

# FREE FROM FALLS

A COMPREHENSIVE FALL PREVENTION PROGRAM FOR PEOPLE WITH MS

## Revvng Up Head Turns & Tilts

### Functional Benefits

Promotes range of motion in the muscles of the neck, (e.g., turning head while crossing the street or driving a car.)

Improves posture

### Instructions for Activity

**Head Turns:** slowly turn head to right side, return to center; turn head to left side, return to center.



**Head Tilts:** slowly tilt head down to right shoulder, return to center; tilt head down to left shoulder, return to center

Repeat 5 times in each direction

### Safety Guidelines

Move head slowly to prevent dizziness



### Things to Remember

- Stand (or sit) tall and focus your eyes forward on a vertical target at eye level during head tilts
- Focus eyes on vertical target at eye level after completion of each head turn
- Keep shoulders level
- Breathe evenly throughout the exercise

### Equipment

Chair

## Reving Up Overhead Arm Reaches

### Functional Benefits

Promotes mobility in the shoulders and upper back

Improves ability to reach

### Instructions for Activity

- Raise both arms up close to body and towards the ceiling
- Slowly lower arms down by the sides of the body.

### Safety Guidelines

Move arms slowly through a comfortable, pain-free, range of motion

### Things to Remember

- Stand (or sit) tall and focus your eyes forward on a vertical target at eye level
- Try to touch the ceiling with fingertips on each reach (Reach fingertips toward the ceiling)
- Breathe evenly throughout the exercise
- Avoid lifting shoulders. Keep shoulders pressed down away from the ears.

### Equipment

Chair (optional)



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## Revving Up Marching (Seated or Standing)

### Functional Benefits

Strengthens the muscles of the shin, calf and thigh

Improves ability to perform activities such as walking, stepping onto and off curbs, and climbing stairs

### Instructions for Activity

Either from a standing or seated position:

- Begin marching in place by lifting knee toward the ceiling.
- Modify with a toe tap or heel dig

### Safety Guidelines

- Limit your range of movement (i.e. how high you raise your legs) according to your level of balance
- Position students near chair or wall for added safety
- Perform exercise seated

### Things to Remember

- Stand or sit tall with shoulders level, and chin parallel to floor
- Focus your eyes forward on a vertical target at eye level
- Don't forget to breathe



## Revvng Up Dynamic Trunk Rotation

### Functional Benefits

Increases flexibility of muscles involved in turning and reaching behind (e.g., reaching for seat belt)

### Instructions for Activity

- Sit tall in the middle of a chair; the shoulders should be relaxed, with the chin parallel to the floor
- Fold the arms across the chest; inhale
- Exhale and slowly rotate the trunk to one side as far as is comfortable. Rotate the head to the same direction.
- Slowly rotate the trunk to the opposite side as far as is comfortable.
- Inhale in the center position and exhale during the twisting motion; breathing evenly throughout the slow, continuous movement.
- Repeat 10 times in each side



### Safety Guidelines

Stretch only to the point of gentle tension.

### Things to Remember

- Sit tall with shoulders level, and chin parallel to floor
- Turn from your waist
- Move slowly
- Don't forget to breathe

### Equipment

Chairs

## Revvng Up Dynamic Lateral Trunk Flexion

### Functional Benefits

Improves the ability to reach for objects overhead (e.g., reaching into cupboards.)

### Instructions for Activity

- Sit with feet hip-width apart
- Extend left arm up overhead and gently lean to the right side. Switch and slowly lean to the left side; keep a smooth, continuous movement
- Repeat 10 times forward and back.

### Safety Guidelines

- Stretch only to the point of gentle tension.
- Do not rock pelvis to the side. Pelvis/hips should stay level.

### Things to Remember

- Sit tall with shoulders level, and chin parallel to floor
- Move slowly
- Don't forget to breathe

### Equipment

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## Reving Up Dynamic Trunk Flexion & Extension



### **Functional Benefits**

Increases flexibility of muscles involved in bending and reaching forward (e.g., tying your shoe.)

### **Instructions for Activity**

- Sit tall in the middle of a chair; the shoulders should be relaxed, with the chin parallel to the floor
- Fold the arms across the chest; inhale.
- Pull your abdominals in and slowly lean back as far as is comfortable, exhaling as you move.
- Inhale and slowly bend forward hinging at the hips, maintain lengthened spinal alignment as you move.
- Repeat 10 times forward and back.

