

Home Exercise Manual

A Guide to Improved Strength, Balance, and Independence



**STrategies to
Reduce
Injuries and
Develop confidence in
Elders**

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Introduction

As a member of the STRIDE study you have taken a very important step toward reducing your fall risk and maintaining independence. You have met with your Falls Care Manager and together have discussed ways in which exercise can be helpful in achieving these goals. You even have a starting plan!

This manual provides support and resources for your home exercise plan. **Please use this manual as a guide to gradually and continually improve your strength and balance. The outcomes are positive: more strength, better balance, more ability, and very importantly, reduced fall risk.**

Included is information on

- How to use this manual (page 4)
- Detailed instructions and illustrations for the exercises recommended for you. **Please refer to your fall care plan and the table of contents in this manual** to see these exercises
- More challenging exercises to use as you improve your strength and balance. **Increasing challenge when you are able is critically important for your success.**

Additional information includes

- Benefits from progressive strength and balance exercise
- Definitions of terms used in strength and balance exercise
- General home exercise guidelines
- Safety considerations
- Tips for success
- A sample exercise calendar

Our Challenge

The U.S. Centers for Disease Control and Prevention report that

- Falls are the leading cause of fatal injury and the most common cause of nonfatal trauma-related hospital admissions among older adults.
 - One-fourth of Americans aged 65+ falls each year.
 - Every 11 seconds, an older adult is treated in the emergency room for a fall; **every 19 minutes, an older adult dies from a fall.**
- Falls, with or without injury, also carry a heavy quality of life impact. A growing number of older adults fear falling and, as a result, limit their activities and social engagements. This can result in further physical decline, depression, social isolation, and feelings of helplessness.

But, we have at hand a simple and very effective strategy to prevent declining physical ability and reduce fall risk. You guessed it: **EXERCISE.**

Please read on...

How to Use this Manual

You and your Falls Care Manager have talked about how to get started with home exercise program including

- The number of days per week you should try to exercise
- Specific exercises to do
- The number of sets and repetitions for each exercise
- How much rest you should take between exercises

Please follow this advice and **then as you improve and think it is safe to do so, progress to the next level of challenge.**

Organization of the Exercises

There are **five groups of exercises**, each with a different purpose and **four levels of challenge**. You have planned a home exercise program with your Falls care Manager that includes some of these exercises at specific starting levels, 1, 2, 3, or 4.

You may wish to remove the pages containing your specific exercise recommendations and place them in a spot in your home where you will see them every day.

As your strength and balance improves you will be able to advance to higher levels of challenge. Please see page 13 for examples of how you can safely do this.

Benefits

The following is a short list of benefits you can expect to see as a result of regularly carrying out the progressive strength and balance exercises designed for you.

Increased strength for:

- Improved mobility
- Standing from seated positions
- Climbing stairs
- Everyday activities
- Walking
- Improved bone health
- Reducing falls and fall injuries
- Maintaining independence

Increased balance for:

- Reducing risk of falls
- Maintaining stability
- Improved postural control
- Improved stability
- Improved ability to walk over uneven surfaces
- Easier, more confident movement

Benefits Gained from Exercises within Each Exercise Group

- **Exercise Group 1 Sit to Stand (pp 16-19):** These exercises will improve your leg and hip strength, and improve your balance. These improvements will reduce the effort you feel whenever you stand from a seated position and improve your stability when doing so.
- **Exercise Group 2: Heel Walking and Toe Raises (pp 20-23):** These exercises will improve your lower leg muscle strength which is important in walking, climbing (e.g., stairs, streets with inclines, etc.) and balance.

- **Exercise Group 3: Weight Shifting and 1-leg Balance (pp 24-27):** These exercises will maintain your upper and lower leg muscles strength and are particularly valuable in improving balance. The one-leg stand has also been shown to increase bone mineral content in older women.
- **Exercise Group 4: Heel-Toe Standing and Walking (pp 28-31):** These exercises will help improve your balance and stability.
- **Exercise Group 5: Knee Bends (pp 32-35):** These exercises will develop strength in several muscles on the front and back of your thigh, inner thigh muscles, and hip muscles. Gains in strength from these exercise are important in walking, climbing, rising from a seated or squatting position, rising from the floor, and as an aid in balance when doing these activities.

Definitions of Exercise Terms:

The language of exercise can be confusing so here are some definitions of terms used in your home exercise program:

REPETITION (REP): a complete cycle of an exercise. For example, one repetition of a sit-to-stand includes standing up then sitting down; 10 repetitions would be 10 cycles of sitting and standing.

SET: A group of repetitions of the movement performed consecutively. One set of 10 repetitions means doing only 10 consecutive repetitions for that exercise. Two sets of 10 means doing one set of 10 repetitions, resting about a minute, and then doing a second set of consecutive repetitions.

CHALLENGE: The level of difficulty of a task or activity. We can only get better at those tasks if we practice at a level of difficulty that is a little harder – more challenging – than what we usually do. That is how we improve. Challenge goes hand-in-hand with Progression. Challenging yourself by progressing from level 2 to level 3 of an exercise will help ensure your success in reducing fall risk.

PROGRESSION: Increasing to the next level of challenge of an exercise. Progression is critically important for your success in reducing fall risk. Ask yourself every day if you can safely and confidently progress to greater challenges. Please connect with your Falls Care Manager or healthcare provider if you are uncertain.

General Guidelines for Your Exercise Routine

General guidelines for your home exercise program are shown in the following list. Your Falls Care Manager may have modified some or all of these to specifically address your needs, abilities, and preferences. In that case, please follow the recommendations of your Falls Care Manager.

- Exercise regularly 3 days or more each week. **Improvement is best when you exercise regularly.** You may start out with only 3 days per week but will probably be able to add more days soon. Daily exercise is a much-desired goal.
- Complete one or more “sets” of each exercise.
- Do 10 repetitions of each exercise other than the “timed” exercises (one-leg stands, heel-toe standing) or heel-to toe walking. Try to hold the one-leg stands and heel-toe stands for 10 seconds or more. Try to walk 5 to 10-steps or more for the heel-toe walking exercise.
- Allow adequate rest between exercises. One-minute rest is adequate for many people but please take more if you need to.
- Progress by increasing the level of challenge when safe to do so or recommended by your Falls Care Manager.
- Set and attend follow-up consultations with your Fall Care Manager.
- Follow all safety recommendations.

