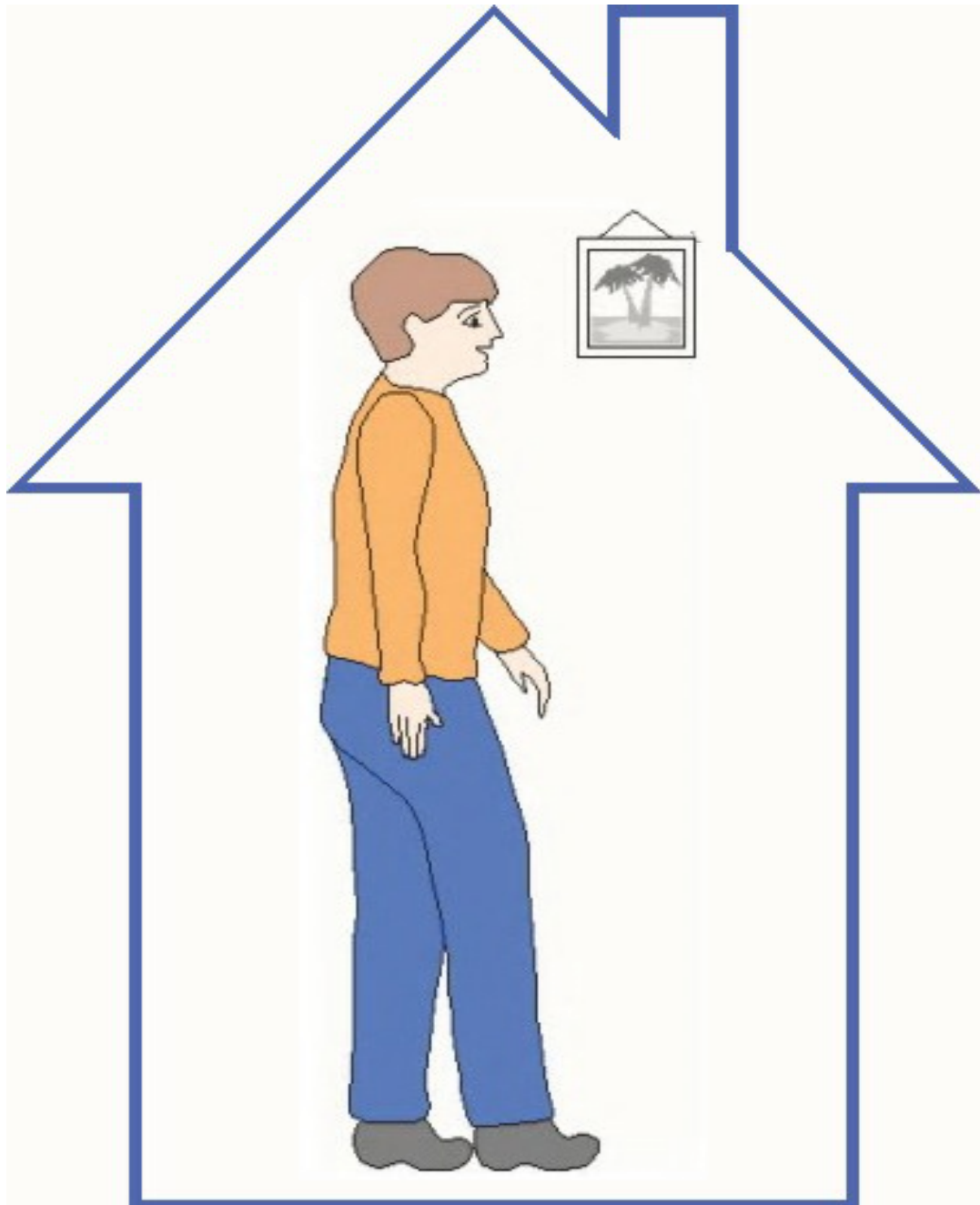


OTAGO STRENGTH & BALANCE

Home Exercise Programme - Intermediate



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.

