OTAGO STRENGTH & BALANCE

Home Exercise Programme







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.



Ensure that the chair you use is sturdy and stable or use a more sturdy support such as the kitchen worktop or breakfast table if your instructor/therapist recommends this. 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.

If you are using this booklet without attending a supervised exercise session, consult your GP to check it is suitable for you.

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.

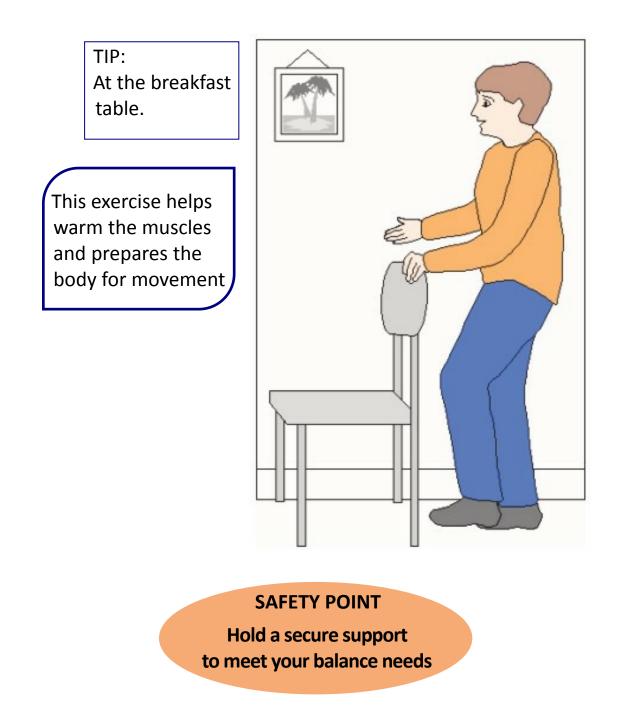
Alongside the exercises are tips or suggestions of when you could do these exercises in your own daily routine, to help make them more of a habit.

TIP:

While seated after breakfast.

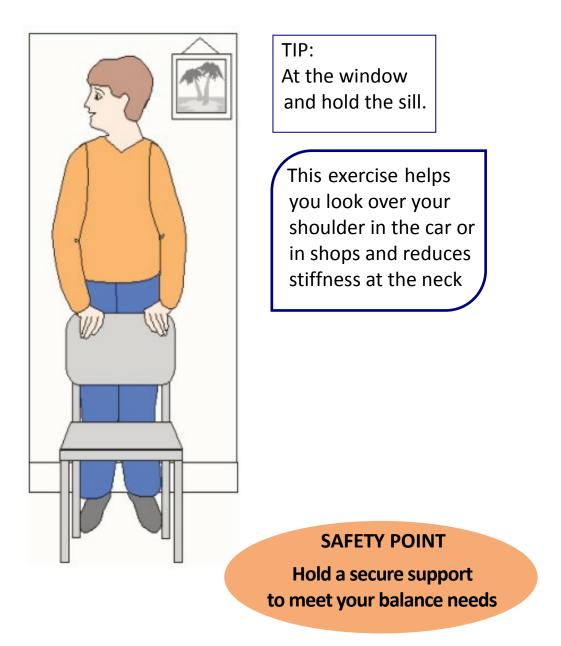
March

- 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 2 minutes



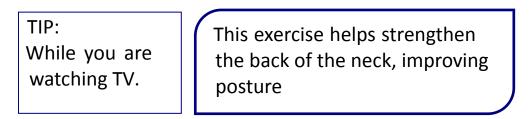
Head Movements

- 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



Neck Movements

- 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





SAFETY POINT

Hold a secure support to meet your balance needs

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Back Extension

- Stand tall with your feet hip width apart
- Place your hands onto your bottom
- Gently arch your back
- Avoid looking at the ceiling or locking out your knees
- Repeat 5 times

While you are

This exercise helps open the chest and

improve posture

listening to the

TIP:

radio.



