Chair Exercises For Older Adults

Many of these exercises were adapted from these sources:

National Institute on Aging, Exercise: A Guide from the National Institute on Aging, 2001, http://www.nia.nih.gov/HealthInformation/Publications/ExerciseGuide/.

Tufts University and Centers for Disease Control and Prevention, Growing Stronger: Strength Training for Older Adults, 2002, http://www.cdc.gov/nccdphp/dnpa/physical/growing_stronger/growing_stronger.pdf.

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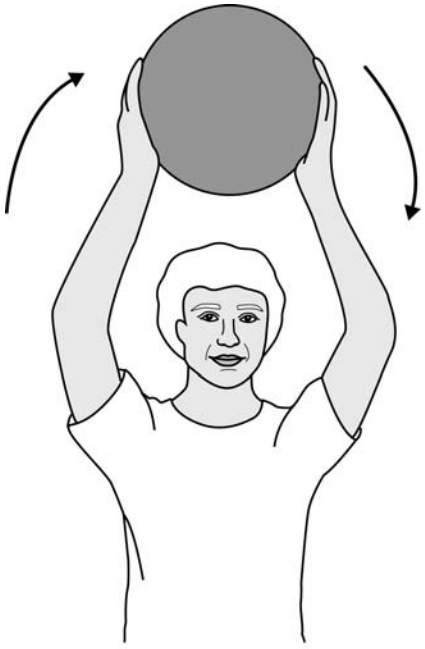

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How to Use this Manual

Many of the chair exercises in this manual are adapted from the National Institute of Aging, Tufts University, and the Centers for Disease Control and Prevention. They are designed to improve strength, flexibility and balance. Most of the exercises can be done while sitting in or holding onto a chair to help with balance.

Many of the exercises incorporate a ball to add fun and interest, as well as to help improve coordination. Balls can be found at discount stores. A plastic air-filled ball is recommended as it provides more resistance than a foam ball. However, foam balls may be appropriate for some people or groups to prevent having many balls bouncing around the room.

Some people will use this manual on their own to do exercises at home. Others may be exercise leaders and will use this manual to help others do the chair exercises. Whoever you are, please follow the steps below when using this manual.

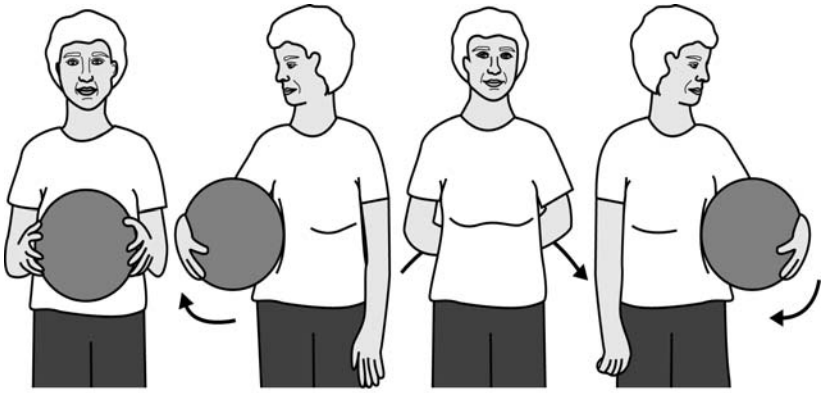
1. Before you begin exercising, read pages 3 and 4.

2. If you are an exercise leader, review pages 5 and 6 to see a brief description of all the exercises.

3. When you are ready to start these chair exercises:

    a. For the first time, go to Module A, pages 7 to 13, and do the warm-up and exercises on several different occasions until you are comfortable.

    b. When you are comfortable with Module A, move on to Module B (pages 14 to 20). After several sessions, move on to Module C (pages 21 to 27) and then onto Module D (pages 28 to 34) at your own pace.



WHEN YOU EXERCISE REMEMBER…

- **Check with your doctor before starting any new exercise program.**
- **Wear loose fitting, comfortable clothing, and proper shoes that offer safety and support.**
- **Drink water before, during, and after exercise.**
- **Make sure to stretch after you exercise.**

If you have questions, just ask!

If you have questions about the exercises in this booklet, please contact:

The University of Georgia, Department of Foods and Nutrition:

706-542-4838 (Staff)
706-542-2292 (Mary Ann Johnson, PhD)

SPECIAL NEEDS

People with Diabetes

Check your blood sugar 30-45 minutes before exercising.

If your blood sugar is…

- **<u>LOWER</u> than 200 mg/dL, eat a low-fat snack with 15-20 g of carbohydrate, 30-45 minutes before exercise.**
- **<u>BETWEEN</u> 200-300 mg/dL, exercise without a snack.**
- **<u>GREATER</u> than 300 mg/dL, do not exercise and do drink water.**

People with High Blood Pressure

Take your medication the way your doctor prescribed.

If possible, have your blood pressure taken before exercise.

If your systolic reading is 140 or higher AND/OR your diastolic reading is 100 or higher…

- **Avoid weight training**
- **Walk or use the bicycle**
- **Retake blood pressure**

Chair Exercise Outline

Module A

Exercise	Primary Areas Targeted	Modifications	Equipment Needed
1. Sunshine arm circles	Torso and shoulders; opens ribcage	Make small circles by extending arms in front	Ball (optional)
2. Tummy twists	Sides of the waist	Soup cans or a hand weight for resistance can replace a ball	Ball (optional)
3. Hand squeeze	Grip strength; chest	--	Ball
4. Seated shin strengtheners	Shins and lower legs	Try to hold a ball on top of flexed feet	Ball (optional)
5. Back massage	Upper back and rear shoulder relaxation	--	Ball
6. Neck stretch	Neck and shoulder relaxation	Gently reach extended arm behind back	--

Module B

Exercise	Primary Areas Targeted	Modifications	Equipment Needed
1. Ball chest press	Chest; upper back	Stand and rock the body forward and back as you do the presses	Ball (optional)
2. Front arm raises	Shoulders	Soup cans or water bottles for resistance can replace a ball	Ball (optional)
3. Inner thigh squeeze	Inner part of thighs	Change the count of the squeezes	Ball
4. Duck wing squeeze	Shoulders; chest	Without a ball, move arms in flapping motion	Ball (optional)
5. Knee extensions (CDC and NIA)	Muscles surrounding the knee	Add a long lever by lifting and lowering entire extended leg	--
6. Chest and upper back stretches (CDC)	Upper and lower back, shoulders, and chest relaxation	--	--

Module C

Exercise	Primary Areas Targeted	Modifications	Equipment Needed
1. Chair stands (NIA)	Buttocks; front and back of legs	Try squats	Ball (optional)
2. Overhead arm extensions (NIA)	Back of arms; shoulders	Substitute seated tricep extensions	Ball (optional)
3. Elbow to knee	Stomach	Stand up to do this one	--
4. Balancing toe taps	Stomach (abdominals); hip flexors and stabilizers for balance	Lift both feet off floor and release hands from chair; without ball, stand on one foot behind the chair	Ball (optional)
5. Seated heel raises	Calves of lower legs	Try doing this exercise standing	--
6. Overhead reach with side bends	Opens entire torso; oblique abdominals	--	--

Module D

Exercise	Primary Areas Targeted	Modifications	Equipment Needed
1. Pliés	Front of thighs; inner thighs; buttocks	Hold a ball instead of holding onto the chair, or change the count of the pliés	Ball (optional)
2. Rear leg extensions (NIA)	Buttocks; back of thighs	Change the count of the extensions	--
3. Side leg lifts (CDC and NIA)	Hips; outer thighs	Tap toes out to one side, then pull back in	--
4. Inner thigh stretch	Inner part of thighs	Hold onto back of a chair for more support	--
5. Sit and reach stretch	Calves of the lower legs and back of legs	Reach to knees or ankles depending on flexibility	--
6. Around the big wide world	Abdominals; chest; arms	--	Ball

Exercise Module A

Module A is the first of four groups of exercises that contains several fun and easy-to-learn movements designed to help you feel comfortable with chair exercises, and with using a ball as an exercise tool.