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 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 **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)
- 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**

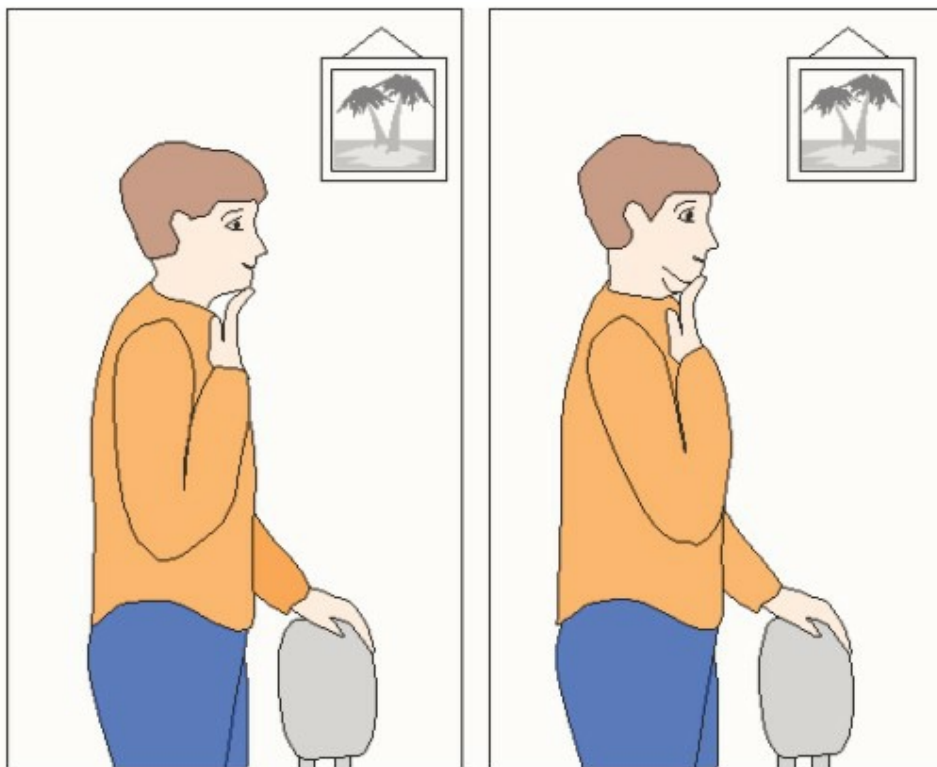
Neck Movements

- 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

TIP:

While you are watching TV.