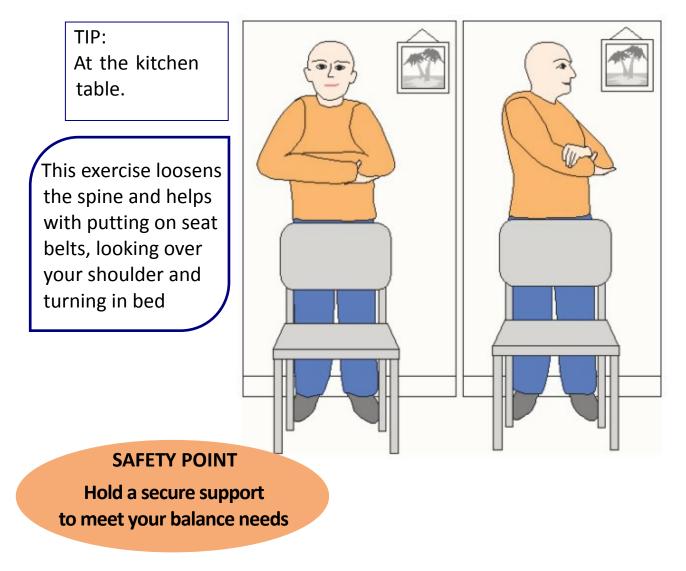
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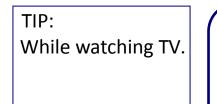
Trunk Movements

- Stand tall with your feet hip width apart
- Fold the arms in front of the chest or place one hand on the chair
- Lengthen and lift the trunk upwards then slowly turn the head and shoulders to the right
- Ensure you are only turning the upper body (not the hips)
- Return to the start position and repeat to the other side
- Repeat 5 times

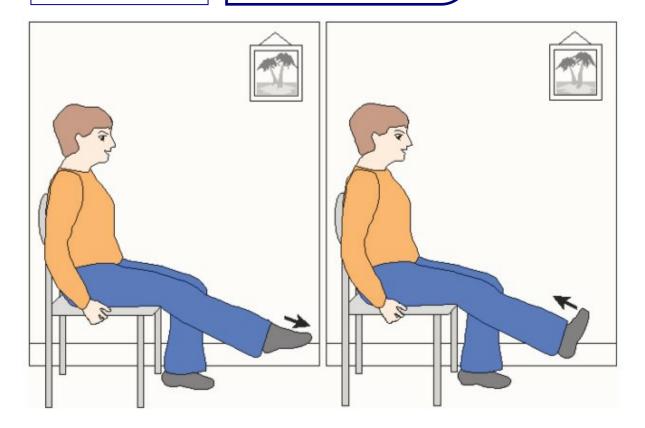


Ankle Movements

- Sit with your back supported by the chair back
- 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



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



Strength Exercises

These are to help improve your bone and muscle strength.

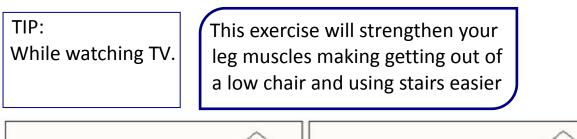
Complete them **all**, unless instructed by your Otago Exercise Leader.

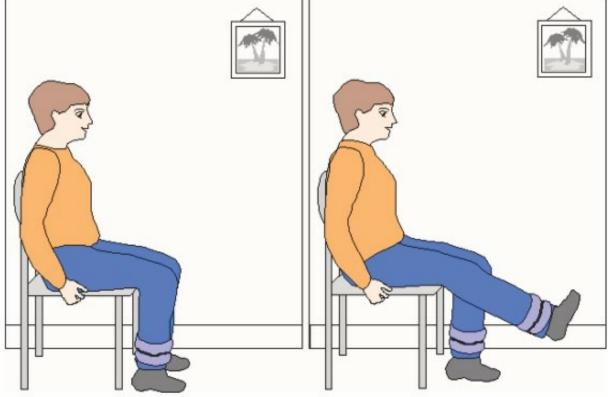
If you choose to do the exercises throughout the day, do a little march first to warm yourself up and prepare for exercise.