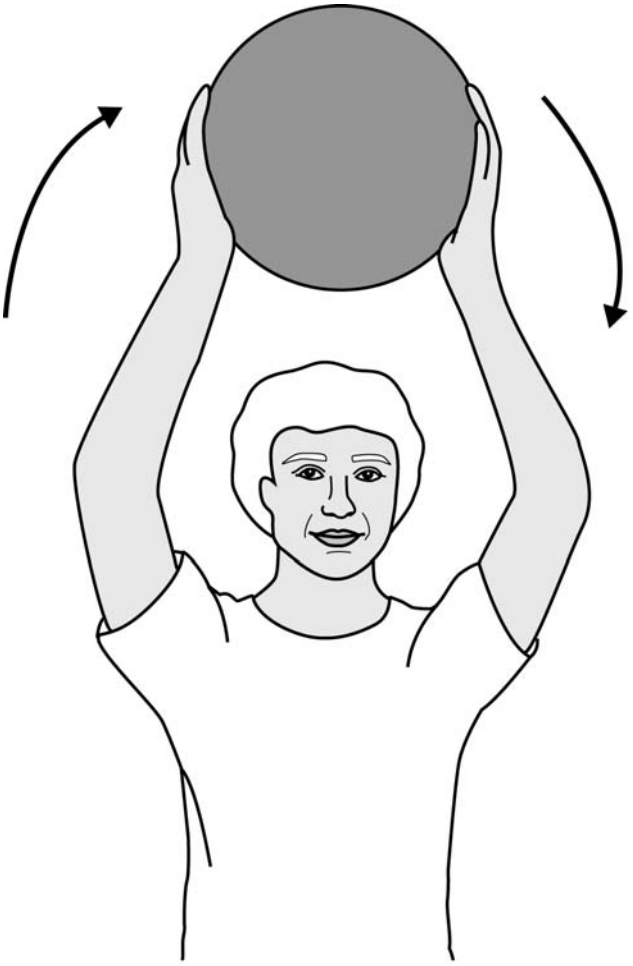
The exercises in this module benefit our bodies in many ways:

1. Sunshine arm circles: open torso and ribcage
2. Tummy twists: strengthen sides of the waist (oblique abdominals)
3. Hand squeeze: improves grip strength and strengthens the chest muscles (pectorals)
4. Seated shin strengtheners: strengthen the shins to help prevent shin splints
5. Back massage: promotes back and shoulder relaxation
6. Neck stretch: helps relieve neck tension

Begin this module with a light warm-up, about 5 minutes in length, to prepare the muscles and joints, and to help focus your attention. Perform the suggested warm-up movements listed below:

- Marches in place with shoulder rolls
- Walking in a circle around the room
- Hamstring curls in place (alternately pulling heels up toward buttocks, also called knee flexion)
- Tapping the toes to warm up the lower legs
- Knee lifts to warm up the hips and upper legs
- Light stretches

Sunshine Arm Circles

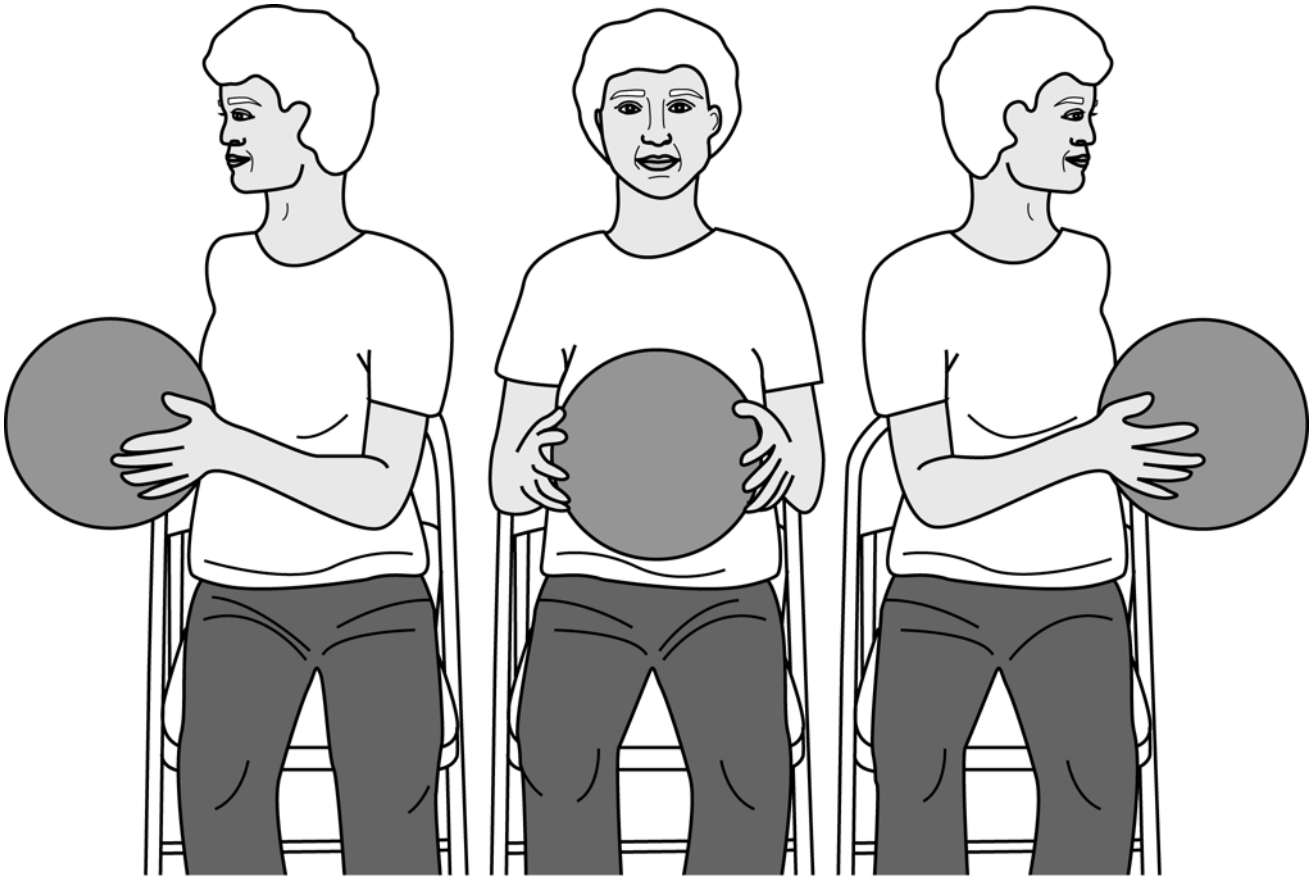


Seated in a chair with good posture, hold a ball in both hands with arms extended above your head and/or in front of you, keeping elbows slightly bent. Visualizing the face of a clock out in front of you, begin by holding arms up overhead at 12 o'clock. Circle the ball around to go all the way around the clock in a controlled, fluid motion.

When you've reached 12 o'clock again, reverse directions and circle the opposite way. Keep alternating circle directions for 8 repetitions. Rest. Do another set of 8 repetitions.

Modification: A ball is not required for this exercise. Imagine that you are holding a ball while performing the motion. If it is difficult to bring your arms overhead, extend them out in front of you and move arms as if drawing a circle on the wall with or without the ball.

Tummy Twists



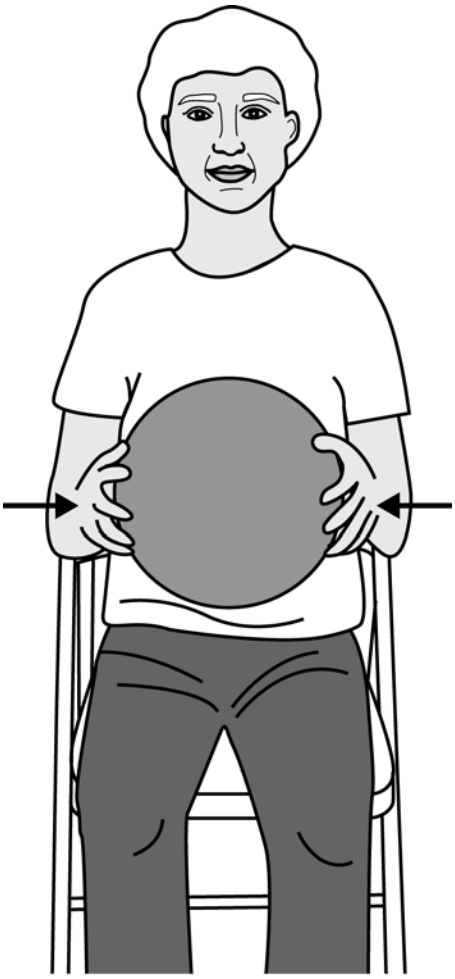
Seated in a chair with good posture, hold a ball with both hands close to the body, with elbows bent and pulled in close to the ribcage.

