

Exercise for Older Adults



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Exercise for Older Adults

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Introduction

The material contained in this manual will help you in starting a well-rounded exercise program. A number of resources as well as examples on how to begin an exercise program are provided. A well-rounded exercise program consists of aerobic, strength, flexibility, and balance training. All four components are important in maintaining and promoting healthy aging in addition to helping those who are physically weak and frail to improve their functional ability. **Aerobic** training is also called endurance training, cardiovascular training, or cardiorespiratory training. All these terms mean the same thing. Briefly, aerobic training consists of exercises that use the large muscle groups, like the legs, that will increase heart rate for an extended period of time. Aerobic training includes exercise such as walking, swimming, cycling, and dancing. It can also include activities such as stair climbing, gardening, and pushing the lawn mower. **Strength** training is another important component of a well-rounded exercise program. Since many older individuals can be physically weak and frail they may not be strong enough to move their own body weight. For these individuals aerobic activities can be extremely difficult to perform. Therefore, strength training will be vital in restoring independence and functionality. Strength training activities consist of using some type of weight or resistance that is lifted to increase the strength of the muscles. **Flexibility** training is performing

exercises that can maintain or improve joint range of motion. Good flexibility can help maintain posture and decrease the risk of lower back pain and injuries. Finally, **balance** training is important to help decrease the risk of falls. A great web resource with additional information to help individuals to learn more and get started with an exercise program is <http://www.firststeptoactivehealth.com>.

Each of the above areas, aerobic, strength, flexibility, and balance training, will be covered in detail in this manual. Chapter 1 provides advice and precautions on starting to exercise, however if you have any concerns please check with your health care provider before starting an exercise program. Chapter 2 describes how to start an aerobic training program using walking as an example. However, you can use any type of exercise that you enjoy, such as swimming or riding a stationary cycle. Chapter 3 describes how to start a strength training program, Chapter 4 a flexibility program, and Chapter 5 a balance training program. The Appendix in the back of the manual has copies of blank forms that can be used to help with starting your exercise program and for logging your exercise. There is also a section for further information on exercise programs and where you can purchase exercise supplies.

Throughout the manual you will see the terms exercise and physical activity. They will be used interchangeably. However, exercise is used to describe more structured purposeful movements where physical activity can include exercise but it also includes the movements that we make in our daily lives, such as taking the stairs instead of the elevator or parking the car at the far end of the parking lot so we will

walk further to our destinations. Another set of terms that you will see in the manual are light, moderate, and vigorous levels of exercise or physical activity. Light activity can be associated with taking a leisurely walk. During this type of activity you would not be breathing hard and you would not be sweating or feeling uncomfortable from the exertion. Moderate levels of activity would be more purposeful walking. You may become a little breathless or sweat but you should be able to carry on a conversation with someone. Moderate activity is defined as more of a brisk type of walk. Vigorous levels of activity are activities where you would not be able to carry on a conversation. In this manual we do not want you to try and pursue vigorous levels of activity unless you discuss this with

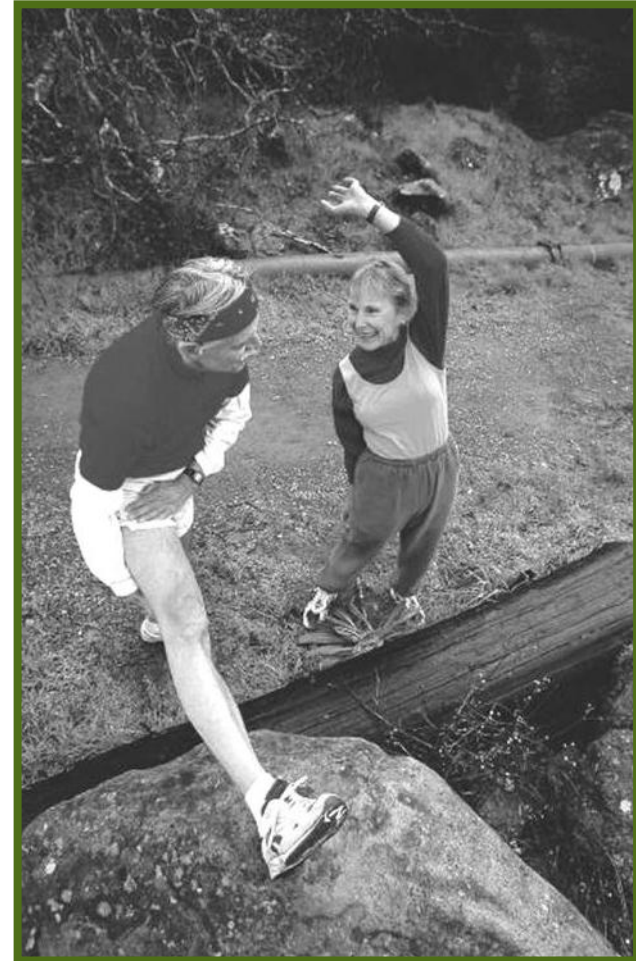
your doctor or health care provider. Research has shown that you do not need to do vigorous activity to receive health benefits. Moderate levels of activity have consistently resulted in the reduction of the risk of chronic diseases such as heart disease, arthritis, obesity, diabetes, and some forms of cancer.

