

# Arkansas PEPPI Peer Leader Manual



## ACKNOWLEDGEMENTS

This PEPPI Manual was adapted and expanded by Eydie Abercrombie, Former State PEPPI Coordinator, Arkansas Department of Health, with permission from author of the original Fitness from 50 Forward manual.

The Arkansas PEPPI Peer Leader Manual was developed through the cooperative effort of many individuals and older adult organizations in Arkansas. We would like to express our appreciation to all the PEPPI Regional Coordinators, PEPPI Peer Leaders, and site directors. Their participation in this program plays a critical role in the success of PEPPI.

Our sincere gratitude is extended to two specific PEPPI Regional Coordinators, Todd Price from CareLink, and Kellie Coleman from Reynolds Institute on Aging for their assistance and support to this program and their efforts in the development of this manual.

Special recognition goes to Dr. William Evans at the Donald W. Reynolds Institute on Aging and Dr. Jennifer Dillaha, in the Center for Health Advancement at the Arkansas Department of Health, who provide leadership and professional expertise in aging and physical activity.

Lastly, a very special thank you goes to Charles Yarrington for demonstrating the exercises in this manual.

The Arkansas Department of Health, in partnership with the Donald W. Reynolds Institute on Aging, provides free training related to PEPPI. This training includes master trainers and peer leaders. In addition, the Arkansas Division of Health will provide evaluation materials and technical assistance. It is our desire to see the PEPPI program expanded throughout the state of Arkansas. If you would like to become a trainer or leader please contact the State PEPPI Coordinator.

Leesa Freasier  
State PEPPI Coordinator  
Arkansas Department of Health  
4815 W. Markham, Slot H-41  
Little Rock, AR. 72205-3867  
(501) 280-4915 or  
[leesa.freasier@arkansas.gov](mailto:leesa.freasier@arkansas.gov)

## Table of Contents

### “Draft”

Subject	Page Number
Introduction. . . . .	5
<b>PEPPI Program Guidelines . . . . .</b>	<b>5</b>
<b>Elements in the Program . . . . .</b>	<b>10</b>
Importance of Resistance or Strength Training . . . . .	12
PEPPI Screening Questionnaire . . . . .	15
Motivating Yourself to Exercise . . . . .	17
Tips for Increasing Your Daily Exercise . . . . .	18
What to Expect When you Exercise . . . . .	19
<b>PEPPI Class Components . . . . .</b>	<b>20</b>
Warm-up . . . . .	20
Range of Motion Exercises . . . . .	20
Stretching Exercises. . . . .	26
Strength Training . . . . .	36
Equipment . . . . .	38
Exercise Intensity Scale . . . . .	40
Strength Exercises . . . . .	41
Balance Exercises . . . . .	52

Endurance . . . . . 55

Cooling Down. . . . . 57

Precautions. . . . . 58

**Fitness Assessments . . . . . 60**

**Appendices . . . . . 93**

    Appendix A – Peer Leader Monthly Report . . . . . 94

    Appendix B – PEPPI Attendance Sheet – Sample . . . . . 95

    Appendix C – PEPPI Daily Log – Sample . . . . . 96

    Appendix D – PEPPI Resources . . . . . 97

    Appendix E – Challenge your Muscles . . . . . 104

    Appendix F – Theraband Guide . . . . . 105

    Appendix G – Tips for Working with Older Adults with  
        Auditory Problems . . . . . 106

    Appendix H – Tips for Working with Older Adults with  
        Auditory Problems . . . . . 107

    Appendix I – Tips for Working with Older Adults with  
        Cognitive Loss . . . . . 108

**Bibliography . . . . . 110**

## INTRODUCTION

Many view growing older as a period of life that brings poor health, more aches and pains, and a loss of strength and energy. These do not occur from normal aging. The frail health and loss of function we often associate with aging, such as difficulty walking long distances, climbing stairs, or carrying groceries, is due largely to a lack of physical activity. Nursing homes are full of individuals who do not have a chronic illness but are too frail and weak to care for themselves. If you want to maintain your independence and improve your quality of life, regular physical activity is one of the most important things you can do.

Peer Exercise Program Promotes Independence (PEPPI) is a physical activity program designed for older adults. Its purpose is to increase physical fitness and independence. It is led by older adults known as peer leaders, who have been trained in the components of PEPPI, including flexibility, balance, strength and endurance exercises. The peer leaders lead exercise classes for their peers in their community. The AR PEPPI program provides older Arkansans with a fun opportunity to exercise correctly, exercise in a safe environment, and increase physical activity. We hope that you'll find this program beneficial, challenging, and fun.

## PEPPI PROGRAM GUIDELINES

### REQUIREMENTS

- PEPPI class must be taught at least 2 times per week
- All peer leaders must attend one PEPPI Peer Leader Training
- Peer Leaders must follow the physical activity program as taught at the training
- Class participants must sign-in every class
- Fitness assessments should be done once a year, preferably every 6 months (includes: flexibility, strength, balance; and aerobic)

### Equipment/Materials

Materials and equipment used in the PEPPI classes are minimal but may include

- PEPPI Peer Leader Manual
- Class attendance sheet
- Resistance bands (at least one per person)
- Fitness assessment items (record forms, stop watches, tape measures/yard sticks)
- A chair for each participant
- Pedometers (optional)
- Physical activity educational component (optional)
- Materials or equipment if an activity other than walking is chosen

### Physical Facility

The physical facility in which PEPPI classes are conducted must have the following

- An accessible entrance to the building
- Accessible restrooms
- An open activity space which facilitates safe, comfortable, effective group interaction
  - Sufficient space for assistive devices (walkers, crutches, etc.) and chairs
  - Space large enough for movement
  - Adequate acoustics so the instructor can be easily heard
  - Clutter-free with adequate lighting to reduce chances of falls or other injuries
  - Sturdy chairs that do not slide, preferably armless; no wheels

### Personnel and Training

- PEPPI classes must be conducted by trained peer leaders
- To be an approved PEPPI Peer Leader, a person must have completed one approved PEPPI Peer Leader Workshop

### Safety and Quality Assurance

Peer Leaders must conduct this program in accordance with PEPPI manuals and agree not to change the program in any way. Peer Leaders must understand and remain within the limitations of their role. The following guidelines apply

- Follow a “no-touch” policy - do not move another person’s limbs

- Never give medical advice, or answer specific medical questions
- Do not promote unproven remedies
- Do not provide individual physical activity programs
- Teach safety principles to class participants
  - If a particular activity is painful, slow down the motion and use less resistance
  - If participant is getting tired, slow down
  - Avoid vigorous activity of inflamed joints
- Monitor individuals for activity modifications, painful grimacing, flushed faces and other signs of overexertion and for inaccurate physical activity movements.

### Physician Consent/Health Concerns

We do not recommend that each class participant be required to obtain a signed physicians consent form to participate in a PEPPI class. Research has shown that this is a barrier to physical activity for other adults. A medical screen questionnaire is required of all class participants. The screening questionnaire recommends that if a participant answers “yes” to any of the questions that he/she should talk to their doctor or health care provider before beginning the class.

## RESPONSIBILITIES

### Arkansas Department of Health

PEPPI is a program offered through the Arkansas Department of Health with partnership of the Donald W. Reynolds Institute on Aging. Within the Arkansas Department of Health, the State PEPPI Coordinator oversees the PEPPI program.

Suggestions for changes in the program should be submitted to the Department of Health’s State PEPPI Coordinator, who arranges for a review of the program. The program materials are reviewed and revised periodically.

### Regional/County Level

Most regions and/or counties have a Regional PEPPI Coordinator to coordinate PEPPI program for that area. There may also be Master Trainers in your area that report to the Regional Coordinators.

## POSITION DESCRIPTION

### PEPPI PEER LEADER

Basic Function: to conduct PEPPI classes

#### Duties and Responsibilities

- Makes commitment to teach PEPPI class
- Participates in pre-class planning and activities to an extent, which time and physical ability will allow.
  - Publicity
  - Scheduling use of facility
  - Obtaining class materials
- Conducts each class session within allotted time in accordance with the PEPPI Peer Leader's Manual, without changes, deletions and/or additions.
  - Establishes guidelines for participants
    - Attendance at every class and active participation during class will be strongly encouraged
    - Classes will start and end on time
    - Classes will be held at least twice a week
    - Unproven remedies will not be promoted
- Answers to specific medical questions, specific treatment advice, and individualized physical activity program will not be provided
  - Participants need to observe safety principles
    - If a particular activity is painful, slow down the motions and use less resistance.
    - Two hour pain rule
    - If getting tired slow down
    - Avoid vigorous activity if inflamed joints
    - Encourage participant to move at their own pace
  - Monitors the safety of participant during class:
    - Activities done correctly
    - Observations of participants for painful grimacing, flushed face, and other signs of overexertion
  - Takes attendance at every class
  - Communicates problems, concerns and/or suggestions for change to coordinator

- Returns attendance list and reports to the regional coordinator or state coordinator monthly.

### Time Commitment

- Attendance at a 1-day training workshop
- Approximately four to six hour preparation time
- One hour teaching time at least twice a week

### Qualifications/Abilities

- Successful completion of PEPPI Peer Leader Training Workshop, resulting in:
  - Knowledge of PEPPI activities
  - Competence in demonstrating PEPPI activities
  - Ability to work with groups
- Other qualifications or desirable abilities are:
  - Empathy, gained through personal or professional experience with older adults who are just beginning physical activities
  - Interest in working with groups
  - Strong belief in the value of regular physical activity

## RELATIONSHIPS

Reports to the Regional PEPPI Coordinator; in the absence of a Regional Coordinator, peer leaders will report to State Coordinator.

## ELEMENTS IN THE PROGRAM

### Screening Questionnaire

Even though this strength training program is not too strenuous, some people should not participate without their physician's clearance. Every potential participant should first complete the Screening Questionnaire on page 15. Anyone who answers "yes" to any question should not proceed with the exercise program until he or she has written permission from a physician.

### Warming Up

Make sure participants warm up and stretch properly. Remind participants why it is important to warm up. The warm-up prepares the individual for more vigorous exercises. The warm-up includes large movements, range of motion, and mild stretching. Check that participants are stretching properly and feeling a pull, but not pain.

### Strength Training Exercises

Strength training can be performed with weights or resistance latex bands. For strength training exercises, each participant in your class may be at a different level. You will need to help them find the level of weight or resistance that is best for them based on their perceived level of exertion by using the Exercise Intensity Scale on page 40. The weight or resistance should be adjusted as needed. Initially, the amount of weight or resistance should be based on the amount of effort required to do 3 sets of 5 repetitions of an exercise, resting for a few minutes between sets. Most individuals will probably start with weights between 2 and 5 pound, or a light to medium band, unless they have been exercising before.

Encourage participants but do not push them beyond their perceived capabilities. Set up an environment where participants are encouraged to do their personal best, but where there is no pressure to keep up with the rest of the class or compete against another participant.

When performing strength training exercises participants should rest 1 to 2 seconds between repetitions, 1 to 2 minutes between sets, and at least 2 to 3 minutes between different exercises. Each lift should take 8 seconds: 2 seconds up, 2 seconds hold, and 4 seconds down. Participants should reevaluate the amount of weight they are lifting every 2 weeks.

## Cooling Down

Make sure nobody leaves the class without an adequate cool-down. Stretching is recommended following the cool-down. This is also a good time to do the balance exercises. Caution participants not to drive immediately, but to wait until they are no longer in a relaxed state that could make them less alert than they should be when driving.

## THE IMPORTANCE OF RESISTANCE OR STRENGTH TRAINING

Do you want to cut your risk of developing diabetes, heart disease, and osteoporosis? Do you want to shed unwanted pounds and inches? You can—by devoting some time each week to a program of weight resistance and walking.

Strengthening your muscles makes sure that your muscles will be able to do what you want them to do! We've all seen many older adults who have problems rising from a chair, reaching for something on a shelf, carrying grocery bags, or just walking without shuffling. Much of this inability to get around is due to lack of exercise. Exercise is necessary to maintain muscle mass. Years of inactivity cause the body to lose muscle mass and gain fat. This program can increase the amount of muscle and decrease the amount of fat on your body.

Resistance training is simply a technical name for the process of building muscles by working out against resistance by lifting weights or working with machines or special latex bands. You don't need a fancy gym or expensive equipment to gain these benefits. Some exercises require no equipment (you work against the weight of your own body), for the rest you need nothing more than exercise bands, some milk jugs or bleach bottles filled with water or sand, and some inexpensive add-on weights to fasten around your ankles. As you grow stronger, you may want to use a set of hand weights that will increase the amount of resistance.

As you get into the program, be sure to tell others about strength training and the difference it is making in your life.

### What happens to My Muscles as I Get Older?

As we age, the number of muscle cells in our bodies begins to decrease. No one knows why. This decline begins relatively early; 30-year-olds have less muscle tissue than 20-year-olds. Starting at about age 50, men lose muscle strength at the rate of 12 to 14 percent per decade, and strength levels in women start to decline slightly earlier.

### How will I Benefit from Muscle-Strengthening Exercises?

Strength training can help you stay independent. Think of your muscles as your body's engine, which receives fuel (oxygen) from your heart and

lungs. Your muscles have to be strong enough to help you get around so you can do everyday tasks, such as climbing stairs or carrying groceries.

