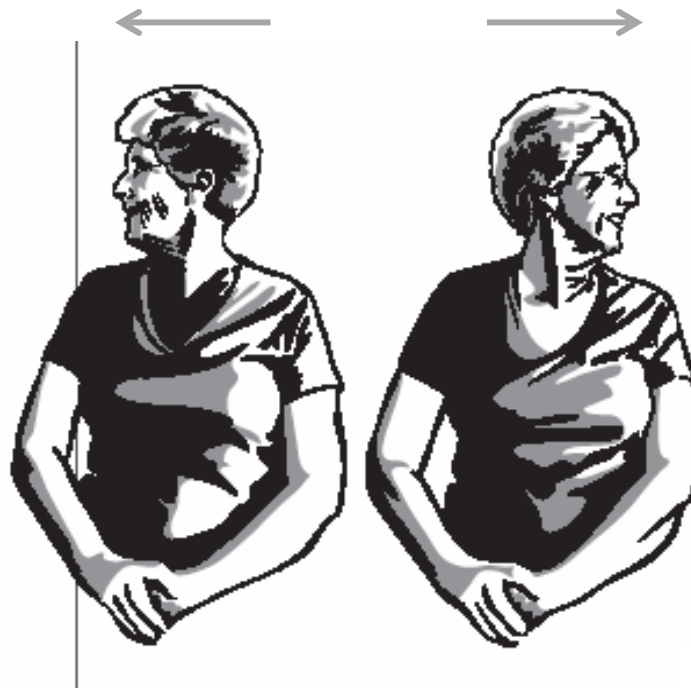




## Head Movements

- Stand up tall and look ahead.
- Slowly turn your head as far as you can to the right.
- Slowly turn your head as far as you can to the left.
- Repeat five times to each side.



## Neck Movements

- Stand up tall and look ahead.
- Place one hand on your chin.
- Guide your head straight back.
- Repeat five times.



## Back Extension

- Stand up tall with feet shoulder-width apart.
- Place your hands on the small of your back.
- Gently arch your back.
- Repeat five times.



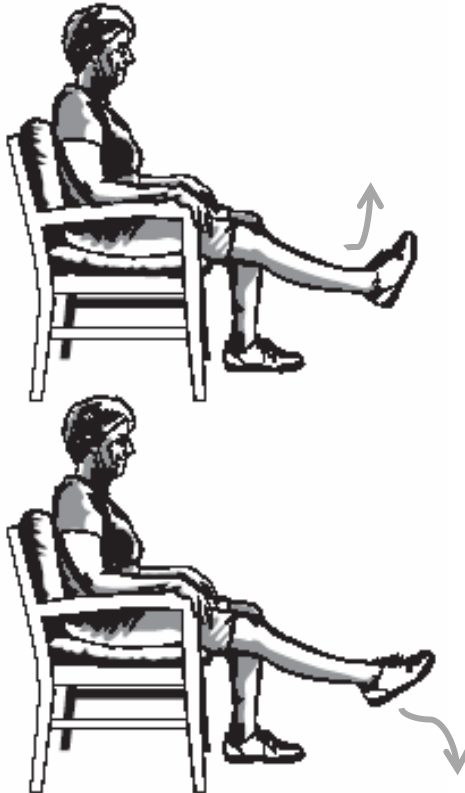
## Trunk Movements

- Stand up tall and place your hands on your hips.
- Do not move your hips.
- Turn as far as you can to the right, comfortably.
- Turn as far as you can to the left, comfortably.
- Repeat five times to each side.



## Ankle Movements

- Either stand or sit.
- Pull the foot towards you, then point the foot down.
- Repeat 10 times for each foot.



## Strength Exercises

Strengthening exercises are essential for maintaining healthy bones and the muscles necessary for walking and being independent in your daily activities.

You should aim to do these exercises three times a week with a rest day in between.