If you are concerned about your health and the ability to start an exercise program please see your physician or physician assistant. Please complete the American Heart Association/American College of Sports Medicine Health/Fitness Health Risk Assessment Form located in the appendix of this manual and bring it to your health care provider. You can also bring the exercise prescription form for your physician to complete. This form is also located in the Appendix.

Good luck with your exercise program. We hope you enjoy using this manual.

Chapter 1

Getting Ready for Exercise



Exercise Benefits

Stressing the benefits associated with exercise or physical activity is crucial for starting and maintaining your exercise program. Identifying and discussing the benefits that may be important to you may increase your motivation to undertake a regular exercise program in addition to making lifestyle changes. Listed below are some of the benefits you can achieve by being physically active. No matter how old you are, staying active and exercising can have enormous benefits. Discuss with your doctor how these benefits may pertain to you. Use the **Exercise Benefits Analysis** sheet in the Appendix of the manual to help you stay active.

Exercise Benefits

- Prevents and manages most chronic diseases, and disabilities
- Decreases blood pressure
- Increases good cholesterol (high density lipoprotein cholesterol) and decreases triglycerides
- Improves glucose and insulin metabolism, which helps with diseases like diabetes
- Increases bone density, which may lead to a reduced risk for osteoporosis
- Increases your ability to perform daily activities (combing hair, getting dressed)
- Increases strength so you can stay or become more independent
- Increases energy to do the things you love (playing with grandchildren, walking the dog)
- Increases balance which may reduce the risk of falls or reduce the severity of a fall
- Improves body composition (decreases fat, increases muscle mass)
- Helps to prevent and reduce pain associated with chronic pain syndromes
- Decreases risk of injury and enhances immunity
- Increases mobility and gait
- Decreases depression
- Decreases stress
- Improves sleep
- Increases feelings of well-being
- Increases cognitive function
- Increases feelings of personal control
- Improves quality of life

Physical Activity Assessment

Determining your current physical activity status is very important when creating an exercise program and setting short- and long-term goals. Therefore, it is important to discover whether or not you are participating in the recommended levels of physical activity for at least 30 minutes on most days of the week.

Questions assessing your physical activity level and future expectations:

- “Do you exercise or participate in physical activity on a regular basis?
 - a. If so, for how long, what type of activity, and how often?
 - b. If not, when was the last time you were regularly exercising or being physically active and what types of activities did you participate in?
- “Are you physically active 30 minutes a day most days of the week?”
- “Do you plan to exercise or become physically active in the next month or so?”
- “What types of exercise or physically activities have you enjoyed in the past or currently enjoy?”

Lifestyle related questions:

- “Do you take the stairs when possible?”
- “Do you work in the garden regularly?”
- “Do you walk often throughout the course of your day, to and from places?”
- “Do you look for opportunities to be more physically active throughout your day?”

Sentence completion to assess fears associated with physical activity:

- “The one thing I fear most about exercising or physical activity is _____.”

This may assist you in identifying some perceived barriers that you may have, so that you are able to address the worries with your health care provider. By discussing your fears you may be able to enhance your readiness to exercise or increase your physical activity.

Before You Begin...

Almost anyone at any age can start an exercise program or increase his or her physical activity. Even individuals with long-term illnesses like cancer, heart disease, or diabetes can become more physically active. Talk with your doctor or health care provider if you are worried or need some advice especially if you want to do more vigorous or energetic type activities that require a great deal of exertion. Use the **Exercise Prescription Form** in the Appendix to start the dialogue with your doctor or health care provider about becoming more physically active.

If you are having any of the symptoms below check with your doctor or health care provider before you start an exercise program or become more physically active or if these problems develop while you are exercising.

