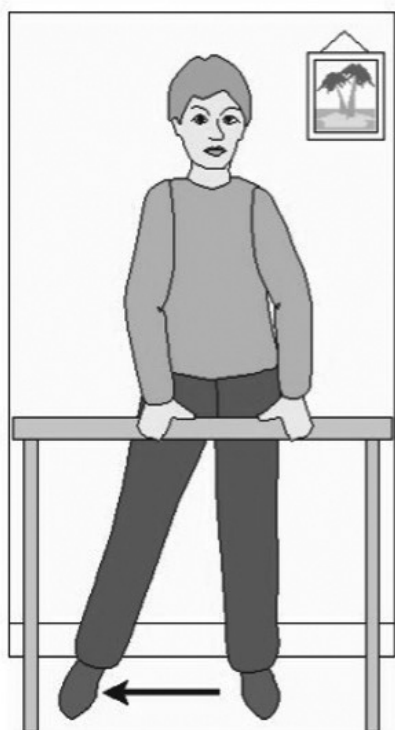
Tip: At the kitchen sink

Safety Point: Hold a secure support to meet your balance needs

Sideways walking supported

This exercise will help you step sideways safely to avoid objects and improve your balance.

- Stand tall facing a support
- Take up to 10 sideways steps keeping the hips forward and the knees soft
- Repeat the other way

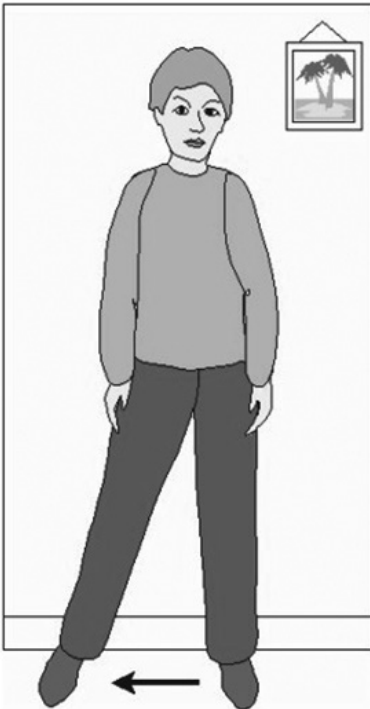


Tip: Along the kitchen worktop

Safety Point: Hold a secure support to meet your balance needs

Sideways walking no support

- Stand tall
- Take up to 10 sideways steps keeping the hips forward and the knees soft
- Repeat the other way



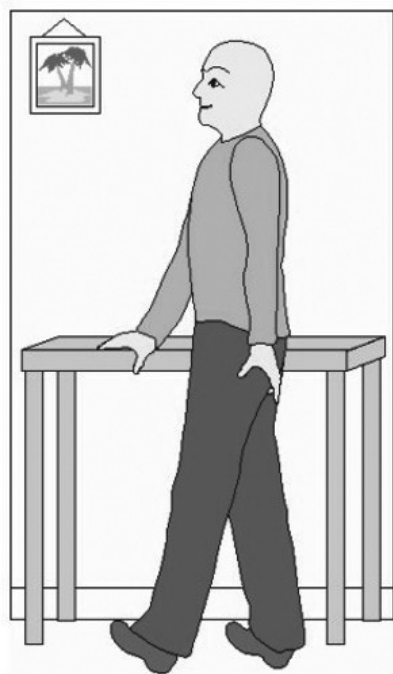
Tip: Along the kitchen worktop

Safety Point: Hold a secure support to meet your balance needs

Heel walking supported

This exercise will help your balance and ankle strength when in a crowd or stepping over objects.

- Stand side on to the support
- Lift the toes keeping the knees soft and the bottom tucked in
- Walk up to 10 steps on your heels
- Move steadily and with control
- Keep looking ahead
- Bring the feet together before lowering the toes to the floor



Tip: Along the kitchen worktop

Safety Point: Hold a secure support to meet your balance needs

Heel walking no support

This exercise will help your balance and ankle strength when in a crowd or stepping over objects.