Your physical therapist will prescribe certain weights for you to use during these exercises and may also prescribe additional weight as you become stronger. Using too much weight before your physical therapist tells you it is okay may cause injury.



Lift the weight slowly through the entire range of movement. Never hold your breath while lifting. Inhale before lifting, exhale while lifting, and inhale again while lowering the weight.

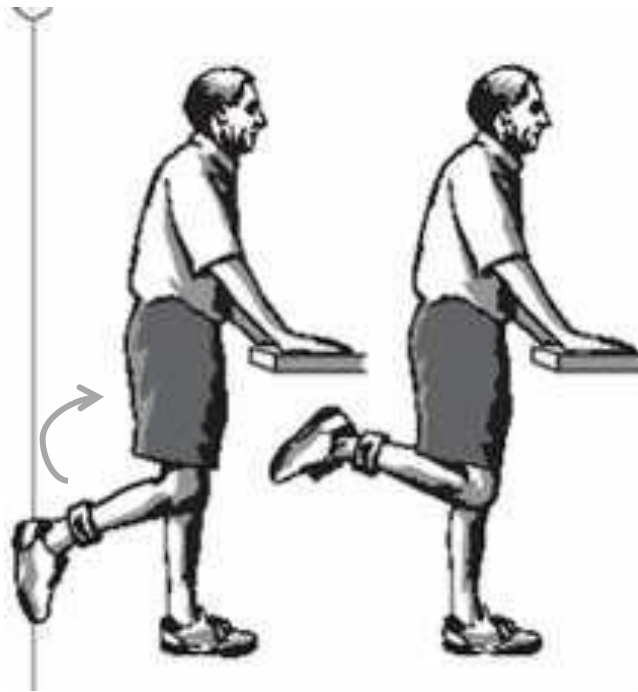
## Front Knee Strengthening Exercise

- Strap the weight onto your ankle.
- Sit in a chair with your back well supported.
- Straighten the leg out.
- Lower the leg.
- Repeat 10 times.
- Strap the weight onto your other ankle.
- Repeat this exercise 10 times.



## Back Knee Strengthening Exercise

- Strap the weight onto your ankle.
- Stand up tall facing a table with both hands on the table.
- Bend the knee, bringing the foot toward your bottom.
- Return to the starting position.
- Repeat 10 times.
- Strap the weight onto your other ankle.
- Repeat this exercise 10 times.





## Side Hip Strengthening Exercise

- Strap the weight onto your ankle.
- Stand up tall beside a table and hold onto it.
- Keep the exercising leg straight and the foot facing straight ahead.
- Lift the leg out to the side and return.
- Repeat 10 times.
- Strap the weight onto your other ankle.
- Turn around.
- Repeat this exercise 10 times.



## Calf Raises – Hold Support

- Stand up tall facing a table.
- Hold onto the table and look ahead.
- Your feet should be shoulder-width apart.
- Come up onto your toes.
- Lower your heels to the ground.
- Repeat this exercise 10 times.



## Calf Raises – No Support

- Stand up tall near a table and look ahead.
- Your feet should be shoulder-width apart.
- Come up onto your toes.
- Lower your heels to the ground.
- Repeat this exercise 10 times.



## Toe Raises – Hold Support

- Stand up tall beside a table.
- Hold on and look ahead.
- Your feet should be shoulder-width apart.
- Come back onto your heels, raising your front foot off the floor.
- Lower your feet onto the ground.
- Repeat this exercise 10 times.



## Toe Raises – No Support

- Stand up tall near a table and look ahead.
- Your feet should be shoulder-width apart.
- Come back onto your heels, raising your front foot off the floor.
- Lower your feet to the ground.
- Repeat this exercise 10 times.