- ✓ Any new symptoms that you haven't discussed with your doctor
- ✓ Dizziness or shortness of breath
- ✓ Chest pain or pressure
- ✓ The feeling that your heart is skipping, racing, or fluttering
- ✓ If you have blood clots
- ✓ If you get an infection with fever and muscle aches
- ✓ Unplanned weight loss or sudden weight gain
- ✓ Foot or ankle sores that will not heal
- ✓ Joint swelling
- ✓ If you are having eye surgery, laser treatment or have a detached retina
- ✓ If you have a hernia
- ✓ If you have had recent hip, knee, or back surgery

Safety First

Exercise is safe however, abiding by a few safety recommendations can help keep you injury free and active.

- Before initiating an exercise program or if you have some concerns you should talk to your doctor or health care provider.
- Please seek medical advice, if you start to feel any of the symptoms listed on the previous page.
- If you experience chest pain/pressure, trouble breathing or shortness of breath, light-headedness or dizziness, or nausea during exercise you should contact your doctor.
- Activities inducing sharp pain should be avoided.
- If you feel really tired or feel severe discomfort (some soreness is normal), slow down and take it easier.
- Exercise that causes increased joint pain should be avoided.
- Proper breathing is imperative during exercise. You should never hold your breath while exercising or straining, particularly for those who have high blood pressure.
- Create an exercise plan that considers your current physical ability and your current activity level.
- Start slowly, especially if you have not been physically active for a long time. Progressively build up your physical activity.
- Use safety equipment. Wear a helmet when riding a bike. Wear correct shoes when walking.
- Unless otherwise directed by your doctor, make sure you are drinking plenty of fluids (water or other sport drinks). Even if you aren't thirsty your body may need the extra fluids.
- Avoid exercising during the hottest parts of the day. If you are outside, wear sun screen.
- A good warm-up that increases your heart rate and loosens up the muscles is very important to perform before you stretch. Five to ten minutes of walking with light arm pumping may be a good starting point. Stretching muscles before they are warmed up may result in injury.

Falls are always a potential risk during activities of daily living. The next few pages will describe how to correctly get up from a fall if a fall should occur.

How to Get Up from a Fall

Often times when people fall, they panic. The panic is what ends up causing more injuries than the fall itself. Many attempt to get up too quickly or the wrong way and do not think through what they are doing. Therefore, it is important to practice how you would get up from a fall before it actually happens. The following information will help you remember the correct way to get up and reduce panic if a fall should occur.

If You Fall...

1. Take a deep breath and relax
2. Assess the situation and determine if you are hurt
3. If you think you are injured, **DO NOT** attempt to get up
 1. Call 911 if possible.
 2. If not, yell for help (someone is likely to hear you)
 3. If no one hears you, lay there and relax until you feel strong enough to get up
4. If you believe you are strong enough to get up...
 1. Try to roll onto your side, turning your head in the direction you are rolling
 2. Crawl to a chair, couch or other sturdy piece of furniture
 3. Slowly pull yourself up
 4. Place your **hands flat** on the furniture
 5. Bend your **stronger** knee and keep the other knee on the floor
 6. Slowly stand up
 7. Slowly twist yourself around and sit down on the furniture
 8. If you need help, **call a family member or emergency services**

Please refer to the following diagram of how to correctly get up from a fall.



Try to fall on your side or buttocks. Naturally roll over, turning your head in the direction of the roll.

If you can, crawl to strong, stable furniture like a chair, and pull yourself up. Approach the chair from the front and put both hands on the seat.

Slowly, begin to rise. Bend your strong knee, keeping your other knee on the floor.

Slowly twist around and sit in the chair.

Information Provided by: The American Academy of Orthopedic Surgeons
6300 N. River Road Rosemont, IL 60018 Phone: 847.823.7186 Email: orthoinfo@aaos.org

Stay Motivated with Social Support

Social support is an integral part of starting or continuing an exercise program and making lifestyle changes. Therefore, it is very important to identify and form a positive social support unit. Below are effective ways social support can be enhanced which may ultimately help to keep you motivated and exercising.

