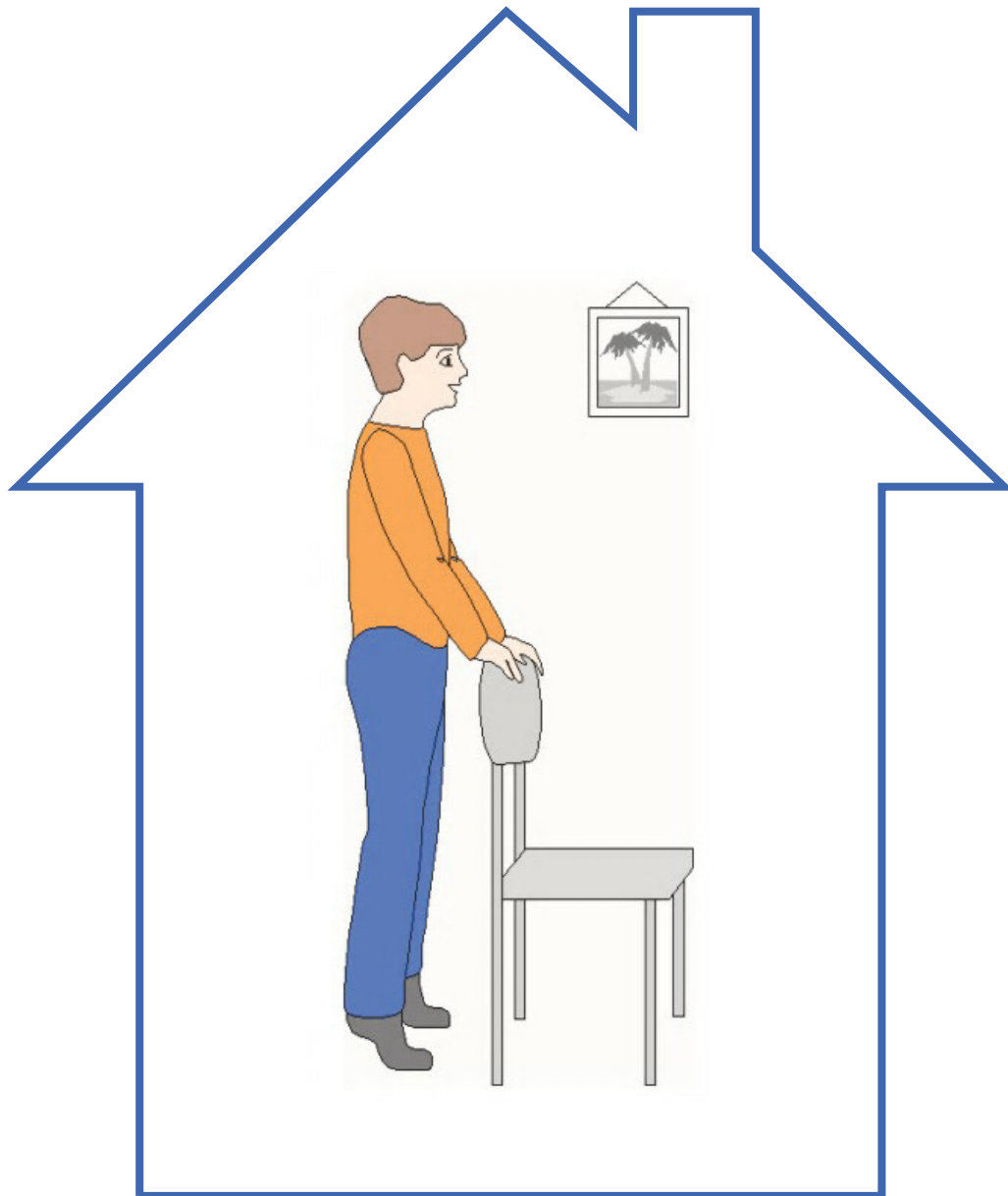


# OTAGO STRENGTH & BALANCE

## Home Exercise Programme - Beginners



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 if your instructor/therapist recommends this. Wear comfortable clothes and supportive footwear.

Prepare a space and have your ankle weights 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 **4 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 waiting for the kettle to boil.

# March

- Stand tall (holding your support if needed) or sit tall
- March slowly, lifting the knees
- Build to a rhythm that is comfortable for you
- If you feel steady, add an arm swing with one or both arms
- Continue marching for 1 - 2 minutes

**Tip:**

At the breakfast table.