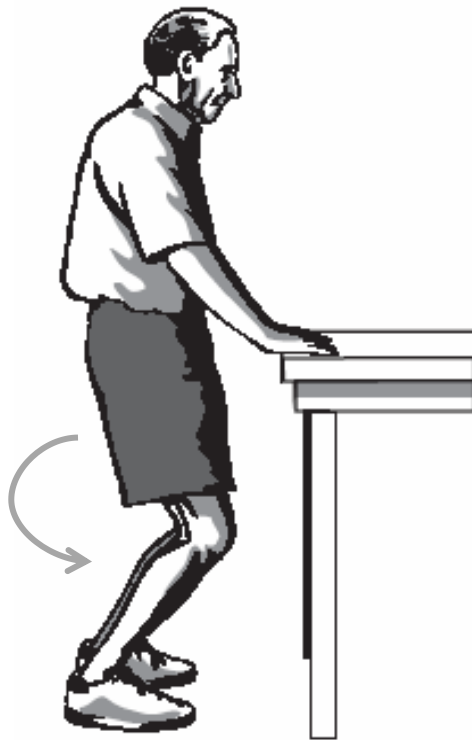
## Balance Exercises

Balance is important for everyday activities. The following quick balance exercises should be done three times a week, but you are encouraged to do them as often as you can! They can be done every day.



## Knee Bends – Hold Support

- Stand up tall facing a table with both hands on the table.
- Place your feet shoulder-width apart.
- Squat down half way, bending your knees.
- The knees go over the toes.
- When you feel your heels start to lift, straighten up.
- Repeat \_\_\_ time(s).



## Knee Bends – No Support

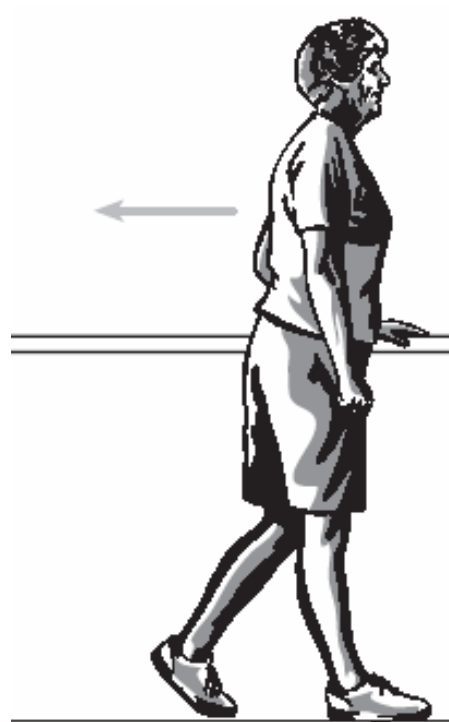
- Stand up tall near a table and look ahead.
- Place your feet shoulder-width apart.
- Squat down half way, bending your knees.
- The knees go over the toes.
- When you feel your heels start to lift, straighten up.
- Repeat \_\_\_ time(s).





## Backwards Walking – Hold Support

- Stand up tall and hold onto a table.
- Walk backwards 10 steps.
- Turn around and hold on with the other hand.
- Walk backwards 10 steps to the beginning.
- Repeat this exercise.