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



SAFETY POINT

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

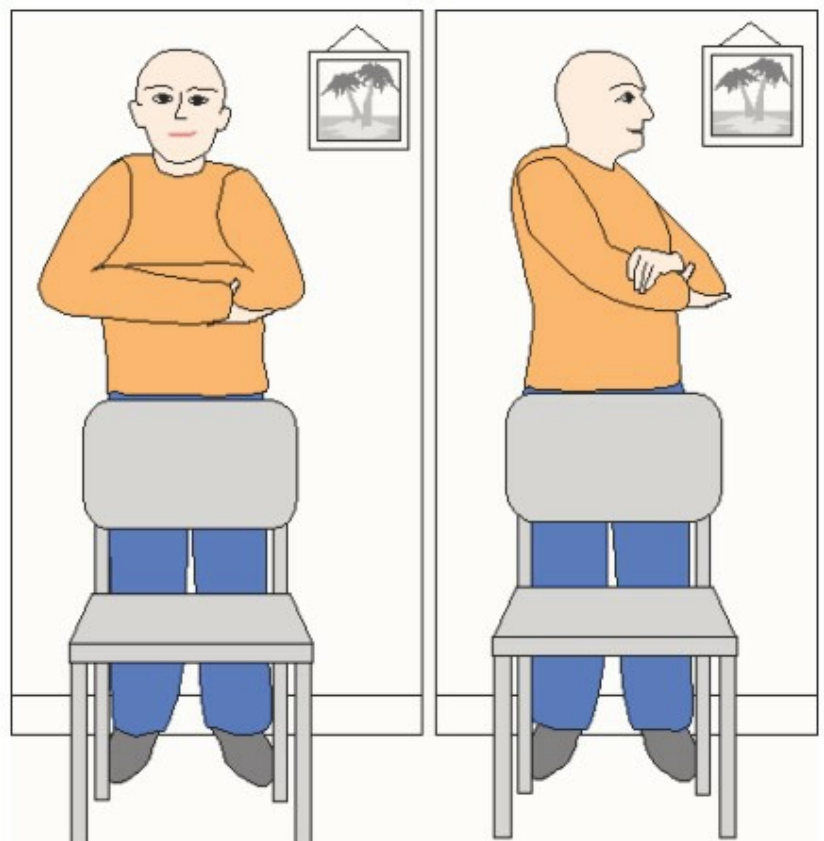
Trunk Movements

- 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**

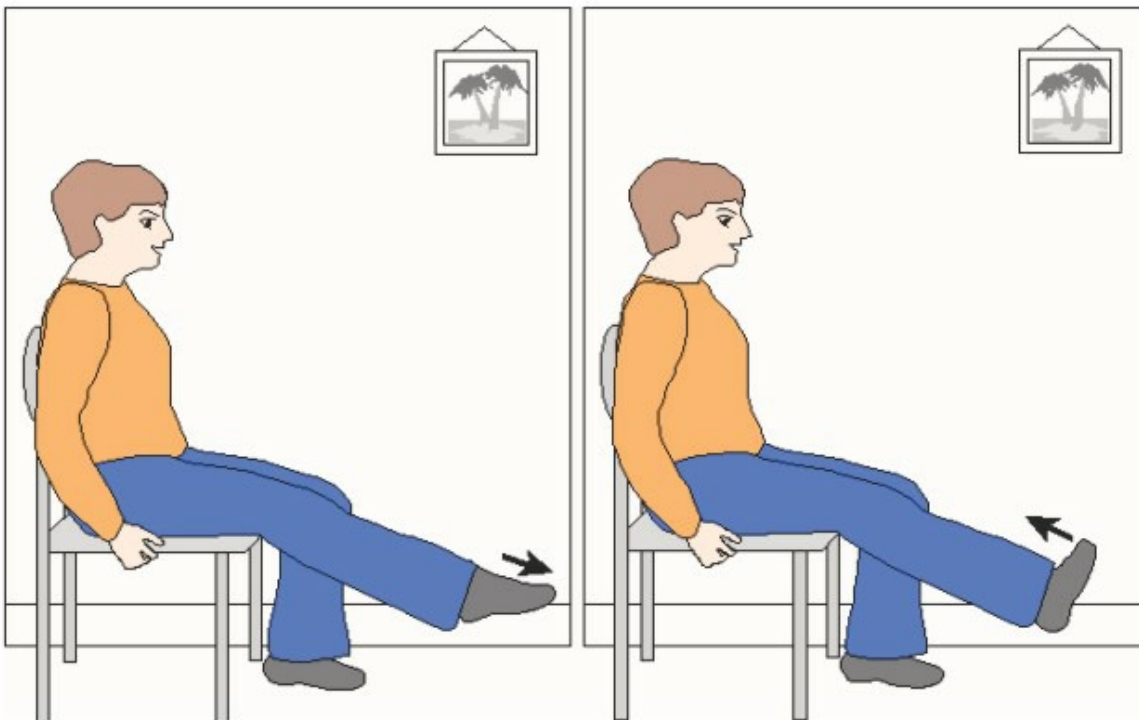
Ankle Movements

- 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 slowly
- Do this 2 times and eventually build up to 10
- 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:

After breakfast before you start the day.

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



Strength and Balance

These are 6 exercises to help to improve your balance and your muscle strength.

Try to complete them **all**, unless instructed otherwise by your Otago Exercise Programme Leader.