Ways to Add Challenge and Progress

1. Increase the number of exercises you do.
2. Add one more set to some or all exercises.
3. Increase the number of repetitions per set.
4. Progress to next highest level within an exercise group.
5. Think about how you might be more active during your day:
 - a. When sitting down or standing up from a seated position, do so 2-5 times.
 - b. When doing dishes or brushing your teeth, rise up on your toes 10 times.
 - c. When standing
 - Practice shifting your weight or do 1-leg stands. Be sure there is support nearby!
 - Do knee bends.
 - Do heel to toe stands (remember to have support nearby!).

Safety

- Follow recommendations from your Falls Care Manager and healthcare provider.
- Add or substitute exercises only when you are advised to do so or feel comfortable in progressing to the next level of challenge.
- When holding onto an object for support, be sure it is stable and will not move.
- Breathe normally – **don't hold your breath!**
- **The exercises should not be painful!** If you do experience pain tell your healthcare provider.
- If you become ill, stop doing the exercises and tell your healthcare provider.
- If you experience any of the following while exercising, stop and contact your health care provider.
 - ✓ Dizziness,
 - ✓ Chest pain, or
 - ✓ Shortness of breath (you are unable to speak because you are short of breath)

Exercise Calendar - Recording your progress

You may use the **sample calendar on the next page** to keep track of the days when you do your balance and strengthening exercises. You may be as detailed as you wish. A simple way to keep track is to just check off the days you exercised or write the amount of time you spent exercising each day. The exercise calendar can be used in future conversations with your Fall Care Manager or healthcare provider when you discuss your progress. You may photocopy the calendar on the next page or use any calendar you wish to keep track of your progress.

Brief Example of an Exercise Calendar

My Exercise Calendar for <u>October-November</u> 2017				
Monday	Tuesday	Wednesday	Thursday	Friday
Date: 10/30/17	Date: 10/31/17	Date: 11/1/17	Date: 11/2/17	Date: 11/3/17
10 minutes				12 minutes
Date: 11/6/17	Date: 11/7/17	Date: 11/8/17	Date: 11/9/17	Date: 11/10/17
All exercises 1 set 10 reps felt good		All exercises 1 set 10 reps still feel good		All exercises 1 set 10 reps

Sample Exercise Calendar

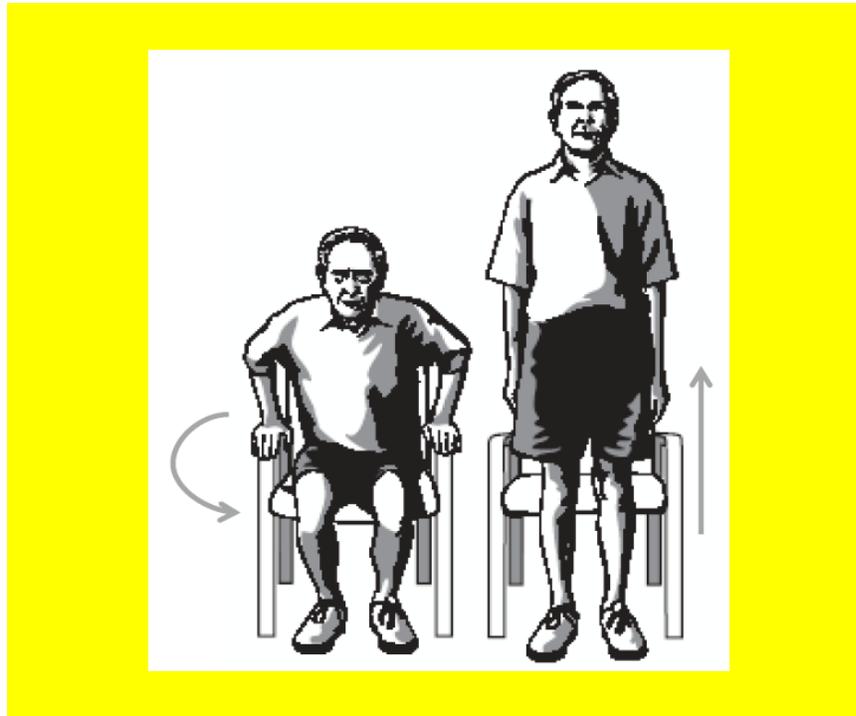
Use this calendar to record your exercise. See page 13 for instructions.

My Exercise Calendar for _____ 201__						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date: _____	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____
Date: _____	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____
Date: _____	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____
Date: _____	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____
Date: _____	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____

Tips for Success

1. Exercise regularly and add days when you are able.
2. Make exercise enjoyable.
 - a. Exercise with a partner.
 - b. Listen to your favorite music.
 - c. Talk with a friend using a hands free telephone.
3. Keep an exercise calendar – record your success!
4. Ask yourself everyday if you can do more – if you can do so safely,
GO FOR IT!

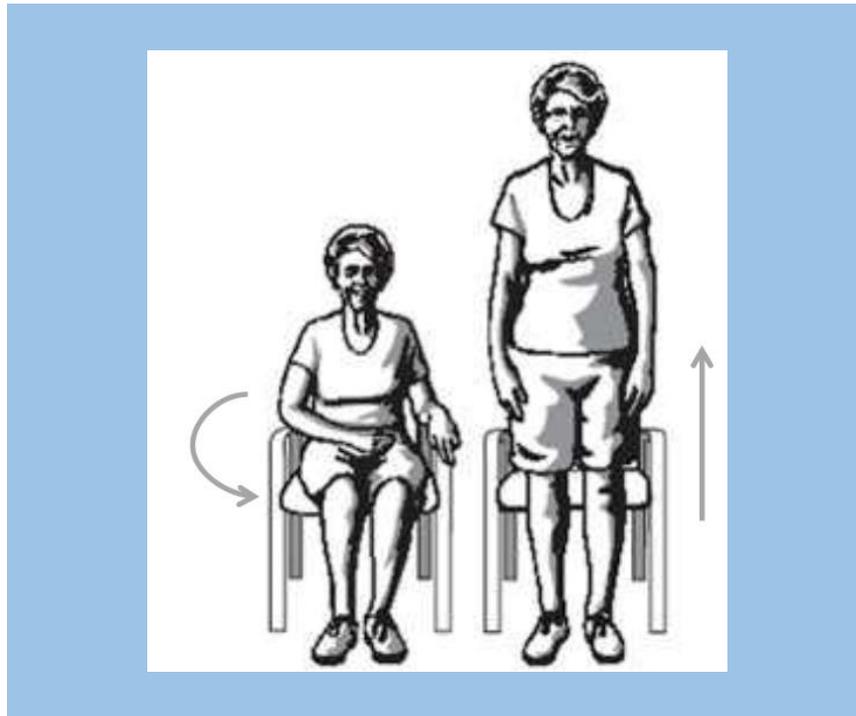
EXERCISE GROUP 1:
Sit-to-Stand
Level 1: Using two hands