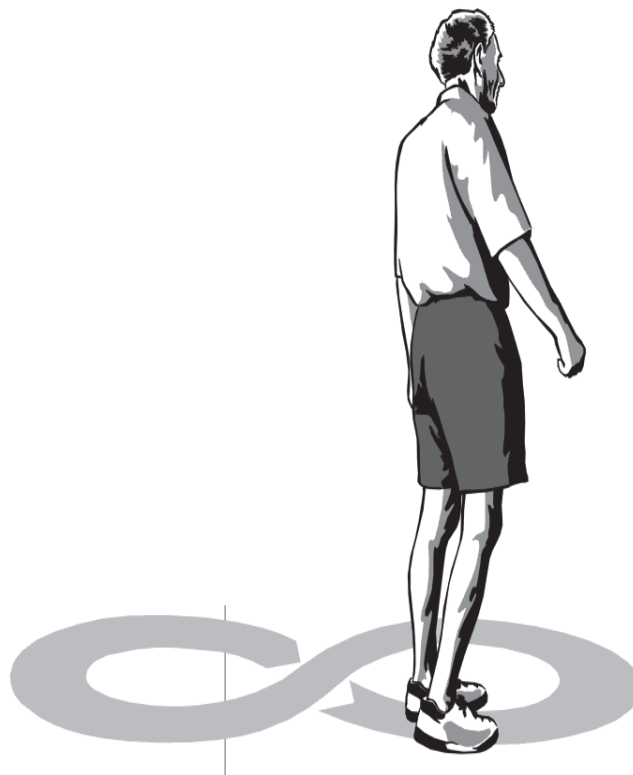
## Backwards Walking – No Support

- Stand up tall near a table and look ahead.
- Walk backwards for 10 steps.
- Turn around.
- Walk backwards 10 steps to the beginning.
- Repeat.



## Walking and Turning Around

- Stand near a table.
- Walk at your regular pace.
- Turn in a clockwise direction.
- Walk back to your starting position.
- Turn in a counter-clockwise direction.
- The exercise is a figure-eight movement.
- Repeat this movement.



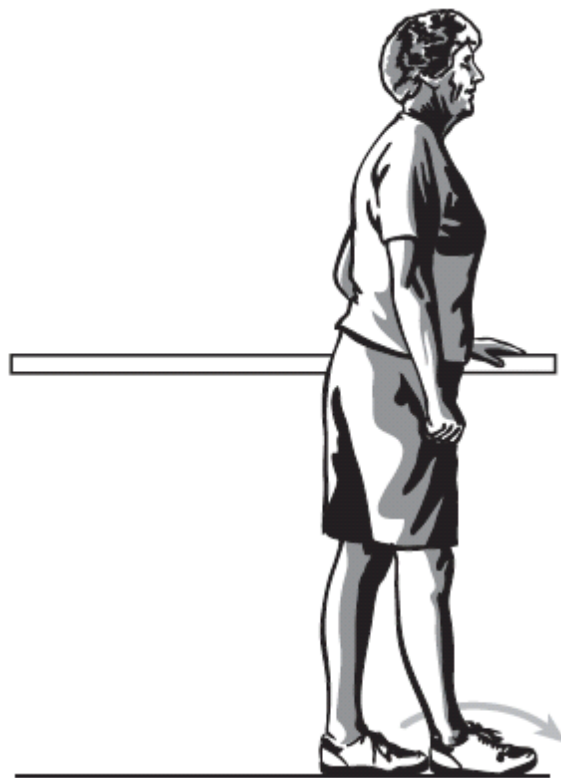
## Sideways Walking

- Stand up tall near a table and place your hands on your hips.
- Take 10 steps to the right.
- Take 10 steps to the left.
- Repeat.



## Heel Toe Standing – Hold Support

- Stand up tall beside a table.
- Hold onto the table and look ahead.
- Place one foot directly in front of the other foot so your feet form a straight line.
- Hold this position for 10 seconds.
- Change position and place the foot behind directly in front of the other.
- Hold this position for 10 seconds.



## Heel Toe Standing – No Support

- Stand up tall near a table and look ahead.
- Place one foot directly in front of the other so your feet form a straight line.
- Hold this position for 10 seconds.
- Change position and place the foot behind directly in front of the other.
- Hold this position for 10 seconds.



## Heel Toe Walking – Hold Support

- Stand up tall beside a table.
- Hold on and look ahead.
- Place one foot directly in front of the other so your feet form a straight line.
- Place the foot behind directly in front of the other.
- Repeat for 10 more steps.
- Turn around.
- Repeat this exercise.



## Heel Toe Walking – No Support

- Stand up tall near a table and look ahead.
- Place one foot directly in front of the other so your feet form a straight line.
- Place the foot behind directly in front of the other.
- Repeat for 10 more steps.
- Turn around.
- Repeat the exercise.