1. Identify a Support Group

- Talk with friends and family about your lifestyle change(s)
- Ask for support and encouragement
- Tell family and friends the type of support you would like (such as what things help and hurt your commitment and motivation levels)
- Share your goals with your support group (the chance of achieving goals increases with each person who knows about them)

2. Join a Walking Group or Form One

Join a walking group (mall-walkers, neighborhood walkers) or put together your own walking group

- Talk to friends or family who may have an interest in walking
- Find a day/time everyone can agree on
- Hold each other accountable
- Make it fun (tell jokes, make walking a game, have a conversation, be positive)
 - Remind each other during the walk of the things that will benefit you from this commitment
 - Enjoy quality time with friends and family

3. Join a health/wellness center

- Join a center where you feel comfortable
- Form a buddy system (find a friend or someone at the center who will be a positive influence on your new lifestyle)
- Participate in a group class that interests you and that you feel comfortable attending

4. Hire a personal trainer

- Research the personal trainer
- Make sure the trainer's style fits you
- Ask friends if they recommend someone
- Ask for a trial session to see if it's a good fit
- Inform trainer of goals, capabilities, and any medical problems
- A trainer can help with accountability

Stay Motivated with Goal Setting

Another important aspect of exercise success and motivation is having a clear path to follow. It is very difficult to reach a destination if you are not aware of where you are going and the necessary steps that must be followed to get there safely. Goal setting, and adopting a behavioral change in your lifestyle are important for increasing physical activity or staying with an exercise program.

It is important to remember that the typical physical activity recommendations are goals, and not necessarily the first step in adopting a new physical activity program. You can start with 5 to 10 minutes of easy and fun activity, and work up to the recommended 30 minutes of physical activity on most days of the week. The recommendation can also be achieved by breaking up the exercise into smaller amounts (10-minute segments) performed multiple times throughout the day. Incorporating enjoyable activities are critical for staying with the program and creating a behavioral change. Goals should be individualized and based on your ability, readiness for exercise, and level of social support. Goals should be based on the results of your physical assessment or functional limitations. An example of such a goal would be, “After 5 weeks of exercise 3 days a week for 20 minutes, I will be able to walk up and down a flight of stairs 3 times without breathing heavily.”

Goal Setting Guide

“A goal properly set is halfway reached.” -Abraham Lincoln

I should set goals because goals...

- Increase motivation to succeed
- Increase confidence
- Provide me with direction
- Increase effort
- Increase chances of success/goal attainment

Goals must be... SMART

Specific: incorporate exactly what you will do, when and how much

Measurable: set goals with a standard that must be reached (workout 30 min/day)

Adjustable: adjust goals in case of a setback or a faster than expected progression

Realistic yet challenging: set moderately difficult goals

Time-based: set a deadline to prevent putting it off or trying to go too fast

Examples of SMART goals

“I will walk my dog at least 3 times a week for 20 minutes.”

“In 6 months, I will progress to exercising at least 5 days a week for 20 minutes a day.”

Length of Goals

Long-Term - goals accomplished in 6 months - 2 years (such as to lose 10 pounds or gain better functioning)

Short-Term - goals requiring less than 6 months; lead to long-term goals (such as to lose one inch around the waist)

Weekly - goals for the week; leads to short-term goals (exercise 3 days/week for 20 min/day)

Daily - what you'll accomplish today; leads to weekly goals (work out today for 20 minutes)

Types of Goals

Performance - Improvements relative to yourself (“I will be able to climb 2 flights of stairs” or “I will carry 1 bag of groceries to my car by myself”)

Process - How exactly you will achieve your performance goal or long-term goals. These goals are imperative to achieving your long-term, short-term, weekly, and even daily goals. Laying out the process helps you determine what actions are necessary. This helps when evaluating the achievement of your goals.

Evaluating Goals

One of the most important aspects of goal setting is the evaluation and follow-up of the set goals. Many times, this facet is forgotten about or neglected due to a perceived lack of time or because the goals were forgotten. Once goals are attained remember to set new goals in the same effective way. If you do not achieve a goal make sure you reflect on why the goal wasn't achieved. Some useful reflection questions are listed below:

- Why did/didn't I achieve my goal?
- Were those things within my control or not?
- What could I have done differently that would have made goal attainment easier?
- How will I learn from this goal to help me achieve my next goals?

Overcoming Setbacks/Obstacles

Setbacks are a normal part of undertaking any behavioral change. You must recognize them, accept them, and move on. Examples of some common setbacks and obstacles include illness, time, bad weather, and scheduling conflicts. In order to prevent negative effects of a setback, it is useful to assess the situation and brainstorm any possible obstacles that may occur or interfere with your exercise program. Once you have brainstormed potential setbacks and obstacles, several ways to deal with each one should be identified. This back-up plan can decrease some of the negative consequences associated with setbacks/obstacles.