- Sit on a chair with arms that is not too low.
- Place your feet behind your knees.
- Lean forward over your knees.
- Push off with both hands to stand up tall.
- Sit down gently using hands for support.
- Repeat ____ time(s).
- Do _____ set(s)
- **Progress to Level 2 and/or add ____ Sets when ready for more challenge (see page 11).**

My notes about this exercise: _____

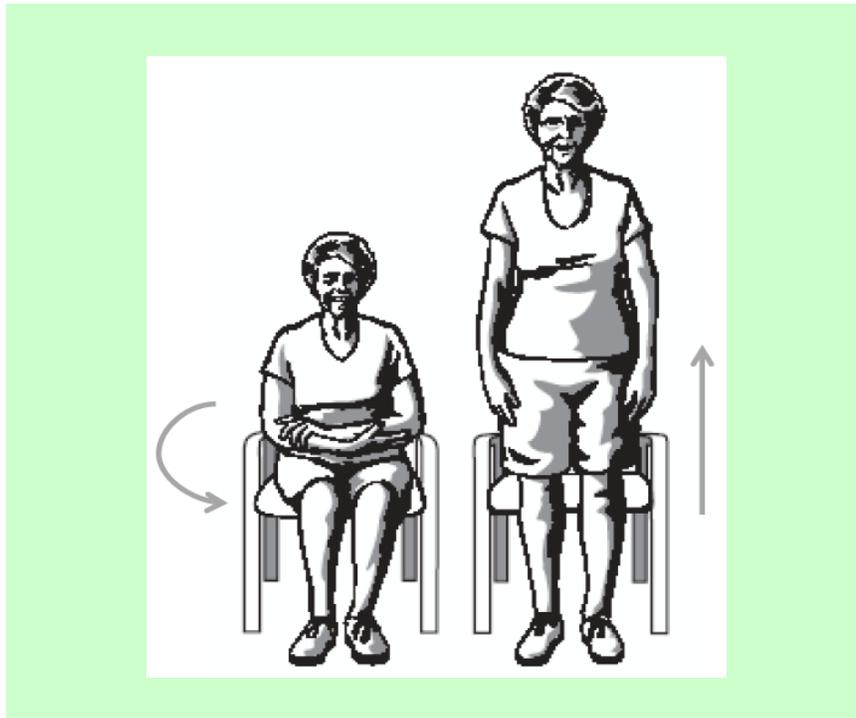
Level 2: Using one hand



- Sit on a chair with arms that is not too low.
- Place your feet behind your knees.
- Lean forward over your knees.
- Push off with one hand to help you stand up.
- Sit down gently using one hand for support.
- Repeat ____ time(s).
- Do _____ set(s)
- **Progress to Level 3 and/or add ____ Sets when ready for more challenge (see page 11).**

My notes about this exercise: _____

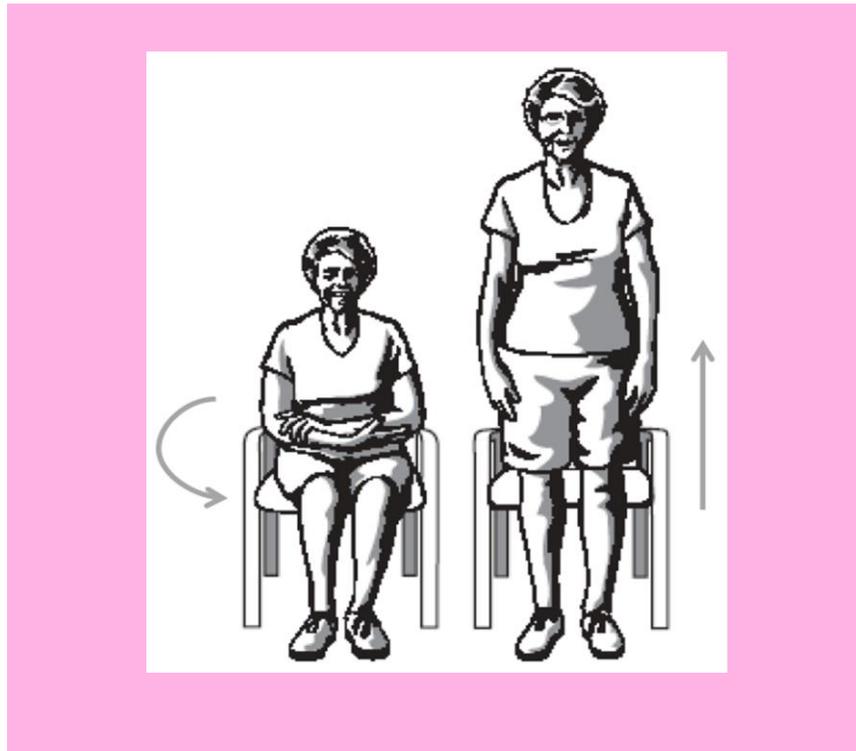
Level 3: Using no hands



- Sit on a chair that is not too low.
- Place your feet behind your knees.
- Lean forward over your knees.
- Stand up tall without using your hands to push.
- Sit down gently.
- Do _____ set(s)
- **Progress to Level 4 and/or add ____ Sets when ready for more challenge (see page 11).**

