



## Exercise for Older Adults

### ● Benefits of Exercise

Exercise is one of the healthiest things you can do for yourself. Think about making a one-month commitment to exercise. If you are able to increase your physical activity for 30 days, you are on your way to making exercise and physical activity a regular, life-long habit.

People of all ages and physical conditions can benefit from exercise and physical activity. Scientific studies show that staying physically active and exercising regularly can help prevent or delay many diseases and disabilities. Scientists find that even moderate exercise and physical activity can improve the health of people who are frail or who have diseases that accompany aging.

Some older adults are afraid exercise will be too strenuous or physical activity will harm them. Yet, studies show that exercise is safe for people of all age groups and older adults hurt their health far more by not exercising.

An inactive lifestyle can cause older people to lose ground in strength, balance, flexibility, and endurance, which keep them healthy and independent. Exercise and physical activity can help older people maintain or partly restore these four areas.

Increasing strength and endurance make it easier to do things like climb stairs or carry groceries. Improving balance helps prevent falls. Being more flexible may speed recovery from injuries. If you make exercise a regular part of your daily routine, it will have a positive impact on your quality of life as you get older.

### ● Safety First

Before beginning an exercise program, you should always check with your doctor first. In general, men over 40 and women over 50 should check with their doctor before doing vigorous activity. Most older adults, regardless of age or condition, will do just fine in increasing their physical activity to a moderate level.

## Consult your doctor if you have:

- any new, undiagnosed symptom
- chest pain
- irregular, rapid, or fluttery heart beat
- severe shortness of breath
- ongoing, significant, and undiagnosed weight loss
- infections, like pneumonia, accompanied by fever which can cause rapid heart beat and dehydration
- an acute blood clot
- a hernia causing symptoms such as pain and discomfort
- foot or ankle sores that won't heal
- persistent pain or problems walking after a fall -- you might have a fracture and not know it
- eye conditions such as bleeding in the retina or a detached retina, after a cataract removal or lens implant, or after laser treatment or other eye surgery.

## If you have had hip repair or replacement surgery:

- check with your doctor before doing lower-body exercises
- don't cross your legs
- don't bend your hips farther than a 90-degree angle
- avoid locking the joints in your legs into a strained position.

## Types of Exercises

Four types of exercise are important for staying healthy and independent: strength exercises, balance exercises, stretching exercises, and endurance exercises.

### ● Strength Exercises

Strength exercises build muscle as well as increase your metabolism, which helps keep your weight and blood sugar in check.



### **Arm Raises** (strengthen your shoulder muscles)

1. Sit in a chair with your back straight.
2. Keep feet flat on the floor even with your shoulders.
3. Hold hand weights straight down at your sides with palms facing inward. (You can use as little as one or two pound hand weights or you can substitute cans of soup. Some people start without weights).
4. Raise both arms to side, shoulder height.
5. Hold the position for 1 second
6. Slowly lower arms to the sides. Pause
7. Repeat 8 to 15 times
8. Rest. Do another set of 8 to 15 repetitions.

### **Chair Stands** (strengthen stomach and thigh muscles)

1. Place pillows against back of chair.
2. Sit in middle or toward front of chair, knees bent, feet flat on floor.
3. Lean back on pillows in half-reclining position, keeping your back and shoulders straight
4. Raise upper body forward until sitting upright, using hands as little as possible -- or not at all, if you can. Your back should no longer lean against the pillows
5. Slowly stand up, using hands as little as possible
6. Slowly sit back down. Keep back and shoulders straight throughout exercise
7. Repeat 8 to 15 times. Rest. Then repeat 8 to 15 times more.

### **Bicep Curls** (strengthen upper-arm muscles)

1. Sit in armless chair. Keep feet flat and even with shoulders.
2. Hold hand weights at sides, arms straight, palms facing toward your body.
3. Slowly bend one elbow, lifting weight toward chest. Be sure to rotate palm to face shoulder while lifting weight.
4. Hold position for 1 second. Slowly lower arm to starting position.
5. Repeat with other arm. Alternate until you have repeated the exercise 8 to 15 times on each side.
6. Rest. Then do another set of 8 to 15 alternating repetitions.