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

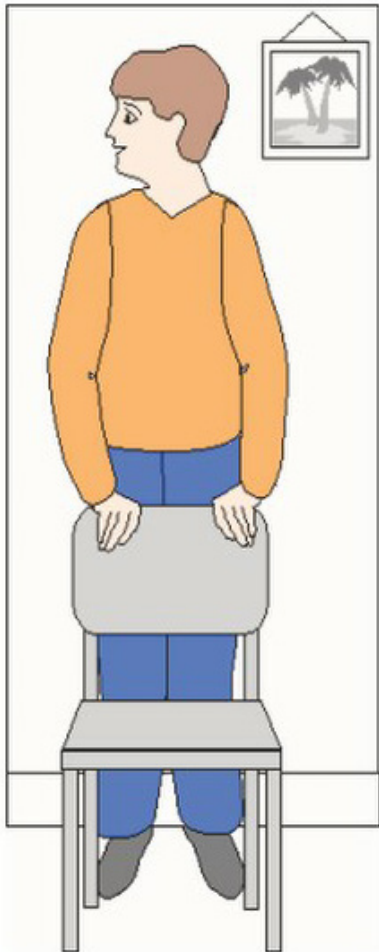


**SAFETY POINT**

**Hold a secure support to meet your balance needs**

# 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 as far as you can
- Ensure that the shoulders stay still so only the head is moving
- Repeat 5 times

**Tip:**

At the window  
and hold the sill.

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

**SAFETY POINT**

**Hold a secure support to  
meet your balance needs**

# Back Extension

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

**Tip:**

While you are listening to the radio.

This exercise helps open the chest and improve posture



**SAFETY POINT**

**Hold a secure support to meet your balance needs**

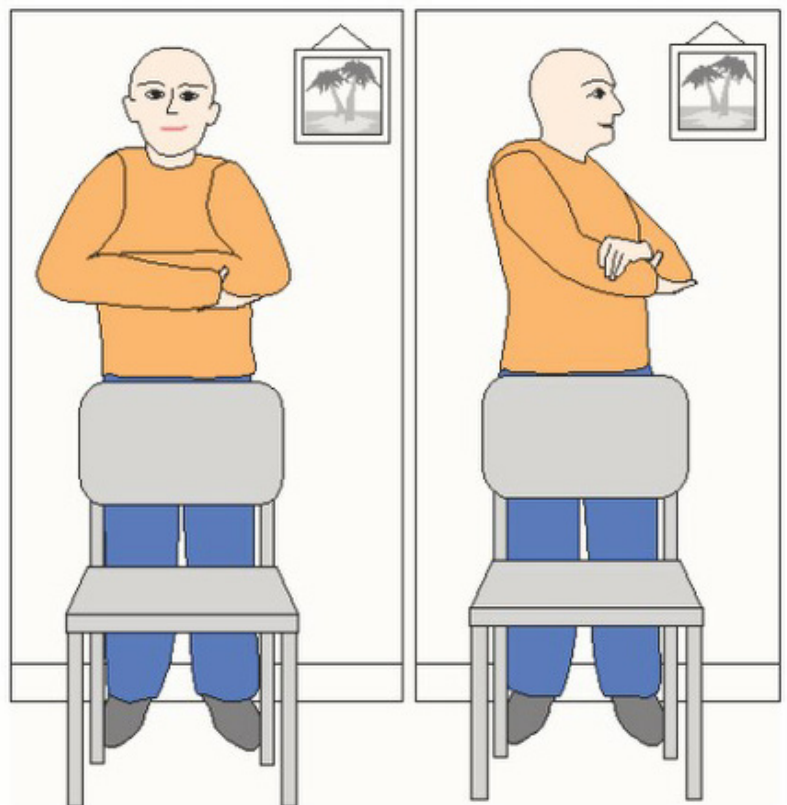
# Trunk Movements

- 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

**Tip:**

At the kitchen table.

This exercise loosens the spine and helps with putting on seat belts, looking over your shoulder and turning in bed



**SAFETY POINT**

**Hold a secure support to meet your balance needs**



# Strength and Balance

These are 5 exercises to help to improve your balance and your 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.**