During the beginning phases of this program, much of the improvement in strength results from neuromuscular changes. That means your brain will learn to stimulate more of your muscle cells and to do so more efficiently. Muscle cells grow or shrink, depending on our level of activity. If we don't use our muscles, they shrink; if we exercise them, they get bigger and stronger.

As we age, our metabolism slows down. We don't need as much food as we did in our youth, but many of us continue to eat the same amount, so we gain weight and excess fat. Muscle tissue uses more calories than fat tissue just to maintain itself. Strength training will increase the amount of muscle in your body, so you will probably lose weight if you don't change the amount you eat.

For a long time, it was generally thought that exercise had to be an intense, sweaty, heart-pounding experience. More recently, an enormous amount of research has proven the benefits of walking running, cycling, and other sports that improve the health of your heart, blood vessels, and lungs (cardiorespiratory fitness). This program includes walking for its cardiorespiratory benefits, but walking does not improve muscle power or reduce age related loss of muscle. Resistance training does.

Resistance training will make your muscles stronger. So anything that requires strength, such as climbing stairs, getting out of a chair, pushing a vacuum cleaner, or carrying groceries, will feel much easier to you.

The program described in the manual can help you:

- Improve your balance and coordination
- Decrease your risk of falling or injury
- Improve your cardiorespiratory fitness
- Increase your activity level and flexibility
- Prevent low back pain and osteoporosis
- Erase the effects of years of inactivity
- Reduce stress
- Be motivated to participate in other healthy activities
- Improve digestion and prevent constipation
- Stay independent by improving your ability to perform daily tasks

- Feel better physically and emotionally
- Think more clearly and effectively
- Have more energy
- Sleep better
- Look better and feel better about yourself
- Meet new people, and
- HAVE FUN!

These are certainly good reasons for beginning this program, but you may think you are too out of shape or too old to participate. That simply isn't true for most people. Even people with arthritis can do exercise so long as they move within their range of motion that is free from pain. However, just to make sure this program is right for you, please complete the Screening Questionnaire.

## PEPPI Screening Questionnaire

Even though this strength training program is not overly strenuous, some people should not participate without checking with their doctor first. Please answer the following statements. If you answer “yes” to any of them you should have a full medical examination before starting the program.

- |   | Yes   | No    |
|---|-------|-------|
| 1. I get chest pains while at rest and/or during exertion (if a doctor has diagnosed these chest pains and told you it is safe for you to exercise, you do not have to answer “yes”). | _____ | _____ |
| 2. I have had a heart attack within the last year.  | _____ | _____ |
| 3. I have high blood pressure (or my last blood pressure reading was more than 150/100).  | _____ | _____ |
| 4. I have diabetes. (If your diabetes is being treated and your health care team has told you it is safe for you to exercise, you do not have to answer “yes.”)                       | _____ | _____ |
| 5. I am short of breath after extremely mild exertion and sometimes even at rest or at night in bed.  | _____ | _____ |
| 6. I have ulcerated wounds or cuts on my feet that don't seem to heal.  | _____ | _____ |
| 7. I have lost 10 pounds or more in the past 6 months without trying.   | _____ | _____ |
| 8. I get pain in my buttocks or the back of my legs (thighs or calves) when I walk.   | _____ | _____ |

- |  | Yes   | No    |
|--|-------|-------|
| 9. While at rest, I often have fast irregular heartbeats or very slow heartbeats. (A low heart rate can be a sign of an efficient and well-conditioned heart, but a very low rate can also mean an almost completely blocked blood vessel to the heart.)                       | _____ | _____ |
| 10. I am currently being treated for a heart or circulatory condition, such as vascular disease, stroke, angina, hypertension (high blood pressure), congestive heart failure, poor circulation to the legs, vascular heart disease, blood clots, or pulmonary (lung) disease. | _____ | _____ |
| 11. As an adult, I have fractured my hip, spine, or wrist.   | _____ | _____ |
| 12. I have fallen more than twice in the past year (for any reason.)   | _____ | _____ |

Even if you checked “no” to all 12 questions, the American College of Sports Medicine encourages all people over age 35 to have a medical examination before they begin a vigorous training effort.

## MOTIVATING YOURSELF TO EXERCISE

1. Set goals you can reach in a reasonable time frame. How much progress do you expect in a month? Will you increase your walk from a half-mile to a mile? Revise your goals as you progress.
2. Schedule a specific time for exercise. This is the best way to make it part of your everyday life. Consider it as important as a doctor's appointment.
3. Reward yourself when you meet a goal. Treat yourself to a movie or a new CD.
4. Make exercise fun. Exercise to your favorite music.
5. Get involved in active community events. Participate in a charity walk and get some friends to sign up with you. A good cause really motivates you to walk.
6. Keep a record of your progress. You'll be amazed at how much progress you can make in 6 weeks.
7. Exercise with a friend or group. You'll motivate each other.
8. Change your exercise and walking routes so you don't get bored.

### Remember:

- Exercise brightens your mood, relieves stress, and lifts depression.
- Exercise makes you stronger. You'll have more energy and feel healthier after you exercise. Skip it and you'll feel tired and sluggish.
- Exercise can help you to work out problems by clearing your mind.
- Exercise burns calories. Walking a mile and a half at a comfortable pace burns about 150 calories. You'll be lucky to burn 30 calories watching television for the same amount of time.
- Exercise helps you look and feel better.
- Exercise helps you sleep better, and you are less likely to have problems with insomnia.

## TIPS FOR INCREASING YOUR DAILY EXERCISE

1. Take the stairs instead of an elevator.
2. Hide your remote control—get up to change the channel.
3. Park at the far end of the parking lot.
4. Use a hand basket instead of a grocery cart when shopping for just a few items.
5. Walk short distances instead of driving.

## WHAT TO EXPECT WHEN YOU EXERCISE

### Normal Reactions to Exercise

1. Breathing gets faster and deeper
2. Heart rate increases
3. May be able to hear or feel your heartbeat
4. Mild to moderate perspiration
5. Mild muscle aches or tenderness (especially when you first start)

### How Will I Know If I Am Overdoing It?

1. Severe shortness of breath, wheezing, or coughing
2. Sudden lack of coordination
3. Chest pain, pressure, or tightness
4. Lightheadedness, dizziness, confusion, tendency to slur words, or faintness
5. Cramps, severe pain, or severe muscle ache
6. Nausea
7. Extremely heavy perspiration
8. Feeling very hot

## PEPPI CLASS COMPONENTS

### WARM-UP

A warm-up is an essential part of this program. Make sure you warm up before walking or strength building. You can warm up by doing one set of your resistance exercises without weights or bands or by walking slowly for 5 to 10-minutes before beginning your faster walking program. Include the range of motion exercises listed in this manual in your warm-up.

By warming up your muscles, you make sure they are getting plenty of blood to bring them all the oxygen they need. A good oxygen supply helps you complete your exercise program without straining. Getting warmed up have the following benefits:

- It opens the airways in your lungs so that oxygen can get into your system.
- It increases your heart rate slowly and helps blood circulate through your body.
- It gradually increases the temperature of your muscles, tendons, and joint fluids. This reduces the risk of injury.

Warm-up suggestions:

Walk to music for your 5 to 10 minutes of warm-up activity.

Play “Follow the Leader”. Each person leads the group in a movement, such as stepping side to side, a dance step, walking forward for 5 steps and backward for 5 steps, or tapping the toe of each foot in front of you.

### RANGE OF MOTION

Moving the joint through its full range will decrease soreness and stiffness. Range of motion exercises increase blood flow and lubricate the joint area. Some older adults have pain from arthritis and don't want to move the joint. This is the worst thing to happen because when it is not moved it can hurt more in the long run. The main difference between stretching and range of motion exercises is that stretching exercises are held for a short time; usually 10 – 15 seconds and range of motion exercises are continual

movement. The movements should be slow and controlled and take the joint through your normal range of motion. Never force it to go beyond your level of comfort. Range of motion movements should not cause pain. If you feel pain, do not do this movement.

### Ten Basic Range of Motion Exercises

1. Chin to chest
  - Sitting up straight or standing, take your chin down towards your chest and raise your head back up with your eyes facing forward.
  - Repeat 2 to 4 times
  - DO NOT BEND YOUR NECK BACKWARDS TO LOOK UP



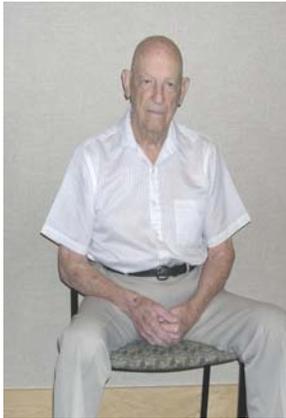
**Beginning of Exercise**



**End of Exercise**

2. Head tilts

- Sitting up straight or standing, look forward, bend your head to the side like you are trying to touch your ear to your shoulder
- Keep your shoulders down
- Do not look up or down just straight forward.
- Bring your head upright and bend to the other side.
- Repeat 2 times to each side.



**Beginning of Exercise**



**End of Exercise**

3. Shoulder rolls

- Sitting up straight or standing, roll your shoulders backwards in large circles
- Repeat 5 times forward and reverse and go backwards 5 times



4. Shoulder shrugs

- Sitting up straight or standing, raise your shoulders up towards your ears
- Leave your arms straight down by your side
- Bring back down and relax
- Repeat 5 times



5. Shoulder blade squeezes

- Sitting up straight or standing, keep your arms by your side with bent elbows.
- Bring your shoulders backwards like you were going to squeeze a grapefruit in the middle of your back.
- Come back to starting position.
- Repeat 5 times



6. Wrist circles

- Bring both arms out in front of you
- Make a circle with your wrists to the right 5 times
- Repeat with wrists in the opposite direction 5 times

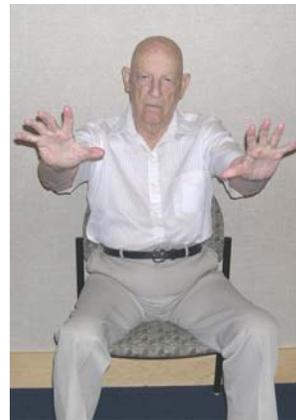


7. Fingers

- With both arms out in front of you, open your fingers wide and close them.
- Repeat 5 times



**Beginning of Exercise**



**End of Exercise**

8. Hip and Knees

- Either sitting or standing, lift one knee towards your chest and place back on the floor.
- Do the exercise using the other leg.
- Repeat 4 times with the right leg and 4 times with the left leg



**Beginning of Exercise**



**End of Exercise**

9. Back

- Sitting all the way back in the chair, knees and feet apart, bend forward with hands on your knees.
- As you come up try to imagine pushing through your belly button to the back of the chair, pushing each part of your back slowly to the chair.

Reminder:

- If you have Osteoporosis, DO NOT BEND FORWARD.



**Beginning of Exercise**



**End of Exercise**

10. Ankle circles

- Sit in the chair or stand holding onto a chair.
- Keep your back straight.
- Lift your right leg slightly off the floor
- Make a circle in the air with your toes 5 times to the right
- Switch directions and do 5 circles to the left.
- Do the exercise on with your left leg



## STRETCHING

Stretching has many benefits. It helps the body move more freely. When we don't stretch, our muscles get shorter and the connective tissue between the joints (tendons and ligaments) becomes weaker. The end result is general stiffness. Over time, stretching lengthens the muscles and creates stronger tendons and ligaments. It helps prevent stiffness and injuries to joints and muscles.

Stretching is also relaxing, mentally as well as physically. We predict it will only take a few stretching sessions to convince you of its value.

### Stretching Do's and Don'ts

1. NEVER stretch cold unused muscles; warm up first
2. Stretch at least after the workout but preferably before.
3. Use smooth, gentle movement, never jerk or bounce. Control your stretches. Keep your body relaxed. Rushing your movements can cause injury.
4. Hold your stretches for at least 10 seconds.
5. DO NOT HOLD YOUR BREATH; breathe normally.

6. You should feel some stretch or pull, but NOT PAIN. If you feel pain, you are stretching too far too fast. Stretching should feel good.

Do each stretch 1 to 2 times on each side AND hold each stretch at least 10 seconds.

### Stretching suggestions

- Ask one person in the class to count to 10 seconds out loud when you are holding the stretch.
- Each person in the group takes turns counting to 10 seconds out loud when you are holding a stretch.
- The entire group counts to 10 seconds out loud for each stretch.

### Ten Basic Stretches

#### 1. Neck Stretch

- With your shoulders facing forward, turn your head gently to one side as if to look over your right shoulder.
- Hold for 5 to 10 seconds
- Perform the exercise again on the left side
- Repeat 2 to 4 times on each side



**Beginning of Exercise**

**End of Exercise**

Arrow indicates where you should feel the stretch

2. Shoulder stretch

- Put your left arm straight out in front of you. Palm down
- Move your left arm across your chest. Keep your left arm straight
- Put your right hand below or above your left elbow to gently hold your left arm in place
- Keep your head facing forward throughout the exercise
- Hold for 10 seconds
- Do the same exercise stretching your right arm across your body
- Repeat once more on each side

Reminders:

- The arm across your body should be straight
- Stretch to your own ability
- You should feel the stretch in your shoulder and upper back



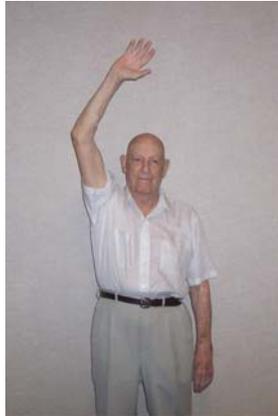
**Beginning of Exercise**

**End of Exercise**

Arrow indicates where you should feel the stretch

3. Side Stretch

- Stand with your feet shoulder-width apart and reach toward the ceiling with your right hand. Bend slightly toward your left side. You should feel the stretch in the muscles along your right side
- Hold for 10 seconds
- Perform the exercise again with your left arm
- Repeat 2 to 4 times on each side



**Beginning of Exercise**



**End of Exercise**

Arrow indicates where you should feel the stretch

4. Pat Yourself on the Back Stretch

- Place your right hand on your right shoulder or pat yourself on the back.
- Place your left hand just below your right elbow and push arm backwards until you feel a stretch in the back of the right arm.
- Hold for 10 seconds
- Do the exercise on the left side
- Repeat once more on each side

Reminders:

- Stretch to your own ability
- You should feel the stretch in the back of your upper arm.