### **Safety Guidelines**

Move within a comfortable, pain-free range of motion

### **Things to Remember**

- Sit tall with shoulders level, and chin parallel to floor
- Move slowly
- Don't forget to breathe

### **Equipment**

Chairs

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## Revvng Up Shoulder Circles

### Functional Benefits

Promotes mobility in the shoulders

Improves ability to reach

Improves posture

### Instructions for Activity

- Slowly lift shoulders up, circle shoulders around, then down
- Perform shoulder circles first in the forward direction, then in the backward direction

Repeat 5-10 times in each direction

### Safety Guidelines

Perform in seated position for added safety

### Things to Remember

- Stand (or sit) tall and focus your eyes forward on a vertical target at eye level
- Move shoulders through as full a range of motion as possible
- Imagine your shoulders are moving around a clock face, touching each number of the clock as they circle
- Keep your head still
- Breathe evenly throughout the exercise

### Equipment

Chair



## **Firming Your Muscles Toe & Heel Lifts**

### **Functional Benefits**

Strengthens the muscles of the shin and calf (important for stepping up onto and off curbs, climbing stairs)

Increases toe clearance during walking to reduce risk of falls

Promotes better push-off during walking

### **Instructions for Activity**

**Can be done from standing or seated position**

#### **Heel Lifts**

- Sit or stand with feet hip-width apart
- Lift the heels as high as possible in the following sequence:
  - 10 times with both feet together
  - 5 times with the right foot and 5 times with the left foot



#### **Toe Lifts**

- Sit or stand with feet hip-width apart
- Lift the toes as high as possible in the following sequence:
  - 10 times with both feet together
  - 5 times with the right foot and 5 times with the left foot

### **Safety Guidelines**

- Maintain knees in slight flexion throughout the exercise
- Hold onto chair for stability if needed





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## **Things to Remember**

- Sit or stand tall and focus your eyes forward on a vertical target at eye level
- Keep knees slightly flexed throughout the exercise
- Lift toes or heels as high off floor as possible
- Breathe evenly throughout the exercise

## **To make the exercise more challenging**

- Perform both exercises in sequence: perform a heel lift followed by a toe lift.  
Perform 5-10 repetitions.

## **Equipment**

Chair

## **Firming Your Muscles Horizontal Pulls**

### **Functional Benefits**

Strengthens muscles in the upper and middle back, shoulders and arms.

Improves seated or standing posture

Makes lifting objects above head easier (e.g., luggage, items in closets and on higher shelves)



### **Instructions for Activity**

- Sit or stand tall, feet hip-width apart, tummy and chin tucked in, eyes directed forward
- Hold a resistance band so that the band is stretched when hands are shoulder-width apart and arms are straight out in front of the body.
- Keep the arms at chest level and the elbows slightly bent; breathe in.
- Breathe out while pulling the hands away from each other, pulling evenly on both sides and pinching the shoulder blades together.
- Slowly return to the starting position.

Repeat 8 times. As practice continues increase by 2 repetitions until 12 repetitions are reached.

### **Safety Guidelines**

- Perform exercise slowly with control.
- Check band for tears.
- Ensure adequate resistance for ability level.

### **Things to Remember**

- Keep the shoulders relaxed and level
- Focus your eyes forward on a vertical target at eye level
- Keep the abdomen tucked in
- Pull band evenly with both arms

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## **To make the exercise more challenging**

As strength increases, return to 8 repetitions, adding a second set of 8. Increase each set to 10 repetitions, followed by 12 repetitions when ready.

## **Equipment**

Resistance bands

Chairs (optional)

## Firming Your Muscles Sit to Stand

### Functional Benefits

Increases lower body muscle endurance and strength

Improves activities such as getting up from a chair and getting out of the car



### Instructions for Activity

- Sit in a chair with feet hip-width apart, ears directly above the shoulders and shoulders directly above the hips
- Ease yourself forward toward the edge of the chair
- Begin to lean forward (“nose over toes”) while keeping your back in the neutral position; feel your weight over your feet
- Use your butt and legs to stand while pressing the heels down into the floor
- Come to a complete standing position before sitting back down
- As you start to sit lean forward and reach your hips back for the center of the chair

Repeat for a set of 5-10

### Safety Guidelines

- Position chair against a wall for added safety

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- Ensure chair or bench is secure

## **Things to Remember**

- Focus your eyes on a vertical target slightly higher than eye-level
- Keep the abdominals engaged
- Nose over toes
- Don't forget to breathe
- Squeeze the butt
- Always keep the heels down
- Keep the knees pointing straight forward avoid rolling them in or out.