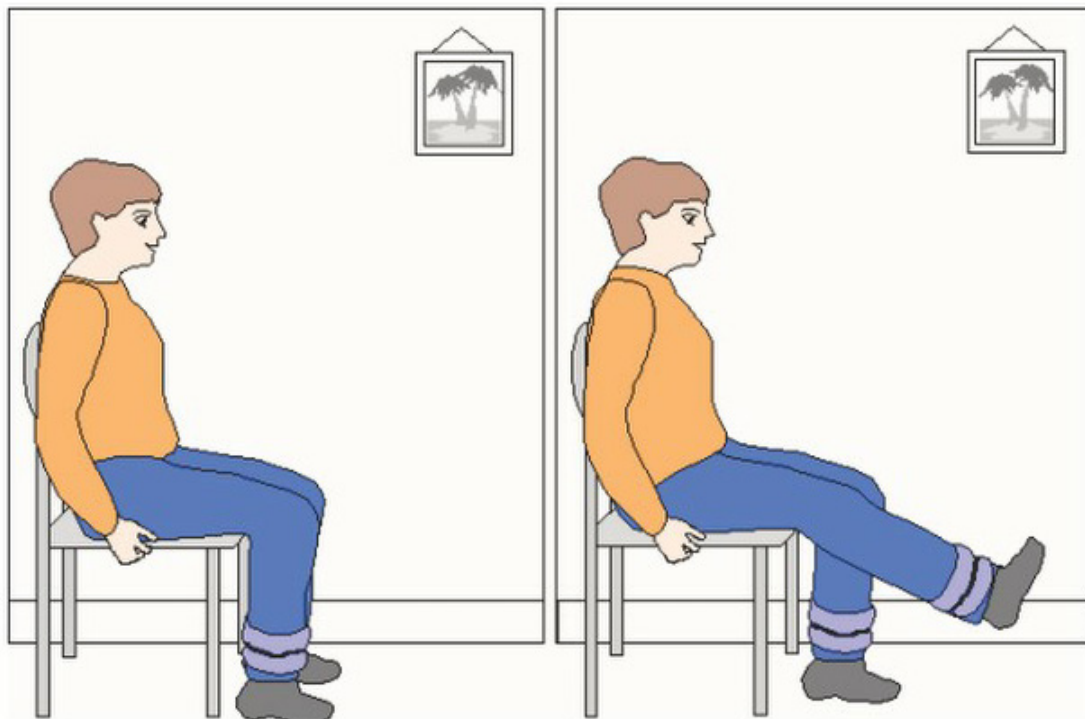
# Front Knee Strengthenener

- 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
- Aim to lift for a slow count of 3 and lower for a slow count of 5 each time
- Repeat 10 times on one leg then change legs

**Tip:**

While watching TV.

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



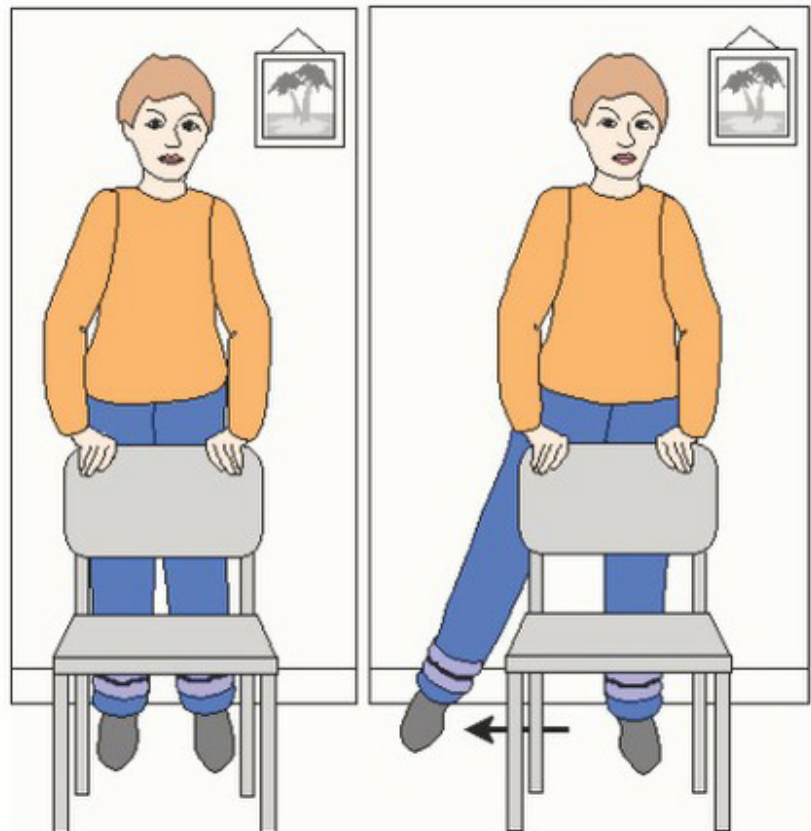
# Side Hip Strengthenener

- 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 dining table.

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



**SAFETY POINT**

**Hold a secure support to meet your balance needs**

**Now take off you ankle weights if you are wearing them**

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

**Tip:**

At the bathroom sink.