My notes about this exercise: _____

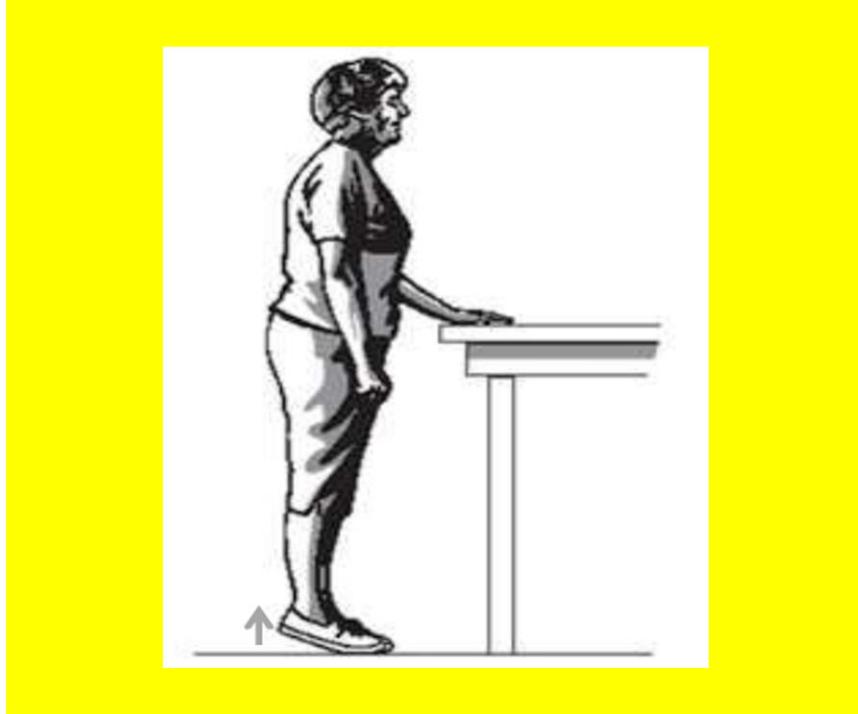
Level 4: Using no hands, standing up quickly



- Sit on a chair that is not too low.
- Place your feet behind your knees.
- Lean forward over your knees.
- Stand up tall as quickly as possible without using your hands to push.
- Sit down gently.
- Repeat ____ time(s).
- Do _____ set(s)
- **Progress by adding ____ Sets when ready for more challenge (see page 11).**

My notes about this exercise: _____

EXERCISE GROUP 2:
Heel Raises and Toe Walking
Level 1: Hold with 1 or 2 hands for support



- Stand up tall facing a table.
- Hold onto the table with one or both hands.
- Your feet should be shoulder-width apart.
- Focus on a distant object.
- Come up high onto your toes.
- Lower your heels to the ground.
- Repeat _____ times.
- Do _____ set(s)
- **Progress to Level 2 and/or add _____ Sets when ready for more challenge (see page 11).**

My notes about this exercise: _____

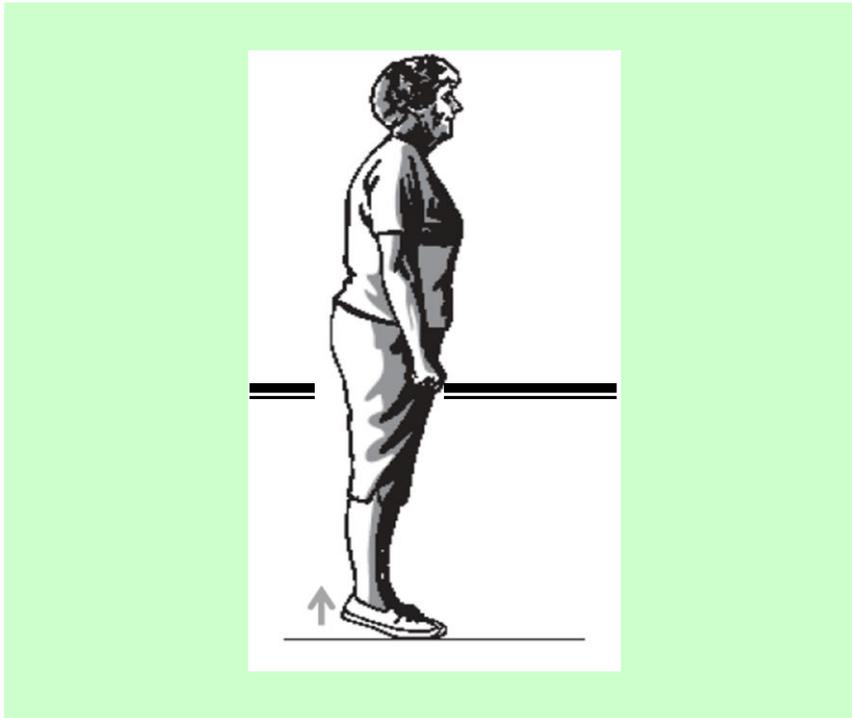
Level 2: Hold with 2 fingers for support



- Stand up tall facing a table.
- Hold onto the table with one or two fingers.
- Your feet should be shoulder-width apart.
- Focus on a distant object.
- Come up high onto your toes.
- Lower your heels to the ground.
- Repeat _____ times.
- Do _____ set(s)
- **Progress to Level 3 and/or add _____ Sets when ready for more challenge (see page 11).**