**Beginning of Exercise**

**End of Exercise**

Arrow indicates where you should feel the stretch

5. Calf Stretch

- Place your hands on your hips. Take a big step forward with your right foot and bend your right knee slightly.
- Press your left heel to the floor until you feel a light stretch in the back of your left heel and leg
- Hold for 10 seconds
- Do the exercise with your left leg
- Repeat once more on each leg

Reminders:

- Do NOT let your front knee go past your toes.
- Keep your back heel down on the floor.
- You should feel the stretch in the calf muscle (between the back of the knee and the ankle) on the straight leg behind.



**Beginning of Exercise**

**End of Exercise**

Arrow indicates where you should feel the stretch

6. Lower Calf Stretch

- Place your hands on your hips. Take a big step forward with your right foot and bend your front knee slightly.
- Press your left heel to the floor and bend the back knee slightly until you feel a light stretch in the back of your left heel and leg
- Hold for 10 seconds
- Repeat once on each side

Reminders:

- Remember to bend both knees
- Do NOT let your bent knees go past your toes.
- Keep your back heel down on the floor.



**Beginning of Exercise**

**End of Exercise**

Arrow indicates where you should feel the stretch

## 7. Hamstring Stretch

- Sit in a straight back chair with no arms. Do not sit all the way back. Move to the front of the seat
- Place your right leg straight out in front of you
- Hold onto the side of your chair and lean slightly forward until you feel a stretch in the back of the right leg
- Hold for 10 seconds
- Do the exercise on the left leg
- Repeat once more on each side

### Reminders:

- Make sure you are sitting on the front of the chair
- Make sure the leg in front is straight
- You should feel the stretch in the back of your leg
- If you have Osteoporosis – **DO NOT LEAN FORWARD.** Sit all the way back in the chair. Lift your leg straight out in front of you with your leg straight to the same height of the chair or higher if possible.



**Beginning of Exercise**



**End of Exercise**

## 8. Thigh Stretch

- Sit on the edge of the front edge of the chair and turn your whole body to the left. Place your right foot two or three shoe lengths behind the left foot. Keep your right toe down
- Hold onto the chair for support
- You should feel a stretch in the front of the right leg above the knee
- To feel more stretch lean your body back slightly or place your right leg back farther
- Hold for 10 seconds
- Do the stretch facing the other direction
- Repeat once on each side

### Reminder:

- You should feel the stretch in the front of the thigh
- For a bigger stretch, grab your sock, pant leg or ankle and lift your heel towards your rear end
- Another option would be to stand and grab hold of your ankle and pull your heel towards your rear end



**Beginning of Exercise**



**End of Exercise**

Arrow indicates where you should feel the stretch

9. Back Stretch

- Sit in a chair with your feet and knees apart. Place your hands on your knees. Slowly bend forward until you feel the stretch in your back. Keep your neck relaxed.
- Do not let your head drop below your heart.
- Hold for a 10 seconds.
- Repeat 2 to 4 times.

Reminder:

- You should support your back with your hands on your knees.
- If you have Osteoporosis, do not do this stretch.



**Beginning of Exercise**



**End of Exercise**

## 10. Side Rotation

- Sit all the way back in your chair with your feet flat on the floor.
- Place both hands on the outside of your right leg.
- Turn your upper body to the right and look over your right shoulder.
- You should feel a stretch in your left side.



## STRENGTH TRAINING

### Dos and Don'ts

#### DO

- Alternate muscle groups if you do strength training every day. Muscles need one day off to recover. Exercise the upper-body muscles one day and the lower-body muscles the next. If you work out every other day, it's fine to do all the exercises in one session.
- Begin each session with several repetitions without a weight or band. This helps stretch and warm up the muscle group.
- Perform all strength-building movements slowly, making sure the targeted joint moves through its entire range of motion. People with arthritis should exercise only in the range of motion that is free from pain.
- Breathe properly. With each repetition, inhale before you lift, exhale as you lift, and inhale again as you slowly lower the weight or band to its beginning position.
- Take your time. Each repetition should take 8 seconds to complete. Rest for a minute or two between different types of exercise.

- Retest your strength periodically so you can readjust the amount of weight or resistance band you are using.
- Stay with the appropriate weight. The appropriate weight for you is the amount you can lift between 8 and 12 times, after which your muscles are too tired to continue.
- Keep a chart of weekly workouts so you can monitor your progress.

## DON'T

- Swing a weight fast or bounce at the end of the movement. Control your weights.
- Try to speed up a workout. Instead, count 2 seconds up, 2 seconds hold, and 4 seconds down for each exercise. Exercising more quickly can lead to injury.
- Hold your breath. Holding your breath increases pressure in your chest; this can impair the normal flow of blood through the heart and cause dizziness or fainting. Breathe with a normal rhythm (see above).
- Exercise the same muscle groups more than once every other day. You must allow your muscles enough time to recover. If you do both upper body and lower body exercises on the same day, you need to take a day off before exercising the same muscles again.
- Wrap exercise bands around your hands too tightly. This may cause discomfort and circulation problems.
- Use bands with tears or holes. Using bands that are not in good condition can cause breakage and result in injury.
- Grip hand weights too tight.
- Substitute lighter for heavier weights and simply do more repetitions.
- Substitute heavier weights, thinking you can just do fewer repetitions and speed up your workout.

After you have been doing the PEPPI program for a while, you may want to combine walking and strength training into one longer daily session. This is a safe and efficient way to work out because you have to do only one warm-up, one cool-down, and one set of stretches. If you walk first, your muscles will be fully warmed up before you do the strength training exercises and you will be less likely to injure yourself. We recommend that you do strength training at least twice a week and walk as many

days of the week as possible. Try to walk at least 3 to 5 days a week if you can.

## Equipment

### Weights

You can use homemade or commercial weights. For all upper-body strength training, make weights using containers with handles (milk jugs or bleach bottles). They are generally safe because the handles are easy to hold onto. You can vary the weight by adding more or less sand or water to the containers. Weigh your homemade weights on your bathroom scale. You can also buy weights called hand weights for the upper-body at sporting goods stores or discount department stores.

For lower-body strength training, ankle weight cuffs are useful. They come in different weights or some are adjustable with pouches or pockets so that you can add individual weights. They usually have a velcro fastener or strap. You can also use some of these ankle weights for upper body exercises by attaching them around your wrists. For homemade lower-body weights, you can fill sturdy plastic bags with sand and strap around your ankles with rope or a long scarf. The most important thing is that you have weights that are adjustable so you can increase the workload, as you get stronger.

If you buy weights, you will need a series of weights that allows you to increase the amount you lift every 2 weeks. As a faithful exerciser, expect to increase the amount of weight you can lift up to 150 percent. That means that if you can lift 25 pounds initially, you should buy weights up to 65 pounds in 5- or 10-pound increments.

### Latex Bands

These bands provide resistance and can be used instead of weights for strength training. Generally, darker-colored bands provide more resistance than lighter-colored bands (see Appendix G). Be aware that different manufacturers use different colors for the same resistance level. Check to make sure you are using the right level. Bands are available at sporting goods stores and some discount department stores.

Choose a band that feels somewhat difficult – 15 to 16 on the Exercise Intensity Scale. You may need to choose a different band for each exercise because some muscle groups are stronger than others.

When using a band, try to keep it spread to its full width so it doesn't slide up your legs or dig into your hands. You should wear socks that are long enough to prevent the band from pulling leg hair. Rings and sharp nails can damage latex bands.

Consider the following guidelines when exercising

- Maintain good posture and correct body position
- Pull in your abdominal (stomach) muscles and relax your knees when you are doing standing exercises
- Control the band by resisting it. Try to pull it tight, not letting a lot of slack in the band during the exercise
- Do not allow your limbs to move freely and not controlled
- Work your muscles through their full range of motion
- Do NOT overextend or lock your joints (knees & elbows)
- Make sure your position would not allow the band to snap toward your head if you accidentally let go
- Breathe while you exercise
- Follow the instructions for each exercise in this manual
- Store your bands flat and untied in a box or dark area. Do not store them in direct sunlight or exposed to heat.
- If your bands get sticky, sprinkle them with talcum powder.

## EXERCISE INTENSITY SCALE

As you perform the weight resistance exercises, it is important that you work hard, but not too hard. Use the Exercise Intensity Scale (EIA) to help measure your level of effort.

### Rank Your Level of Exertion

	6	None
	7	Very, very light
	8	
	9	Very light
	10	
	11	Fairly light
WALKING EXERCISE	12	
WALKING EXERCISE	13	Somewhat hard – able to talk easily
	14	
STRENGTH TRAINING	15	Hard – able to lift 8 to 10 times without becoming fatigued
STRENGTH TRAINING	16	Somewhat hard – able to talk easily
	17	Very hard
	18	
	19	Very, very hard – can lift once or can't lift
	20	

The Exercise Intensity Scale helps you to decide if you are exercising at a level that is too hard or too light for you. You may notice that you have more strength on one side of your body than the other. A “6” rating on the scale means that the weight you are lifting requires no effort at all; a rating of “20” means it requires you to make a supreme effort. For best results, you should be lifting a weight that causes you to exert yourself at the “15” level.

## STRENGTH/RESISTANCE EXERCISES

- Rest 1 to 2 seconds between repetitions.
- Rest 1 to 2 minutes between sets.
- Rest at least 2 to 3 minutes between different exercises.
- Take 8 seconds for each lift: 2 seconds up, hold for 2 seconds, and 4 seconds down.
- Reevaluate the amount of weight you are lifting every 2 weeks.

### Rising from the Floor

1. If possible, place a chair nearby in case you need extra support.
2. Roll to one side and use your arms to help push yourself to an upright sitting position.
3. Wait a few seconds or until any dizziness disappears.
4. Turn to one side and place both hands on the floor or the seat of the chair.
5. Shift your weight to one-knee and place your other foot flat on the floor. (If one knee is weak due to injury, use the opposite knee.)
6. Push yourself upright by pushing with one hand against the floor and the other against your knee or a chair.

The next pages demonstrate the PEPPI strength exercises. If you do these exercises on the same day, do them in this exact order. If you want to separate the upper body and lower body on separate days (until you get used to them) there are indications of what is upper and lower exercises.

## Strength Exercises

### 1. Military Press (upper body)



**Beginning of Exercise**



**End of Exercise**

Purpose: This exercise strengthens your shoulder and upper back muscles.

- Sit on band. Take the end of bands in each hand.
- Slowly straighten arms upward overhead until arms are straight.
- Lower the arms back down and repeat 8 to 12 times.
- Rest and repeat.

Reminder:

- Do NOT lock out your elbows when your arms are straight.
- You should feel this exercise in your shoulders and your upper back.
- Do NOT let your elbows drop lower than your shoulders when you are in the starting position.

## 2. Modified Squat (lower body)



**Beginning of Exercise**



**End of Exercise**

Purpose: This exercise increases the strength in muscles used for getting out of chairs and for walking.

- Stand up straight with your feet shoulder-width apart and your toes pointing outward.
- Slowly bend your knees, keeping your body weight over your toes.
- Return to your starting, upright posture.
- Work up to 3 sets of 8 to 12 repetitions.
- When 12 repetitions get easy, add more repetitions.

Reminder:

- DO NOT let your knees go out further than your toes.
- Keep your heels on the floor.
- Make sure your feet are shoulder-width apart.

### 3. Chest Press (upper body)



**Beginning of Exercise**



**End of Exercise**

Purpose: Strengthen chest muscles

- Stand or sit in a chair and keep your feet flat on the floor. Put the band behind your back at armpit height. Grip one end of the band in each hand.
- Point your elbows out to the side so your arms create the letter “L”.
- Slowly straighten your arms out in front of you. Your arms should be level with your shoulder.
- Slowly bend your arms back to your chest.
- Repeat 8 to 12 times. Rest. Repeat again.

Reminder:

- Do NOT lock your arms when they are straight.
- Keep your palms down.

#### 4. Arm Curl (upper body)



**Beginning of Exercise**



**End of Exercise**

Purpose: This exercise strengthens the muscles needed for lifting (such as lifting bags of groceries).

- Sitting in a chair, place one end of the band under your right foot.
- Hold the other end with your right hand, palm facing up.
- Bend your elbow until your hand is at shoulder height.
- Count 2 seconds up, hold for 2 seconds, and 4 seconds down.
- Work up to 3 sets of 8 to 12 repetitions using each arm.
- Rest a few minutes between sets.
- When 12 repetitions get easy, use a band with more resistance or shorten the band.