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



**SAFETY POINT**

**Hold a secure support to meet your balance needs**

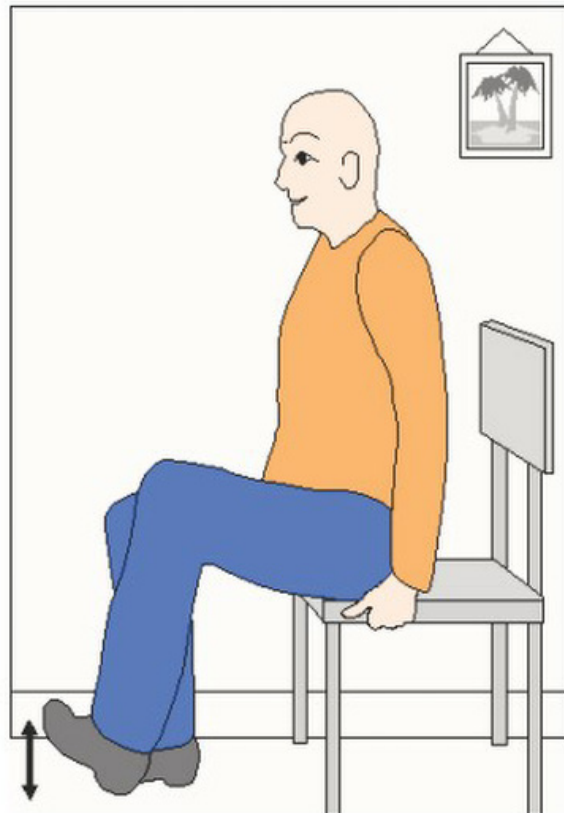
# Toe Raises

- Sit tall at the front of the chair
- Hold the sides of the chair
- Place the heel of one foot on the floor then lift your toes up in the air as high as you can + hold for a slow count of 5
- Repeat with the other foot
- Repeat 5 times on each foot

**Tip:**

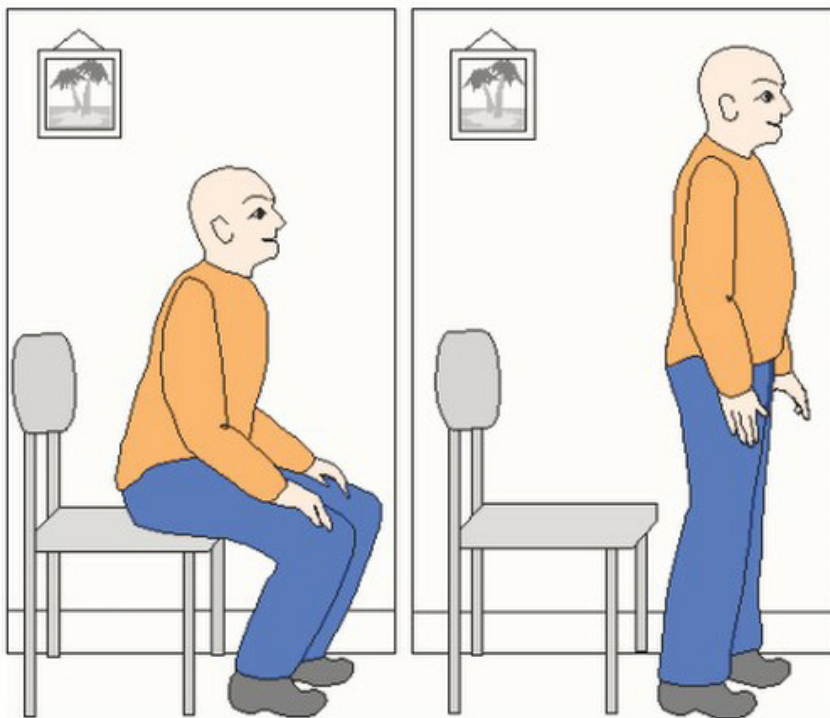
During Breakfast.

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



# Sit To Stand

- 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) slowly
- 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 up to 10 times

**Tip:**

At the end of a TV Programme.