## **To make the exercise less challenging**

- Push lightly with hands (use a chair with arms)
- Use a chair or bench that has the seat higher off of the ground or place blankets or folded yoga mats in the chair to elevate the hips

## **To make the exercise more challenging**

- Cross arms over chest or hold arms overhead
- Split stance or narrow stance

## **Equipment**

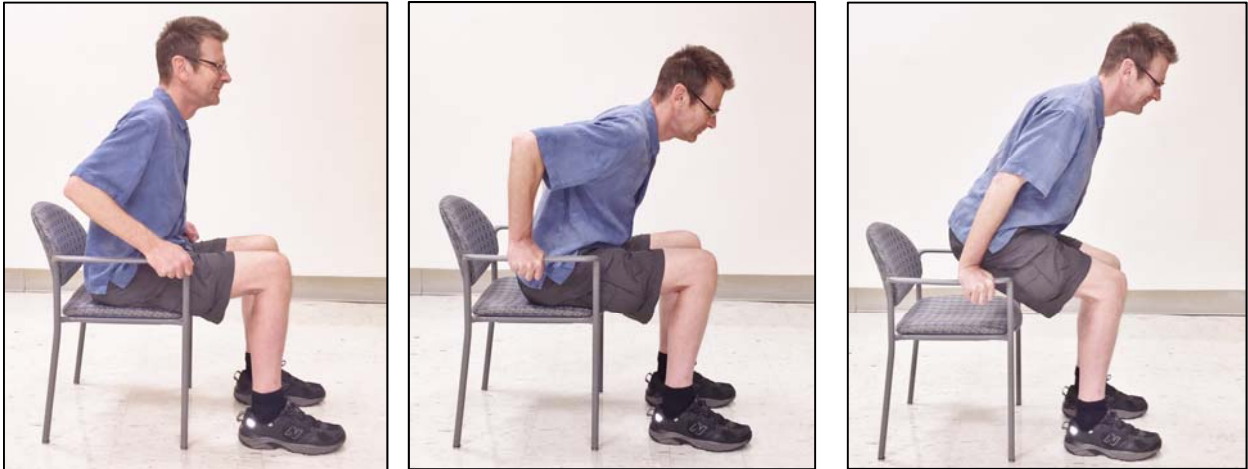
Chair

## Firming Your Muscles Press Up From Chair

### Functional Benefits

Increases upper body muscle endurance and strength

Improves activities such as getting up from a chair and getting out of the car



### Instructions for Activity

- Sit in a chair with feet hip-width apart, ears directly above the shoulders and shoulders directly above the hips
- Place hands on the arms of the chair with elbows pointing backwards
- Begin to lean forward (“nose over toes”) while keeping your back in the neutral position; feel your weight over your feet
- Press down on the arms of the chair and straighten arms, slightly lifting your butt out of the seat.
- Slowly return to start position

Repeat for a set of 5-10

### Safety Guidelines

- Ensure chair is secure

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## **Things to Remember**

- Focus your eyes on a vertical target slightly higher than eye-level
- Keep the abdominals engaged
- Keep the elbows pointing back
- Don't forget to breathe
- Always keep the heels down

## **Equipment**

Chair

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## Firming Your Muscles Hip Flexion

### Functional Benefits

Strengthens muscles needed for mobility tasks such as standing, walking, climbing stairs

### Instructions for Activity

- Stand with feet hip width apart and hold onto the side of a chair(s) or walker for support. Shift weight by sliding the hip and shoulder over one leg;
- Slowly raise the other leg straight out in a forward direction. Breathe out as the leg is raised
- Lower the leg back to the floor

Repeat 8 times on each side. As practice continues increase by 2 repetitions until 12 repetitions are reached. As strength increases, return to 8 repetitions, adding a second set of 8. Increase each set to 10 repetitions, followed by 12 repetitions when ready. Add ankle weights (2– 4 lbs) to increase resistance when appropriate



### Things to Remember

- Be sure to maintain your torso in an upright posture when lifting the leg.
- Move slowly and maintain body control
- Shift weight to opposite side BEFORE lifting the leg

### To make the exercise less challenging

Place a chair on each side for bilateral support.

### Equipment

Chairs or walker



## Firming Your Muscles Lateral Leg Lifts

### Functional Benefits

Strengthens muscles at the side of the thigh

Improves lateral stability and lowers risk for sideways falls

### Instructions for Activity

- Stand with the feet hip-width apart and hold onto a walker or chair for support. Shift weight by sliding the hip and shoulder over one leg
- Slowly raise the other leg out to the side, leading with the heel. Toes are pointed forward; breathe out as the leg is raised
- Slowly return the leg to the starting position
- Add ankle weights (2– 4 lbs) to increase resistance when appropriate



Repeat 8 times on each side. As practice continues increase by 2 repetitions until 12 repetitions are reached.

### Safety Guidelines

- Maintain a leg lift height that allows for proper body alignment (Do not tilt the body to the side)

### Things to Remember

- Stand tall, shoulder above hip of standing leg
- Focus eyes forward on a vertical target at eye level
- Feel the tension along the outside of your thigh as the leg lifts

### Progressions: (To make the exercise more challenging)

As strength increases, return to 8 repetitions, adding a second set of 8. Increase each set to 10 repetitions, followed by 12 repetitions when ready.