Reminder:

- Keep your palms up.
- Keep your elbow on your knee.

5. Calf Raise (lower body)



**Beginning of Exercise**



**End of Exercise**

Purpose: This exercise strengthens the leg muscles that you use for walking and maintaining your balance while standing.

- Stand on the balls of your feet.
- Rise on your toes, then slowly lower your heels as far as you can.
- Keep your breathing even throughout this routine.
- Count 2 seconds down, hold for 2 seconds, and 4 seconds up.
- Work up to 3 sets of 8 to 12 repetitions. Rest a few minutes between sets.

## 6. Upper-Arm – Triceps (upper body)



**Beginning of Exercise**



**End of Exercise**

**Purpose:** This exercise strengthens the triceps and shoulder muscles. You use these muscles for pushing activities, such as using your arms to get out of a chair.

- While seated, put the resistance band around your waist and grip one end of the latex band in each hand. Place your right hand on your left hip.
- Using your left hand, lift the band over your head so it is behind your back.
- Your left arm is raised and bent, with the left elbow pointing forward and your left hand behind your left ear.
- Slowly extend your left hand up and out in front of your face.
- Keep the palm towards your head and your elbow in front of you, level with your ear.
- Keep the upper part of your arm, AND your elbow still.
- Bend and straighten from your elbow.
- Count 2 seconds up, hold for 2 seconds, and 4 seconds down.
- Repeat 8 to 12 times. Rest and repeat again. Switch arms.

**Reminder:**

- It should be similar to banging a hammer into a wall in front of you.
- Keep your elbow still. Your elbow should NOT move, only your lower arm.

## 7. Knee Flexion – Hamstrings (lower body)



**Beginning of Exercise**

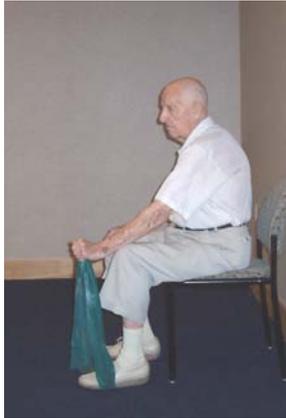


**End of Exercise**

Purpose: This exercise strengthens the hamstring muscles. These muscles are important for walking and maintaining your balance while standing.

- Loop the resistance band around your right ankle. Stand on both ends of the band with your left foot. Hold the back of a chair or a counter support.
- Lift your right foot behind you until it is at knee level.
- Lower your foot to the starting position.
- It is important to keep your knees close together. If the leg you are lifting comes forward, you will exercise the muscles in front of your leg instead of the ones in back.
- Count 2 seconds up, hold for 2 seconds, and 4 seconds down.
- Work up to 3 sets of 8 to 12 repetitions.
- When 12 repetitions get easy, increase your band resistance.

## 8. Shoulder Raises (upper body)



**Beginning of Exercise**



**End of Exercise**

**Purpose:** This exercise increases the strength of your deltoid (shoulder) muscles. Doing this exercise will make it easier for you to get objects from your kitchen cupboards.

- Step on one end of your band and grab the other end with the nearer hand, with your palm facing forward.
- Raise your hand forward to shoulder height.
- Count 2 seconds up, hold for 2 seconds, and 4 seconds down.
- Work up to 3 sets of 8 to 12 repetitions using each arm.
- Rest a few minutes between sets.
- When you can do 12 easily, use a band with more resistance or shorten the band.
- When you increase the band resistance, you may have to start out with fewer repetitions.

**Reminder:**

- Keep your arm straight, but do not lock your elbow.
- Do NOT let your hand go above your nose.
- Keep your palms down.

## 9. Leg Extension (lower body)



**Beginning of Exercise**



**End of Exercise**

Purpose: This exercise strengthens the leg muscles that you use for standing and walking.

- Sit on a chair and fold the band in half.
- Place the band around the bottom of the right foot. Hold the ends of the band in your right hand on the side of the chair.
- Keep your left foot flat on the floor.
- Straighten the other leg until the foot is at knee level or as close to knee level as is comfortable possibly.
- Slowly lower the leg back to the floor.
- Count 2 seconds up, hold for 2 seconds, and lower for 4 seconds.
- Repeat 8 to 12 times. Rest and repeat again.
- Switch legs and repeat the exercise.

Reminder:

- Keep your knees shoulder-width apart throughout the exercise.
- Do NOT lock out your knee.

## 10. Row (upper body)



**Beginning of Exercise**



**End of Exercise**

- Sit in a chair with your feet shoulder-width apart. Place the resistance band under your feet.
- Grip one end of the band in each hand. Begin the exercise with your hands by your knees.
- Pull your elbows up and back, so your hands end up at your armpits.
- Slowly straighten your arms and bring your hands back to your knees.
- Repeat 8 to 12 times. Rest. Repeat the exercise again.

### Reminder:

- Keep your palms down.
- Keep your back straight.

## BALANCE EXERCISES

Many older adults are afraid of falling. We have all heard stories about older adults who have fallen and broken a hip. Fear of falling keeps many older adults from being active. There are things you can do to reduce your risk of falls.

- Have your vision checked regularly.
- Eliminate home safety hazards, such as clutter on stairways and throw rugs.
- If you need medicine regularly or occasionally, make sure you take the right amount at the right time and pay attention to warnings about mixing the medicine with food, alcohol, or other medicines.
- Report any signs of confusion or loss of balance to your doctor so the cause can be addressed.
- Do the weight resistance exercises included in this program to improve your muscles strength.
- Practice the balance exercises that follow, progressing to the second phase of each exercise as you master the first phase.
- Do not try the next phase of each exercise until you have mastered the previous one. Work on the exercises daily and work on one phase at a time as your balance improves.



Parallel Foot Stance

1. Wearing comfortable shoes stand with your feet side by side, holding onto an object, such as a railing or chair, for balance. Do this for 10 seconds, always remembering to leave enough floor space to regain your balance if necessary.

2. Stand with your feet side by side without holding onto any object. Do this for 10 seconds, always remembering to leave enough floor space to regain your balance if necessary.
3. Stand with your feet side by side without holding onto any object and close your eyes. Do this for 10 seconds, always remembering to leave enough floor space to regain your balance if necessary.



Staggered Foot Stance  
(Semi-Tandem)

1. Wearing comfortable shoes stand with feet side by side. Next, place one of your feet halfway in front of the other. Stand in this position, holding onto a railing or chair for support, for 10 seconds, taking care to leave enough floor space to regain your balance if necessary.
2. Stand with your feet in this position without holding onto any object for 10 seconds, always leaving enough floor space to regain your balance if necessary.
3. Stand with your feet in this position with your eyes closed for 10 seconds, always leaving enough floor space to regain your balance if necessary.



## Heel-To-Toe Foot Stance (Tandem)

1. Wearing comfortable shoes place one foot directly in front of the other, holding onto a rail or chair for support. Do this for 10 seconds, always leaving enough floor space to regain your balance if necessary. This exercise is similar to walking a balance beam or tightrope.
2. Stand with your feet in this position without holding onto any object. Do this for 10 seconds, always leaving enough floor space to regain your balance if necessary.
3. Stand with your feet in this position with your eyes closed. Do this for 10 seconds, always leaving enough floor space to regain your balance if necessary.

## ENDURANCE EXERCISE

### Walking

Strengthening your muscles can go a long way toward making sure you stay independent but muscles need oxygen to work well. Your heart and lungs need to be kept fit so they can supply the oxygen your body needs. Walking is a great way to improve the health of your heart and lungs because it is “aerobic” exercise. Aerobic means exercise that requires oxygen.

Walking is an exercise most people can do and is especially well suited to older adults. It is safe and virtually injury-free. It doesn’t cost anything. The only equipment you need is a good pair of walking shoes.

Walking is fun and stimulating. It is great for nature lovers, for those who want to spend time alone, or for those who want the social interaction and motivation of exercising with a group. It is a great way to rediscover the neighborhood and make new friends. It can be done anywhere – on running tracks, on trails, in parks, and indoors at the mall. Some enjoy walking indoors with videotapes or DVDs, such as “Walk Away the Pounds” (see Appendix D for suggestions).

Walking burns about the same number of calories per mile as running, but with much less risk of injury. Here are some more benefits

- Walking can help reduce your risk of heart disease
- Walking can help improve digestion and prevent constipation
- When combined with healthy eating, walking can help you control your weight
- Walking strengthens your bones and helps prevent osteoporosis
- Walking clears your mind and increases your energy level

### Other Activities

One of the most important considerations for improving your cardiorespiratory system through endurance exercise is to do the activity that you enjoy. Walking is not for everyone. There are other aerobic videotapes or DVDs, dancing, sports, senior olympics, and more. There are some everyday activities that can improve your fitness, such as some yard

work, housecleaning, and more. The Centers for Disease Control and Prevention recommends that we do 30 minutes a day on most days of the week. Research has also found that we do not have to do all the exercise at one time. We can accumulate our exercise throughout the day, such as 10 minutes at a time, 3 times in the same day. For more information on this subject please see your regional or state PEPPI coordinator.

## COOLING DOWN

A 5-minute cool-down at the end of your exercise session is crucial, especially for older adults. During exercise, your body warms up and starts producing heat. To get rid of the heat, the blood vessels in your skin get larger, accounting for the red face and flushed look many people have when they exercise. Sweat forms and as it evaporates from the surface of your skin, cools your overheated body.

This rapid flow of blood to the skin challenges your heart to pump extra hard to keep enough blood circulating to all the vital organs of the body. Your working muscles actually help your heart accomplish this task. All is fine as long as you keep exercising and your muscles continue to help your heart move the blood freely around your active body. However, you could be in for trouble if you stopped moving quickly. Suddenly your muscles aren't holding up their end of the bargain, and the full burden falls on your heart. Your body temperature is still way above normal, and blood still needs to be directed to the skin to aid in the cooling-off process. Your overtaxed heart can continue to fulfill its many duties in only one way – by beating even faster, which is exactly what you don't want.

The best way to cool down is simply to walk around slowly for 5 minutes. Avoid rushing to the showers or sauna. Wait at least half an hour to allow your circulation to cool down naturally.

## PRECAUTIONS

### EXERTION AND DEHYDRATION

The older you are, the more careful you must be about replacing fluid lost through exercise. Because older people have a reduced sense of thirst, to be really safe you should make a habit of weighing yourself before and after exercise. You will notice a sudden weight loss, which is water lost during exertion. After exercising, you should drink the same amount you lost.

For example, if your weight dropped 1 ½ pounds during exercise, you lost 3 cups of water (1 pound = 2 cups of water). Dark urine is another sign you may be dehydrated – drink enough fluid to turn your urine clear or light yellow.

Not only should you avoid alcohol directly after exercise, but you should not drink it beforehand, either. Alcohol makes you lose more body fluid by making you urinate more.

### How to Avoid Injury

- If you have medical limitations, follow your doctor's guidelines
- Warm up and stretch properly
- Don't hold your breath
- Drink fluids before, during, and after exercise
- Do your personal best; don't compete against others
- Wait 1 or 2 hours after a heavy meal before exercising
- Cool down slowly and stretch again

### First Aid for Soreness

The best treatment for soreness is ice. Put some ice cubes in a plastic bag. Lay the bag over a thin towel and place over the sore area. Let it rest there for 15 minutes; remove it for 10 minutes, and repeat the ice if needed. The best way to avoid soreness throughout your program is to exercise on a regular basis, instead of skipping sessions.

If the soreness is more serious and you suspect a muscle strain or sprain, use the **RICE** method:

- **Rest** the affected area
- **Ice** the affected area
- **Compress** by wrapping the affected areas with an elastic bandage to help decrease the swelling. Be careful not to wrap so tightly that you cut off circulation
- **Elevate** the affected area to minimize swelling

## FITNESS ASSESSMENTS

The following information guides you through how to complete the fitness assessment for the PEPPI program. This information is for peer leaders or program coordinators to record changes in a PEPPI participant's fitness level.

The fitness assessments are required for each participant. When you start a new class, contact your regional or state PEPPI coordinator. They will assist you in scheduling a group of PEPPI evaluators to come to your site to complete the assessment.

After your class is started you will have additional individuals join your class after the initial assessment on participants has been completed. We do not expect you to test these individuals on your own, unless you have been trained, have the equipment and are would like to. When you have several new class members, contact your regional or state PEPPI coordinator to schedule an assessment. If you are completing an assessment for an individual or class on your own, you must have completed the fitness assessment training and you must send your participant's fitness record card to your regional or state PEPPI coordinator immediately following the assessment.

After the assessment, all participants will receive a report on how they compare to the national average for your age in strength, flexibility, endurance, and balance. The report is designed to compare each time they complete an assessment so the individual can see their improvement over time. It is recommended that all sites conduct the assessment every 6 months but at least once per year.

### Fitness Assessment

#### 1. Peer Leaders

Those administering the fitness assessment should be properly trained and well practiced regarding the assessment procedures. They should understand and be able to follow the exact protocols for administering the assessments and recording the results. Strict adherence to the established assessment procedures is essential if meaningful comparisons are to be made from one assessment to the next assessment.

The fitness assessment is designed to be easy to administer in any common community setting without expensive equipment or technical experts. The assessment consists of six activities, which can be completed in approximately 30 minutes for an individual participant. Group participants can expect to spend approximately 60-90 minutes depending on the size of the group.