Put your ankle weights on now.

Front Knee Strengthener

- 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

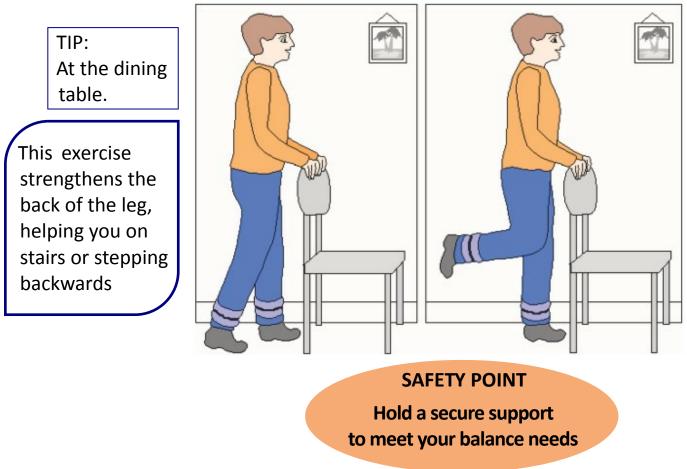




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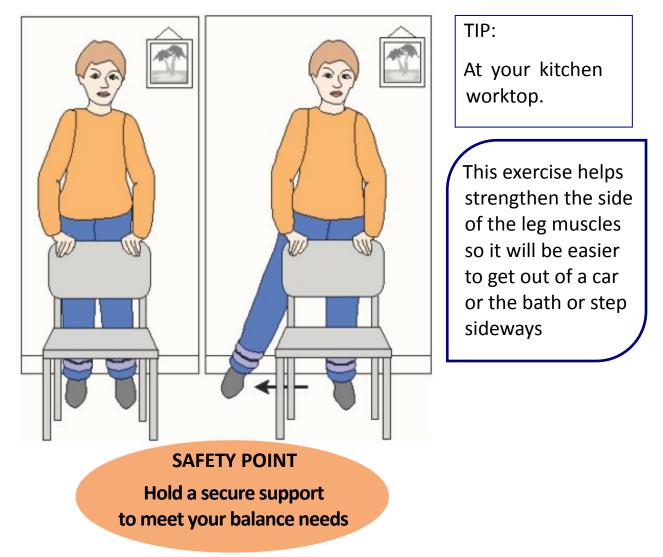
Back Knee Strengthener

- 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



Side Hip Strengthener

- 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



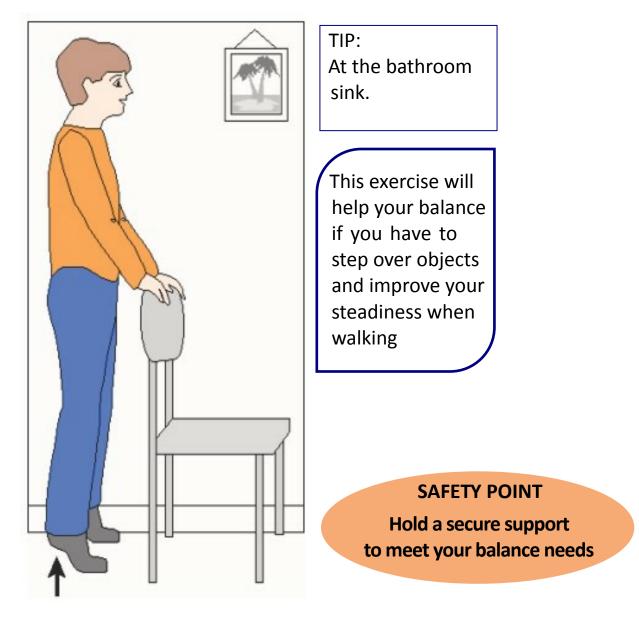
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Important!

Take your ankle weights off now!