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## **Equipment**

Leg weights 2-4 lbs (optional)

Chair or walker (optional)

## Firming Your Muscles Bicep Curls

### Functional Benefits

Strengthens the muscles in the front of the upper arms and wrists

Improves ability to lift bags of groceries, children, and pets

### Instructions for Activity

- Stand (or sit) tall with the feet flat on the floor and hip-width apart
- Put one end of the resistance band under the foot and press securely into the floor. The band can also be wrapped around the foot for added safety. (Substitute a hand weight if you have arthritis in the hand.)
- Hold the other end of the band, wrapping excess band around the hand so there is mild tension when the elbow is at a 90-degree angle; palm is facing up
- Bending the elbow, slowly bring the forearm toward the shoulder. Keep the elbow tight against the body throughout the lifting phase; breathe out as the band is pulled up toward the shoulder
- Slowly lower the band to the starting position



Repeat 8 times on each side. As practice continues increase by 2 repetitions until 12 repetitions are reached.

### Safety Guidelines

- Do not bend the wrist
- Check the band for tears

### Things to Remember

- Stand (or sit) tall with your shoulders level and chin parallel to floor
- Keep the elbow close to the body
- Keep the wrist straight as you lift the band

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## **Progressions: (To make the exercise more challenging)**

As arm strength increases, return to 8 repetitions, adding a second set of 8. Increase each set to 10 repetitions, followed by 12 repetitions when ready.

## **Equipment**

Resistance bands or hand weights

Chair (optional)

## Firming Your Muscles Triceps Extensions

### Functional Benefits

Strengthens the muscles at the back of the arm (used for lifting, i.e., packages, grandchildren, pets). Improves ability to push-up out of a chair or off the floor



### Instructions for Activity

- Put the resistance band in the right hand and place the right hand on the left shoulder
- Sit tall with shoulders level and chin parallel to the floor
- Bend the right elbow and firmly grasp the other end of the band with the left hand
- Slowly straighten the right arm toward the ground, while keeping the elbow close to the body
- Slowly return to the original position.

Repeat 8 times on each side. As practice continues increase by 2 repetitions until 12 repetitions are reached.

### Safety Guidelines

- Do not bend the wrist
- Check the band for tears

### Things to Remember

- Only the bottom arm should move. Keep the top arm firm, holding the end of the band stable, maintaining adequate resistance.

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## **To make the exercise more challenging**

- Perform seated on an unstable surface
- As arm strength increases, return to 8 repetitions, adding a second set of 8. Increase each set to 10 repetitions, followed by 12 repetitions when ready.

## **Equipment**

- Resistance bands
- Chair

## Firming Your Muscles Leg Curls

### Functional Benefits

Strengthens (hamstring) back thigh muscles

Improves ability to walk and climb stairs

### Instructions for Activity

- Stand with the feet hip-width apart. Hold onto the back of a chair and stand tall. Shift weight by sliding the hip and shoulder over one leg;
- Slowly flex (bend) the other knee, raising the leg behind you. Do not allow the thigh of the lifted leg to move in front of the thigh of the standing leg (keep the knees even); breathe out as the knee bends
- Return the leg slowly to the starting position.
- Add ankle weights (2– 4 lbs.) to increase resistance when appropriate



### Progressions to Add Challenge

- As students' strength increases, return to 8 repetitions, adding a second set of 8. Increase each set to 10 repetitions, followed by 12 repetitions when ready.
- Add back step
- Add forward step
- Add back and forward step

Repeat 8 times on each side. As practice continues increase by 2 repetitions until 12 repetitions are reached.

### Safety Guidelines

Touch the chair for stability

### Things to Remember

- Stand tall, shoulder above hip of standing leg
- Focus eyes forward on a vertical target at eye level
- Feel the tension at the back of the thigh as the leg bends

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## **Equipment**

Leg weights 2-4 lbs (optional)

Chairs (optional)



## **Firming Your Muscles Seated Knee Extension**

### **Functional Benefits**

Strengthens muscles needed for mobility tasks such as standing, walking, climbing stairs

### **Instructions for Activity**

- Sit tall with the feet flat on the floor and hip-width apart
- Extend your knee, slowly lifting your foot away from the floor with toes pointing towards the ceiling; breathe out as the foot is raised
- Slowly lower the leg back to the floor



Repeat 8 times on each side. As practice continues increase by 2 repetitions until 12 repetitions are reached. As strength increases, return to 8 repetitions, adding a second set of 8. Increase each set to 10 repetitions, followed by 12 repetitions when ready. Add ankle weights (2– 4 lbs) to increase resistance when appropriate

### **Things to Remember**

- Be sure to maintain your torso in an upright posture when lifting the foot.
- Move as slowly and maintain body control

### **Equipment**

Chairs

## **Fine Tuning the Senses** **Head and Eye Coordination-1**

(Head Stationary, Eyes Moving)

### **Functional Benefits**

Improves an individual's ability to maintain balance while shifting vision during daily activities

### **Instructions for Activity**

In a standing position, hold thumb directly in front of eyes and at arm's length from face.