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

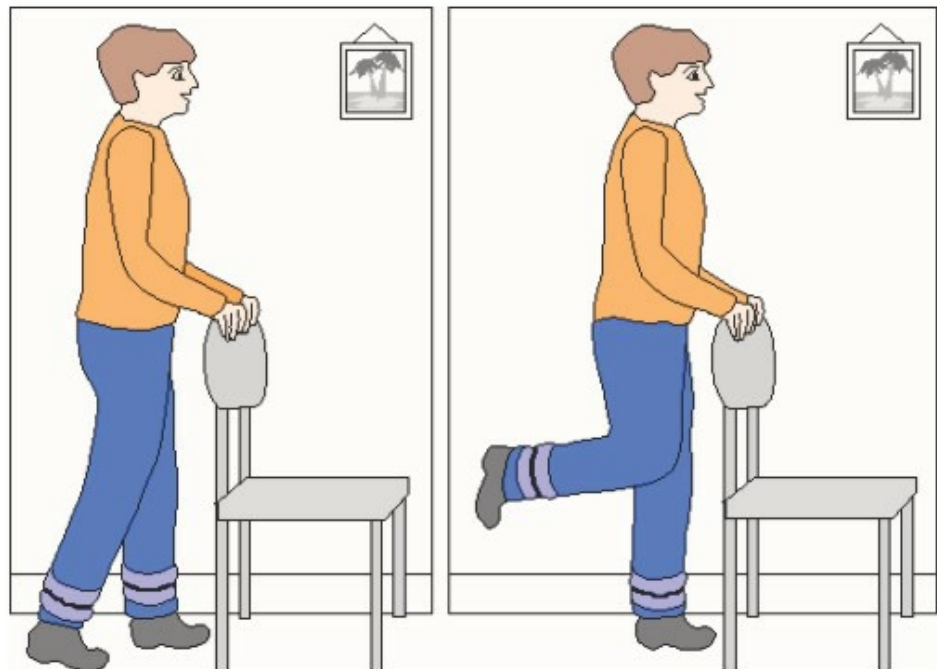
If you have ankle weights put them on now.

Back Knee Strengthenener

- 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
- Aim to lift for a slow count of 3 and lower for a slow count of 5 each time
- Repeat 2 times, eventually build up to 10 on one leg, then change legs

TIP:
While you are listening to the radio.

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



SAFETY POINT

Hold a secure support to meet your balance needs

Now take off your weights if you are wearing them.

Knee Bends

- 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 and the knees do not roll inwards
- Come back up to the start position slowly
- Use a support if you need to but try first with hands near support but not holding on
- Repeat up 2 times, eventually build to up 10 times



TIP:

At the kitchen sink.

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

SAFETY POINT

Hold a secure support to meet your balance needs

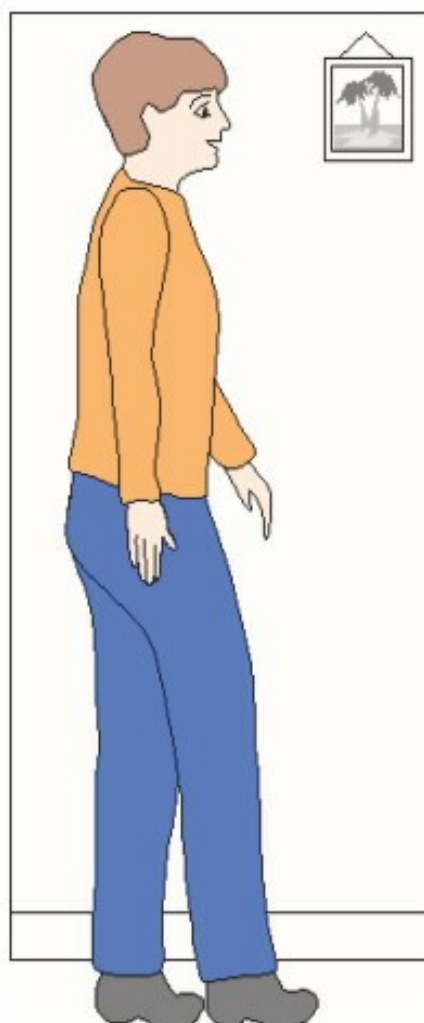
Heel Toe Standing

- Stand tall
- Place one foot directly in front of the other so that the feet form a straight line
- Use your hands to hold on to something if you need to but try first with hands near but not holding on
- Look ahead and balance for 2 seconds, eventually build up to 10 seconds
- Take the feet back to hip width apart before placing the other foot in front and balancing again

TIP:
In your hallway.