- Stand tall
- Lift the toes keeping the knees soft and the bottom tucked in
- Walk up to 10 steps on your heels
- Move steadily and with control
- Keep looking ahead
- Bring the feet together before lowering the toes to the floor
- Repeat the other way



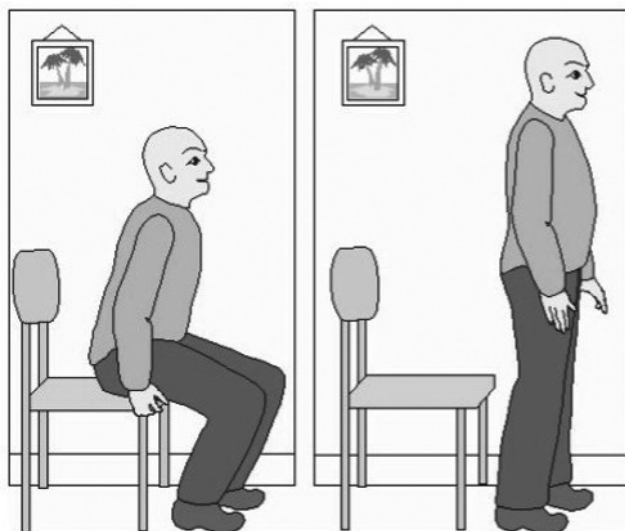
Tip: Along the kitchen worktop

Safety Point: Hold a secure support to meet your balance needs

Sit to stand using hands

This exercise will help improve the ease you can get out of a chair or squat to do things.

- Sit tall near the front of the chair
- Place your feet slightly back
- Lean forwards slightly
- Stand up (using your hands on the chair if needed)
- Step back until your legs touch the chair
- Slowly lower your bottom back into the chair, reaching for the chair as you lower if needed
- Repeat slowly up to 10 times



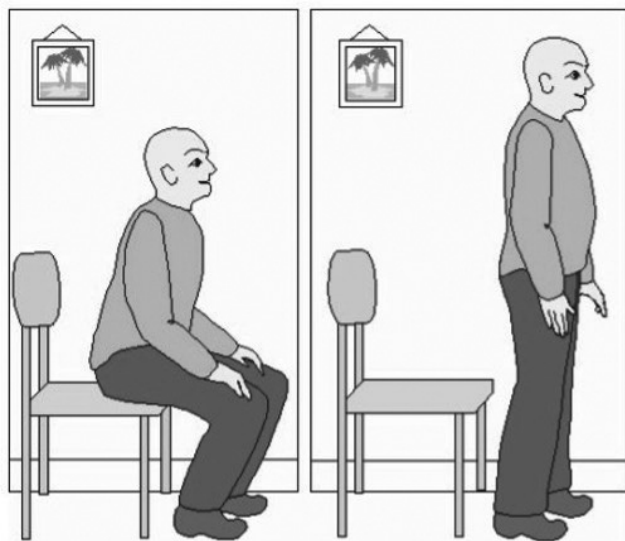
Tip: At the end of a TV programme

Safety Point: Hold a secure support to meet your balance needs

Sit to stand no hands

This exercise will help improve the ease you can get out of a chair or squat to do things.