- Keep the head still and focus on the thumb while slowly moving the thumb as far as comfortable from 1) side to side, 2) up and down, and 3) diagonally
- Perform the exercise for 30 seconds before resting.



### **Safety Guidelines**

- Use chair or walker for balance as needed
- Stop movements if you experience the room spinning (vertigo) or if you become dizzy. May resume exercises when symptoms subside. If symptoms increase or if you have repeated episodes, contact your doctor.
- Moderate dizziness is acceptable and helps to improve balance by challenging the vestibular system. Do not exercise beyond this level.

### **Things to Remember**

- Sit upright and with head level
- Keep head still while shifting eyes
- Breathe normally

### **To make the exercise less challenging**

- Move eyes slowly from one thumb to the other
- Perform exercise seated

### **To make the exercise more challenging**

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- Repeat exercises with a busy background (e.g., checkerboard pattern, bulletin board, TV screen, etc.) behind visual target
- Repeat exercises while seated on an unstable surface (e.g., Dyna-Disc, foam pad or Swiss ball)
- Repeat exercises in standing position with feet hip distance apart, feet together or in tandem to add a balance component
- Repeat exercises in standing position on an unstable surface (e.g., foam pad)

## **Equipment**

Chair or walker

## Fine Tuning the Senses Head and Eye Coordination–2

(Head Moving, Eyes Stationary & Moving)

### Functional Benefits

Improves an individual's ability to coordinate head and eye movements while moving in a variety of environments

### Instructions for Activity

- A) In a standing position, hold thumb directly in front of eyes at arm's length from face
- Slowly move the head as far as comfortable from 1) side to side, and 2) up and down while focusing the eyes on the thumb
  - Perform the exercise for 30 seconds before resting
  - Gradually increase the speed of the head turns while keeping the thumb still. Stop increasing the head speed when the thumb becomes blurred.
- B) Place a moving target in visual field.
- Move head and eyes to follow target from 1) side to side, 2) up and down, and 3) diagonally
  - Perform the exercise for 60 seconds before resting
- C) Hold both thumbs at eye level and arm's length
- Place one thumb in front of eyes and the second in the peripheral field to the side. Align the head and eyes on the first thumb, then look to second thumb without moving the head; then turn head to focus on second thumb
  - Next, shift eyes to first thumb while holding head still; then turn head to focus on first thumb
  - Perform 10-20 head and eye excursions before resting. Vary the speed of the head movements while focusing on a thumb at all times.
  - Repeat exercises in 1) up and down, and 2) diagonal directions



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## **Safety Guidelines**

- Use chair or walker as needed. If you are unstable with seated exercises do not advance to standing exercises until you are safe to do so.
- Stop movements if you experience the room spinning (vertigo) or if you become dizzy. May resume exercises when symptoms subside. If symptoms increases or if you have repeated episodes, contact your doctor.
- Moderate dizziness is acceptable and helps to improve balance by challenging the vestibular system. Do not exercise beyond this level.

## **Things to Remember**

- Sit upright and with head level
- Breathe normally

## **To make the exercise less challenging**

- Move eyes more slowly/perform exercise at a slower pace
- Perform exercise seated

## **To make the exercise more challenging**

- Repeat exercises with a busy background (e.g., checkerboard pattern, bulletin board, TV screen, etc.) behind visual target
- Repeat exercises while seated on an unstable surface (e.g., Dyna-Disc, foam pad or Swiss ball)
- Repeat exercises in standing position with feet hip distance apart, feet together or in tandem to add a balance component

## **Equipment**

Chair or walker

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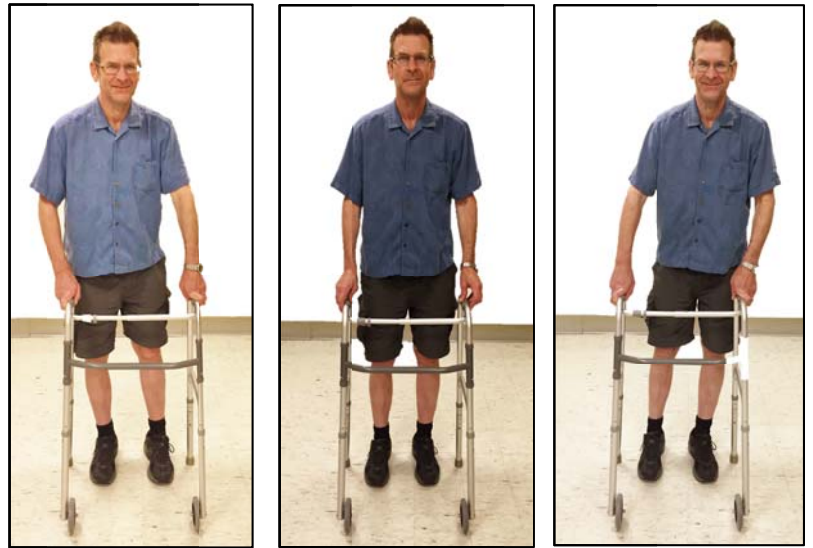
## Balance Basics Weight Shifts