## 2. Assessment Equipment and Supplies

All equipment and supplies should be gathered and readily available before the assessment procedure begins. Specific equipment for each assessment is indicated in the chart below. Exercise should be done in the following order to decrease fatigue.

<b>Station</b>	<b>Equipment</b>
1. Chair stand	Stopwatch
2. Arm curl	Stopwatch; 5lb weight for women; 8lb weight for men; chair
3. 2- minute step	Stopwatch; masking tape
4. Back scratch	Ruler; chair
5. 8-foot up and go	Stopwatch; measuring tape; 2 chairs
6. Chair sit-and-reach	Ruler; chair

## 3. Fitness Record Cards

Forms for recording the assessment scores should be prepared prior to testing. Complete all information on the top of the form. This information is important for research purposes and for comparing to the national average scores. The information on this form is what is input into the computer program that generates the fitness report for your participants. The “comments” line on the record card is for indicating any deviations from the

outlined protocol. Fitness record cards will be used as a tool for individuals to track their progress and for the PEPPI program to track changes in the group's overall progress.

4. Upon completion of fitness assessment activities

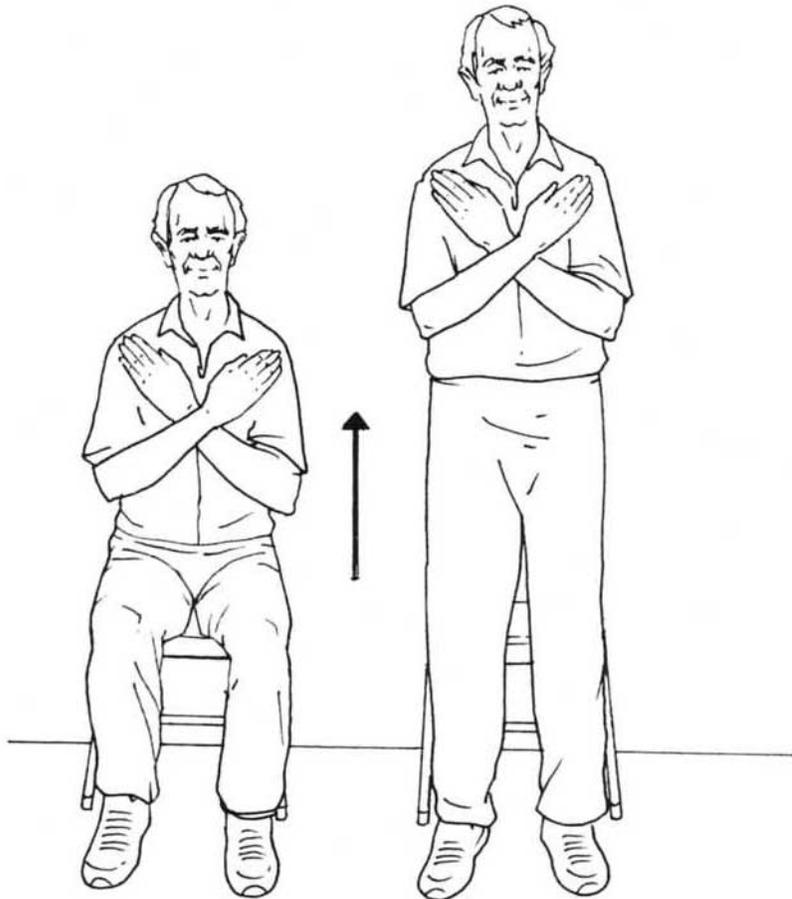
The fitness record cards need to be returned to the PEPPI peer leader or the program evaluator. Fitness scores will be collected and reported as group data and kept confidential. No individual personal information will be released. Individual fitness reports will be provided to participant either on the day of assessment or sent to participant when state coordinator receives a copy of the cards and the data is put into the system. You may keep a copy for your files if you would like.

## Station Set-Up

## **CHAIR STAND ACTIVITY**

### **Equipment:**

Stopwatch and straight-back chair or folding chair, or a chair with armrests, with a seat height of 17 inches (43.18 cm). Chair is placed against a wall to prevent slipping.



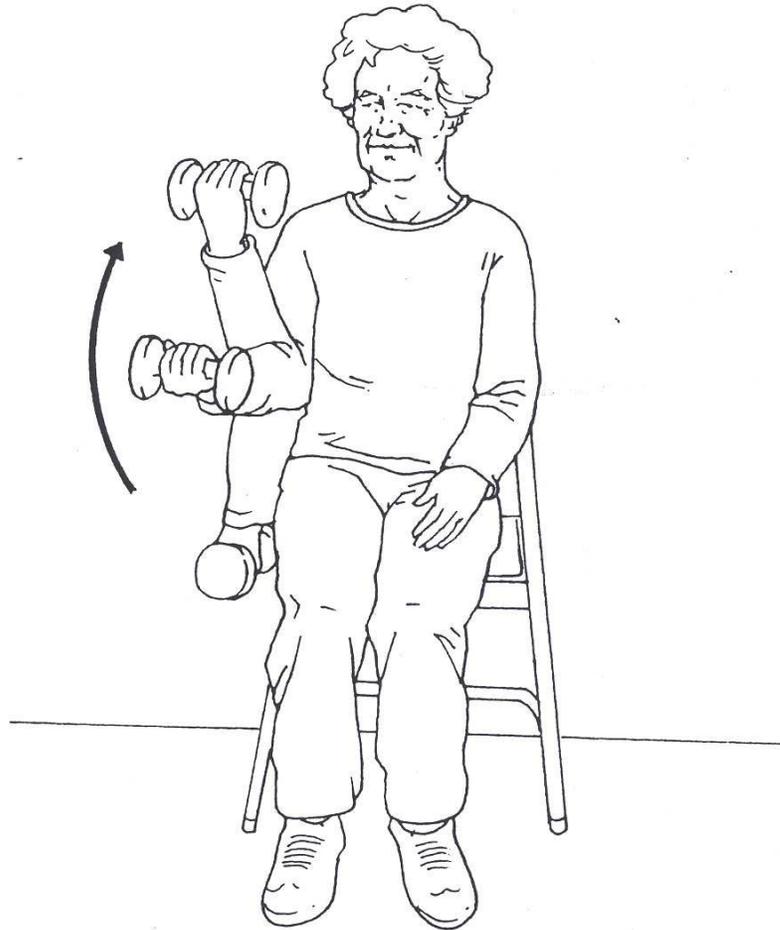
This activity will assess lower body strength. Count the number of full stands from a seated position that can be completed in 30 seconds.

**Modification:** Use a chair with armrests

## **ARM CURL ACTIVITY**

### **Equipment:**

Straight back chair with no arms, stopwatch. 5lb weight for women, and 8lb weight for men.



This activity will assess upper body strength.

## **2 MINUTE STEP ACTIVITY**

### **Equipment:**

Stopwatch, piece of string or cord about 30 inches (76.2 cm) long, masking tape, and a tally counter to help count steps; chair, or wall.

### **Set up:**

Begin by setting the minimum knee stepping height for each participant, which is at a level even with the midway point between the knee cap and the front hip bone (iliac crest). It can be determined using a tape measure or by simply stretching a piece of cord from the middle of the knee cap (patella) to the front hip bone (iliac crest), then folding it over and marking this point on the thigh with a piece of tape.



This will provide an alternate activity of aerobic endurance.

## **CHAIR SIT AND REACH ACTIVITY**

### **Equipment:**

Folding chair with a seat height of 17 inches (43.18 cm) and with legs that angle forward to prevent tipping, and an 18 inch (45.72 cm) ruler (half a yardstick).



This activity will assess lower body strength primarily hamstring flexibility.

## **BACK SCRATCH ACTIVITY**

### Equipment:

18 inch ruler (45.72 cm) or a tape measure



This activity will assess upper body (shoulder) flexibility.

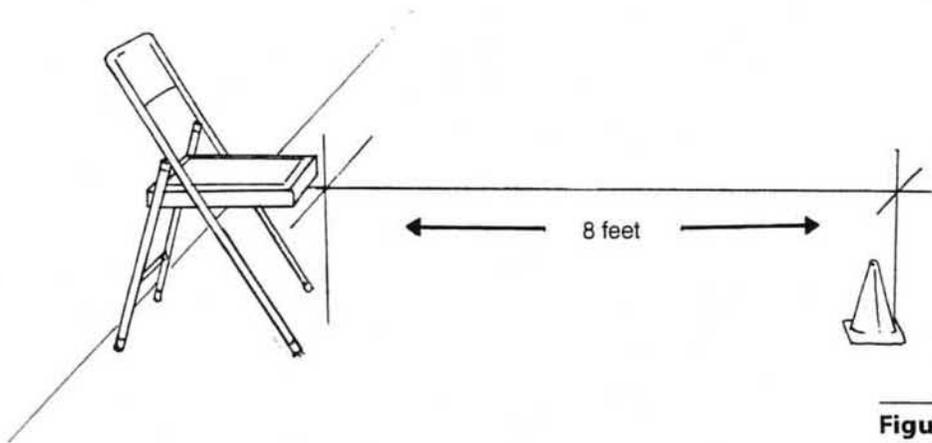
## 8 FOOT UP AND GO ACTIVITY

### Equipment:

Stopwatch, folding chair with 17 inch (43.18 cm) seat height, tape measure, and cone

### Set up:

Place the chair against the wall facing a cone marker exactly 8 feet (2.44 cm) away, measured from the back of the cone to a point on the floor even with the front edge of the chair.



## Optional

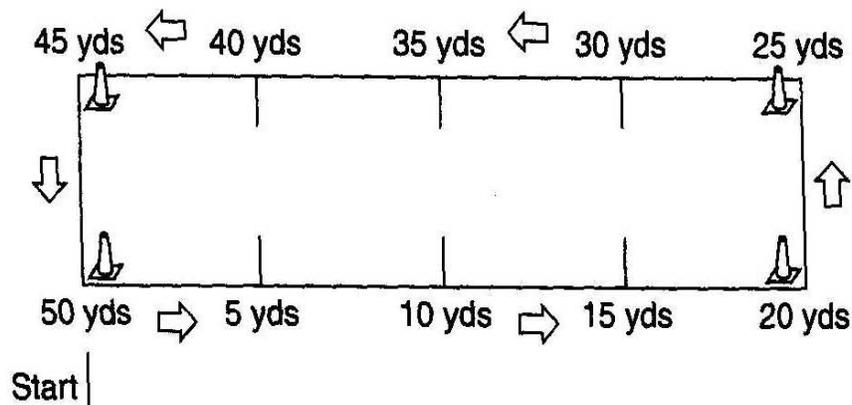
### 6 MINUTE WALK ACTIVITY\*

#### Equipment:

Long measuring tape, two stop watches, four cones (or similar markers), masking tape (or chalk), magic marker, 12 to 15 popsicle sticks per person (or index cards and pencils to keep track of laps walked), chairs for waiting partners and for walkers who need to rest, and name tags.

#### Set up:

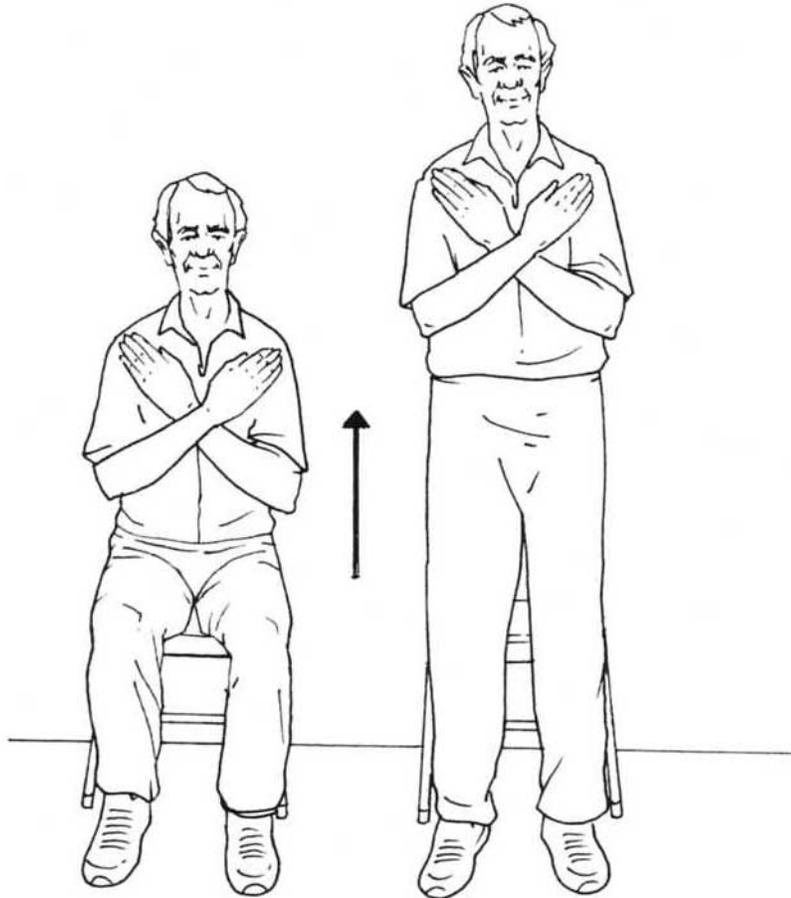
Mark off in 5 yard segments a flat, 50 yard rectangular area (20 yards by 5 yards). The inside corners of the measured distance should be marked with cones and the 5 yard lines marked with masking tape or chalk.