My notes about this exercise: _____

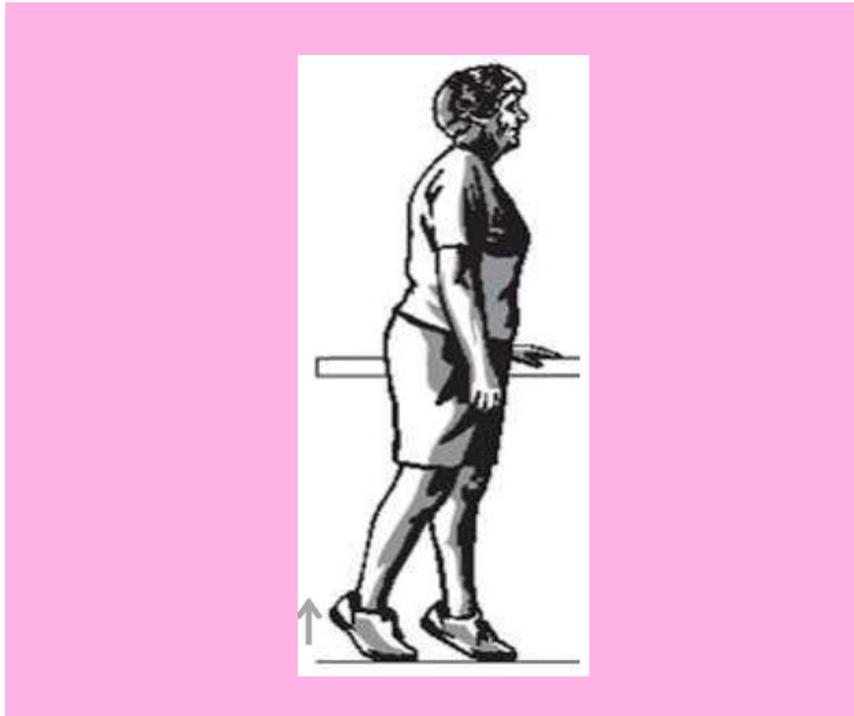
Level 3: Heel Raises - Without holding for support



- Stand up tall near a table for support if needed.
- Your feet should be shoulder-width apart.
- Look ahead and focus on a distant object.
- Come up high onto your toes.
- Lower your heels to the ground.
- Repeat _____ times.
- Do _____ set(s)
- **Progress to Level 4 and/or add ____ Sets when ready for more challenge (see page 11).**

My notes about this exercise: _____

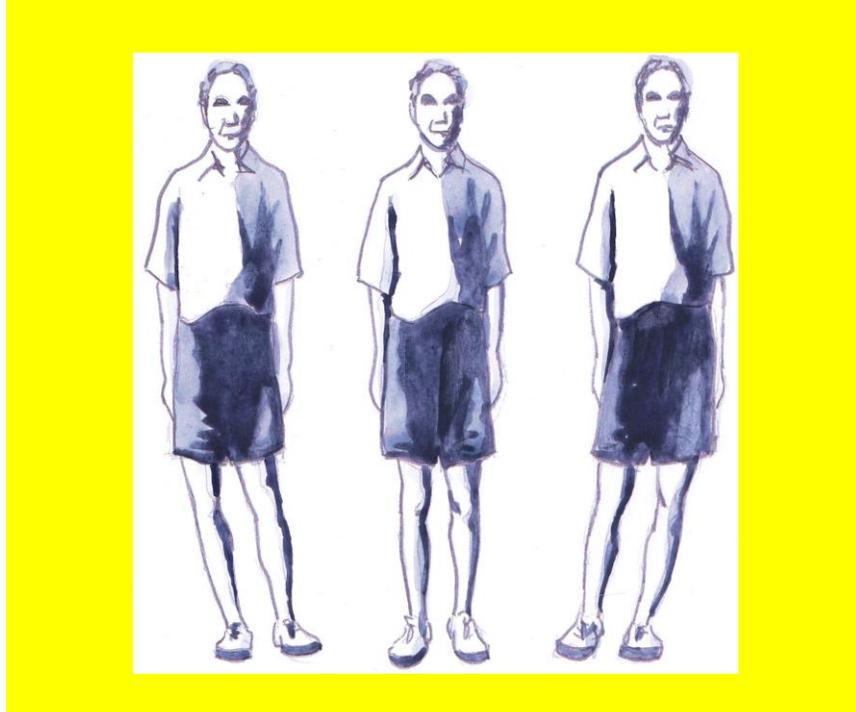
Level 4: Toe walking while holding for support



- Stand up tall near a table, bookcase, or wall.
- Hold on and look ahead – focus on a distant object.
- Come up high onto your toes.
- Walk for 5 to 10 steps while holding onto your support.
- Lower your heels to the ground and turn around.
- Come up high onto your toes and walk 5 to 10 steps back.
- Repeat in both directions _____ times.
- Walk 10 steps on your toes.
- Do _____ set(s)
- **Progress by adding _____ Sets when ready for more challenge (see page 11).**

My notes about this exercise: _____

EXERCISE GROUP 3:
Weight Shifting and 1-leg Balance
Level 1: Weight shifting



- Stand next to a stable object (table, wall, or braced chair).
- Look ahead and focus on a distant object.
- Gradually, lean side-to-side shifting body weight from one foot to the other. Keep both feet on the floor.
- Repeat 10 times to each side.
- Do _____ set(s)
- When you feel confident, increase challenge by letting the heel of the foot opposite the lean rise just slightly off the floor.
- **Progress to Level 2 and/or add ____ Sets when ready for more challenge (see page 11).**

My notes about this exercise: _____

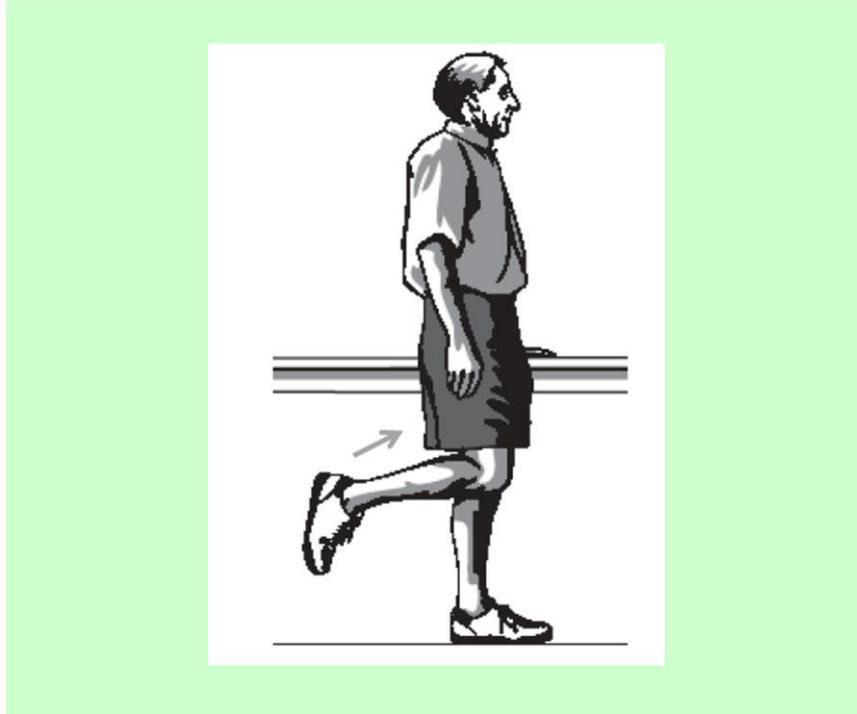
Level 2: One-leg stand, one hand support