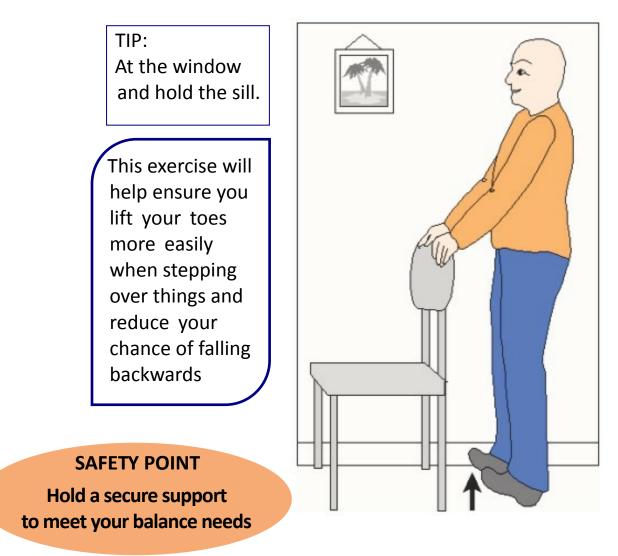
Calf Raises

- 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
- Repeat 10 20 times
- Aim to lift for a slow count of 3 and lower for a slow count of 5 each time