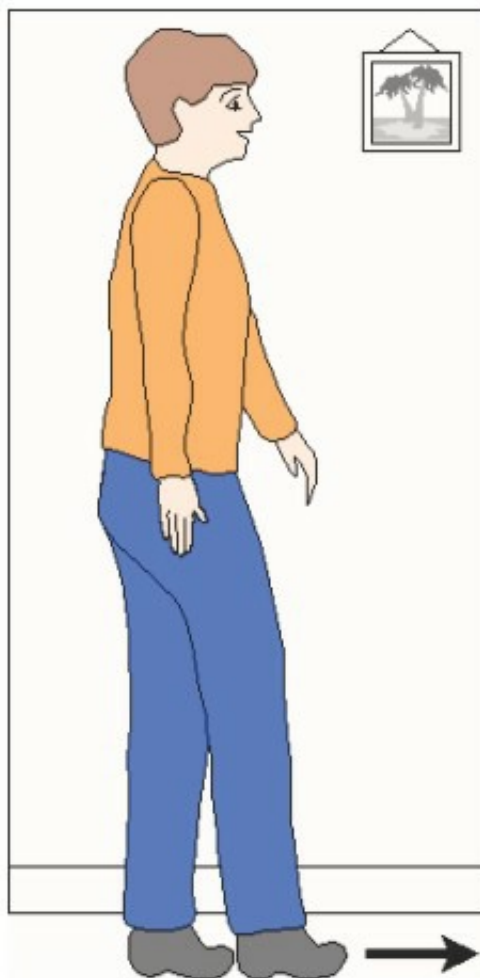
This exercise helps improve balance when you have a narrow base of support (in crowds or narrow spaces)

SAFETY POINT
Hold a secure support to meet your balance needs



Heel Toe Walking

- Stand tall
- Walk 2 steps forwards placing one foot directly in front of the other so that the feet form a straight line, eventually build up to 10 steps
- Look ahead and aim for a steady slow walking action
- Take the feet back to hip width apart before turning around slowly then repeat the steps in the other direction
- Have hands near the wall or a support in case you need to hold on



TIP:

Along your hallway.

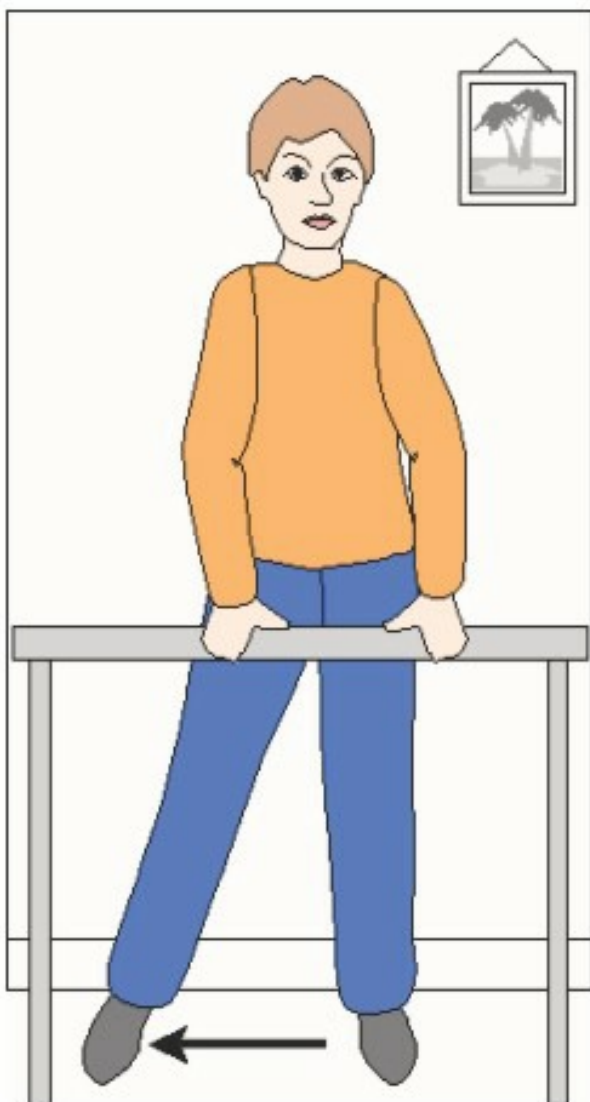
This exercise will help your balance when you walk in narrow spaces or in crowds