### Functional Benefits

Improves ability to move more confidently when crossing a busy street, grocery shopping, or greeting a friend in passing

### Instructions for Activity

- Stand with feet hip-width holding on to support (chair or walker)
- Shift weight through hip to one side
- Return hips to midline
- Perform weight shift to the opposite side
- Repeat 10 times



### Safety Guidelines

Position students near a chair behind them or near a wall for added safety. If head turns are added, slow down or stop the head movements in the event of dizziness

### Things to Remember

- Stand tall with shoulders level, and chin parallel to floor
- Focus your eyes forward on a vertical target at eye level
- Breathe normally

### To make the exercise more challenging

Sequence can be progressed to omit the midline stop

- Add head turn first looking in the same direction as the weight shift; repeat movement 5 times for each direction
- Add a head turn looking in the opposite direction of the weight shift; repeat movement 5 times for each direction
- Add head and torso rotation looking in the same direction as the weight shift; repeat movement 5 times for each direction

## Balance Basics Forward Right & Left Step

### Functional Benefits:

Increases lower body muscle strength

Improves motor coordination and body awareness during moving activities

### Instructions for Activity

- Stand with feet hip-width apart holding on to support
- Shift weight onto left foot and step forward with right foot, bending the knee as the right foot contacts the floor
- Shift weight back through the left hip and step backwards with the right foot
- Perform stepping sequence with the left leg stepping forward
- Repeat 5 times with each leading leg

### Safety Guidelines

Position near a wall or chair for added safety

Step forward only as far as stability permits

### Things to Remember

- Stand tall with shoulders level, and chin parallel to floor
- Shift weight to opposite side BEFORE stepping forward or backward
- Move your belly button forward as the knee moves over the toes in the forward step
- Move your belly button back as you shift weight backward
- Focus your eyes forward on a vertical target at eye level

### Equipment

Chairs or walker (optional)



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## Functional Frolics Copy Cat (Seated or Standing)

### Functional Benefits

Improves cognitive & memory skills

Improves ability to respond quickly to changes in the environment

### Instructions for Activity

- Have participants spread out across the room leaving space between them to move; everyone should be facing the front of the room seated or standing
- The leader will randomly pick from the list of activities below and ask participants to follow along with you as if looking in the mirror
- After 15-20 seconds, change activities



### Activities List:

- Shift your weight from side-to-side while turning your head in the same direction
- Shift your weight from side-to-side while turning your head in the opposite direction
- Tilt your head
- Shrug your shoulders
- Reach your arm(s) over your head
- Reach your arm(s) up and across your body
- Reach your arm(s) down
- Shoulder circles
- Arm circles
- March
- Knee lifts

### Safety Guidelines

- Remind participants that safety always comes first



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## **Things to Remember**

- Remember that safety always comes first
- Perform only activities from the list provided by your instructor
- Let your partner know if you feel the activity is too difficult or challenging

## **To make the exercise more challenging**

- Perform cognitive task to distract you from the task at hand. Change the speed or the range they are moving through
- Partner with someone with matching ability and face each other. Designate one partner as the leader. Provide a written selection of suggested exercises from which each pair leader can choose. Take turns with your partner as the leader of a new activity.

## **Equipment**

Chair

## Functional Frolics Obstacle Course

### Functional Benefits

Improves ability to move efficiently and confidently through space

Improves ability to adjust to changes and obstacles in the environment (e.g., curbs, steps, moving from sidewalk to lawn, sand, or gravel)

### Instructions for Activity

Instruct the group to walk through the course according to your direction. Choose any combination of the following ways to maneuver through the course.



- 1) Step from spot to spot (vary the distance between spots)
- 2) Walk around obstacles
- 3) Step up onto elevated surface (bench, foam, roller, disc); trailing leg also steps onto the surface
- 4) Step up onto bench/foam; trailing leg swings over the elevated surface, stepping off the front of the surface
- 5) Walk along tape lines with wide step, narrow step, walking on toes, walking on heels, semi-tandem, tandem
- 6) Cross the creek (marked with tape)
- 7) Pick-up bean bags along the way
- 8) Perform a cognitive task at a specified obstacle:
  - count backward by 3
  - name varieties of flowers
  - name cities and/or states
  - name things beginning with a certain letter, e.g., animals, foods, songs

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## Safety Guidelines

- All students must have previous experience (from earlier classes) standing on each of the surfaces or obstacles in the course
- Limit each group to 8 people per course
- Provide options for activities which may be too difficult or challenging for some students
- If possible, set up each course next to a wall
- Instructors should position themselves close to the most difficult obstacles
- Consider having participants go through the course one at a time to allow instructor to spot them along the entire course. This gives the other participants a chance to critique them and maybe learn from their mistakes.