Points to Remember

- Set daily goals everyday when you wake up
- Keep a journal and write down your goals (takes less than 5 minutes)
- Evaluate your goals (see whether or not you achieved your goal and why)
- Explore things that may keep you from achieving your goals
- How will you overcome these obstacles should they arise?
- Tell as many people as you can to increase the likelihood of achieving your goals

Stay Motivated by Reframing

There are many negative thoughts associated with exercise and physical activity. However, you have control over your thoughts toward exercise. If you change your negative thoughts to positive ones then your attitude to exercise will soon follow. Having positive thoughts and attitudes towards physical activity will enhance your motivation and ability to stay with an exercise program. You have to be conscious of your self-defeating thoughts and work to change them.

Negative

1. I have way too much work to do.
2. It's too hot, cold, wet, or humid out.
3. I just want to watch TV.
4. I am in a rotten mood.
5. I do not feel like it.
6. It's boring.

Positive

- If I take a 2-minute break I will be more productive.
- I can always walk or dance around the house.
- I will march in place while watching TV.
- If I exercise, I will feel so much better afterwards.
- I just have to get started, and then I will feel like it.
- If I walk and talk to someone, it's a lot more fun.

Reframe the Way You View Exercise

Answer the following questions and then place your positive statement on a note card where you can see it every day.

- What are some negative thoughts you say to yourself related to exercise or physical activity?

- How can you change these negative thoughts into positive statements (Use positive language - avoid using the word “don’t” in your positive statement, state the thoughts in a positive tone)?

A goal worksheet is provided in the Appendix of this manual.

Tips for Staying Motivated

Many factors play into your motivation and willingness to continue an exercise program or to stay physically active. Below are suggestions that can help create the optimal environment for adopting a regular physical activity program.

Recruit doctor support - you are more likely to start and follow through with an exercise program if your doctors and health care providers support you

Speak with someone who has maintained an exercise program - these people should be as similar to you as possible

Emphasize lifestyle changes - incorporate physical activity into your daily life; park farther away, take the stairs, take walking breaks throughout your day

Use local community resources - such as senior centers, medical fitness facilities, community wellness programs, YMCAs, or university aging centers with evidence-based structured activity programs

Tailor exercise programs to meet your needs and goals taking into account your current physical activity level

Minimize injuries - use low to moderate intensity exercise and increase the intensity or volume of activity slowly

- Your exercise choice should be one that does not have excessive orthopedic stress (high impact like running or jumping)
- Aquatic exercise and stationary cycle exercise may be better if you have orthopedic limitations or reduced ability to tolerate weight-bearing activities

Get out and walk - this is an excellent mode of exercise for older adults

Participate in group exercise - walking groups, exercise classes, aquatic groups

Incorporate variety and enjoyment into the exercise program- include optional recreational games or competition in the program

Establish regularity in your exercise program - make exercise a part of your routine

Use progress and attendance charts to record and reward exercise achievements - this provides information about success

Employ periodic functional and/or fitness testing - this can increase motivation and confidence

Use “activity logs” - log activity performed, for how long and what intensity, other personal information can also be included (*activity logs* are located in *Appendix*)

Moderation is key - start gradually and progress slowly

Chapter 2

Aerobic Training



Aerobic Training

Aerobic training is any activity that uses the large muscle groups like your legs and causes your heart rate to increase. Aerobic training is also called endurance training, cardiovascular training, or cardiorespiratory training. Aerobic training includes walking, swimming, cycling, dancing, or stair climbing. Walking is probably the easiest form of aerobic training to do since no special skills are needed. You can

walk almost anywhere (inside or outside), without any special equipment except a good pair of shoes.

The following chapter will advise you on how to start and keep up a walking program. If swimming, cycling and other kinds of aerobic activity are preferred, the log forms in the Appendix can be used to chart the times of your activity.

Walking is a great activity for older adults. It is safe, easy to do, requires no special equipment and has many health benefits. People who walk 30 minutes a day have a lower risk of cardiovascular disease and premature death than people who rarely exercise.

Basic Information

Every workout should begin with a brief 5 minute warm-up. Walking around the house or yard is important to increase the heart rate and to get blood flowing to the muscles. Although walking primarily works the major muscles of the legs, it is important to swing your arms. This will help loosen up your shoulders and make the walk more enjoyable as well as more effective.

