



Minimize Your Risk

Exercises and Strategies to Prevent Falling

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Minimize Your Risk of Falling

- Everyone seems worried about falls.**
- Why are falls so important?**
- 1/3 adults over 65 years of age fall each year.
 - 1/4 of those falls results in lacerations, hip fractures or head traumas (such as subdural hematoma).
 - Over 1/2 of unintentional deaths from injury are due to falls, in the 65+ population.
 - 95% of hip fractures are from a fall.
 - 20% of people with hip fractures die of complications within a year.

I am nervous about falling.

Do falls “just happen” as we get older?

Most falls are preventable if you can know your risk, then minimize it. The higher number of risk factors you have, the greater your risk of falling.

Use the table on page 4 to check your risk factors.

While no one can predict who will or will not fall, knowing your risk factors can help identify areas of concern.



Risk Factors Checklist

Physical Risks

- History of Falls this year
- Muscle weakness (unable to stand from a chair 5 x in 15 seconds without using your hands, or weak grip strength)
- Feeling nervous about falling
- Difficulty walking (uneven or off balance walking across a room)
- Dizziness when standing up (blood pressure drops more than 20 mmHg) or when turning your head
- Slowed reflexes (loss of balance when slightly nudged)
- Poor vision (cataracts, glaucoma, macular degeneration, blurred vision), or difficulty tracking objects
- Poor sensation (partial or complete loss of feeling in feet)
- Confusion (not oriented to self, time, and place) or difficulty following simple instructions
- Poor appetite
- Multiple medications (taking 4 or more medications), taking medications with side effects of weakness or dizziness, or having interactions leading to dizziness, vertigo, particularly hypontics or benzodiazepines
- Poor footwear (loose slippers, unstable base of shoe, poor fitting shoes, or old worn shoes)
- Any of the following medical conditions: Parkinson's disease, osteoporosis, dementia, atrial fibrillation, seizure disorders, arthritis or joint pain, vertigo, stroke, anemia, loss of limb(s), UTI, diabetes, incontinence



Risk Factors Checklist

Home Risks

- Clutter on floor
- Loose rugs
- No railings at steps or stairs
- No grab bars in showers or near toilets
- High threshold bathtub
- Low toilet seats
- Poor lightening, partially during nighttime toileting
- Poor arrangement of furniture (cluttered).
- Hard to reach objects, such as dishes or self-care items
- Inadequate supervision

Behavioral Risks

- Impulsive movements (poor planning, not fully thinking about physical limitations before moving)
- Carrying items than are too heavy or awkward
- Carrying items when two handed walker is needed
- Using the wrong assisted device (for example, using a cane when a walker is more appropriate)



What Can I Do Now?

What are some easy things I can do right now to lower my risk?

Visit your medical doctor regularly to know if there have been any changes in your medical condition, particularly those affecting your strength, sensation, vision and memory.

See a physical therapist at least once a year:

- to evaluate your fall risk factors
- to identify postural issues, or deficits with strength, range of motions, balance, etc, which may limit mobility
- to make sure you are still using the right assistive device
- to individualize your exercise program so you can get the most out of your exercise program (achieve your highest physical potential safely)
- check for home fall risks (see checklist above)

See which risk factors you can change to reduce your number of risk factors, and see which ones you cannot. Keep in mind, the risk of inactivity is often greater than the risk of activity. There is a 10-20% reduction in strength for every week of bed rest. Be sure you have enough “reserve” so if you get sick, you do not become too weak.



What Exercises Can I Do Now?

What are some general exercises that I can start doing now?

First, be sure to check with your medical doctor and/or physical therapist before beginning any exercise program to be sure you are doing the right exercises for YOU!

It is recommended to meet with a physical therapist, who can develop an individualized program, based on your specific conditions, abilities, and goals.

Begin a structured exercise program for at least 20 minutes most days. For example, do your strengthening exercises 3 x per week, and if possible walk for 15-30 minutes 3 x per week. It is okay to have a rest day, but do not have more than 2 days off in a row.

Below are some general exercises with levels 1-5 to offer some guidelines for a home exercise program. These are by no means thoroughly inclusive, but they give you some ideas. Go through the levels

one at time to see which may be a good place for you to start. If you are unsure about an exercise, always use more assistance than you might need until you know your limitations.

If any of the exercises cause you to have pain, dizziness, chest pain or heaviness, severe shortness of breath, or other unusual symptoms, stop immediately.

Feel free to modify any exercise (reduce the range of motion, number or repetitions, or the intensity of the exercise) as needed.

Set a goal and keep track of your exercises! Goals will help motivate you to do your daily exercises.



Sample Exercises Level 1

Level 1 (bed exercises):

The following exercises can be performed in bed. Begin with 10 repetitions of each exercise. Then when you are ready, increase to 2 sets of each exercise.



1. Clams:
Lie on your side and open your knees, keeping feet together.
10 x, 2 sets



2. Bridges:
Squeeze your bottom, then lift your hips slowly. Slowly lower.
10 x, 2 sets



3. Slow Marches:
Tighten your abdominals, then slowly lift then lower one foot off the bed/mat.
10 x per leg, twice each (2 sets)



4. Leg Slides:
Tighten your abdominals, slowly bend one knee, then slowly straighten it.
10 x per leg, twice each (2 sets)



Sample Exercises Level 2

Level 2 (seated exercises):

The following exercises can be performed in a chair. Begin with 10 repetitions of each exercise. Then when you are ready, increase to 2 sets of each exercise.