Toe Raises

- 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 20 times

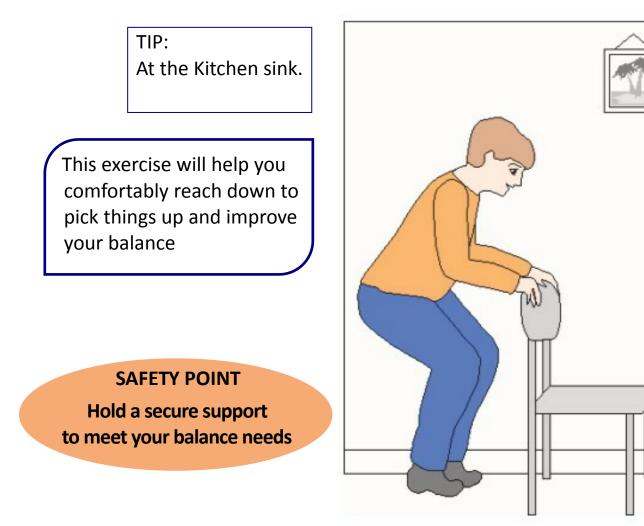


Balance Exercises

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

Knee Bends Supported

- 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



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Knee Bends No Support

- 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



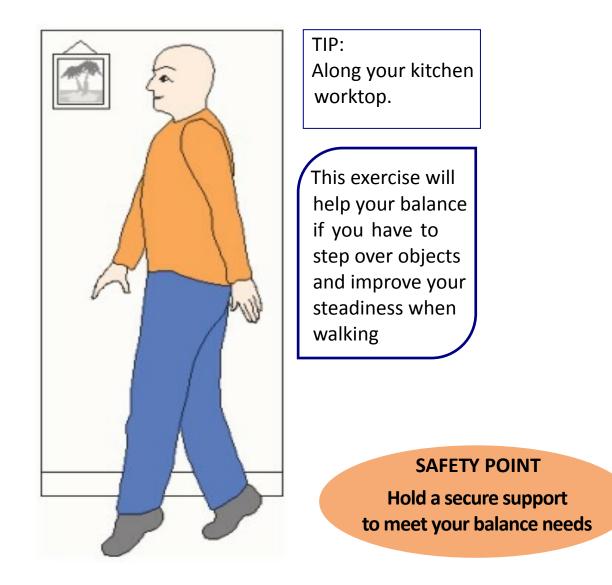
Toe Walking Supported

- 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



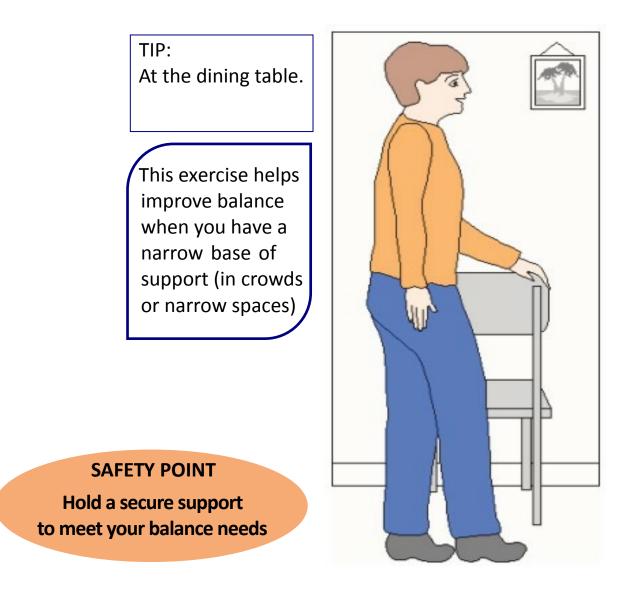
Toe Walking No Support

- Stand with feet hip width apart
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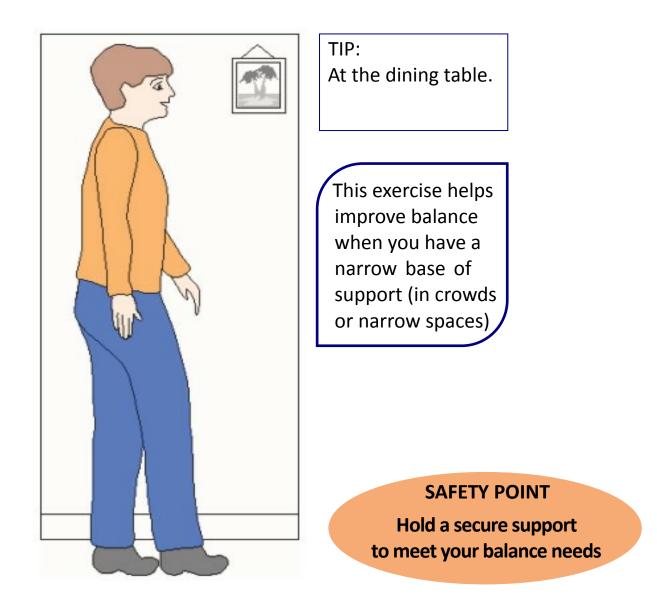
Heel Toe Stand Supported