Beginning Walkers

Beginning walkers need to start slowly. Please review the following:

- 1. Walk short distances.** Begin with a short walk and gradually increase your distance each day or week. Progress slowly to reduce the risk of injury.
- 2. Walk at a comfortable pace.** Focus on good posture, keeping your head lifted, shoulders relaxed, and arms swinging naturally at your sides.
- 3. Be sure you can talk while walking.** If you can't talk or catch your breath, you are walking too fast. Try to slow down.

Tips to Keep You Walking

Get a Support System

Building a system of family, friends, co-workers and/or neighbors who enjoy walking can help encourage you when motivation is low. Many shopping malls have mall-walker programs where you can meet others with similar goals.

Expect Setbacks and Prepare for Obstacles

Things like time, illness or bad weather may occasionally get in your way. Accept obstacles, learn, and move on. Any increased physical activity is always better than nothing at all! In the event of an extended illness or injury, check with your health care provider before continuing with the exercise program.

Below is an example of a 6-week aerobic activity log. **Blank log forms** are located in the Appendix of the manual. Start slowly and progress to 30 minutes of aerobic activity on most days of the week. For the next six weeks it is important to keep track of the time walked or when aerobic activity is done. The goal is to increase your physical activity consistently. It is recommended that everyone over the age of 2 years should get 30 minutes of activity on most days of the week. Whether your goal is to walk 30 minutes a day, or to lose 5 pounds, your goal is better achieved if it is written down.

6-Week Aerobic Activity Log

Record the time and activity each day.	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Monday	10 min walking	15 min walking	20 min walking	20 min cycling	25 min walking	20 min walking
Tuesday	10 min walking	15 min dance	20 min cycling	20 min walking	25 min walking	30 min walking
Wednesday	10 min cycling	rest	rest	20 min dance	25 min cycling	30 min cycling
Thursday	rest	20 min walking	20 min walking	rest	25 min cycling	30 min cycling
Friday	15 min walking	20 min cycling	15 min walking	rest	25 min walking	10 min cycling
Saturday	rest	rest	20 min walking	25 min walking	25 min cycling	rest
Sunday	15 min swimming	20 min swimming	20 min swimming	25 min swimming	rest	30 min walking
TOTALS	60 min	90 min	115 min	110 min	150 min	150 min

Goals

By writing your goals on the lines below you will have a constant reminder of what you have set out to do.

Daily Goal:

6-Week Goal:

Overall Goal:

Pedometers-Make Every Step Count

Pedometers are neat little devices that can help you keep track of the number of steps that you take a day. Pedometers can be worn on the waist band of your pants or even on underwear if a dress is being worn. Every time a step is taken, the pedometer will count that movement.

Research suggests that there is a target for the amount of walking we should be doing each day. Studies show that 10,000 steps are a baseline for improving health and reducing the risk of chronic diseases. Research shows that most people average 3,000 to 6,000 steps a day in routine activities. To obtain 10,000 steps, you may need an additional 30 minutes of activity each day.

Week 1: Finding Your Starting Point

You do not have to exercise or walk for a whole 30 minutes each day. You can break up your activity throughout the day and get the same health benefits. For example, you could walk 10 minutes in the morning, 10 minutes at lunch and 10 minutes after supper.

1. The goal is to measure your steps in a typical week. Each morning reset the pedometer to “0” then set it to show steps (ignore distance and calorie counts if you have these on your pedometer - this information is not very accurate). The pedometer should be kept closed and attached to the front of your waist to the left or right of center in line with your kneecap. Wear the pedometer all day. At night, the number of steps taken should be recorded.
2. For the first week, perform your normal routine without any changes to your activity levels. Record the steps you take each day. Once clipped to a waistband, it is easy to forget the pedometers are there. The only problem is that they can fall off, especially when using the restroom. To help solve this problem tie a string around the pedometer and loop it through a belt or onto a safety pin attached at the waist.

3. Wearing the pedometer is the easy part. The challenge comes in recording your steps and making sense of the numbers. The reason to writing down your is that over time you will see where your fewest steps are and think about why that is.
4. Weekends, particularly Sundays, are low for many people. While a desire to relax is normal, seeing two days' worth of low step numbers on a pedometer can be eye opening. People are often surprised to learn they are not as active as they think.

Week 2: Increasing Your Steps

Your goal is to increase your average steps by 10% every 1 to 2 weeks. The result is a new target number of daily steps. So, if you have averaged 3,000 steps a day in week 1, try increasing your daily steps to 3,300 steps/day in week 2 or week 3.