\*Note: If the 6-minute walk activity is selected as the aerobic endurance activity, it should be administered after all other activities are completed.

## Procedure for Activities

## **CHAIR STAND ACTIVITY**



### **Procedure:**

Instruct the participant to sit in the middle of the chair with back straight, feet flat on the floor, and arms crossed at the wrists and held against the chest. On the signal “go” the participant rises to a full stand, then returns to a fully seated position. Encourage the participant to complete as many full stands as possible in the 30 seconds. Demonstrate the activity slowly to show proper form, then at a faster pace to show that the objects is to do the best one can within safety limits. Before beginning the activity, have the participant practice one or two stands to ensure proper form.

### **Scoring:**

The score is the total number of stands completed in 30 seconds. If a person is more than halfway up at the end of 30 seconds, it counts as a full stand. Administer only one activity trial.

### **Safety Tips:**

- Brace the chair against the wall or have someone hold it steady.
- Watch for balance problems.
- Stop activity immediately if the participant indicates pain.

### **Modifications:**

If participant can't perform even one stand without using their hands, allow them to push off their legs or the chair, or use a cane or walker, if necessary. If an adaptation is needed, be sure to describe it on the scorecard. Indicate the adapted score so that personal performance can be evaluated from one activity time to the next.

\*Note: If modifications are used, the score cannot be compared to National standards.

## **ARM CURL ACTIVITY**



### **Procedure:**

Have the participant sit on a chair with back straight and feet flat on the floor, and with dominant side of the body close to the edge of the seat. Have the weight held down at the side parallel to the floor in the dominant hand. Gradually curl the weight up while rotating the wrist to a palm up position then return the weight to a fully extended downward position. Demonstrate the test slowly to show form and then faster to show pace. Have the participant practice one or two repetitions without the weight to ensure proper form.

### **Scoring:**

The score is the total number of arm curls finished in 30 seconds. If the arm is more than halfway up at the end of 30 seconds, it counts as a curl. Administer only one trial.

### **Safety tips:**

Stop the test immediately if the participant experiences pain.

**Modification:**

If the participant cannot hold the hand weight because of some type of health conditions such as arthritis a Velcro wrist weight can be used. If the weight is too heavy to complete one repetition using the correct form then a lighter weight can be substituted. Report the adaptation used to complete the test on the comment section of the scorecard.

## **2-MINUTE STEP-ACTIVITY**



### **Procedure:**

On the signal “GO” the participant begins stepping (not running) in place as many times as possible in the 2-minute period. Although both knees must be raised to the correct height, use your tally counter to count only the number of times the right knee reaches the target. When the proper knee height cannot be maintained, ask the participant to slow down, or to stop until he or she can regain the proper form, but keep the time running.

### **Scoring:**

The score is the number of full steps completed in 2 minutes, that is, the number of times the right knee reaches the proper height. Administer only one trial on activity day. However, for maximum scoring accuracy, have participants practice the activity (stepping in place for 2 minutes) on a day prior to the fitness assessment.

### **Safety Precautions:**

Participants with balance problems should stand next to a wall, doorway, or chair (for support in case of lost balance) and shoulder be spotted carefully.

Monitor all participants closely for signs of overexertion. At the end of the activity, ask participants to continue walking slowly for a minute to cool down.

**Adaptations:**

If participants are unable to lift their knees to the proper height or can lift only one to the proper height, allow them to complete the activity, but indicate the change on the scorecard. If participants are unstable, they can hold onto a table, wall, or chair to complete the activity. Note the type of adaptation used to complete the activity on the comment section of the scorecard.

## CHAIR SIT-AND-REACH ACTIVITY



### Procedure:

The participant sits on the edge of the chair as shown in the picture above. The crease between the top of the leg and the buttocks should be even with the front edge of the chair seat. One leg is bent with the foot flat on the floor. The other leg is extended as straight as possible in front of the hip. The heel is placed on the floor, with the foot flexed at approximately 90 degrees.

With arms outstretched, hands overlapping, and middle fingers even, the participant slowly bends forward at the hip joint reaching as far forward as possible towards or past the toes. If the extended knee starts to bend, ask the participant to move slowly back until the knee is straight. The maximum reach must be held for two seconds.

The participant should practice the activity in both legs to see which is preferred (the one resulting in the better score)\*. Only the preferred leg is used for scoring purposes (for comparison to norms). Once the preferred leg is determined, have the participant practice a couple more times for warm-up.

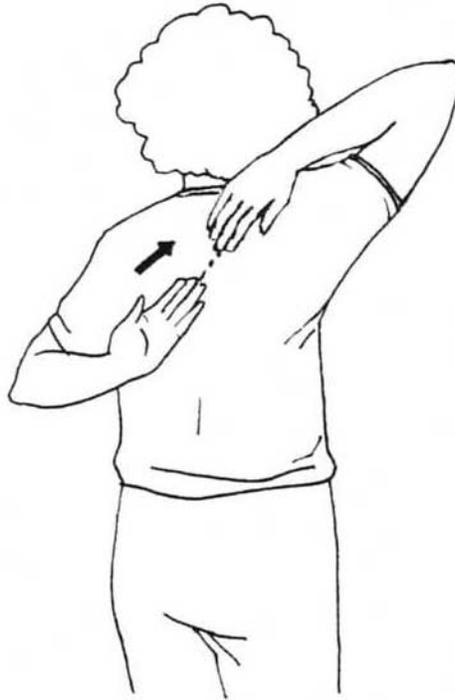
### **Scoring:**

After the participant has had two practice trials on the preferred leg, administer two activity trials, record both scores, and then circle the better one. Measure the distance from the tips of the middle fingers to the toe of the shoe to the nearest half inch (centimeter). Use the following information to compare to the national standards: The midpoint at the toe of the shoe represents the zero point. If the reach is short of this point, record the distance as a minus (-) score; if the middle fingers touch the toes, record a score of zero; and if the reach is past the midpoint of the toes, record the distance as a plus (+) score.

### **Safety Precautions:**

Place the chair securely against a wall so it doesn't slip during activity. Remind participants to exhale as they bend slowly forward and to avoid bouncing. Participants should stretch only to a point of slight discomfort, never to the point of pain. Do not administer the activity to people with severe osteoporosis or to those who have pain when flexing forward.

## **BACK SCRATCH ACTIVITY**



### **Procedure:**

Have the participant stand and place his or her preferred hand over the same shoulder, palm down and fingers extended, reaching down the middle of the back as far as possible. Note that the elbow is pointed up. Ask the participant to place the other arm around the back of the waist with the palm up, reaching up the middle of the back as far as possible in an attempt to touch or overlap the extended middle fingers of both hands. The participant should practice the activity to determine his or her preferred position (the hand over the shoulder that produces the best score)\*. Two practice trials are given before scoring the activity.

Check to see if the middle fingers are directed toward each other as best as possible. Without moving the participants hands, direct the middle fingers to the best alignment. Do not allow participants to grab their fingers together and pull.

**Scoring:**

After giving the participant two warm-up practice trials in the preferred position, administer two activity trials. Record both scores to the nearest half-inch (cm), measuring the distance of overlap or distance between the tips of the middle fingers, the circle the better score. Use the following to compare to national standards: Give a minus (-) score if middle fingers do not touch, a zero score if the middle fingers just barely touch, and a plus (+) score if the middle fingers overlap. Measure the distance from the top of one middle finger to the tip of the other, regardless of their alignment behind the back.

**Safety Precautions:**

Stop the activity if the participant experiences pain. Remind participants to continue breathing as they stretch and to avoid any bouncing or rapid movements.

---

## **8-FOOT UP-AND-GO ACTIVITY**



### **Procedure:**

Have the participant sit in the middle of the chair; hands on thighs, one foot slightly ahead of the other, body leaning slightly forward. On the signal “GO” have the participant get up from the chair, walk as quickly as possible around a cone placed 8 feet away, and return to the chair. The timer must start the stopwatch exactly on the “GO” signal and stop it at the exact time the participant sits in the chair. After one practice trial, administer two activity trials.

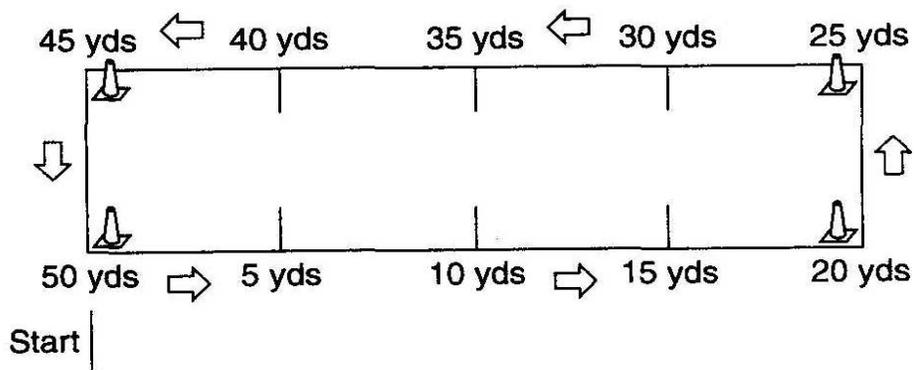
### **Scoring:**

The score is the better of two trials, recorded to the nearest tenth of a second.

Note on the fitness score card in the comments section if the participant used assistive devices (i.e. walker, cane, etc.), the chair armrests, or put their hands on their knees to get up from the chair.

# Optional

## 6-MINUTE WALK ACTIVITY\*



### Procedure:

\*Note: If the 6-minute walk activity is selected as aerobic endurance activity, it should be administered after all other activities are completed.

Two or more participants should be monitored at a time to standardize motivation. A skilled instructor can test up to 12 people at once, using partners to assist with scoring, but 6 at a time are more manageable. Starting and stopping times are staggered 10 seconds apart to encourage participants to walk at their own pace and not in clusters or pairs. Numbers (using name tags) are placed on participants to indicate the order for starting and stopping. On the signal “go” the participant begins walking as fast as possible in the 6-minute time limit. We recommend using two stopwatches to time the activity, just in case one stops working. To keep track of the distance walked, partners give popsicle sticks (or similar objects) to participants each time they complete a lap. Or partners can mark a scorecard each time a lap is completed, using the “picket fence” system.

The timer should move to the inside of the marked area after everyone has started. To assist with pacing, remaining time should be called out when walkers are about half done, and when about 2 minutes are left.

Participants can stop and rest on the chairs provided, but the time keeps running. The tester should encourage participants by saying, “you’re doing

well” and “keep up the good work.” When a participant’s 6 minutes has elapsed, the tester asks him or her to stop, move to the right (across from the nearest 5-yard marker) and slowly step in place for one minute to cool down.

### **Scoring:**

Record the scores when all the walkers have been stopped. Each popsicle stick (or mark on a card) represents 50 yards. For example, if a person has 8 sticks (representing 8 laps) and was stopped next to the 45-yard marker, the score would be a total of 445 yards. Administer only one trial on assessment day. However, for improved pacing and maximum scoring accuracy, have participants practice a 6-minute walk on a day prior to assessment day.

### **Safety Precautions:**

Select a well-lit walking area with a level, no-slip surface. Position chairs at several points along the outside of the walking area. Discontinue the activity for any participant who shows signs of overexertion.

# Administration of Assessments

These procedures should be followed on “Assessment Day”.

1. Set up the Assessment Stations in the order below based on the use of the 2-minute step activity or the 6-minute walk activity prior to the arrival of participants.

If you will be using the 2-minute step activity, then the following order should be used to set up the stations:

1. Chair Stand Activity
2. Arm Curl Activity
3. 2-minute Step Activity
4. Chair Sit-and-reach Activity
5. Back Scratch Activity
6. 8-foot up and go Activity

If you will be using the optional 6-minute walk activity, the following order should be used to set up the stations:

1. Chair Stand Activity
2. Arm Curl Activity
3. Chair Sit-and-reach Activity
4. Back Scratch Activity
5. 8-foot up and go Activity
6. 6-minute Walk Activity

2. Explain to all the participants what the Fitness Assessment is and why we are doing it.

“Today we will be starting with a Fitness Assessment. The purpose of the fitness assessment is to find your current level of fitness and to monitor your progress over the course of the next 9 months.”

3. Warm-up and stretching (5 to 10 minutes)

Do some activities that warm up the muscles, such as marching in place, swinging the arms, and up-and-back or side-to-side walking steps.

Gradually ease in to some simple stretches. Use the stretches in your PEPPI manual you received at the peer leader training session. This manual is also called “Fitness from 50 Forward”.

#### 4. Assessment instructions to participants

Before you begin the assessment activities, all participants should be told:

“We are going to begin the assessment activities now. Each of you will be given a “Fitness Record Card” that you will take with you to each assessment station and your results will be recorded on this card. The assessment stations should be done in order, beginning with station #1, the Chair Stand Activity.”

“Do the best you can on all the activities, but do not push yourself to a point of overexertion or beyond what you feel is safe for you. The idea is to try as hard as you *comfortably* can, while staying within your own safety limits. If you need to stop at any time, please do so.”

“I will pass out the fitness record cards and we will get started.”