- 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



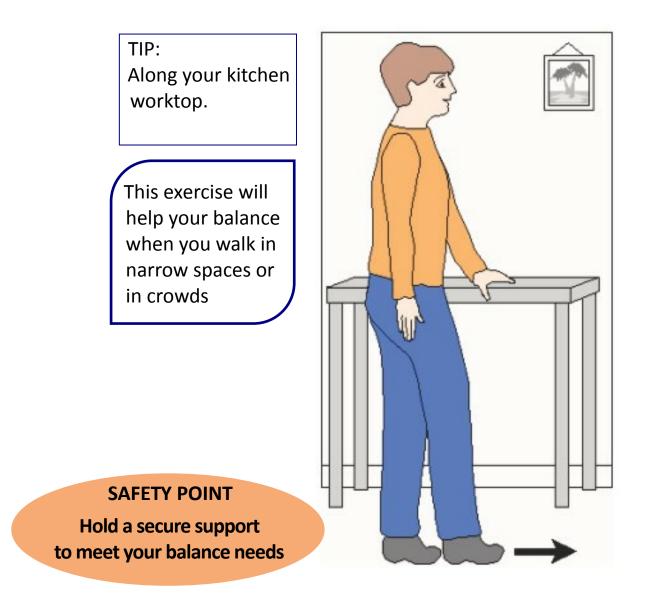
Heel Toe Stand No Support

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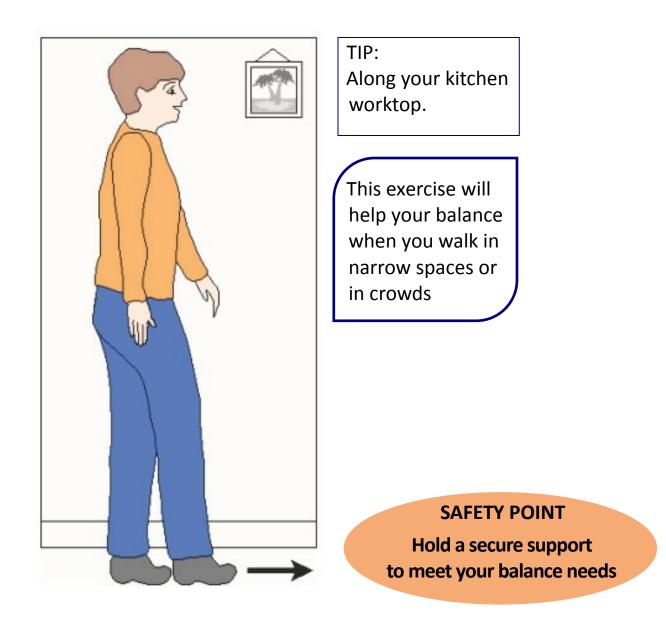
Heel Toe Walking Supported