1. Start increasing your steps (for example, try parking at the farthest end of the mall parking lot, walking the dog, playing with your grandchildren, etc.). The pedometer provides you with a way to get credit for these extra lifestyle changes.
2. The pedometer is a constant reminder to help you increase activity levels. Housework can become another theme for intensifying tasks you are already doing.
3. All of this is in line with the new thinking in the health community: fitness is not limited to gym time or morning walks. The pedometer lets you see daily life as an opportunity to be more active.
4. Besides adding steps to everything you do, like walking all the aisles at the grocery or the home improvement store instead of making a beeline to what you need, you can also make time for active fun like an evening dancing or a yoga class. Watching steps add up is satisfying. You may find yourself checking your pedometer now and then during the day to see if your goals are reached. The pedometer becomes a gentle reminder to stick with better habits.

Week 3: Continuing to Increase Steps

Slowly increase your number of steps as to avoid injury; it may take 6 months to 1 year to achieve your 10,000 step goal. If your goal is substantial weight loss (for which experts recommend 12,000 to 15,000 steps a day), then increase your steps again by 10%. If aerobic fitness is a goal, try increasing the speed of at least 2,000 to 4,000 of the steps you take.

1. The instructions are to keep increasing your steps by 10%. The 10,000 steps a day is a benchmark for better health. However, there are plenty of good reasons to go beyond the 10,000 steps once you reach your goal.
2. At this level you may conclude that in order to increase again you need to combine lifestyle and workout approaches, setting time aside for walking. For many, simply getting out of the house is the most important factor in getting more steps. For some, taking regular walking breaks is the answer. For others, needed steps are added at the end of the day by walking on a treadmill while watching a favorite TV show.
3. Some days, though, you just won't get the steps. And that is fine. Part of the appeal of lifestyle activity is that it is flexible. Instead of holding yourself to taking a certain number of steps each day, try and aim for a high average level of activity over the course of a week. Increasing a weekly average to nearly 7,000 steps from a baseline of 3,000 is a major improvement.

Will you keep wearing the pedometer? Hopefully, you answer “yes” to this question. After all, the pedometer a little reminder to get out of the chair.

Pedometer Information

A pedometer is a small electronic device that calculates the steps taken during a specific time. The device is quite user friendly. Simply strap it to your waistband. Pedometers simplify the method of keeping track of the distance walked and simply knowing the number of steps taken can push you to take more steps. It is a good idea to put your name and phone number on your pedometer in case it falls off and gets lost.

For information on buying pedometers please see Resources in Appendix.

How to Use the Pedometer:

A pedometer automatically records every step you take, enabling you to actually see how your steps add up throughout the day. Here's how to wear the pedometer to get the most accurate reading:

- The pedometer should be worn snugly against your body, attached to a belt or the waistline of your clothing. If your clothing does not have a waistband, you can attach the pedometer to a piece of elastic tied around your waist or on your underwear band.
- The pedometer should line up vertically with the crease on your pants or the center of your kneecap.
- The pedometer should be parallel to the ground. If it is tilted to one side or another, it will not give you an accurate recording of steps.



Below is an example of a 6-week pedometer log. **Blank log forms** are located in the Appendix of the manual. For the next six weeks, keep track of the number of steps you take. The goal is to slowly increase your physical activity. The first week is used to get a baseline so do not change your activity in this first week. After week 1 or 2, you should increase your steps by 10% (multiply your average by 0.10)

6-Week Pedometer Log

Record the number of steps per day.	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Monday	3,000	3,606	3,966	4,363	4,799	5,279
Tuesday	3,500	3,676	4,200	4,131	4,764	5,132
Wednesday	3,007	3,624	3,989	4,263	4,812	4,979
Thursday	3,500	3,700	3,897	4,300	4,657	5,231
Friday	3,440	3,698	4,112	4,342	4,913	5,324
Saturday	3,000	3,612	4,007	4,149	4,849	5,371
Sunday	3,500	3,723	4,164	4,384	4,759	4,859
Averages for the week	3,278	3,662	4,048	4,276	4,793	5,168

Goals

By writing your goals on the lines below you will have a constant reminder of what you have set out to do.

Daily goal:

6-Week Goal:

Overall Goal:

Exercising Is Easier Than We Think

If being healthy is a high priority for you, but you perceive that you don't have the time or just don't want to go to a gym to work out, here's some good news: you *can* get healthy and fit without joining a gym or without exercising three hours a day.