- Stand up tall next to a table or countertop.
- Hold on with one hand, look ahead and focus on a distant object.
- Stand on one leg.
- Try to hold the position for 10 seconds.
- Turn, face the other way, and repeat with your other leg.
- Repeat with both legs _____ times.
- Do _____ set(s)
- **Progress to Level 3 and/or add hold time (____ seconds) or ____ Sets when ready for more challenge (see page 11).**

My notes about this exercise: _____

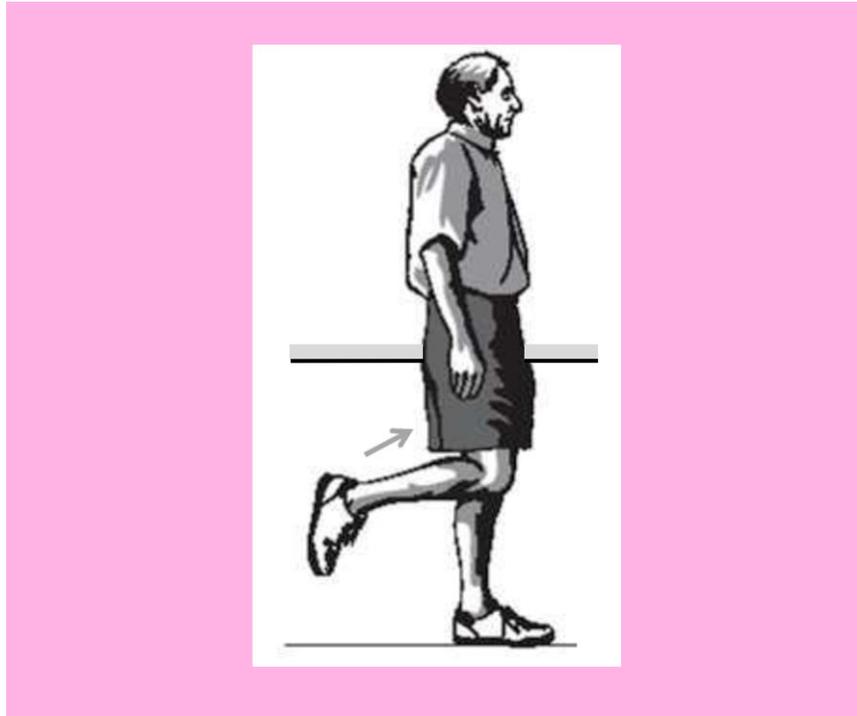
Level 3: One-leg stand hold with 1 or 2 fingers



- Stand up tall next to a table or countertop.
- Hold on with one or two fingers.
- Look ahead focusing on a distant object.
- Stand on one leg.
- Try to hold the position for 10 seconds.
- Turn, face the other way, repeat with your other leg.
- Repeat with both legs _____ times.
- Do _____ set(s)
- **Progress to Level 4 and/or add hold time (_____ seconds) or _____ Sets when ready for more challenge (see page 11).**

My notes about this exercise: _____

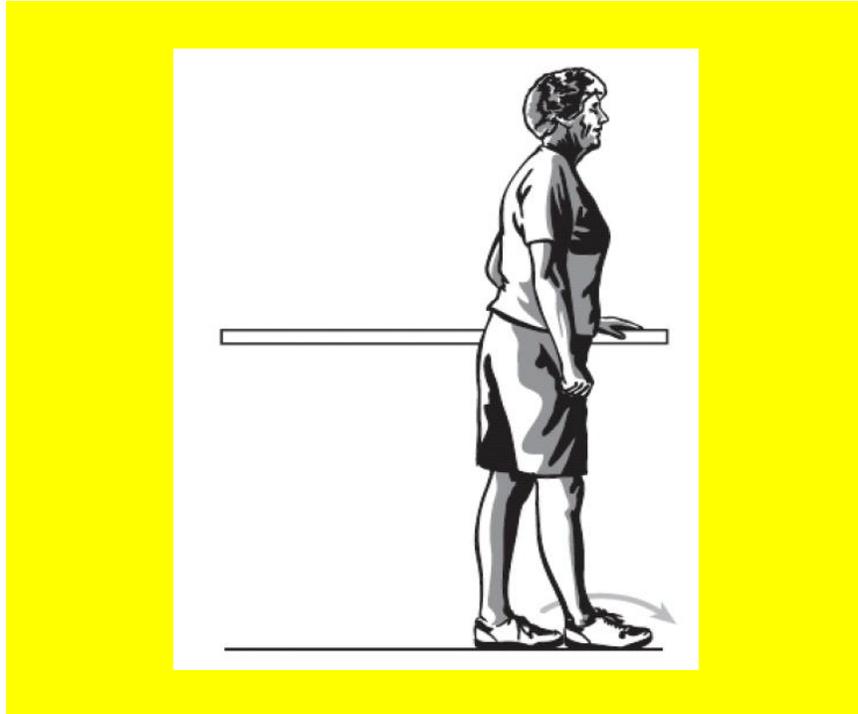
Level 4: One Leg Stand Without Holding for Support



- Stand up tall near a table, bookcase, or wall.
- Use support if needed for balance.
- Look ahead – focus on a distant object.
- Stand on one leg.
- Try to hold the position for 10 seconds or longer.
- Turn, face the other way, and repeat with your other leg.
- Do _____ set(s)
- **Progress by increasing hold time by _____seconds, or _____ Sets when ready for more challenge (see page 11).**