## One Leg Stand – Hold Support

- Stand up tall beside the table.
- Hold on and look ahead.
- Stand on one leg.
- Try to hold this position for 10 seconds.
- Stand on the other leg.
- Try to hold this position for 10 seconds.



## One Leg Stand – No Support

- Position yourself near a table.
- Stand on one leg.
- Try to hold this position for 10 seconds.
- Stand on the other leg.
- Try to hold this position for 10 seconds.



## One Leg Stand – No Support

- Position yourself near a table.
- Stand on one leg.
- Try to hold this position for up to 30 seconds.
- Stand on the other leg.
- Try to hold this position for up to 30 seconds.



## Heel Walking – Hold Support

- Stand up tall beside a table.
- Hold on and look ahead.
- Come back onto your heels, raising the front of your foot off the floor.
- Walk 10 steps on your heels.
- Lower your feet to the ground and turn around.
- Walk 10 steps on your heels.
- Repeat.



## Heel Walking – No Support

- Stand up tall near a table and look ahead.
- Come back onto your heels, raising the front of your foot off the floor.
- Walk 10 steps on your heels.
- Lower your feet to the ground and turn around.
- Walk 10 steps on your heels.
- Repeat.



## Toe Walking – Hold Support

- Stand up tall beside a table.
- Hold on and look ahead.
- Come up onto your toes.
- Walk 10 steps on your toes.
- Lower your heels to the ground and turn around.
- Walk 10 steps on your toes.
- Repeat.



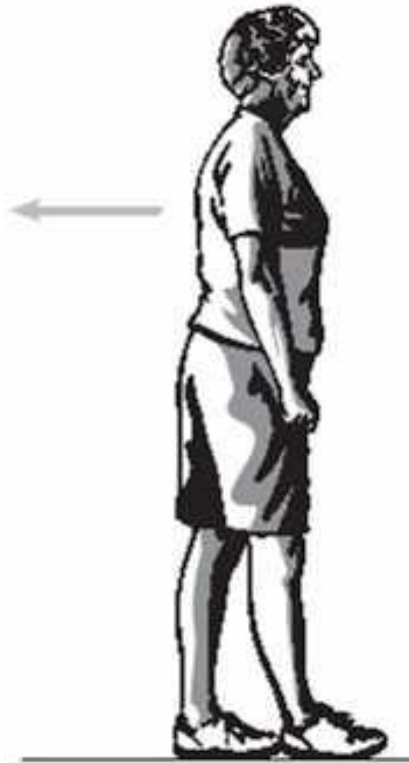
## Toe Walking – No Support

- Stand up tall near a table and look ahead.
- Come up onto your toes.
- Walk 10 steps on your toes.
- Lower your heels to the ground and turn around.
- Walk 10 steps on your toes.
- Repeat.



## Heel Toe Walking Backwards

- Stand up tall near a table and look ahead.
- Place one foot directly behind the other foot.
- Place the foot in front directly behind.
- Repeat for 10 more steps.
- Turn around.
- Repeat the exercise.





## Stand To Sit – Two Hands

- Sit on a chair that is not too low.
- Place your feet behind your knees.
- Lean forward over your knees.
- Push off with both hands to stand up.
- Repeat \_\_\_ time(s).