- Sit tall near the front of the chair with your hands on your thighs or folded across your chest
- Place your feet slightly back
- Lean forwards slightly
- Stand up
- Step back until your legs touch the chair then slowly lower your bottom back into the chair
- Repeat slowly up to 10 times



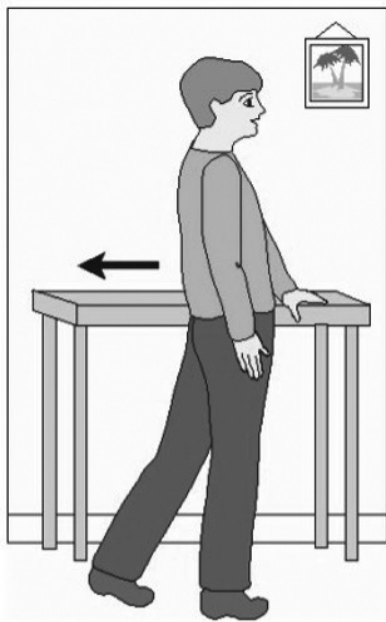
Tip: At the end of a TV programme

Safety Point: Hold a secure support to meet your balance needs

Backwards walking supported

This exercise will help you be more steady taking backward steps to avoid something or regain your balance.

- Stand side on to the support
- Walk backwards up to 10 steps
- Keep the back tall and look straight ahead throughout the exercise
- Use a toe through to heel action
- Keep the pace steady and controlled
- Repeat the other way



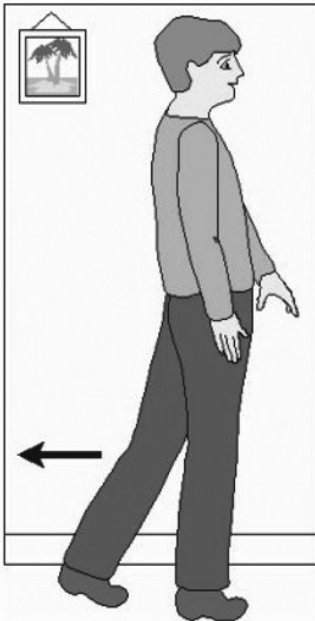
Tip: Along the kitchen worktop

Safety Point: Hold a secure support to meet your balance needs

Backwards walking no support

This exercise will help you be more steady taking backward steps to avoid something or regain your balance.

- Stand tall
- Walk backwards up to 10 steps
- Keep the back tall and look straight ahead throughout the exercise
- Use a toe through to heel action
- Keep the pace steady and controlled
- Repeat the other way



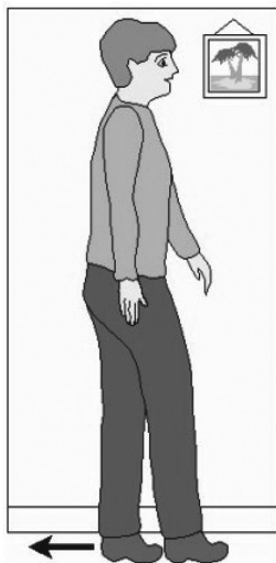
Tip: Along the kitchen worktop

Safety Point: Hold a secure support to meet your balance needs

Heel toe walking backwards

This exercise will help you be more steady taking backward steps to avoid something or regain your balance.

- Stand tall
- Look straight ahead
- Place one foot directly behind the other touching the toe against the heel so the feet are in a straight line
- Continue walking backwards in this way for up to 10 steps
- Aim for a smooth walking action, rolling through the foot from toe to heel
- Place your feet hip width apart before turning then repeat in the other direction