Slowly rotate your torso to the right as far as you comfortably can, being sure to keep the rest of your body still and stable. Rotate back to the center and repeat in the opposite direction. Do this 8 times, with two twists counting as a full set.

Rest. Do another 8 sets (two twists each).

Modification: A ball is not required for this exercise. Imagine you are holding a ball while performing the motion, or hold a small object such as a can of soup or water bottle to add resistance.

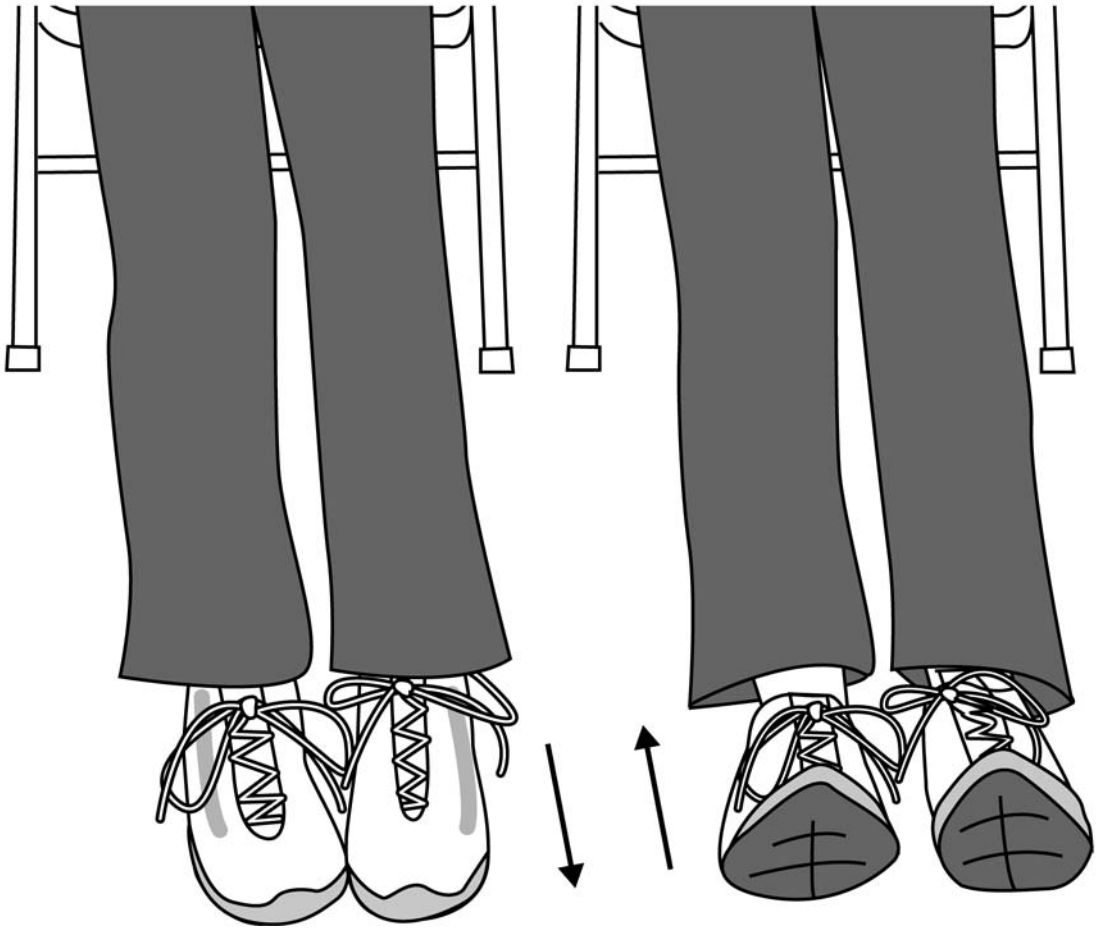
Hand Squeeze



Seated in a chair with good posture, hold a ball with both hands slightly in front of your body. Squeeze the ball to activate the finger joints, then slowly press the ball with both hands, as if trying to deflate the ball. Hold for 4 seconds and slowly release.

Repeat the exercise 8 times, rest, then do another set of 8 repetitions.

Seated Shin Strengthener



Sitting on the edge of a chair, extend your legs out in front of you, keeping your knees slightly bent and placing your heels on the floor, toes pointed upward.

Point the toes downward, then flex them upward.

Do 10 to 15 sets of point and flex. Rest. Do another set of 10 to 15 repetitions.

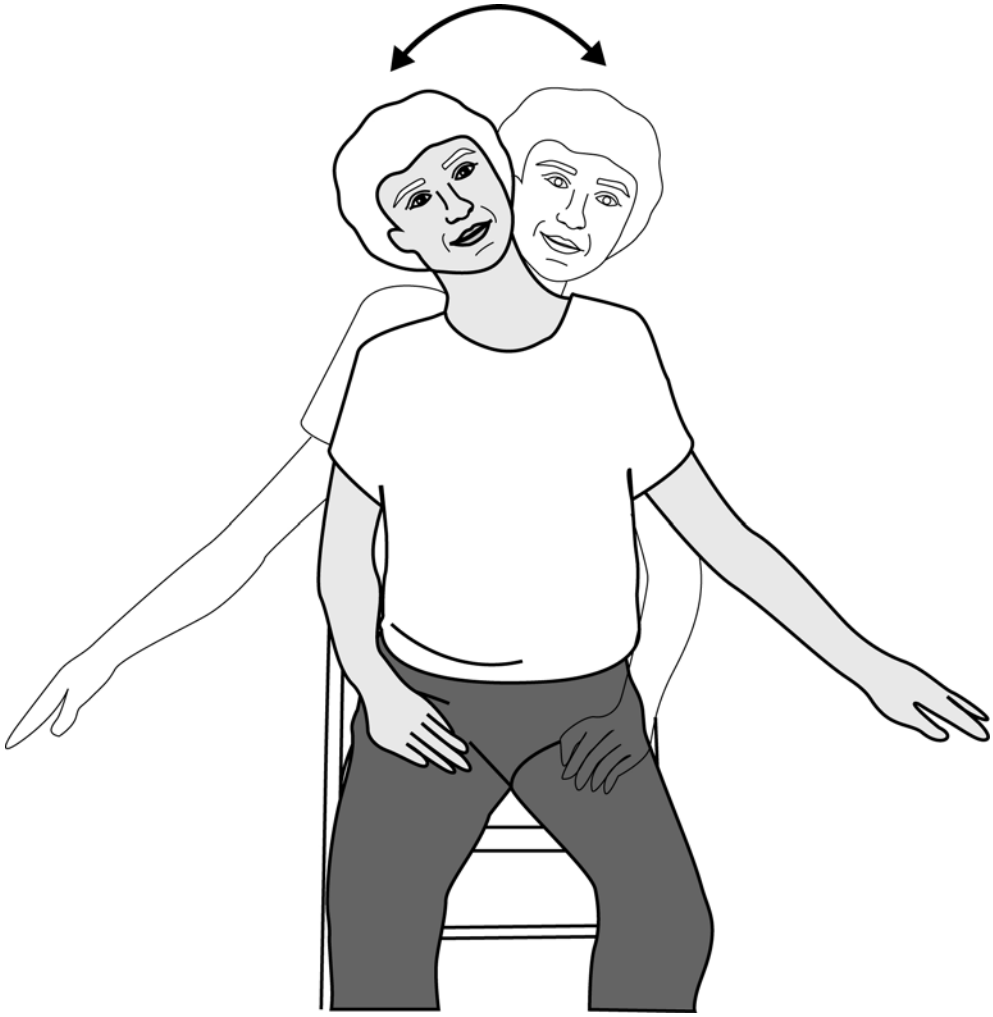
Modification: Sitting in the same position as above, flex the toes and place the ball on top of your shoelaces. Try to hold the ball with flexed toes in that position for about 10 seconds, or as long as you can. Repeat 1 to 2 times, resting for a few seconds between each exertion.