#### 5. Begin the Assessment Activities

Refer to the section for each assessment activity for detailed instructions.

Caution: The assessment activities should not be administered if the temperature or humidity conditions are uncomfortable or appear unsafe for the participants. Always watch for signs of overheating or overexertion. If any of these symptoms occur, stop the activity immediately: shortness of breath, dizziness or lightheadedness, tightness or pain in the chest, numbness, loss of control or balance, nausea or vomiting, confusion, or disorientation, and blurred vision.

How do you compare  
with others  
in your age group  
based on National averages?

### Normal Range of Scores for Women\*

	<b>60-64</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85-89</b>	<b>90-94</b>
<b>Chair stand activity (# of stands)</b>	12-17	11-16	10-15	10-15	9-14	8-13	4-11
<b>Arm Curl test (# of reps)</b>	13-19	12-18	12-17	11-17	10-16	10-15	8-13
<b>2-minute step activity (# of steps)</b>	75-107	73-107	68-101	68-100	60-90	55-83	44-72
<b>Chair sit-and-reach activity (in. +/-)</b>	-0.5-+5.0	-0.5-+4.5	-1.0-+4.0	-1.5-+3.5	-2.0-+3.0	-2.5-+2.5	-4.5-+1.0
<b>Back Scratch Activity</b>	-3.0-+1.5	-3.5-+1.5	-4.0-+1.0	-5.0-+1.5	-5.5-+0.0	-7.0-+1.0	-8.0-+1.0
<b>8-foot up-and-go activity (sec)</b>	6.0-4.4	6.4-4.8	7.1-4.9	7.4-5.2	8.7-5.7	9.6-6.2	11.5-7.3
<b>6-minute walk activity** (# of yards)</b>	545-660	500-635	480-615	435-585	385-540	340-510	275-440

\*Normal range of scores is defined as the middle 50 percent of each age group. Scores above the range would be considered “above average” for the age group and those below the range would be “below average”.

\*\*Scores are rounded to the nearest five yards

### Normal Range of Scores for Men\*

<b>Activity</b>	<b>60-64</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85-89</b>	<b>90-94</b>
<b>Chair stand activity (# of stands)</b>	14-19	12-18	12-17	11-17	10-15	8-14	7-12
<b>Arm Curl test (# of reps)</b>	16-22	15-21	14-21	13-19	13-19	11-17	10-14
<b>2-minute step activity (# of steps)</b>	87-115	86-116	80-110	73-109	71-103	59-91	52-86
<b>Chair sit-and-reach activity (in. +/-)</b>	-2.5-+4.0	-3.0-+3.0	-3.0-+3.0	-4.0-+2.0	-5.5-+1.5	-5.5-+0.5	-6.5-0.5
<b>Back Scratch Activity</b>	-6.5-+0.0	-7.5-1.0	-8.0-1.0	-9.0-2.0	-9.5-2.0	-9.5-3.0	-10.5-4.0
<b>8-foot up-and-go activity (sec)</b>	5.6-3.8	5.9-4.3	6.2-4.4	7.2-4.6	7.6-5.2	8.9-5.5	10.0-6.2
<b>6-minute walk activity** (# of yards)</b>	610-735	560-700	545-680	470-640	445-605	380-570	305-500

\*Normal range of scores is defined as the middle 50 percent of each age group. Scores above the range would be considered “above average” for the age group and those below the range would be “below average”.

\*\*Scores are rounded to the nearest five yards

## Fitness Record Form

Date \_\_\_\_\_ Participant start date \_\_\_\_\_

Name \_\_\_\_\_ Location \_\_\_\_\_

M \_\_\_ F \_\_\_ Date of Birth \_\_\_\_\_ Height \_\_\_\_\_ Weight \_\_\_\_\_

Station	Results	Age Predicted Results	Comments
Chair stand Used knees <input type="checkbox"/> Used chair arm <input type="checkbox"/>			
Arm curl			
2-minute step			
Chair sit-and-reach			
Back scratch			
8 ft up-and-go			
6-minute walk			

## Fitness Record Form

Date \_\_\_\_\_ Participant start date \_\_\_\_\_

Name \_\_\_\_\_ Location \_\_\_\_\_

M \_\_\_ F \_\_\_ Date of Birth \_\_\_\_\_ Height \_\_\_\_\_ Weight \_\_\_\_\_

Station	Results	Age Predicted Results	Comments
Chair stand Used knees <input type="checkbox"/> Used chair arm <input type="checkbox"/>			
Arm curl			
2-minute step			
Chair sit-and-reach			
Back scratch			
8 ft up-and-go			
6-minute walk			

Chair stand exercise: Assesses the lower body strength. Count the number of full stand from a seated position that can be completed in 30 seconds.

Arm Curl: Assesses the upper body strength. Count the number of curls completed in 30 seconds.

2-minute step Assesses aerobic endurance. Count the number of full steps completed in 2 minutes.

Chair sit-and-reach: Assesses lower body flexibility. Count the number of inches (to the nearest ½ inch).

Back scratch: Assesses upper body flexibility. Count the number of inches (to the nearest ½ inch).

8 foot up-and-go: Assesses agility and balance. Count the number of seconds required to complete the exercise.

6-minute walk: Assesses aerobic endurance. Count the number of yards that can be walked in 6 minutes.

Chair stand exercise: Assesses the lower body strength. Count the number of full stand from a seated position that can be completed in 30 seconds.

Arm Curl: Assesses the upper body strength. Count the number of curls completed in 30 seconds.

2-minute step Assesses aerobic endurance. Count the number of full steps completed in 2 minutes.

Chair sit-and-reach: Assesses lower body flexibility. Count the number of inches (to the nearest ½ inch).

Back scratch: Assesses upper body flexibility. Count the number of inches (to the nearest ½ inch).

8 foot up-and-go: Assesses agility and balance. Count the number of seconds required to complete the exercise.

6-minute walk: Assesses aerobic endurance. Count the number of yards that can be walked in 6 minutes.

## **APPENDICES**

Appendix A: Monthly Peer Leader Report

Appendix B & C: Sample Sign in Sheets

Appendix D: Resources

Appendix E: Challenge your muscles

Appendix F: Theraband Chart

Appendix G: Tips for Working with Older Adults with Visual Problems

Appendix H: Tips for Working with Older Adults with Hearing Problems

Appendix I: Tips for Working with Older Adults with Cognitive Loss

**PEPPI Peer Leader  
Monthly Report**

Month/Year: \_\_\_\_\_

Peer Leader: \_\_\_\_\_

Location: \_\_\_\_\_

1) How many classes were held this month? \_\_\_\_\_

2) How many total participants attended this month?  
(Count the number of visits, all classes) \_\_\_\_\_

3) How many classes were missed this month? \_\_\_\_\_

4) What were the reasons for the missed classes?

\_\_\_\_\_ Leader illness

\_\_\_\_\_ Holiday

\_\_\_\_\_ Couldn't find a substitute instructor

\_\_\_\_\_ Other, please explain: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5) Please list any concerns, comments or suggestions that can improve  
the PEPPI program: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Please complete the monthly report and send to your PEPPI Regional  
Coordinator by the 10<sup>th</sup> of the month.

If you do not have a Regional Coordinator, please send to the State  
Coordinator: Leesa Freasier, Arkansas Department of Health, 4815 W.  
Markham, Slot -41, Little Rock, Arkansas, 72205. Phone: 501-280-4915,  
Fax: 501-280-4207, Email: [leesa.freasier@arkansas.gov](mailto:leesa.freasier@arkansas.gov).



Appendix C

**PEPPI  
Daily Exercise Log**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

Total Weight Loss

\_\_\_\_\_

Month: \_\_\_\_\_

Month: \_\_\_\_\_

Month: \_\_\_\_\_

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_
- 6 \_\_\_\_\_
- 7 \_\_\_\_\_
- 8 \_\_\_\_\_
- 9 \_\_\_\_\_
- 10 \_\_\_\_\_
- 11 \_\_\_\_\_
- 12 \_\_\_\_\_
- 13 \_\_\_\_\_
- 14 \_\_\_\_\_
- 15 \_\_\_\_\_
- 16 \_\_\_\_\_
- 17 \_\_\_\_\_
- 18 \_\_\_\_\_
- 19 \_\_\_\_\_
- 20 \_\_\_\_\_
- 21 \_\_\_\_\_
- 22 \_\_\_\_\_
- 23 \_\_\_\_\_
- 24 \_\_\_\_\_
- 25 \_\_\_\_\_
- 26 \_\_\_\_\_
- 27 \_\_\_\_\_
- 28 \_\_\_\_\_
- 29 \_\_\_\_\_
- 30 \_\_\_\_\_
- 31 \_\_\_\_\_

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_
- 6 \_\_\_\_\_
- 7 \_\_\_\_\_
- 8 \_\_\_\_\_
- 9 \_\_\_\_\_
- 10 \_\_\_\_\_
- 11 \_\_\_\_\_
- 12 \_\_\_\_\_
- 13 \_\_\_\_\_
- 14 \_\_\_\_\_
- 15 \_\_\_\_\_
- 16 \_\_\_\_\_
- 17 \_\_\_\_\_
- 18 \_\_\_\_\_
- 19 \_\_\_\_\_
- 20 \_\_\_\_\_
- 21 \_\_\_\_\_
- 22 \_\_\_\_\_
- 23 \_\_\_\_\_
- 24 \_\_\_\_\_
- 25 \_\_\_\_\_
- 26 \_\_\_\_\_
- 27 \_\_\_\_\_
- 28 \_\_\_\_\_
- 29 \_\_\_\_\_
- 30 \_\_\_\_\_

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_
- 6 \_\_\_\_\_
- 7 \_\_\_\_\_
- 8 \_\_\_\_\_
- 9 \_\_\_\_\_
- 10 \_\_\_\_\_
- 11 \_\_\_\_\_
- 12 \_\_\_\_\_
- 13 \_\_\_\_\_
- 14 \_\_\_\_\_
- 15 \_\_\_\_\_
- 16 \_\_\_\_\_
- 17 \_\_\_\_\_
- 18 \_\_\_\_\_
- 19 \_\_\_\_\_
- 20 \_\_\_\_\_
- 21 \_\_\_\_\_
- 22 \_\_\_\_\_
- 23 \_\_\_\_\_
- 24 \_\_\_\_\_
- 25 \_\_\_\_\_
- 26 \_\_\_\_\_
- 27 \_\_\_\_\_
- 28 \_\_\_\_\_
- 29 \_\_\_\_\_
- 30 \_\_\_\_\_
- 31 \_\_\_\_\_

**Music:**

Ken Alan Associates  
1 (800) 563-6060  
[www.kenfitness.com](http://www.kenfitness.com)

Power Productions  
1 (800) 777-BEAT  
[www.powermusic.com](http://www.powermusic.com)

Muscle Mixes Music  
1 (800) 52-MIXES  
<http://www.muscleremixesmusic.com/test2/home.php>

R Cubed Production  
14999 Preston Rd., Suite 212-124  
Dallas, TX 75240  
1 (214) 578-6361

MusicFlex  
1 (800) 430- FLEX  
[www.cybercise.com/musicflex](http://www.cybercise.com/musicflex)

Tone & Stretch for Seniors  
Sit and be fit  
(videotape also available)  
By Mary Anne Wilson, RN  
PO Box 8033  
Spokane, WA 99203-0033  
1 (509) 448-9438  
[www.sitandbenefit.org/](http://www.sitandbenefit.org/)

**Books:**

VanGelder, N., Marks, S. (1987). Aerobic Dance Exercise Instructor Manual.  
San Diego, CA.: IDEA Foundation.

Dychtwald, ken. (1989). Age Wave. Los Angeles, CA: Jeremy Tarcher.  
Aging in Actions: A Dynamic approach to Exercise  
By Ann Marshall  
Marshall Dynamics  
PO Box 29605  
Atlanta, GA 30359  
1 (404) 491-7166

American Hearth Association. (1983). An Older Person's Guide to  
Cardiovascular Health. AHA, Texas: National Center of AHA.

Miller, S., Miller, J., Miller, D. (1986). Conquest of Aging. New York: Collier  
Books/Macmillan Publishing.

FITness from 50 forward  
By William J. Evans, PhD  
The American Dietetic Association (1998)  
<http://www.amazon.com>

Fitness Over Fifty  
By Karl Knopf and Steve Downs  
Kendahl/Hung Publishing Company  
2460 Kerper Blvd  
Dubuque, IA 52001

Ostrow, Andrew C. (1984). Physical Activity and the Older Adult. New  
York: Princeton.

Spirduso, W.W. & Eckert, H. (1989). Physical Activity and Aging.  
Champaign, Illinois: Human Kinetics Books.