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

# Calf Stretch

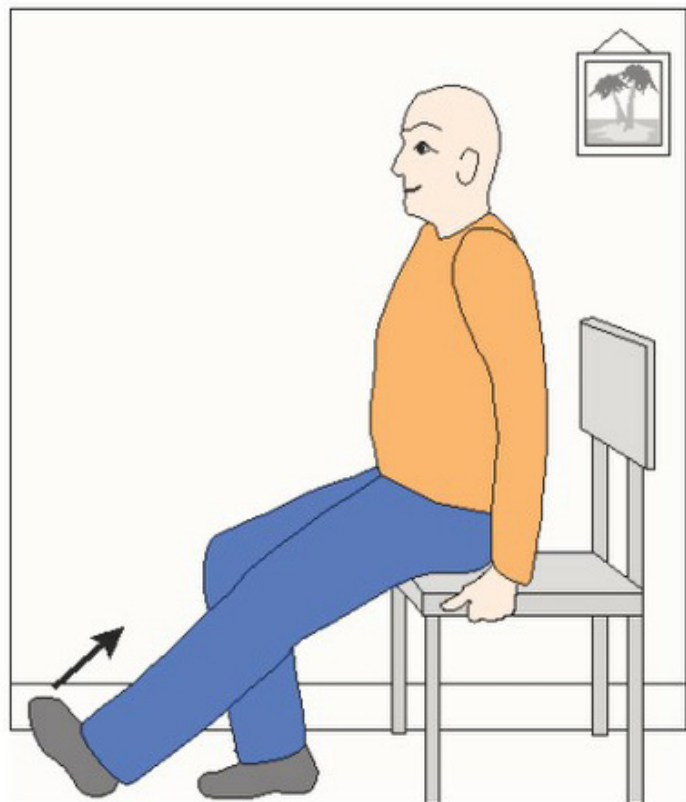
**Try to perform the following stretch at the end of your session or daily. It will help with walking and stability**

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

**Tip:**

Sitting on the toilet (lid down).

This stretch will help ensure you lift your toes when walking and get your shoes and socks on more easily



# Finished!

Well done! You have finished your exercises. Try to do these exercises **three times** per 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.



# Exercise Diary

It sometimes 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 remember or if you are part of an exercise group, you may want to share with your Otago Exercise Programme Leader.

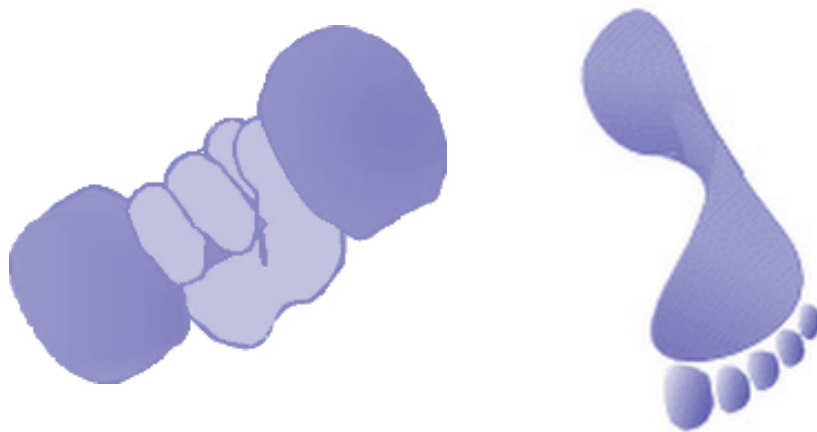
Date (eg. Monday 2nd January)	Comments (eg. Did not do a specific exercise, feel you have improved doing a particular exercise, did some walking today, did 2 strength and balance exercises today)



# Why Strength and Balance?

Strong muscles help maintain bone health as well as protecting your joints. Regular strength exercises can reduce pain from arthritic joints as well as boosting your body's natural immunity to infection.

Balance is the ability to stay upright when you are knocked, or to stay steady if you have to walk along a narrow foot path. When we walk, we spend a lot of time with only one foot on the ground, this makes the brain work hard to keep us upright and this requires a lot of practice to get right. Just as a young child has to practice to walk, as we get older we have to practice balance challenging activities to maintain good balance.



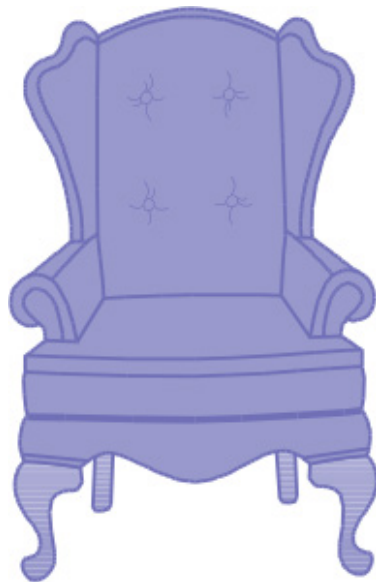
# Sit Less

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.

Tips to break up long periods of sitting:

- Stand up after a few chapters of your book
- Remain standing while the kettle boils
- Do one of the standing exercises in this booklet



# 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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