Back Massage

Seated in a chair with good posture, place a ball behind you and lean against it with your upper back to hold the ball up between you and the chair.

Rotate you torso side to side and bend up and down to give yourself a relaxing massage.

Neck Stretch



Seated in a chair with good posture, slowly tilt your head toward your right shoulder. Hold the head in this position, and extend your left arm out to the side and slightly downward so that your hand is at waist level. Release and repeat on the left side. Do 2 times for each side.

Modification: For a deeper stretch, gently pull the extended arm behind your back.

Exercise Module B

Module B is the second of four groups of exercises that is slightly more challenging than module A. It includes fun exercises that use a ball to strengthen a variety of muscles groups.

The exercises in this module benefit our bodies in many ways:

1. Ball chest press: strengthens the chest muscles (pectorals)
2. Front arm raises: strengthen the shoulders (deltoids)
3. Inner thigh squeeze: strengthens the inner part of the thighs (adductors)
4. Duck wing squeeze: strengthens the chest muscles (pectorals) and arms
5. Knee extensions: strengthen the muscles surrounding the knees for healthy joints and legs
6. Chest and upper back stretches: promote flexibility and relaxation through the chest and upper back

Begin this module with a light warm-up, about 5 minutes in length, to prepare the muscles and joints, and to help focus your attention. Perform the suggested warm-up movements listed below:

- Marches in place, while extending arms out to the sides at shoulder level and circling the arms
- Low alternating front kicks with the legs, while pressing the arms forward and back
- Marching in a circle around the room, pumping the arms
- Light stretches

Ball Chest Press

Seated in a chair with good posture, hold a ball with both hands at chest level, palms facing toward each other and elbows bent. Avoid bending forward by keeping your shoulders back at all times. Squeeze the ball slightly as you push the ball away from you in a fluid motion, taking about 2 seconds to extend the arms. Squeeze your shoulder blades together as you pull the ball back toward your chest.

Repeat the push and pull motion 10 to 15 times. Rest. Do another set of 10 to 15 repetitions.

Modification: For a greater challenge, add a Tai Chi feel by standing with one leg slightly in front of the other (with a chair nearby if needed for extra balance) and slowly rocking the entire body forward and back as you push the ball away and pull back in.

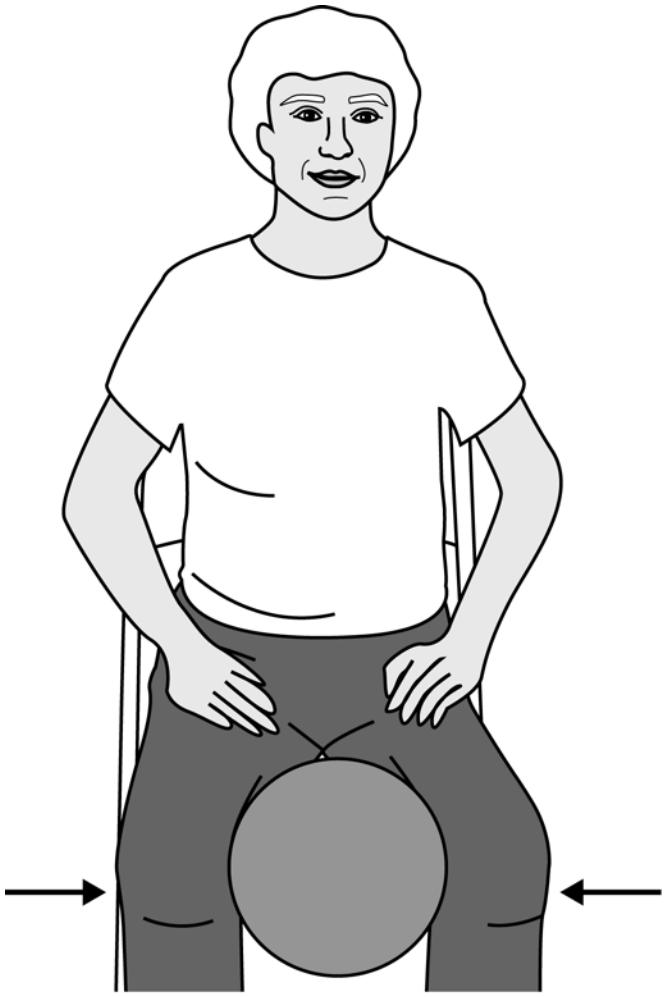
Front Arm Raises

In a seated position with good posture, hold a ball in both hands with palms facing each other. Extend the arms out in front of your body, keeping your elbows slightly bent. Starting with the ball lowered toward the knees, slowly raise your arms to lift the ball up to shoulder level (no higher), then lower the ball back to the starting position, taking about 2 to 3 seconds to lift and lower.

Repeat 10 to 15 times. Rest. Do another set of 10 to 15 repetitions.

Modification: A ball is not required for this exercise. Imagine you are holding a ball as you perform the motion, or hold a small object, such as a can of soup or water bottle for added resistance.

Inner Thigh Squeezes

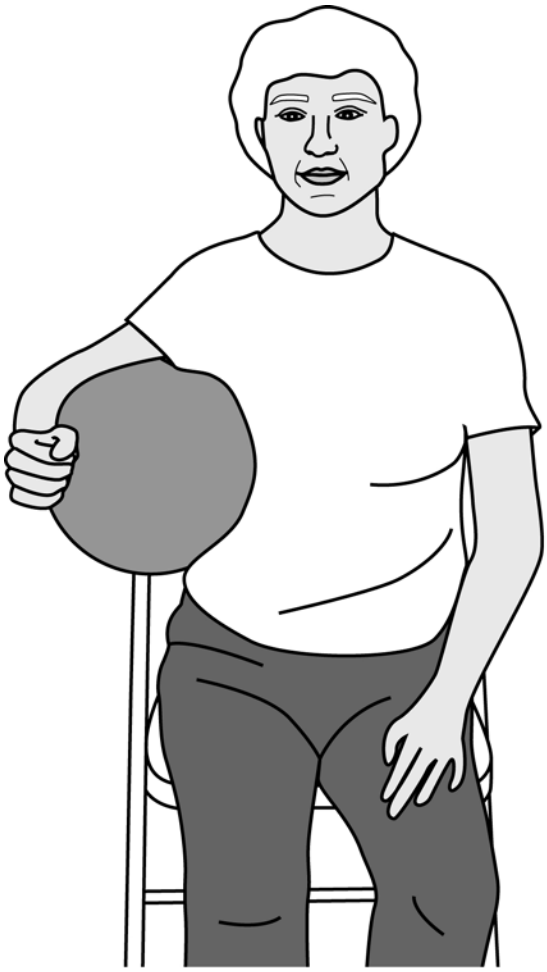


Sitting toward the edge of a chair with good posture and knees bent, place a ball in between your knees; press the knees together to squeeze the ball, taking about 1 to 2 seconds to squeeze. You should feel the resistance in your inner thighs. Slowly release, keeping slight tension on the ball so that it does not fall.

Repeat 8 to 10 times. Rest. Do another set of 8 to 10 repetitions.

Modification: For a greater challenge, change the count of the squeezes by squeezing the ball and holding for 5 seconds, then releasing again. Or, do short, quick pulsing squeezes.

Duck Wing Squeeze



In a seated position with good posture, place a ball underneath your right arm in the armpit region so that it does not fall. Squeeze the upper arm and elbow onto the ball like a duck folding its wing, feeling the chest and arm muscles tighten as you squeeze. Do not bend at the waist. Release and repeat 8 to 10 times.

Switch to the opposite side and perform 8 to 10 repetitions. Rest briefly. Do another set of 8 to 10 repetitions on each side.

Modification: A ball is not required for this exercise. Keeping arms in the same position as above, move your arms in a controlled flapping motion, like wings.