## Reinforcing Verbal Cues

- Safety always comes first
- Focus your eyes forward on a vertical target at eye level
- Shift weight to opposite leg BEFORE stepping in any direction
- Move your belly button in the direction of the weight shift (side, forward, back, side)
- Move your knee over the toes when stepping up onto an elevated surface

## Modifications: To make the exercise less challenging

- Place objects closer together
- Choose objects that are more stable
- Choose objects that are shorter

## Equipment

Benches or steps

Airex<sup>®</sup> foam pads

½ Cones

Dyna-Discs<sup>®</sup>

Bean bags, small dog toys or children's toys

Spots

Tape

Foam rollers

## Balance Basics

### Single Limb Balance

#### Functional Benefits

Improves an individual's ability to maintain center of gravity over an altered base of support

Strengthens ankles and hips

#### Instructions for Activity

- Stand with feet hip-width apart, ears directly above the shoulders and shoulders directly above the hips
- Shift the weight onto the left or right side and lift the opposite foot off of the ground to balance on one leg; don't let the legs touch each other; don't let the pelvis tilt
- Hold position for 15 seconds with eyes open.
- Repeat with opposite leg
- Increase the hold by 5 seconds (as stability improves) to a maximum of 30 seconds



#### Safety Guidelines

Position students near chair or wall for added safety.

An additional chair on the other side of the body can be used for balance.

#### Things to Remember

- Stand tall with shoulders directly above the hips and chin parallel to the floor (imagine that you are balancing a book on your head)
- Don't let the pelvis drop; keep the hips level
- Focus your eyes on a vertical target at eye level
- Keep the abdominals engaged
- Squeeze the glutes of the standing leg
- Don't forget to breathe

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## **Modifications: (To make the exercise less challenging)**

- “Pseudo” Single Limb Balance- Do not lift the leg completely; keep the toe gently resting on the floor
- Hold onto stationary object such as chair or wall for balance (use one or both hands depending on stability)

## **Progressions: (To make the exercise more challenging)**

- Lift the foot higher off of the ground or straighten the leg out in front of the body
- Cross arms over chest
- Lift one or both arms overhead
- Stand on unstable surface (e.g., foam pad)
- Without moving the foot, rotate the torso to look behind you

## **Equipment**

Chair (optional)

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## Balance Basics Feet Together & Split Stance

### Functional Benefits

Increases stability when standing in reduced or altered base of support

Improves body awareness and control in standing position

### Instructions for Activity

#### Feet Together

- Stand with feet hip-width apart, ears directly above the shoulders and shoulders directly above the hips
- Move feet together so that the heels and toes are touching if possible
- Hold position for 15 seconds with eyes open

#### Split Stance

- Bring left foot directly forward and close to the right foot so that the left heel is about 2"-3" in front of the right toes
- Shift weight in forward direction until belly button is halfway between the heel of the front foot and the toes of the rear foot
- Hold position for 15 seconds with eyes open
- Repeat standing exercise with opposite foot forward

### Safety Guidelines

Position students near chair or wall for added safety

### Things to Remember

- Stand tall with shoulders level, and chin parallel to floor
- Focus your eyes forward on a vertical target at eye level
- Be sure the belly button is forward until it is between the heel of the front foot and the toes of the rear foot
- Breathe normally



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## **Progressions: (To make the exercise more challenging)**

- To increase difficulty, cross the arms over the chest
- As stability improves, increase the hold of the position by 5 seconds to maximum of 30 seconds

## **Equipment**

Chair or walker (optional)

## Winding Down Seated Hip Flexor Stretch

### Functional Benefits

Stretches the muscles of the thigh and hips needed for walking, climbing stairs, and balance

### Instructions for Activity

- Sit close to the front edge of the chair and turn your body to face left and hold on to the back of the chair with your left hand
- Reach your right foot back, allowing your right knee to move toward the floor
- Tuck your pelvis slightly under by squeezing your buttocks of the back leg
- Inhale and exhale as you hold for 15 to 30 seconds
- Repeat this stretch on the other leg



Repeat 2 times on each side

### Safety Guidelines

- Since you are so close to the edge of the chair it is important to always hold on to the back of the chair
- Stretch until tension is felt but not to point of pain
- Avoid arching the back

### Things to Remember

- Turn your body completely to the side
- Breathe deeply throughout the stretch.
- Keep your shoulders directly above your hips
- Maintain upright posture do not bend forward at the waist

### Equipment

Chairs



## Winding Down Static Trunk Rotations

### Functional Benefits

Increases flexibility of muscles involved in turning and reaching behind (e.g., reaching for seat belt)

### Instructions for Activity

- Sit tall in the middle of a chair; the shoulders should be relaxed, with the chin parallel to the floor
- Exhale and gently rotate the trunk to one side as far as is comfortable. Rotate the head to the same direction; hold the position for 5-10 seconds, breathing evenly throughout the stretch
- Place hands down onto the opposite leg and back of the chair.
- Hold stretch for 20 seconds on each side.