1. Slow Marches:

Sit at the edge of a chair, and tighten your abdominal muscles. Lift one leg up off the floor, slowly lower, then switch sides.

Beginner = back touching chair

Advanced = no back touching chair

10 x each leg, twice (2 sets)



2. Forward Reach:

Sit tall, then reach forward, then lean back, keeping chest “tall”.

Beginner = back touching chair,

Advanced = no back touching chair

10 x, 2 sets



3. One Leg Straight:

Sit tall, with one leg on floor and other leg straight out. Hold 20 seconds per leg, twice **(2 sets)**

Beginner = back touches chair

Advanced = no back touching chair



4. Knees Open and Closed:

Sit tall with feet flat on floor, squeeze knees together then pull them apart.

Advanced = band around knees

10 x, 2 sets



5. Sit to Stand:

Sit at edge of chair, lean forward, then use hands and legs to assist with standing.

Advanced = no assistance with arms as shown in picture



6. Foot on Knee Stretch:

Sit tall on your chair. Slowly, place your foot on your opposite knee. Gently press your knee down. Hold for 30 seconds.

each side, twice (2 sets)

Sample Exercises Level 3

Level 3 (standing holding a stable object):

The following exercises can be done standing, holding a steady object, such as a counter or sink. Begin with 10 repetitions of each exercise. Then when you are ready, increase to 2 sets of each exercise.



- 1. Marches:**
Hold onto sink or counter with both hands. Lift one knee slowly, then slowly lower.
Advanced = stand sideways holding with one hand
10 x each leg, twice (2 sets)



- 2. Side Steps:**
Hold onto sink or counter with both hands. Slowly step to the side.
10 steps one directions, then 10 steps other direction



- 3. Standing Squats:**
Hold onto counter with both hands. Slowly push hips and buttocks back, then bend knees. Chest stays tall
Advanced = hold 5 seconds at the bottom of the squat
10 x, 2 sets



- 4. Standing Slow Calf Raises:**
Hold onto sink or counter. Rise up onto the ball of your feet, then slowly lower down.
10 x, 2 sets



- 5. Standing Calf Stretches, Gentle Lunge:**
Hold onto sink or counter, take a long step back with one foot. Front knee is bent and back knee is straight in “lunge” position. Keep chest up and hips forward. Hold 20 seconds.
2 sets, each leg

Sample Exercises Level 4

Level 4 (Standing Holding an Unstable Object, i.e. Walker or Cane):

The following exercises can be performed holding onto an “unstable object”, such as a walker or cane. Use assistance as needed. Begin with 10 repetitions of each exercise. Then when you are ready, increase to 2 sets of each exercise.



1. Marches with Walker:
Hold onto your walker with both hands. Lift one knee slowly, then slowly lower. **Advanced** = hold onto cane
10 x each leg, twice (2 sets)



2. Side Leg Lifts With Walker:
Hold onto walker. Reach right foot to the side, touching toes to the floor. Squeeze leg tight, then slowly lift foot off floor. Hold for 3 seconds, then lower.
10 x per leg, twice (2 sets)



3. Standing Squats:
Stand with steady chair behind you. Slowly push your hips and buttocks back, then allow knees to bend until your hips touch the chair. Then return to standing.
10 x, 2 sets

4. Standing Slow Calf Raises:
Hold onto walker or cane as needed. Slowly rise onto the ball of your feet, then slowly lower heels to the floor.



5. Standing Calf Stretches, Gentle Lunge:
Hold onto wall or walker as needed. Take a long step back with one foot. Front knee is bent and back knee is straight in “lunge” position. Keep chest up and hips forward, back straight. Hold 30 seconds per leg. **2 sets**

Sample Exercises Level 5

Level 5 (Standing with Supervision or “Spotting” as Needed):

The following exercises can be performed only if you can stand and walk safely, without assistance. Begin with 10 repetitions of each exercise. Then when you are ready, increase to 2 sets of each exercise.



1. Step Ups:

Use assistance (such as a railing, and a spotter) as needed: Place one foot on a step. Shift hips and knee forward, then step up onto the step, placing both feet on step. Return the traveling foot back to the floor.

10 x per foot, twice (2 sets)



2. Standing Side Steps:

Stand facing wall or counter, with hands ready to hold on as needed. Step to the right for 10 steps, then step to the left for 10 steps, back to your original position.

2 sets



3. Wall Squats:

Stand with your back to a smooth wall, and your feet 12-24” away from the wall. Slowly bend your knees, sliding down the wall. Return to standing, keeping the back and hips touching the wall.

Advanced = Hold for 5 seconds, then push back up to standing



5. Standing Lunges, Long Steps:

Stand tall, holding on with one hand as needed. Take a long step forward, slightly bending your back leg. Then push with your front foot, stepping back so your feet are now back together. Keep abdominals tight, so the back does not arch. 10 x per leg, twice. **2 sets**



4. Standing Head Turns:

Stand in a safe place (preferably in the corner), with your feet shoulder width apart. Slowly turn your head to the right, then slowly turn your head to the left. Do not look further than your neck can comfortably turn. 10 x each direction. Now slowly look up, then slowly look down. 10 x each direction.

Advanced = keep feet together



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