My notes about this exercise: _____

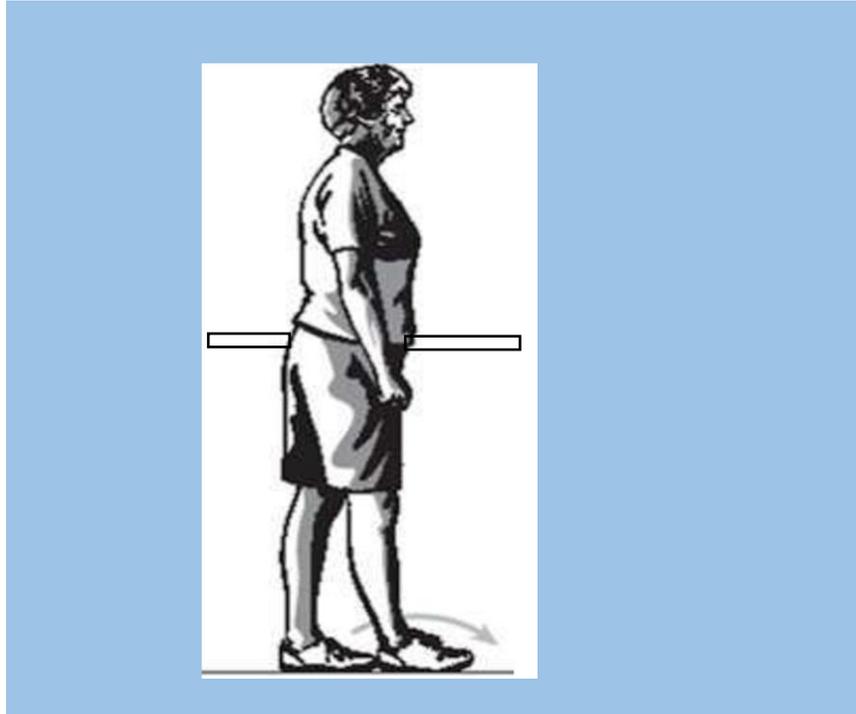
EXERCISE GROUP 4:
Heel to Toe Standing and Walking
Level 1: Heel-toe stand with 1 hand support



- Stand up tall beside a table or countertop.
- Hold onto the table and focus on a distant object.
- Place the heel of one foot in front of the toes of the other foot.
- Hold this position for 10 seconds.
- Change position of feet and repeat for 10 seconds.
- Repeat this exercise _____ times.
- Do _____ set(s)
- **Progress to Level 2 and/or add hold time (____seconds) or _____ Sets when ready for more challenge (see page 11).**

My notes about this exercise: _____

Level 2: Heel-toe stand without holding for support



- Stand up tall near a table or countertop.
- Keep your hand near your support if needed for balance.
- Look ahead and focus on a distant object.
- Place the heel of one foot in front of the toes of the other foot.
- Hold this position for 10 seconds.
- Change position of feet and repeat for 10 seconds.
- Repeat this exercise _____ times.
- Do _____ set(s)
- **Progress to Level 3 and/or add hold time (____ seconds) or _____ Sets when ready for more challenge (see page 11).**

My notes about this exercise: _____

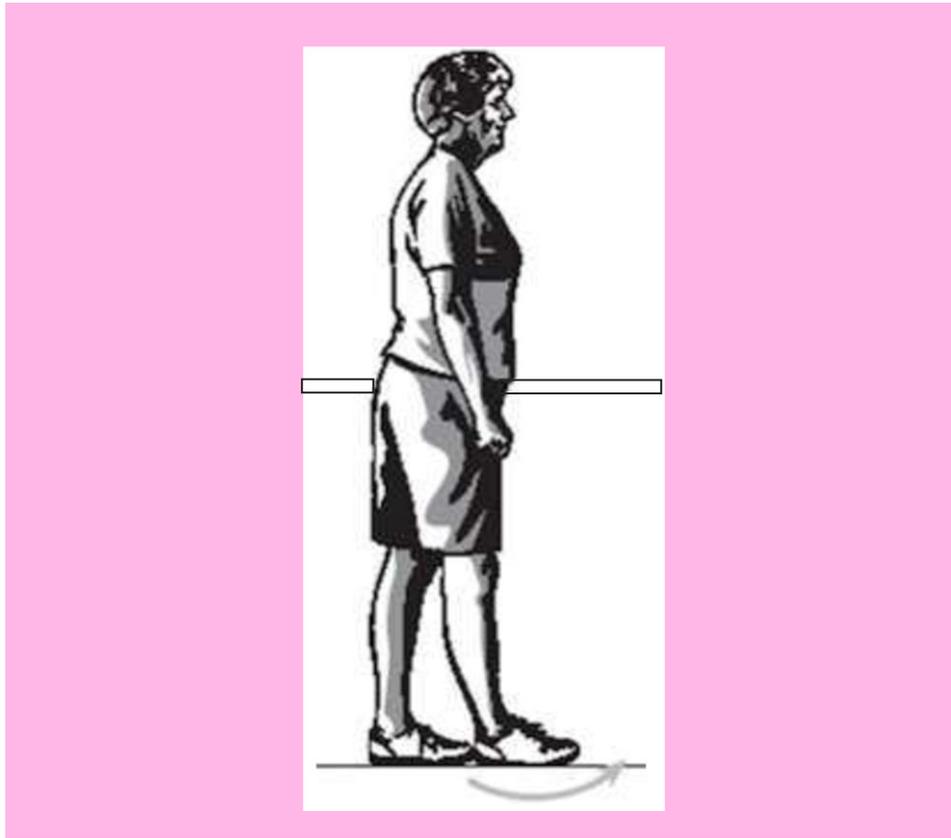
Level 3: Heel-toe walking with 1 hand support



- Stand up tall near a table or countertop.
- Hold on to your support as you walk.
- Look ahead and focus on a distant object.
- Now, walk ahead by placing one foot in front of the other foot in a straight line.
- Walk for 5 to 10 steps while holding onto your support.
- Change directions and walk 5 to 10 steps back.
- Repeat in both directions _____ times.
- Do _____ set(s)
- **Progress to Level 4 and/or add ____ steps or ____ Sets when ready for more challenge (see page 11).**

My notes about this exercise: _____

Level 4: Heel-toe walking without holding for support



- Stand up tall near a table, countertop, or wall.
- Keep your hand near your support in case you need it for balance.
- Look ahead and focus on a distant object.
- Now, walk ahead by placing one foot directly in front of the other foot in a straight line.
- Walk for 5 to 10 steps while holding your support.
- Change directions and walk 5 to 10 steps back.
- Repeat in both directions _____ times.
- Do _____ set(s)
- Progress by adding _____ steps or _____ Sets when ready for more challenge (see page 11).