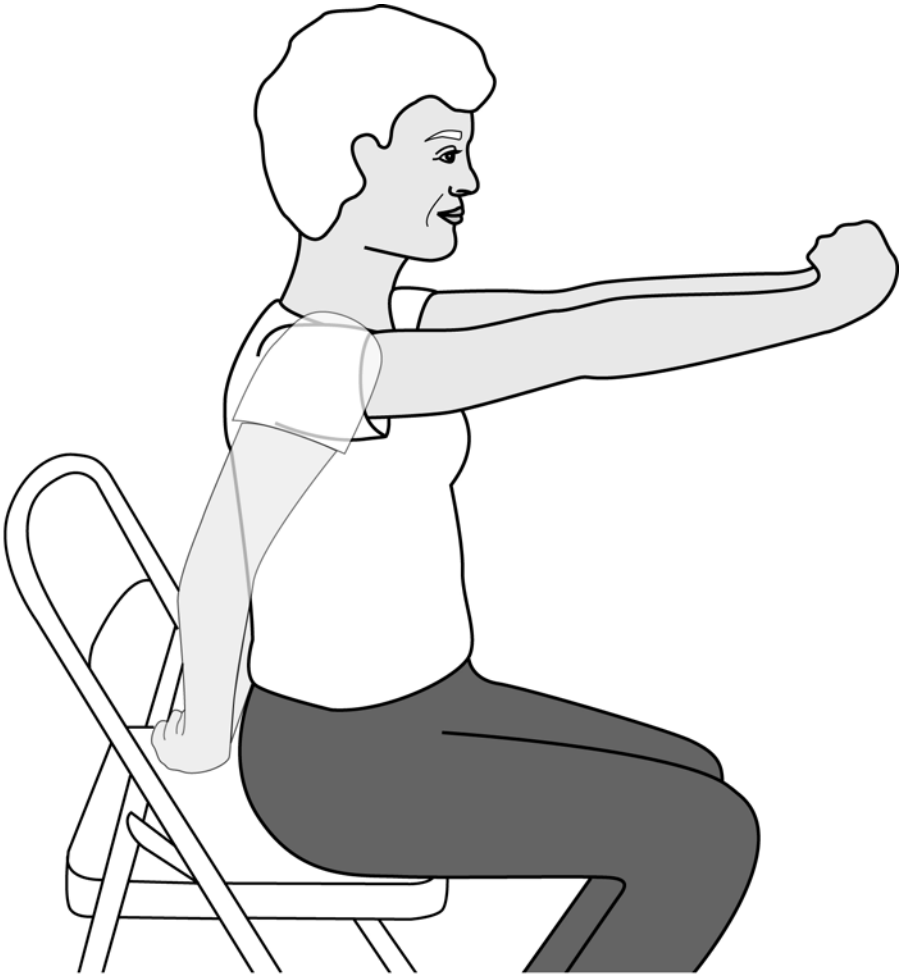
Knee Extensions

Sitting toward the edge of a chair with good posture and bent knees, hold on to the sides of the chair with your hands. Extend the right knee out so that the toes come up toward the ceiling, being sure to keep the knee slightly bent without locking it through the entire movement. Lower the leg back to a bent position and repeat this movement 8 to 10 times, using about 2 seconds each to lift and lower the leg.

Switch to the opposite leg and perform 8 to 10 repetitions. Rest briefly. Do another set of 8 to 10 repetitions for each leg.

Modification: If you are more advanced, sitting in the same position as above, extend one leg out in front of you with toes pointed to the ceiling. Lift and lower the entire leg only as high as you comfortably can, keeping the knee slightly bent. The longer lever adds difficulty to the exercise.

Chest and Upper Back Stretch



In a seated position with good posture and shoulders back and down away from the ears, extend your arms out in front of you at shoulder height. Interlace the fingers or grasp one hand with the other, and press out as you round the upper back and shoulders forward, feeling the upper back fan out. Hold for 10 seconds and release.

For the shoulders, pull extended arms back behind you and interlace the fingers or grasp one hand with the other, keeping your hands down toward the buttocks. Feel the chest and shoulders open up as you pull your shoulders back. Hold for 10 seconds and release.

Repeat the upper back and chest stretches.

Exercise Module C

Module C is the third of four groups of exercises. This module uses the ball for several of the movements, however, it is not required. The exercises can be modified as needed to accommodate different ability levels.

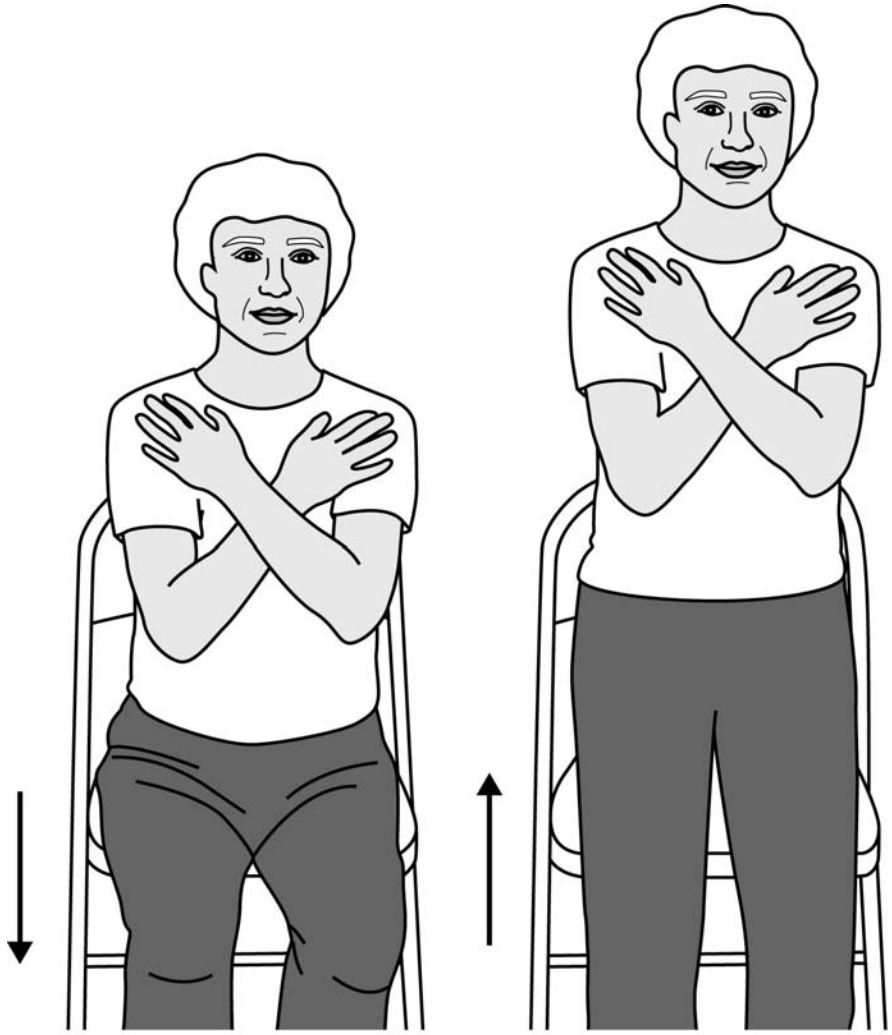
These exercises in this module benefit our bodies in many ways:

1. Chair stands: strengthen the legs (quadriceps and hamstrings) and buttocks (gluteals)
2. Overhead arm extensions: strengthen the back of the arms (triceps)
3. Elbow to knee: strengthens muscles around the waistline (oblique abdominals)
4. Balancing toe taps: improves balance by strengthening stabilizer muscles and stomach (abdominals) and improving body awareness
5. Seated heel raises: strengthen the calves of the lower legs (gastrocnemius)
6. Overhead reach with side bends: opens torso and ribcage to improve flexibility and promote relaxation

Begin this module with a light warm-up, about 5 minutes in length, to prepare the muscles and joints, and to help focus your attention. Perform the suggested warm-up movements listed below:

- Marches in place, with overhead reaches with the arms
- Knee lifts with bicep curls
- Step touches, also called side steps, with arms swinging in a controlled motion side to side
- Walking in a circle around the room
- Light stretches