- 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



Heel Toe Walking No Support

- 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



One Leg Stand Supported

- 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



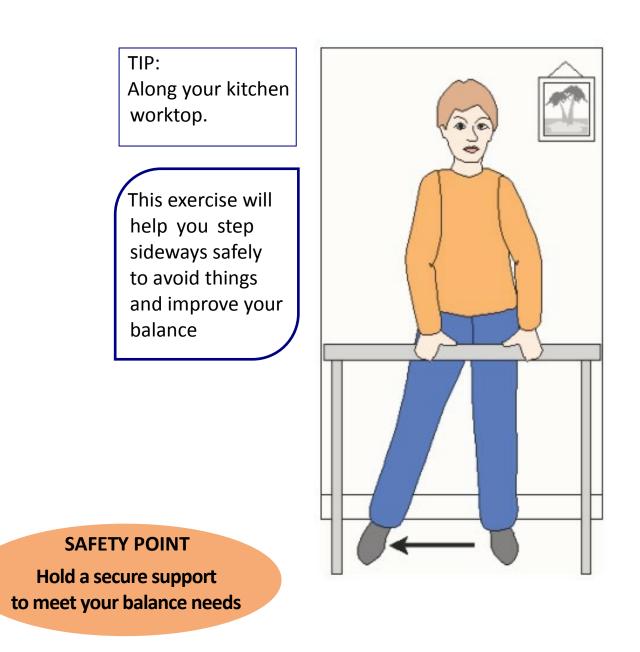
One Leg Stand No Support

- 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



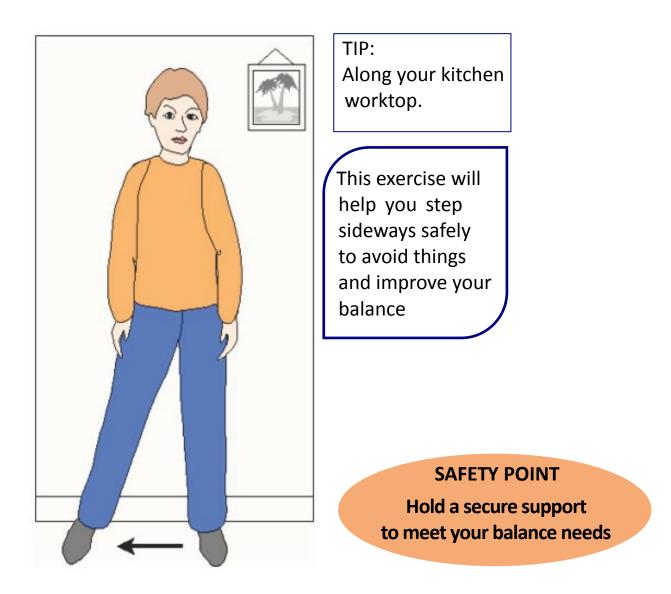
Sideways Walking Supported

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



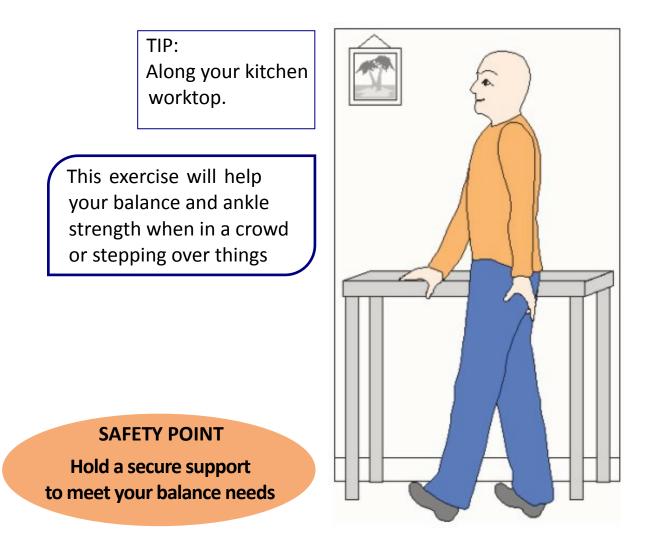
Sideways Walking No Support

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



Heel Walking Supported

- 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



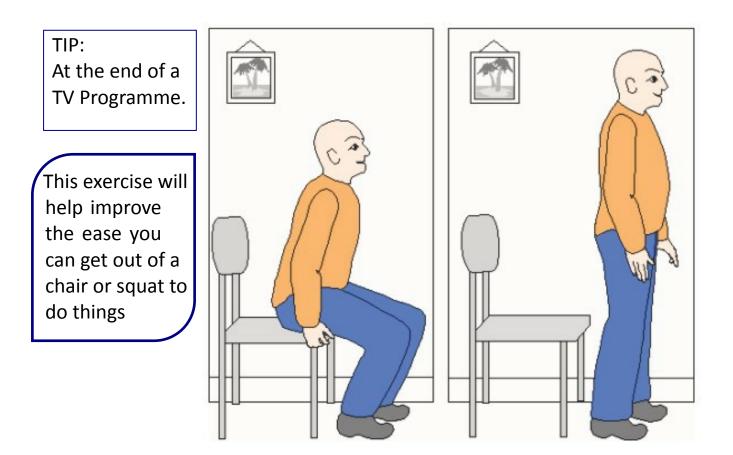
Heel Walking No Support

- 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



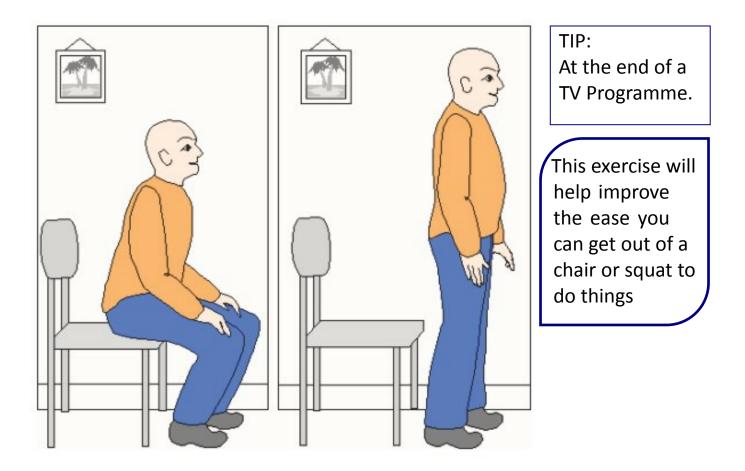
Sit To Stand Using Hands

- 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



Sit To Stand No Hands

- 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



Backwards Walking Supported

- 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



Backwards Walking No Support

- 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



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Heel Toe Walking Backwards

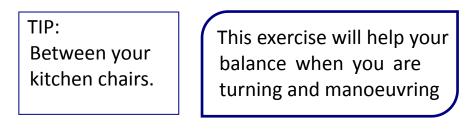
- Stand tall
- Look straight ahead
- Place one foot directly behind the other touching the toe against the heel so the feet are in a straight line
- Continue walking backwards in this way for up to 10 steps
- Aim for a smooth walking action, rolling through the foot from toe to heel
- Place your feet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