SAFETY POINT

Hold a secure support to meet your balance needs

Sideways Walking

- Stand tall facing a support (chair, table or wall) and look ahead
- Take 2 sideways steps, keeping the hips forward and the knees soft
- Build up to 10 steps
- Repeat the other way - slowly



TIP:

Along your kitchen worktop.

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

SAFETY POINT

Hold a secure support to meet your balance needs

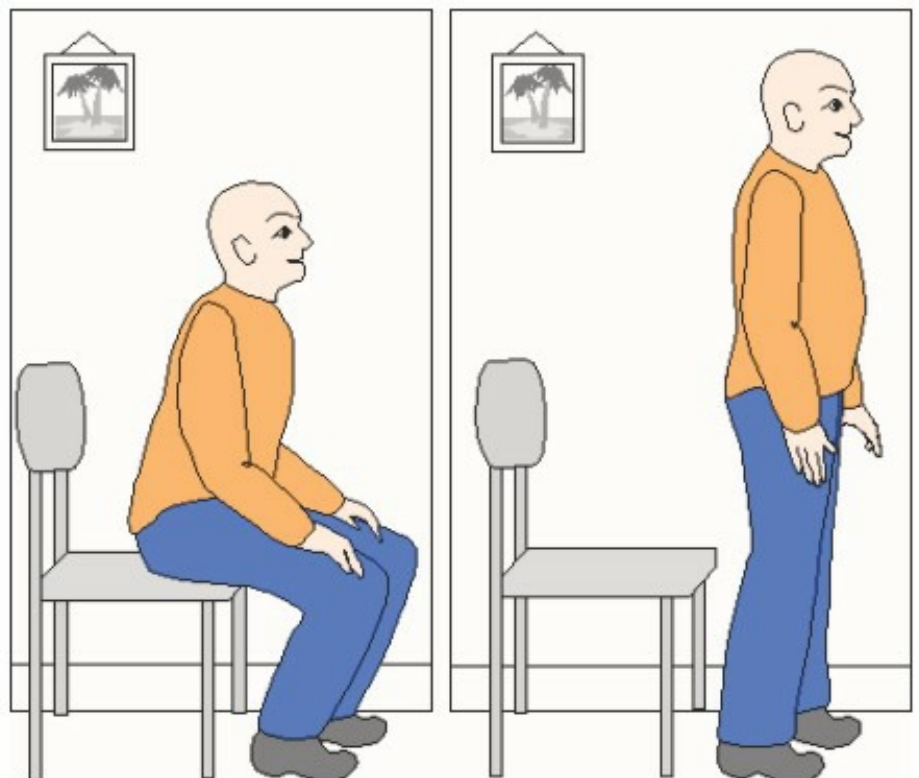
Sit to Stand

- Sit tall near the front of the chair
- Place your feet slightly back
- Lean forwards slightly
- Stand up slowly (using your hands on the chair if needed but try without)
- 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 5 times, eventually build 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



Try to perform the following stretches at the end of your session or daily. They will help with walking and stability.

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 10-15 seconds
- Relax and repeat on the other leg

TIP:

Do these when you first get up in the morning.