My notes about this exercise: _____

EXERCISE GROUP 5: Knee Bends

Level 1: 1/4 knee bends with 1 or 2 hands for support



- Stand up tall facing a table, countertop, or braced chair.
- Hold with one or two hands for support.
- Place your feet hip-width apart and point toes forward.
- Slowly bend knees squatting about a fourth of the way down.
- Stop if knees go in front of your toes.
- When you feel your heels start to lift, stand up.
- Do ____ set(s)
- **Progress to Level 2 and/or add ____ Sets when ready for more challenge (see page 11).**

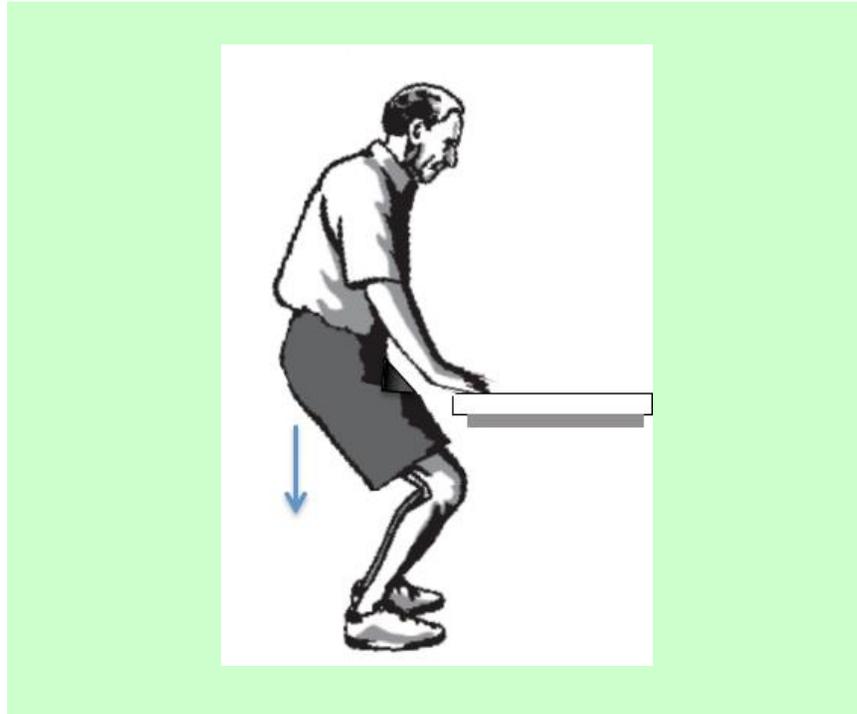
My notes about this exercise: _____

Level 2: 1/4 knee bends without hands for support

- Stand up tall near a table, countertop, or braced chair.
- Keep your hand near your support in case you need it for balance.
- Place your feet hip-width apart and point toes forward.
- Slowly bend knees squatting about a fourth of the way down.
- Stop if knees go in front of your toes.
- When you feel your heels start to lift, stand up.
- Repeat _____ times.
- Do _____ set(s)
- **Progress to Level 3 and/or add _____ Sets when ready for more challenge (see page 11).**

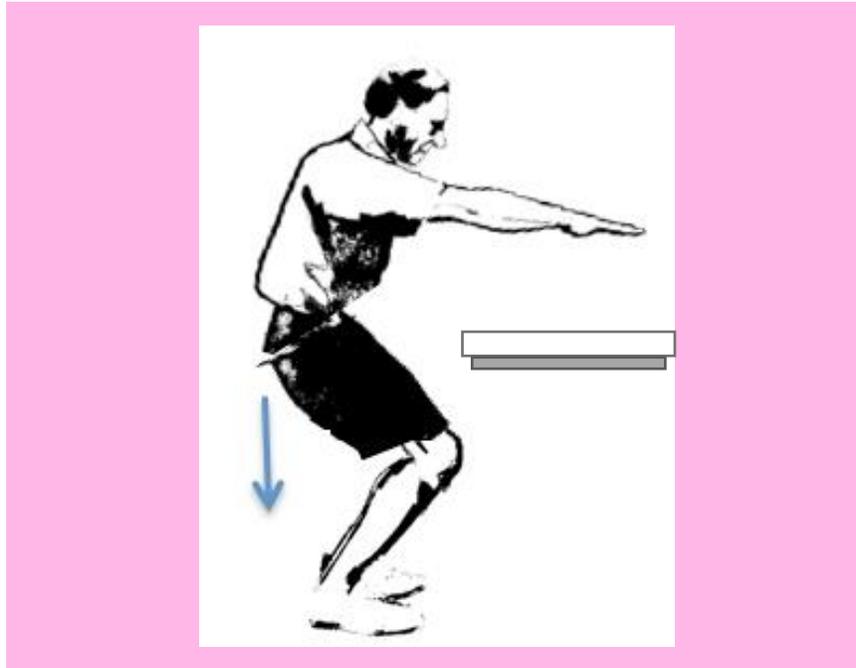
My notes about this exercise: _____

Level 3: 1/2 knee bends: one or two hands for support



- Stand up tall near a table, countertop, or braced chair.
- Hold with one or two hands for support.
- Place your feet hip-width apart and point toes forward.
- Slowly drop your hips and bend knees squatting about half way down.
- Stop if knees go in front of your toes.
- When you feel your heels start to lift, stand up.
- Repeat _____ times.
- Do _____ set(s)
- **Progress to Level 4 and/or add ____ sets when ready for more challenge (see page 11).**

My notes about this exercise: _____

Level 4: 1/2 knee bends without hands for support

- Stand up tall near a table or countertop.
- Keep one or two hands near your support for balance if needed.
- Place your feet hip-width apart and point toes forward.
- Slowly drop your hips and bend knees squatting about half way down.
- Stop if knees go in front of your toes.
- When you feel your heels start to lift, stand up.
- Repeat _____ times.
- **Progress by adding _____ sets when ready for more challenge (see page 11).**

My notes about this exercise: _____

Acknowledgements

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