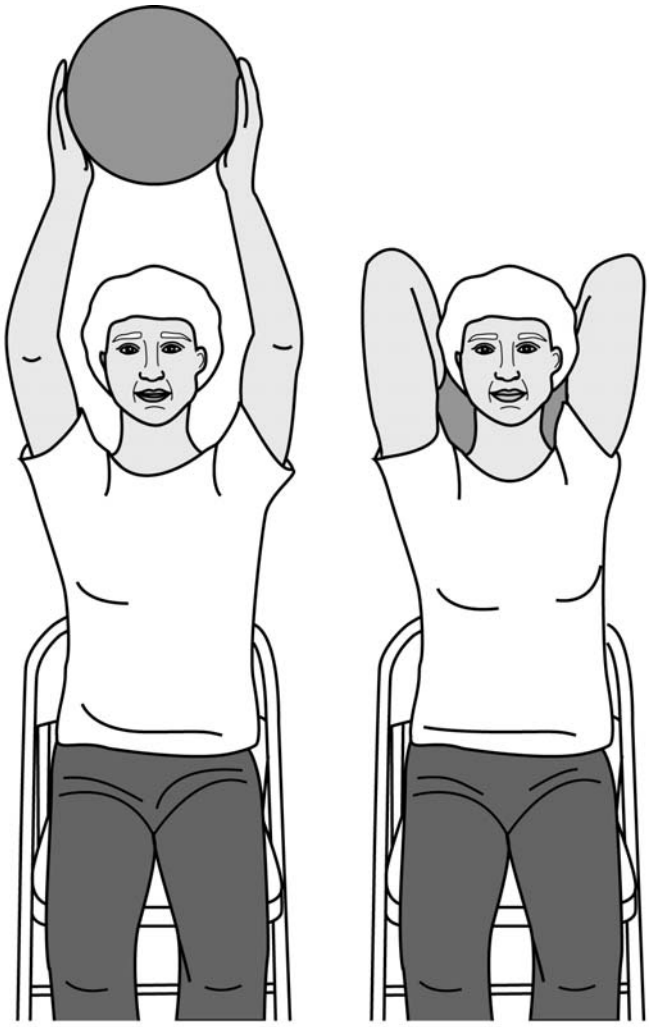
Chair Stands



In a seated position with good posture and feet flat on the floor, cross your arms over your chest or hold a ball with both hands at chest level. Keeping your weight on your heels, stand up, using your hands as little as possible or not at all. As you bend slightly forward to stand up, keep your back and shoulders straight. Take at least 3 seconds to sit back down. Repeat 8 to 15 times or as many as you can comfortably do with good form. Rest. Do another set of 8 repetitions.

Modification: If you are more advanced, try doing squats. Beginning in a standing position with back facing the seat of a chair, slowly bend the knees to lower down toward the seat of the chair. Stick out the buttocks so that your knees do not jut beyond your toes. Just before your buttocks gets to the seat of the chair, stand back up to the starting position in a fluid motion, squeezing your buttocks and putting all the weight in your heels as you push back up.

Overhead Arm Extensions

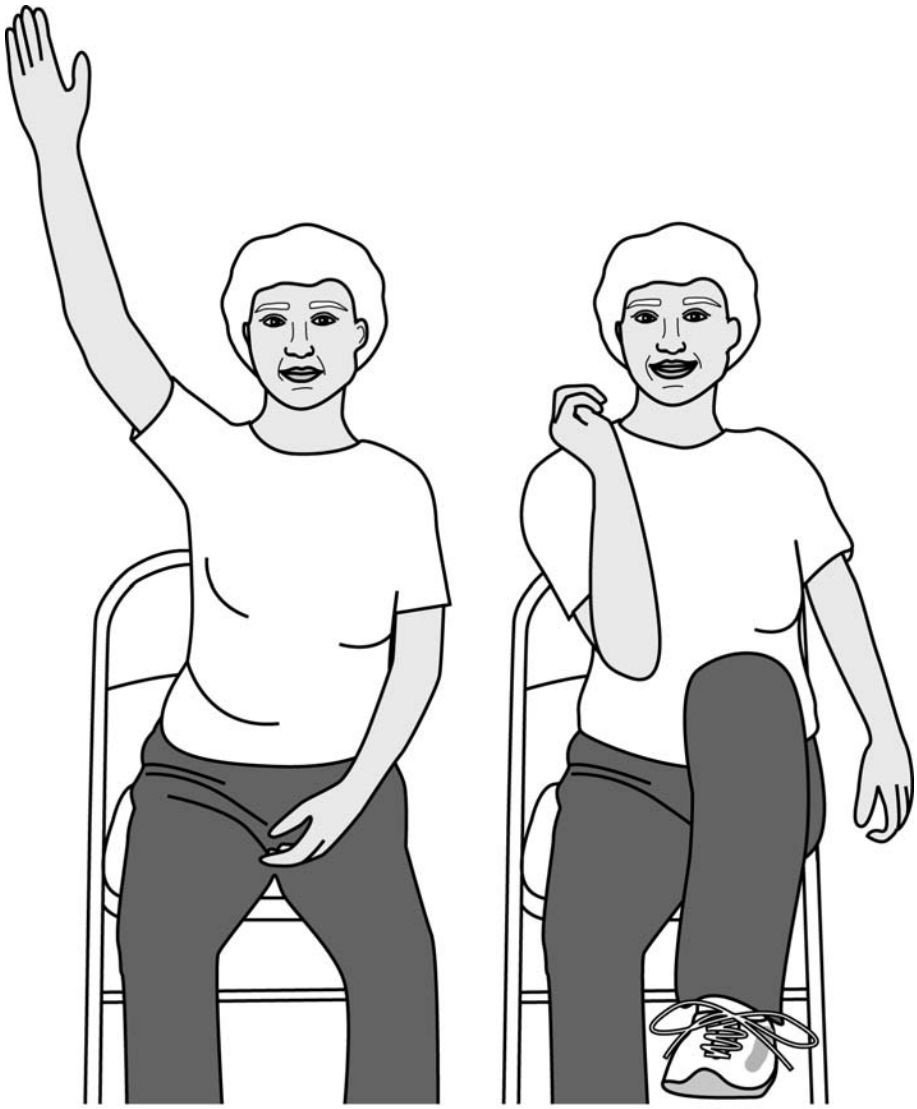


Seated in a chair with good posture, hold a ball with both hands and raise it up over your head, with arms extended without locking the elbows. Keeping the elbows pulled in toward the head, slowly bend the elbows to lower the ball down along the back of the neck, using about 2 seconds to go down, then 2 seconds to push the ball back up over your head.

Repeat 8 to 10 times. Rest. Do another set of 8 to 10 repetitions.

Modification: Try seated tricep extensions (ball not required for this modification). Bending slightly forward with elbows tucked into your sides, slowly extend the elbows so that your forearms go back behind you, keeping the elbows pulled up and in for the entire movement. Return to the starting position and repeat. Hold soup cans or small weights for added resistance.

Elbow to Knee



Seated toward the edge of a chair with good posture and knees bent, start with your right arm extended up overhead. Slowly lift the left knee up as you lower your right elbow down toward your left knee, taking about 2 seconds to lower down. Try not to bend over at the waist. Release and go back to the starting position. Repeat 8 to 10 times.

Switch sides and do 8 to 10 repetitions, pulling one elbow to the opposite knee. Rest. Do another set of 8 to 10 repetitions on each side.

Modification: Try this (with a chair nearby for balance) exercise in a standing position for an increased range of motion.