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



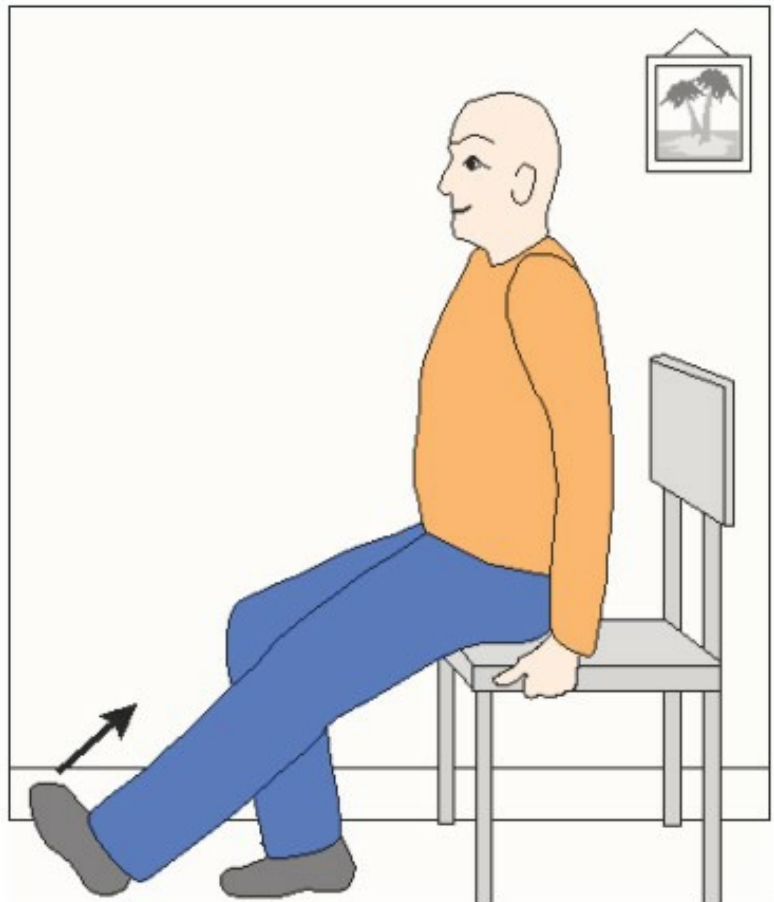
Calf Stretch

- 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 -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** 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.

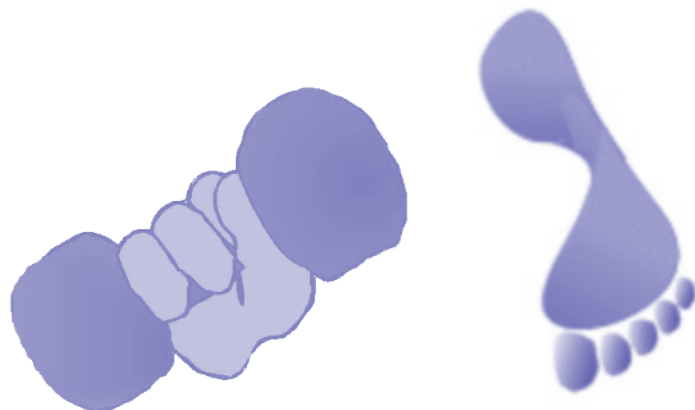
Balance Progression

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.

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.



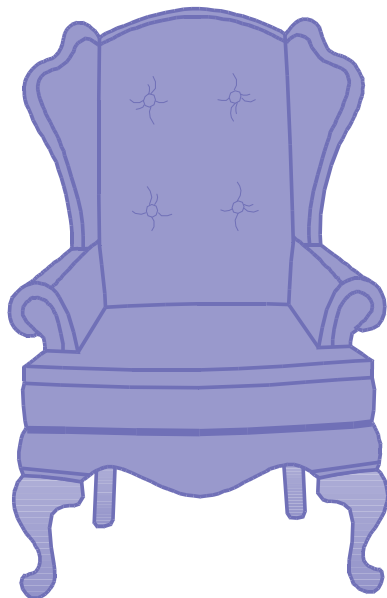
Sit Less

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.

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 and research input.

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.

Later Life Training © 2018

This booklet may be printed or photocopied in its entirety without charge.