### Safety Guidelines

Stretch only to the point of gentle tension.

Avoid turning the head excessively, keep head aligned with the middle of the body at all times

### Things to Remember

- Sit tall with shoulders level, and chin parallel to floor
- Turn from your waist
- Move slowly
- Don't forget to breathe

### Equipment

Chairs

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## Winding Down Hamstring Stretch

### Functional Benefits

Increases stride length while walking

### Instructions for Activity

- Sit tall at the front edge of the chair
- Extend the one leg forward and place the heel on the floor (keeping the leg as straight as possible) and point the toes up toward the ceiling; breathe in
- Place hands on hips or thigh of flexed (bent knee) leg or hold yoga strap under foot.
- Breathe out while slowly leaning forward by bending at the hips (keep the back straight)
- Continue leaning forward until gentle tension is felt at the back of the straight leg
- Hold the position for 15 to 30 seconds
- Return to the starting position and perform with the opposite leg

### Safety Guidelines

- Stretch until tension is felt but not to point of pain
- Do not hyperextend ~~lock~~ the knee

### Things to Remember

- Breathe evenly throughout the stretch
- Keep the back straight throughout the exercise
- Focus your eyes forward on a vertical target at eye level

### Equipment

Chairs



## Winding Down Chest Stretch

### Functional Benefits

Releases tension in the chest muscles

Improves posture and breathing

### Instructions for Activity

- Stand or sit tall and lift arms to side at shoulder height with palms facing forward; breathe in
- Breathe out ~~very slowly~~ as you pull the arms and shoulders back as far as possible
- Hold the position for 5 seconds while breathing evenly
- Relax the arms between each repetition
- Repeat 1-2 times



### Safety Guidelines

Avoid overarching the back

### Things to Remember

- Breathe evenly throughout the stretch
- Keep the chin parallel to the floor and the shoulders down and away from the ears

### Equipment

Chairs (optional)

## Winding Down Lateral Shoulder Stretch

### Functional Benefits

Increases range of motion in the shoulders

Reduce muscle tension

### Instructions for Activity

- Extend the right arm in front of your body with your thumb up
- Using the left arm, grab your right arm and slowly pull your right arm across your chest until you feel gentle tension in your shoulder and arm
- 1 time on each side; hold for 10-15 seconds



### Safety Guidelines

When using the opposite hand to hold arm across the chest, be sure to hold above the elbow

### Things to Remember

- Relax your shoulders when performing the stretch
- Breathe deeply throughout the stretch

### Equipment

Chairs

## Winding Down Seated Hip Stretch

### Functional Benefits

Increases flexibility of the hip muscles critical for walking and balance

Reduces muscle tension in the buttocks

### Instructions for Activity

- Sit in a chair with feet shoulder-width apart.
- Cross the right leg over the left leg so that the right ankle is resting on the left knee.
- Gently lean the trunk forward. Hold the stretch for 20 seconds.
- Repeat with the opposite leg.
- Repeat 2 times each side



### Safety Guidelines

- Students with a hip or knee joint prosthesis should not perform this stretch.
- Stretch until tension is felt but not to point of pain.
- Keep trunk straight when leaning forward; don't round the back.

### Things to Remember

- Keep your spine long.
- Breathe deeply throughout the stretch.

### Modifications: (To make the exercise less challenging)

- If range of motion is limited, place a chair in front with the seat facing towards you and cross the leg over and place on top of chair before stretching forward.

### Equipment

Chairs

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## Winding Down Calf Stretch

### Functional Benefits

Improves flexibility of the calf muscles needed for walking and climbing stairs

Reduces muscle stiffness and soreness in the lower leg

### Instructions for Activity

- Stand tall at while holding onto the back of a sturdy chair or walker; position one leg forward with the knee bent and directly above the foot of the same leg
- Extend the other leg back, with the heel flat to the floor; breathe in
- Breathe out while lunging slowly forward to deepen the front knee bend; keep the heel of the back foot on the floor throughout the stretch
- Hold the position for 15 to 30 seconds
- Return to the starting position; repeat with opposite leg forward
- Repeat 2 times each side



### Safety Guidelines

- Keep forward knee above or behind the toes
- Stretch until tension is felt but not to point of pain

### Things to Remember

- Stand tall with shoulders level, and chin parallel to floor
- When lunging forward, lead with your hips, not your shoulders
- Be sure to keep back heel on the floor with the toes of both feet pointed directly forward, and the leg as straight as possible.
- Focus your eyes forward on a vertical target at eye level
- Breathe evenly throughout the stretch

### Equipment

Chair or walker (optional)