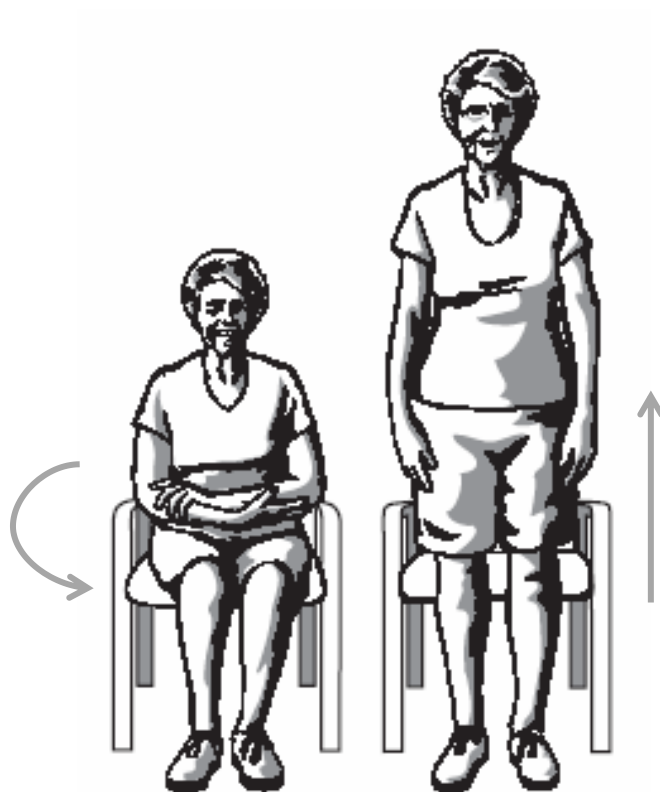
## Stand To Sit – One Hand

- Sit on a chair that is not too low.
- Place your feet behind your knees.
- Lean forward over your knees.
- Use one hand to help you stand up.
- Repeat \_\_\_ time(s).



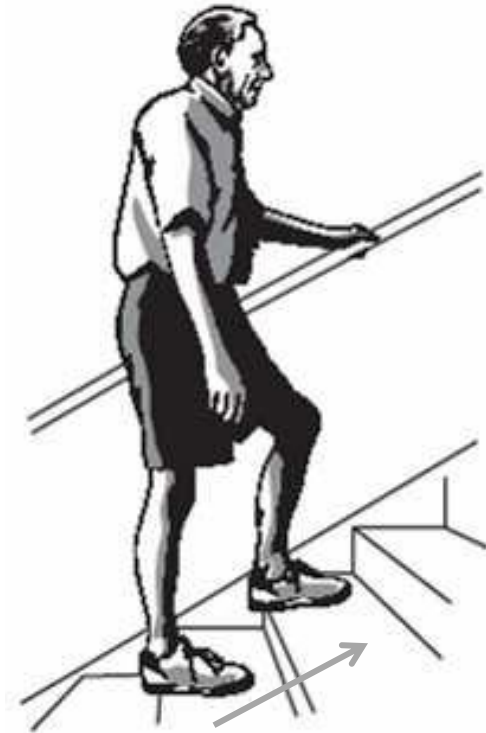
## Stand To Sit – No Hands

- Sit on a chair that is not too low.
- Place your feet behind your knees.
- Lean forward over your knees.
- Stand up without using your hands.
- Repeat \_\_\_ time(s).



## Stair Walking

- Hold onto the handrail for this exercise.
- Go up and down the stairs for \_\_\_ steps.





## Walking Tips

While walking is important, it should not take the place of the Otago exercises. Only add a walking plan to your Otago exercise when your physical therapist tells you it is safe to do so.

### General Walking Tips

- Wear good shoes.
- Wear prescription eyeglasses if advised by your primary care provider.
- Use your walking aid if recommended.
- Do not go outside if it is too cold or too warm
- Carry identification and a cell phone
- Have a set time during the day to walk so it becomes part of your routine and so your family and friends know where you are.

### When You Walk

- Start with a warm-up (e.g., marching place for two minutes).
- Relax your shoulders and gently swing your arms in a way that is comfortable to you.
- Look ahead, not down
- With each step, land with your heel first, then push off on your toes.



in

- Walk at a normal and not a fast pace.
- Finish with a cool-down (e.g., marching in place for two minutes).
- Avoid multi-tasking (i.e., talking, carrying items).