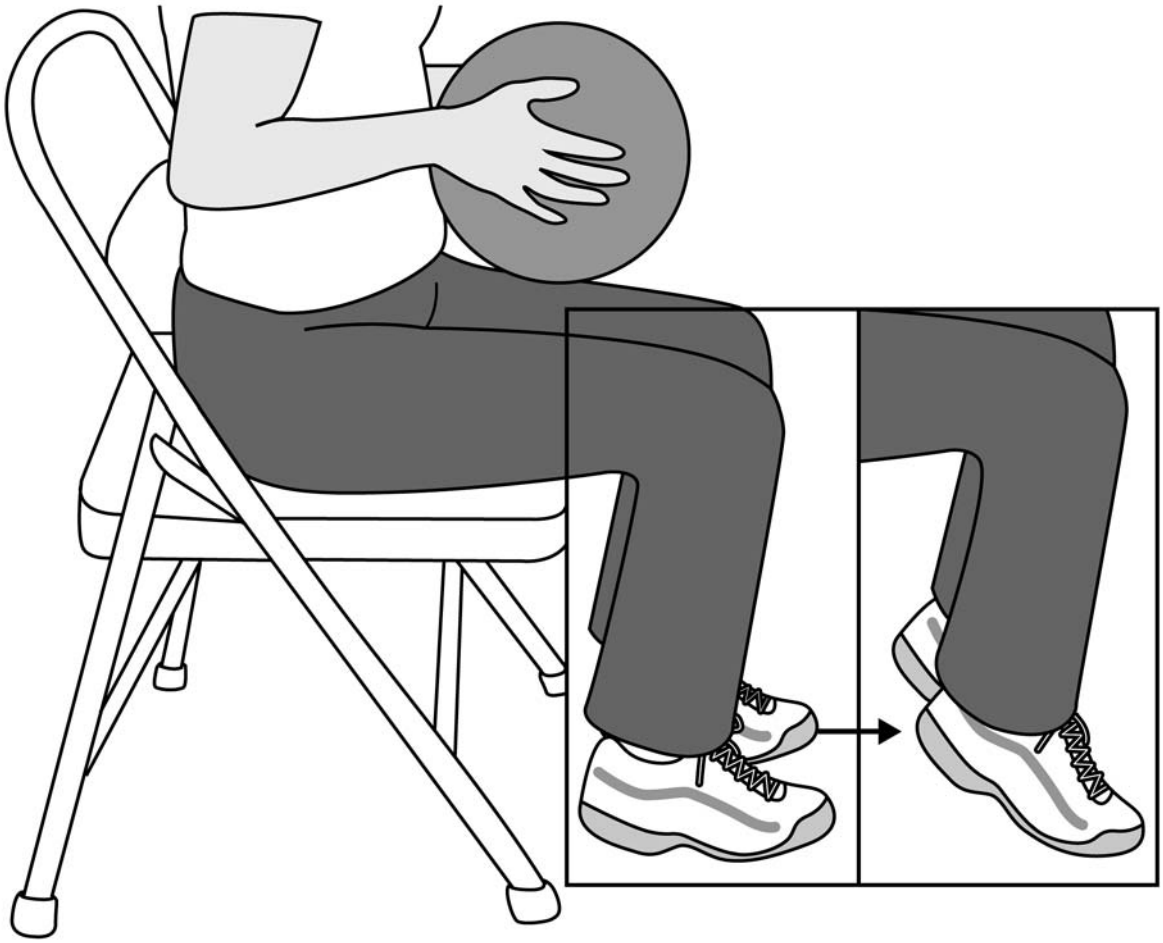
Balancing Toe Taps

In a seated position with good posture and knees bent, take a ball and place it on the floor near your feet. Holding onto the chair for balance as needed, place your right foot on top of the ball, trying to balance your weight as you do this. The left foot that is not on the ball can remain on the floor or can be lifted up off the floor if you feel stable enough. Hold for 3 to 4 seconds.

Switch feet and repeat with the opposite foot. Keep alternating feet on the ball for 8 to 10 repetitions. Rest. Do another set of 8 to 10 repetitions.

Modification: A ball is not required for this exercise. Try standing on one foot while holding the back of a chair (balance without holding as you progress).

Heel Raises

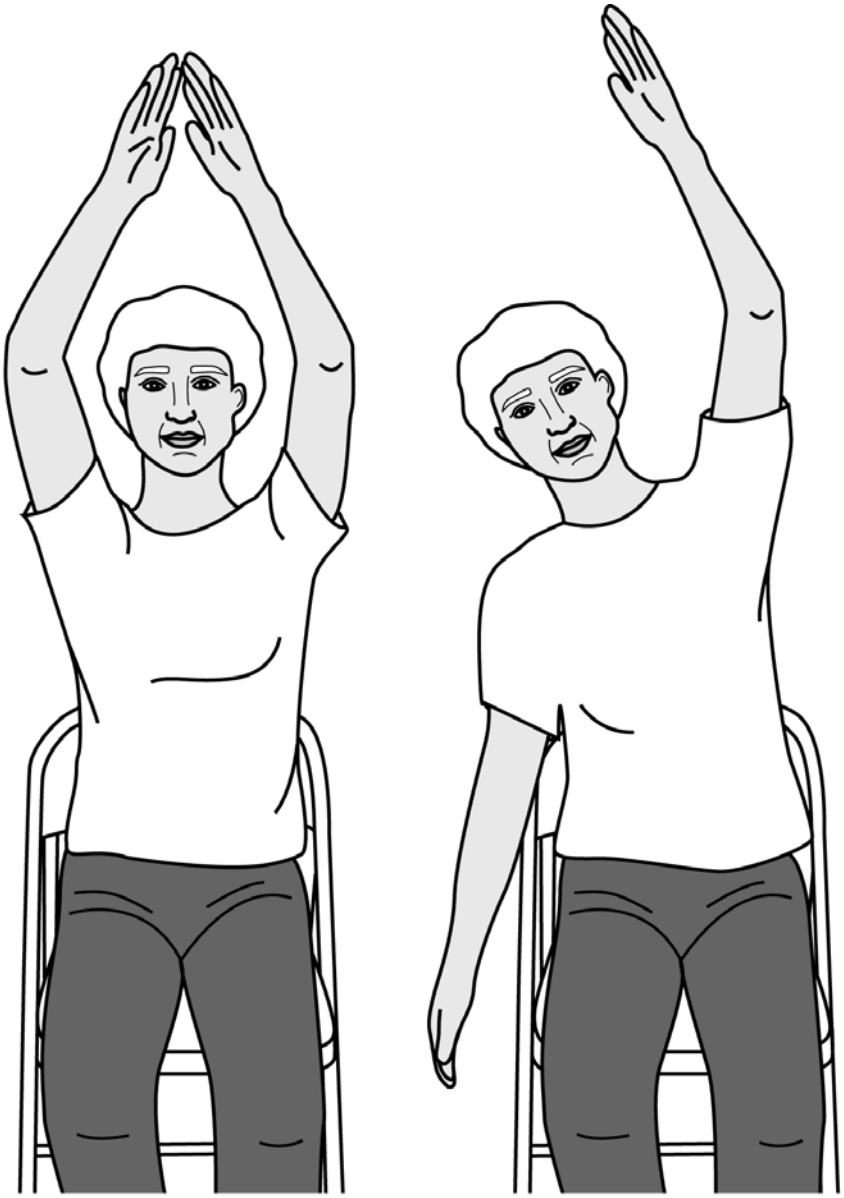


Seated toward the edge of a chair with good posture and knees bent, place feet flat on the floor. Raise heels up off the floor, coming up onto the balls of the feet. Hold for 1 second, then release.

Do 2 sets of 10 to 15 repetitions each, resting briefly between sets.

Modification: If you are more advanced, stand behind a chair and hold on lightly for balance. Come up to the balls of your feet to lift the heels up off the floor. Release and repeat as described above.

Overhead Reach with Side Bends



Seated in a chair with good posture, reach your arms up overhead. Hold for 10 seconds. Allow your right arm to relax down by your side (can rest hand on chair seat) while your left arm stays up overhead. Slowly lean to the right and reach your left arm over your head to the right. Hold for 8 to 10 seconds. Come back up to the center position, pulling both arms overhead again. Repeat by bending to the opposite side, relaxing the left arm to the side this time. Do another set.

Exercise Module D

Module D is the final group of exercises. Most of the exercises begin in a standing position, using the back of a chair for balance. The exercises help to strengthen and tone the muscles and fight stiffness.

The exercises in this module benefit our bodies in many ways:

1. Pliés: strengthen the front and inner parts of the thighs (quadriceps and adductors) and the buttocks (gluteals)
2. Rear leg extensions: strengthen the back of the thighs (hamstrings) and buttocks (gluteals)
3. Side leg lifts: strengthen the outer thighs (abductors) and hips
4. Inner thigh stretch: lengthens the muscles of the inner thighs (adductors) to promote flexibility and alleviate stiffness
5. Sit and reach stretch: promotes flexibility in the legs and alleviates stiffness
6. Around the big wide world: promotes flexibility in the arms and shoulders and improves body awareness

Begin this module with a light warm-up, about 5 minutes in length, to prepare the muscles and joints, and to help focus your attention. Perform the suggested warm-up movements listed below

- Marches in place, punching the arms out in front alternately
- Hamstring curls in place (alternately pulling heels up toward buttocks, also called knee flexion)
- Tapping the toes to warm the lower legs
- Walking in a circle around the room, while pumping the arms
- Light stretches

Pliés

Holding the back of a chair, stand with legs a little wider than shoulder width apart, and toes pointed outward slightly toward the corners of the room. Bend your knees to lower yourself straight down, using about 2 seconds to do this. Make sure that your legs are wide enough apart that your knees do not jut beyond the toes when you go down. Return to the starting position by pushing through your heels as you come back up.