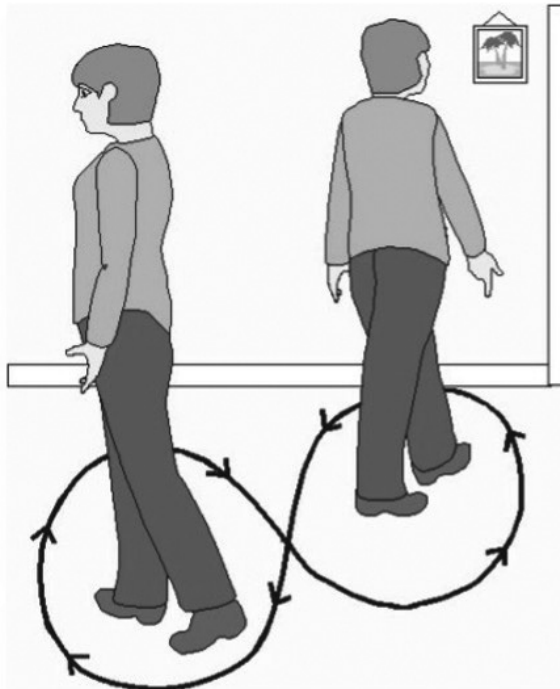
Tip: Along the kitchen worktop

Safety Point: Hold a secure support to meet your balance needs

Walk and turn

This exercise will help your balance when you are turning and manoeuvring.

- Walk at your usual pace in a figure of 8 shape (around 2 chairs if this is easier for you)
- Try to maintain upright posture as you walk
- Repeat this exercise twice only



Tip: Use two chairs to walk around

Safety Point: Hold a secure support to meet your balance needs

Stair walking

This exercise over time will make it easier to use the stairs.

- Hold the rail if you usually do, but try not to pull too much with your arms
- Use the strongest leg to lead on each step
- Place the foot fully on the stair
- Look down with the eyes (rather than bending forwards from the waist) to check your foot position
- At the top, take a rest then come back down leading with your weaker leg on each step
- Repeat up to 3 times up and down



Tip: Perhaps do in the morning when you first come downstairs

Safety Point: Hold a secure support to meet your balance needs

Ending the session

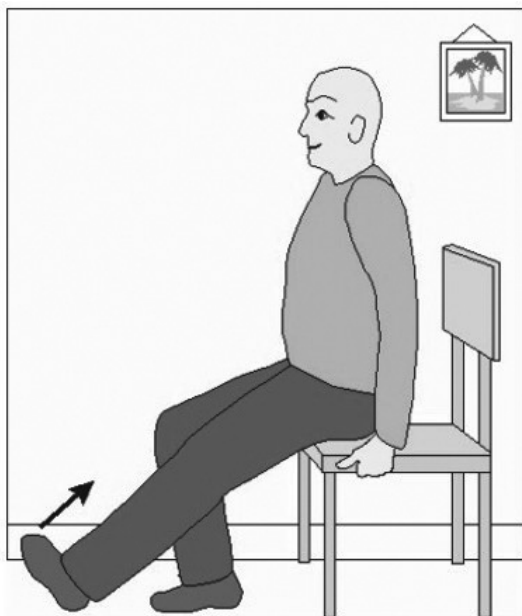
Perform the following stretches to improve your flexibility and reduce stiffness.

Ensure you are warm, perhaps do a brief march before your stretch.

Calf stretch

This stretch will help ensure you lift your toes when walking and get your shoes and socks on more easily sit forwards in the chair and hold on.

- Keep one knee bent and directly above the ankle
- Straighten the other leg with the heel resting on the floor
- Pull the toes back towards the shin until you feel a stretch in the calf
- Hold for 10 to 20 seconds, making sure the knee is not locked out
- Release and repeat on the other side



Tip: At the kitchen table

Safety Point: Hold a secure support to meet your balance needs

Back of thigh stretch

This stretch will help you put your shoes and socks on more easily and lengthen your stride when walking.

- Make sure you are right at the front of the chair
- Straighten one leg placing the heel on the floor
- Place both hands on the other leg then sit really tall
- Lean forwards with a straight back until you feel the stretch in the back of your thigh
- Hold for 10 to 20 seconds
- Repeat on the other leg



Tip: At the kitchen table

Safety Point: Hold a secure support to meet your balance needs

Walking

Wear loose comfortable clothing, and flat supportive shoes. Aim for two 30 minute walks per week.

5 or 10 minute walks are an ideal way to get started.

Progress the time until 30 minutes of continuous walking is achieved.

If possible, try to walk at a pace that makes you feel warmer and increases your breathing. You should still be able to talk as you walk. If you feel too puffed to talk, you are going too fast and need to slow down a little.