## **Tricep Extensions** (strengthen muscles in the back of the arm)

1. Sit near the front edge of the chair, feet flat on floor and even with shoulders.
2. Hold a weight in one hand, raise that arm straight toward the ceiling, palm facing in.
3. Support arm below the elbow with the other hand.
4. Slowly bend raised arm at elbow, bringing hand weight toward same shoulder
5. Slowly re-straighten arm toward ceiling. Hold position for 1 second
6. Slowly bend arm toward shoulder again
7. Pause, then repeat the bending and straightening until you have done the exercise 8 to 15 times. Repeat 8 to 15 times with your other arm
8. Rest. Then repeat another set of 8 to 15 repetitions on each side.



## **Knee Flexion** (strengthens muscles in the back of the thigh)

1. Stand straight, holding onto table or chair for balance.
2. Slowly bend one knee as far as possible, so foot lifts up behind you. Don't move your upper leg at all; bend your knee only.
3. Hold position
4. Slowly lower foot all the way back down
5. Repeat with other leg
6. Alternate legs until you have 8 to 15 repetitions with each leg
7. Rest. Then do another set of 8 to 15 alternating repetitions.

## **How much, how often?**

Do strength exercises for all your major muscle groups at least twice a week. Don't do strength exercises of the same muscle group on any 2 days in a row. Depending on how fit you are, you might need to start out using as little as 1 or 2 pounds of weight, or no weight at all, to allow your body to adapt to strength exercises.

Lift a minimum of weight the first week, then gradually build up the weight. Starting out with weights that are too heavy can cause injuries. Remember that you have to add gradually a challenging amount of weight in order to benefit from strength exercises.

When doing a strength exercise, do 8 to 15 repetitions in a row. Wait a minute, then do another set of 8 to 15 repetitions in a row of the same exercise.

Take 3 seconds to lift or push a weight into place. Hold the position for 1 second, and take another 3 seconds to lower the weight. Don't let the weight drop -- lowering it slowly is very important. It should feel somewhere between hard and very hard for you to lift the weight. It should not feel very, very hard. If you can't

lift a weight 8 times in a row, it's too heavy for you. You should reduce the amount of weight. If you can lift a weight more than 15 times in a row, it's too light for you. Increase the amount of weight.

## Balance Exercises

Balance exercises build leg muscles and help prevent falls.

**Side Leg Raises** (strengthen muscles at sides of hips and thighs. Strengthening these muscles is important for good balance).



1. Stand straight, directly behind table or chair, feet slightly apart.
2. Hold table or chair for balance.
3. Slowly lift one leg to side, 6 to 12 inches out to the side. Keep your back and both legs straight. Don't point your toes downward -- keep them facing forward. Hold position.
4. Slowly lower leg. Repeat with other leg.
5. Keep back and knees straight throughout exercise.
6. Alternate legs until you repeat exercise 8 to 15 times with each leg.
7. Rest. Do another set of 8 to 15 alternating repetitions.

**Hip Flexion** (strengthens thigh and hip muscles. Strengthening these muscles is important for good balance. Use ankle weights if you are ready).

1. Stand straight; hold onto a table or chair for balance.
2. Slowly bend one knee toward chest, without bending waist or hips.
3. Hold position for 1 second.
4. Slowly lower leg all the way down. Pause.
5. Repeat with other leg.
6. Alternate legs until you have done 8 to 15 repetitions with each leg.
7. Rest; then do another set of 8 to 15 alternating repetitions.
8. Add modifications as you progress.