Perform the pliés 8 times. Rest. Do another set of 8 repetitions or as many as you can comfortably do while maintaining good form.

Modification: For an added challenge, do not hold onto a chair. Try holding a ball in your hands instead. Or, change the count of the exercise by lowering down and holding for several seconds or doing short, pulsing pliés.

Rear Leg Extensions

Begin by standing behind a chair with the right leg slightly in front of the left, holding on to the back of the chair for balance. Keeping your back straight and leaning slightly forward, lift the left foot a few inches off the floor or as high as you comfortably can, squeezing the buttocks as you do this. Do not arch your back. Lower the leg back down and repeat the movement 8 to 10 times.

Switch sides to work the other leg. Rest briefly. Do another set of 8 to 10 repetitions for each leg.

Modification: For an extra challenge, change the count of the movement. Lift the leg and hold for 5 seconds, or do short, quick pulse lifts for 5 seconds.

Side Leg Lifts

Begin by holding onto the back of a chair as needed, standing with feet slightly apart. Take 2 to 3 seconds to lift your right leg 6 to 12 inches out to the side, keeping the knee and toes pointed forward. Hold the position for 1 second. Take 2 to 3 seconds to lower your leg back to the starting position. Perform 8 to 15 lifts. Switch to the opposite leg. Do another set of 8 to 15 repetitions for each leg.

Modification: For a less advanced version, tap the toe out to the side and pull back in, rather than lifting and lowering the leg. For a more advanced version, change the count of the movement by lifting the leg and holding for 5 seconds or lifting and pulsing the leg and releasing back down.

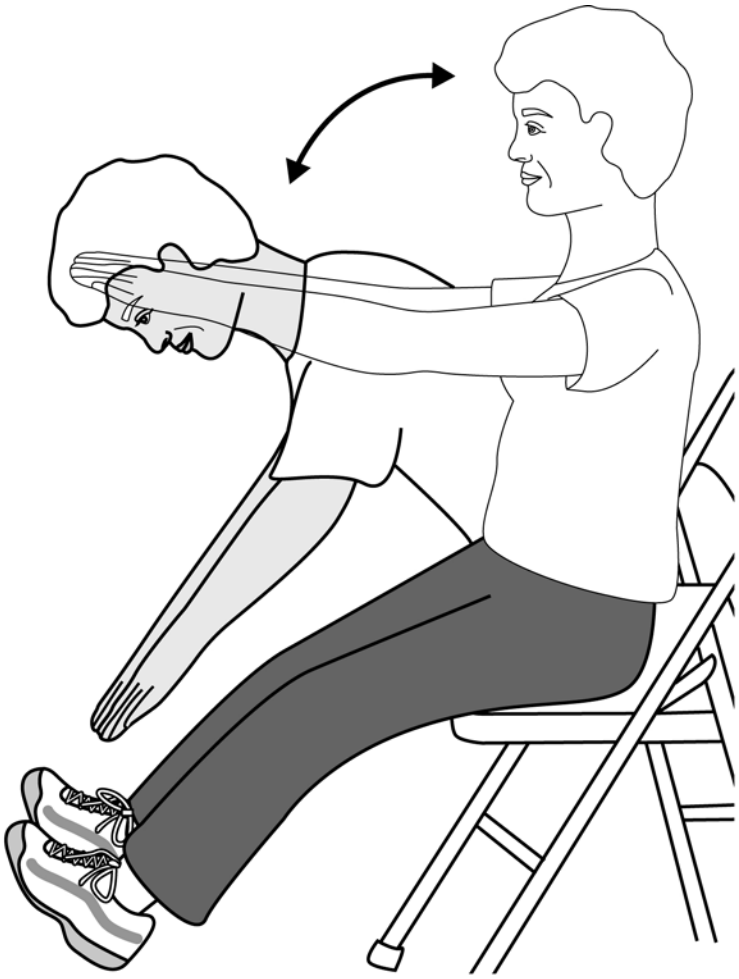
Inner Thigh Stretch

Begin in a standing position and take feet greater than hip distance apart with toes pointing slightly outward to the corners of the room. Slowly lean to the right side by bending the right knee, keeping your left leg straight. Rest your hands on your right leg for support. Make sure the bent knee does not jut beyond your toes. Feel the inner thigh of your left leg lengthen as you hold the stretch for 10 seconds. Slowly come back up to the starting position and repeat on the left side, keeping the right leg straight and bending the left knee this time.

Come back to center and repeat the stretch on both sides.

Modification: Hold onto the back of a chair for more support.

Sit and Reach

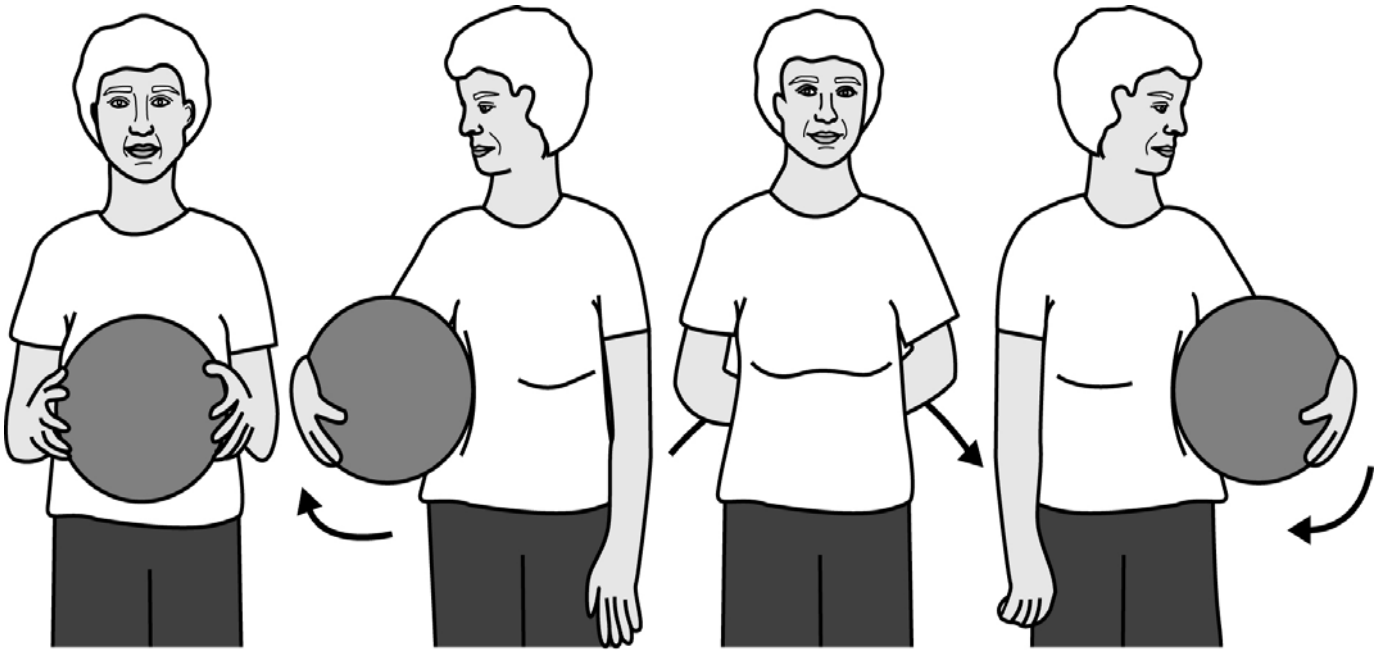


Seated toward the edge of a chair, extend your legs out in front of you, keeping the knees slightly bent. With heels on the floor and toes pointed up toward the ceiling, extend your arms out in front of you and try to reach down to touch your toes. Bend at the waist to do this and do not bounce. Hold the stretch for about 10 seconds. Come back up to the starting position.

Repeat the stretch 1 to 2 more times.

Modification: Depending on your flexibility, you may only be able to go to your knees or shins. If you are very flexible, you may be able to reach your fingers out past your toes.

Around the Big Wide World



Starting in a seated or standing position with good posture, hold a ball with both hands at your stomach. Keeping the ball in contact with your body the entire time, move the ball around your waist, over your abdominals and lower back. Try to hold in your stomach without holding your breath as you do this exercise. Repeat 8 to 10 times. Switch directions, circling the ball around your waist 8 to 10 times.