### **Be Safe Outdoors**

- Walk with a friend
- Walk in a well maintained, well lit, and well-populated area.
- Tell others when and where you are going for a walk
- Avoid walking outdoors if it is cold or hot
- Avoid roads or sidewalks that have tripping hazards.

### **How to Be Safe Indoors**

- When walking in your house:
  - Remove scatter rugs.
  - Secure loose carpet.
  - Install handrails on staircases.
  - Tape down electrical cords.
  - Mark uneven floors.
  - Watch out for pets.
  - Keep walkways clear of clutter.
- When walking at the mall, choose times when it is less crowded.

## **Alternatives to Walking Outdoors**

- Malls or other large indoor retail locations, including grocery stores,
- Indoor tracks at schools and/or universities, or
- YMCA, or other fitness or senior centers.

## **Adjustable Ankle Weights**

### **Importance of Adjustable Ankle Weights**

Adjustable ankle weights are weighted bands that fasten around the ankles (most often with Velcro). They add weight to your legs during a workout, which is an important component of the Otago Exercise Program (Otago). Weight bearing is critical to your improvement and progression through the program. Adjustable weights allow you to gradually increase the weight (one half pound to 20 pounds) and to progressively increase resistance while strengthening the knee flexors, knee extensors, and hip abductors. Adjustable weights also allow you to increase the intensity but not the impact to joints while strengthening the leg muscles.<sup>25</sup>

Otago physical therapists will come prepared with the appropriate adjustable weights each time they visit you, but it is important that you have your own set of adjustable ankle weights to complete the Otago exercises when your physical therapist is not visiting your home.

### **Cost of Adjustable Ankle Weights**

You are encouraged to purchase a weight set of 10 to 20 pounds, with each weight band holding 5-10 pounds. The cost for such a set ranges from \$20 to \$40. Adjustable weights can be purchased at large retailers and sporting goods stores or at online retail outlets. Please talk to your physical therapist about which weights are right for you and options for purchase.



## **Otago Exercise Calendar**

Use this calendar to keep track of when you do your Otago exercises or when you walk. Just mark the days or time you spent exercising or walking. Show this to your Otago physical therapist when they visit your house as to keep track of your progress. Ask your physical therapist to provide you with additional pages of this calendar when you run out. An example of a completed exercise calendar follows the calendar template.

### Otago Exercise Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date:	Date:	Date:	Date:	Date:	Date:	Date:

**SAMPLE – Otago Exercise Calendar**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date:	Date:	Date:	Date:	Date:	Date:	Date:
<ul style="list-style-type: none"> <li>▪ Walk – 15 minutes</li> </ul>	<ul style="list-style-type: none"> <li>▪ Otago exercises – 30 minutes</li> <li>▪ Walk – 10 minutes</li> </ul>		<ul style="list-style-type: none"> <li>▪ Otago exercises – 30 minutes</li> <li>▪ </li> </ul>	<ul style="list-style-type: none"> <li>▪ Otago exercises – 20 minutes</li> <li>▪ Walked around park – 15 minutes</li> </ul>	<ul style="list-style-type: none"> <li>▪ Otago exercises – 30 minutes</li> <li>▪ </li> </ul>	<ul style="list-style-type: none"> <li>▪ Otago exercises – 30 minutes</li> <li>▪ Walk – 10 minutes</li> </ul>

## Otago Exercise Diary

Use this diary to record your thoughts and feelings about your Otago exercises and how your body feels before and after you perform them. You can also keep track of how far you walk and where you walk in this diary. Ask your physical therapist to provide you with additional pages of this diary when you run out. An example diary entry is provided below.

Date

Notes (EXAMPLE)

**Every day I do the Otago exercises they get a little easier. I still have trouble with the side hip strengthening exercise because of my bad hip, but I've noticed some improvement. I've also noticed I'm not as tired after finishing the exercises as I was when I first started. Today I also walked 10 minutes around my neighborhood.**

Date

Notes

Date

Notes