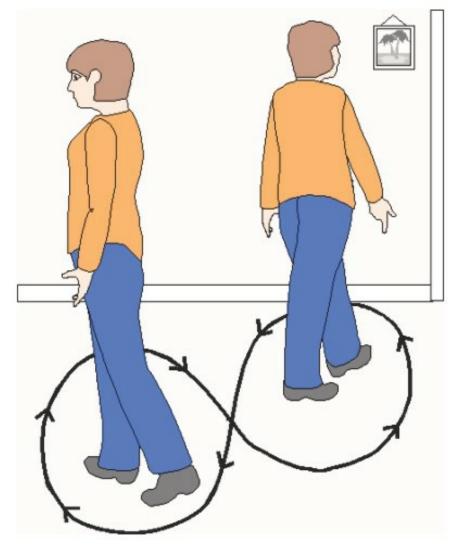


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Walk And Turn

- 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





Stair Walking

- 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 + down



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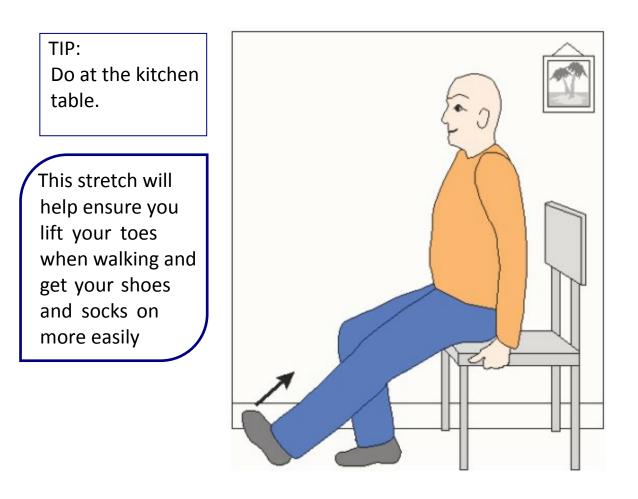
Ending The Session

Perform the following stretches to improve your flexibility and reduce stiffness

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

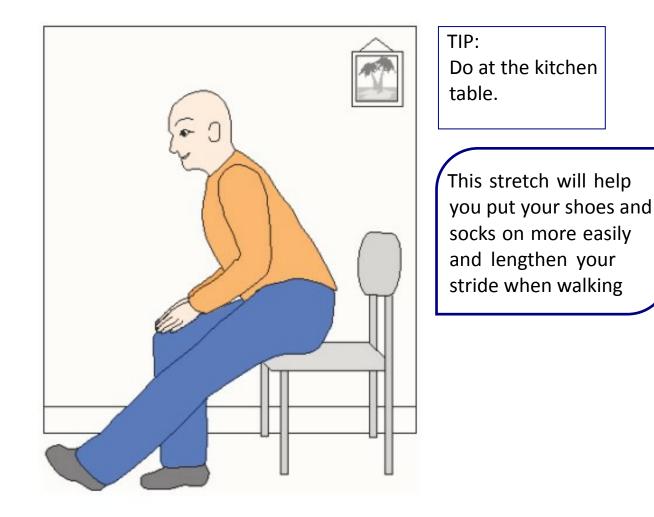
Calf Stretch

- 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 20 seconds, making sure the knee is not locked out
- Release and repeat on the other side



Back of Thigh Stretch

- 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 20 seconds
- Repeat on the other leg



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.



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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 - 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.

Date	Comments
(eg. Monday 2 nd January)	(eg. Did not do a specific exercise, feel you have improved doing a particular exercise, did some walking today)

Acknowledgements

We would like to acknowledge the following content resources:

The Otago Exercise Programme, Professor John Campbell & 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.

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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.

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