The Fun of Fitness: A Handbook for Senior Class  
By Betty Perkins-Carpenter  
Senior Fitness Productions  
1606 Penfield Rd.  
Rochester, NY 14625-0413  
1 (716) 586-7980

Senior Fitness Test Manual  
By Roberta E. Rikli PhD & C. Jessie Jones PhD  
Human Kinetics  
PH Box 5067  
Champaign, IL 618825-5076  
1 (800) 747-4457

Guide to Fitness After Fifty  
By Harris et al.  
Center for the Study of Aging  
706 Madison Ave  
Albany, NY 12208  
1 (518) 465-6927

Health ® For Senior Workshop  
American Institute for Preventative Medicine  
19111W. 10 Mile Rd. Suite 101  
Southfield, MI 48075  
1 (313) 352-7666

Osteoporosis- A Guide to Prevention and Treatment  
By John F. Aloia, MD  
Human Kinetics Publisher  
PO Box 5076  
Champaign, IL 61820-5076  
1 (800) 747-4457

Physical Activity, Aging and Sports, Vol. 1  
By R. Harris and S. Harris, eds.  
Center for the study of Aging  
706 Albany, NY 12208  
1 (518) 465-6927

Safe Therapeutic Exercise for the Frail Elderly  
By Olga Hurley  
Center for the Study of Aging  
706 Albany, NY 12208  
1 (518) 465-6927

Seniors on the Move

By Renate Ridders  
Human Kinetics Publishers  
PO Box 5067  
Champaign, IL 61825-5076  
1 (800) 747-4457

Swimming for Seniors

By Edward J. Shea, PhD  
Leisure Press  
A Division of Human Kinetics Publishers, Inc.  
PO Box 5067  
Champaign, IL 61825-5076  
1 (800) 747-4457

**Organizations:**

Administration on Aging  
330 Independence Ave.  
Washington, DC 20201  
1 (202) 472-7257  
[www.aoa.gov](http://www.aoa.gov)

American Association for Retired Persons  
1909 K St. NW  
Washington, DC 20049  
[www.aarp.org](http://www.aarp.org)

American Institute for Preventative Medicine  
30455 North Western Hwy., Suite 350  
Farming Hills, MI 48334  
1 (800) 345-2476  
[www.healthylife.com](http://www.healthylife.com)

Arthritis Foundation  
PO Box 19000  
Atlanta, GA 30236  
[www.arthritis.org](http://www.arthritis.org)

Healthy Aging Physical Fitness Tips  
PO Box 442  
Unionville, PA 19375  
1 (610) 793-0979  
[www.healthyaging.net/physfittips.htm](http://www.healthyaging.net/physfittips.htm)

National Association for Area Agencies on Aging  
600 Maryland Ave., SW  
West Wing, Suite 208  
Washington, DC 20024  
1 (202) 484-7250

National Blueprint: Increasing Physical Activity Among older Adults Age 50  
and older  
1 (217) 244-7122  
[www.againbluepring.org/tips.cfm](http://www.againbluepring.org/tips.cfm)

National Institute on Aging  
Building 31, Room 5C27  
31 Center Dr MSC 2292  
Bethesda, MD 20892  
<http://www.nia.nih.gov/HealthInformation/Publications/ExerciseGuide>

**Videotapes/DVDs:**

“The Dancin’ Grannies Exercise Program”  
The Dancin’ Grannies  
10 Bay St., Suite 3  
Westport, CT 06880  
1 (203) 454-1109

“Fitness Over 50”  
General Television Network Health Tapes Inc.  
13225 Capital Ave.  
Oak Park, MI 48237  
1 (313) 548-2500

“More Alive”  
Jo Murphy  
Mature Adult Corporation  
PO Box 98  
Lafayette, CO 80026  
1 (800) 873-3347

“Senior Shape up”  
Yablon Enterprises, Inc.  
PO Box 7475  
Steelton, Pa 17113-0475

“Sit and Be Fit”  
By Mary Ann Wilson, RN  
PO Box 8033  
Spokane, WA 99203-0033  
1 (509) 448-8281  
[www.sitandbenefit.com](http://www.sitandbenefit.com)

“Swing into Shape”  
Lutheran Hospital  
1910 South Ave.  
la Crosse, WI 54601  
1 (800) 362-9567, ext. 54717  
<http://www.ncpad.org/refs/videos/index.php?id=137&letter=S>

“Take Control With Exercise” DVD  
“Aquatic Water Exercise” DVD  
“People with Arthritis Can Exercise”  
“Exercise is the Best Therapy”  
Arthritis Foundation  
1-800-568-4045  
<http://www.arthritis.org>

### **Workshops:**

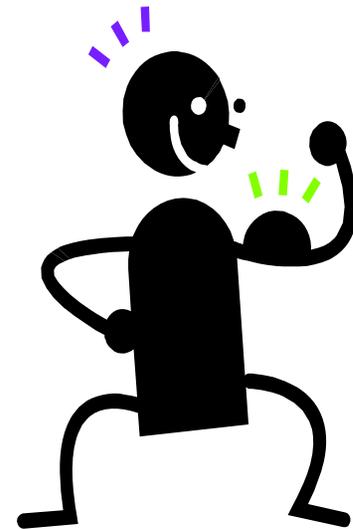
AFFA Senior Fitness Specialty Workshop  
Aerobic and Fitness Association of America  
15250 Ventura Blvd., Suite 200  
Sherman Oaks, Ca 91403-3297  
1 (800)-446-AFFA, 1 (818) 905-0040

FiTOUR  
P.O. Box 1776  
Stafford, Texas 77497  
281-494-0380  
<http://www.fitour.com>

American Senior Fitness Association  
PO Box 2575  
New Smyrna Beach, FL 32170  
1 (800) 243-1478  
<http://www.seniorfitness.net/>

# Challenge Your Muscles

- Step 1: Increase the number of times you do a movement (repetition)
  - Range is 8 to 12 times
- Step 2: Do the whole exercise a second time (set)
  - Do movement 8 times; rest; do it again for 8 times
- Step 3: Move up to the next band strength



**Thera-band Strength/Resistance Level Chart**

<b>Color</b>	<b>Strength/Resistance Level</b>	<b>Easy to Hard (1= easiest; 8= hardest)</b>
<i>Tan</i>	<b>Minimal Minus resistance</b>	<b>1</b>
<i>Yellow</i>	<b>Minimal resistance</b>	<b>2</b>
<b>Red</b>	<b>Moderate resistance</b>	<b>3</b>
<b>Green</b>	<b>Moderate Plus resistance</b>	<b>4</b>
<b>Blue</b>	<b>Maximal Minus resistance</b>	<b>5</b>
<b>Black</b>	<b>Maximal resistance</b>	<b>6</b>

## **Suggestions for Working with Older Adults with Visual Problems**

1. Use brightly colored tape (e.g., hot pink or yellow, depending on the background color) to mark objects above and below eye level. Because many older clients will not have a good vertical range of vision, machines that contain parts higher than the client's head or lower than their knees may be bumped into. Objects left in the middle of the floor have the potential to cause a fall.
2. The display panel on some pieces of exercise equipment may be difficult for clients with visual problems to see. Use brightly colored tape to mark the dials, or make arrows that show the client which button to press to increase or decrease time or intensity.
3. Certain types of exercise machines, such as a treadmill, may be hazardous for clients with poor eyesight. To increase safety, use equipment that requires a sitting position, such as a stationary cycle or a recumbent stepper.
4. Because clients with visual impairments may not be able to clearly see your movements, verbal instructions must be precise. Physically guide the client through the correct movement to make the verbal instructions more clear.
5. Clients with visual impairments often use certain pieces of equipment as markers for where they are located in a room. Inform them if any equipment is moved or rearranged.

Source: *Exercise for Older Adults*. Second Edition. 2005. San Diego: American Council on Exercise. Reprinted with permission ([www.acefitness.org](http://www.acefitness.org))

## **Suggestions for Working with Older Adults with Auditory Problems**

1. Always face the client when you speak. Some older adults may be able to read lips, and when this is combined with the little hearing they have, they will be better able to follow your instructions.
2. Never eat or chew gum while working with the client, as this will make it difficult to understand your speech.
3. Reduce background noise or move to a quiet area while talking to the client.
4. Keep your hands away from your face. If you block your mouth, a client who can read lips will be unable to understand.
5. Do not shout at the client, but speak with a normal, clear tone. Shouting will distort the sound of your voice.
6. Use visual cues as often as possible and combine them with your verbal instructions. Clients with hearing impairments respond well to visual cues (e.g., pictures of the exercises, demonstrations).

## **Tips for Working with Older Adults with Cognitive Loss**

1. **Make the Exercises Simple and Straightforward.**  
Don't change the exercise routines on a regular basis because it may frustrate a client with memory loss.
2. **Explain Each Movement Clearly and Frequently.**  
Many clients with neurological impairments will need a frequent explanation of the activity. They will often forget how to perform certain movements and will need to be reminded regularly. Repetition is very important with this group. It may seem boring to you, but will make the client more successful.
3. **Keep the Exercise Routine Structured.**  
For some clients with dementia, a structured exercise routine (i.e., same room, same equipment, same music, same professional) may need to be established. New activities or surroundings can be frightening for some clients and will agitate others.
4. **Slow Down All Activities.**  
Everything will have to be slowed down (i.e., speech, tempo, activity) for some clients with dementia. This is especially true for clients with Parkinson's disease.
5. **Do Not Tolerate Verbal or Physical Abuse.**  
If a client is verbally or physically abusive to you or other members of a class, understand that although this is part of the disorder, it should not be permitted in your class. Remove the client from the group until they calm down.
6. **Avoid Talking Down to the Client.**  
Many fitness professionals talk to older clients with a neurological disorder as if they are a child, since some of the behaviors are similar to what may be observed in children. This may offend the client or their caregiver. Always treat them like adults.

7. Always Listen and Be Responsive.  
Occasionally, clients with dementia will say something that does not make sense. Instead of laughing or becoming agitated, understand that this is part of the disease process and respond to the client in an appropriate manner.
8. Do Not Tolerate Verbal or Physical Abuse.  
If a client is verbally or physically abusive to you or other members of a class, understand that although this is part of the disorder, it should not be permitted in your class. Remove the client from the group until they calm down.

Source: *Exercise for Older Adults*. Second Edition. 2005. San Diego: American Council on Exercise. Reprinted with permission ([www.acefitness.org](http://www.acefitness.org))

## BIBLIOGRAPHY

- Campbell WW, Crim MC, Young VR, Joseph LF, Evans WJ. Effects of resistance training and dietary protein intake on protein metabolism in older adults. *Am J Physiol.* 1995;268:E1143-E1153.
- Evans WJ. Exercise guidelines for elderly men and women. In: Huber G, ed. *Healthy Aging: Activity and Sports*. Gamberg, Germany: Health Promotion Publications. 1997;182-192.
- Evans WJ. Reversing Sarcopenia: how weight training can build strength and vitality. *Geriatric.* 1996;51:46-53.
- Evans WJ. Exercise and aging. In: Ruderman N, Devlin J, eds. *The Health Professional's Guide to Diabetes and Exercise*. Alexandria, Va: American Diabetes Association. 1995;223-233.
- Evans WJ, Spokas, *Fitness From 50 Forward*. American Dietetic Association. 1998.
- Evans WJ. Exercise, nutrition, and aging. In: Lipschitz DA, ed. *Clinics in Geriatric medicine: Nutrition, Aging, and Age-Dependent Disease*. Philadelphia: WB Saunders Co. 1995;11(4)725-734.
- Evans WJ. Exercise in the prevention of age-associated changes in body composition and functional capacity. In: Butler RN, Brody JA, eds. *Delaying the Onset of Late-Life Dysfunction*. New York: Springer Publishing Co. 1995;35-53.
- Evans WJ, Cyr-Campbell D. Nutrition, exercise and healthy aging. *J Am Diet Assoc.* 1997;97:632-638.
- Evans WJ, Rosenberg IR, Thompson J. *Biomarkers: The Ten Determinants of Aging You Can Control*. New York: Simon & Schuster. 1991.
- Fiatrone MA, Evans WJ. The etiology and reversibility of muscle function in the aged. *J Gerontol.* 1993;48:77-83.
- Fiatrone MA, O'Neill EF, Doyle N, Clements KM, Roberts SB, Kehayias JJ, Lipsitz LA, Evans WJ. The Boston FICSIT study: the effects of resistance training and nutritional supplementation on physical frailty in the oldest old. *J Am Geriatr Soc.* 1993;41:333-337.
- Fiatrone MA, O'Neill EF, Doyle N, Clements KM, Solares GR, Roberts SB, Kehayias JJ, Lipsitz LA, Evans WJ. Exercise training and nutritional supplementation for physical frailty in very elderly people. *N Eng J Med.* 1994;330:1769-1775.
- Frontera WR, Hughes VA, Evans WH. A cross-sectional study of upper and lower extremity muscle strength in 45-78-year old men and women. *J Appl Physiol.* 1991;71:644-650.

- Frontera WR, Meredith CN, O'Reilly KP, Knuttgen HG, Evans WJ. Strength conditioning in older men: skeletal muscle function and mass. *J Appl Physiol.* 1988;64:1038-1044.
- Morganti CM, Nelson ME, Fiatarone MA, Dallal GE, Economos CD, Crawford BM, Evans WJ. Strength improvements with 1 year of progressive resistance training in older women. *Med Sci Sports Exerc.* 1995;27:906-912.
- Nelson ME, Fiatarone MA, Morganti CM, Trice I, Greenberg RA, Evans WJ. Effects of high-intensity strength training on multiple risk factors for osteoporotic fractures: a randomized controlled trial. *JAMA.* 1994;272:1909-1914.
- Nelson ME, Fisher EC, Dilmanian FA, Dallal GE, Evans WJ. A one-year walking program and increased dietary calcium in postmenopausal women: effects on bone. *Am J Clin Nutr.* 1991;53:1304-1311.
- Rickli, RE, Jones CJ. *Senior Fitness Test Manual.* Human Kinetics. Champaign, IL. 2001.