If you find you are catching your toes or scuffing your feet you are getting tired, so slow down and deliberately lift the knee a bit more with each step.



Finished!

Well done! You have finished your exercises.

Try to do these exercises **three times** a week. Set a day and a time aside for a second session now, or try to do the exercises as part of your daily routine. Our tips may give you some ideas. It would be best if these exercises become a habit!

Regular performance of these exercises will, over time, make you feel stronger and steadier. They have also been shown to help your brain, reduce injuries and improve quality of life. Why not get exercising with your family or a friend.

Balance progression

Once you are performing the balance exercises with confidence on a regular basis, you should aim to GRADUALLY reduce the amount of hand support you use. This can be done by releasing your little fingers to see if you can still maintain your balance. The next step is to release your ring fingers and when you have mastered this, your middle fingers so that you are now balancing by supporting only with your index fingers. Make sure you master balancing at each stage before progressing to the next.

Sit less

We now know that long periods of sitting, like watching the television all evening, are not good for our health. The more we sit, the more likely we are to get thicker around the waist, develop diabetes, become less mobile and have a low mood.

People who get up more regularly and break up long periods of sitting (every 1 to 2 hours at least) are more mobile and healthy.

Exercise diary

It helps to keep an exercise diary. This will remind you when you last did your exercises and is a place to note anything you want to ask or tell your exercise instructor.

[illegible]

[illegible]

Acknowledgements

We would like to acknowledge the following content resources:

The Otago Exercise Programme, Professor John Campbell and Dr Clare Robertson. ACC New Zealand, 1997.

Robertson MC, et al. Effectiveness and economic evaluation of a nurse delivered home exercise program to prevent falls 1: A randomized controlled trial. British Medical Journal 2001, Vol 322, p697-700.

Robertson MC, et al. Effectiveness and economic evaluation of a nurse delivered home exercise program to prevent falls 2: Controlled trial in multiple centers. British Medical Journal, 2001, Vol 322, p701-704.

The Postural Stability Instructor Manual, Later Life Training, ©2008-2017.

The "How to Lead the Otago Exercise Programme Handbook", Later Life Training, ©2008-2017.

With additional thanks to:

Professor John Campbell and Dr Clare Robertson for their permission to use the OTAGO Exercise Programme and for their continued collaboration with LLT.

Dr Susie Dinan-Young and Prof Dawn Skelton for their ongoing technical support.

Text by: Dr Sheena Gawler Illustrations by Helen Skelton.

Disclaimer

You take responsibility for your own exercise programme. The authors and advisers of the exercises in this programme accept no liability. All content is provided for general information only, and should not be treated as a substitute for the medical advice of your own GP or any other health care professional. Health care professionals using these exercises do so at their own risk.

While exercises have been used in research trials and many thousands of older people do similar exercises from other home exercise booklets, the authors do not know you, your medical conditions or physical fitness and cannot give advice tailored to you, your medical condition or physical function. The authors cannot guarantee the safety or effectiveness of this program of exercises for you. Any noticeable changes in health, pain, mobility or falls should prompt a visit to your GP.

This booklet should not be treated as a substitute for medical advice of your GP.

Copyright:

If distributed as printed material, no charge must be made for this reproduction or provision without permission of Later Life Training. Part content (graphics or text) must not be used, or reproduced in any other form without permission, in writing, from Later Life Training.

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

Author: Later Life Training

October 2023

Review: October 2026

Oxford University Hospitals NHS Foundation Trust

www.ouh.nhs.uk/information

Later Life Training Ltd © Copyright V4 2018 -

www.laterlifetraining.co.uk/t



Making a difference across our hospitals

charity@ouh.nhs.uk | 01865 743 444 | hospitalcharity.co.uk

OXFORD HOSPITALS CHARITY (REGISTERED CHARITY NUMBER 1175809)