**Hip Extension** (strengthens buttock and lower-back muscles. Strengthening these muscles is important for good balance. Use ankle weights if you are ready)

1. Stand 12 to 18 inches from a table or chair, feet slightly apart.
2. Bend forward at hips at about 45-degree angle; hold onto a table or chair for balance.
3. Slowly lift one leg straight backwards without bending your knee, pointing your toes, or bending your upper body any farther forward
4. Hold position for 1 second
5. Slowly lower leg. Pause

6. Repeat with other leg
7. Alternate legs until you have done 8 to 15 repetitions with each leg
8. Rest; then do another set of 8 to 15 alternating repetitions
9. Add modifications as you progress.

## How much, how often?

Don't do more than your regularly scheduled strength exercise sessions to incorporate these balance modifications -- remember, it can do more harm than good to do strength exercises too often. Simply do your strength exercises and incorporate these balance techniques as you progress.

## ● Stretching Exercises

Always warm up before stretching exercises by doing them after endurance or strength exercises or by doing some easy walking or arm-pumping first.

Stretching should never cause pain, especially joint pain. Mild discomfort or a mild pulling sensation is normal. Never bounce into a stretch -- make slow steady movements instead.

### Tricep Stretches (lengthens muscles in the back of the upper arm).

1. Hold one end of a towel in right hand.
2. Raise and bend right arm to drape towel down back. Keep your right arm in this position and continue holding onto the towel.
3. Reach behind your lower back and grasp bottom end of towel with left hand
4. Climb left hand progressively higher up towel, which also pulls your right arm down. Continue until your hands touch, or as close as you can comfortably go
5. Reverse positions
6. Repeat 3 to 5 times each session. Hold stretch for 10 to 30 seconds.



### Double Hip Rotation (stretches the outer muscles of hips and thighs. Don't do this exercise if you have had a hip replacement, unless your surgeon approves)

1. Lie on floor on your back, knees bent and feet flat on the floor.
2. Keep shoulders on floor at all times.
3. Keep knees bent together and gently lower legs to one side as far as possible without forcing them
4. Hold position for 10 to 30 seconds
5. Return legs to upright position
6. Repeat toward other side
7. Repeat 3 to 5 times on each side.

## How much, how often?

Stretch after you do your regularly scheduled strength and endurance exercises. If you can't do endurance or strength exercises for some reason, and stretching exercises are the only kind you are able to do, do them at least 3 times a week, for at least 20 minutes each session. Note that stretching exercises, by themselves, don't improve endurance or strength. Do each stretching exercise 3 to 5 times at each session. Slowly stretch into the desired position, as far as possible without pain, and hold the stretch for 10 to 30 seconds. Relax, then repeat, trying to stretch farther.

## ● Endurance Exercises

Endurance exercises are any activity such as walking, jogging, or swimming, that increases your heart rate and breathing for an extended period of time. Build up your endurance gradually, starting with as little as 5 minutes of endurance activities at a time, if you need to.

Examples of moderate endurance activities for the average older adult are listed below. Older adults who have been inactive for a long time will need to work up to these activities gradually.

- walking briskly on a level surface
- swimming
- gardening, mowing, raking
- cycling on a stationary bicycle
- bicycling
- climbing stairs or hills
- shoveling snow
- brisk bicycling up hills
- digging holes

Gradually working your way up is especially important if you have been inactive for a long time.

## Safety tips:

- Stretch after your activities, when your muscles are warm.
- Drink water.
- Dress appropriately for the heat and cold.

## How much, how often?

Your goal is to work your way up to a moderate-to-vigorous level that increases your breathing and heart rate. It should feel somewhat difficult to you. Once you reach your goal, you can divide your exercise into sessions of no less than 10 minutes at a time, if you want to, as long as they add up to a total of at least 30 minutes on most or all days of the week.

## Resources

The National Institute on Aging has developed an exercise video and free guide for older adults. For information on ordering, call 800-222-2225.

The National Library of Medicine's health information web site, [MEDLINEplus.gov](https://medlineplus.gov), contains carefully selected links to Web resources on exercise for seniors.