More Frequent but Shorter Workouts May Be Better

One study compared several short sessions of brisk walking to one longer session, examining the effect on improving aerobic fitness and promoting weight loss in a group of women. One group was told to walk briskly for three separate 10 to 15 minute sessions each day, and the other group was told to walk continuously for 30 to 45 minutes a day. After five months, both groups lost weight and both groups improved their fitness level. However, the women in the “short session” group continued to walk after the study because they found that short, more frequent workouts were more feasible than longer ones.

The key finding is: Women were able to lose weight and become fit with two to three *separate*, short bouts of brisk walking. Thus, on days when you just can't carve out 30 minutes for a workout, maybe you could find 15 minutes in the morning and 15 in the evening for a brisk walk around the park. Pretty simple—and it's just as effective as a half-hour workout all at one time.

“Lifestyle” Activities Just as Good

“Lifestyle” activities, such as gardening or vigorous housework, are just as good at improving health in “couch potato” folks as working out at the gym. The men and women in this study were assigned to one of two six-month programs, a traditional “structured exercise” program or a “lifestyle activity” program. The people in the structured exercise program exercised at a fitness club four to five times per week, and the people in the “lifestyle” group added various lifestyle activities to their daily schedule. These activities included gardening, parking their car farther from their destination and walking, hand-delivering memos at work instead of using email, or any physical activity that was convenient for them, as long as they *accumulated* 30 minutes of moderate-intensity physical activity four to five days per week.

After six months, both groups lost weight and improved their fitness levels, but the structured group increased their fitness level more than the people in the lifestyle group did. However, after two years the researchers went back to see if either group

had maintained their improved fitness levels and found that most of the people in the structured group had stopped exercising whereas people in the lifestyle group continued to be active and had maintained their fitness levels. The conclusions? In the long run, lifestyle activities may be easier to fit into a busy schedule and, for some people, may be less intimidating than going to a gym to work out.

The next time you hear yourself saying, “I don’t have time to exercise” think again. Chances are you could fit in a 15-minute brisk walk twice a day or, if you can’t get out and do something fun, try and add short bouts of physical activity during your day wherever you can.



Getting the Most Out of Your Walks

Walking correctly is important for health, fitness, and keeping you injury free.

Tip #1: Wear appropriate clothing when walking.

- **Hot weather walking.** Light color clothing to reflect the light should be worn. Do not wearing clothing that traps the heat. Use sunscreen and wear sun glasses to protect your eyes, especially if you have Macular Degeneration. A hat is also a good idea to keep the sun off the top of your head.
- **Cold weather walking.** Dress in layers so if you become hot, clothing can be removed or put back when cool again. Cotton should not be worn next to the skin, since it will absorb the sweat and will cause you to become cold and uncomfortable. Three layers of clothing are best. The first layer should be a fabric that will wick sweat away from your body. The second layer should be the primary insulation such as a sweater or sweat shirt. The outer layer should be a jacket that will protect against the wind, rain, or snow. Since a great deal of heat is lost from the head, a hat is a good thing to wear. Gloves should also be worn to protect your hands.
- **Walking in the dark.** Early in the morning or late in the evening, be sure to carry a flashlight and wear a reflective vest or stickers. Never wear dark colors. Reflective stickers and vests can be bought at running/walking or biking stores.
- Make sure you wear comfortable shoes. See the last section on how to choose exercise shoes for walking.

Tip #2: Stay well-hydrated.

- Do not rely on thirst as a time to get a drink, since the sensation of thirst decreases with aging.
- Get 6-8 glasses of water a day. Drink a glass of water before walking and again after finishing the walk.

Tip #3: Use good posture while walking.

- Stand up straight with shoulders back and relaxed.
- Look up and not straight down. Focus your eyes about 10 to 20 feet ahead to watch for tripping hazards.

Tip #4: Swing your arms.

- Swinging the arms adds upper body exercise to help get more out of walking. This may also help keep the hands from swelling. Keep the elbows close to the body and swing arms naturally back and forth. As the hands come up they should not cross the center of the body or come up past the chest. The right arm and left foot should come forward together and then the left arm and right foot will come forward. The arms should move with the feet at the same speed and have about a 90 degree bend to them.

Tip #5: When tired, rest.

- Although it is recommended to do at least 30 minutes of activity on most days of the week, it is also important to rest and recover from exercising. It is okay to take a day off to rest, when tired or sore.

Safety While Walking Outdoors

Just like any activity, there are precautions to take to avoid injury. Below is a list of guidelines to follow when walking outside.

Safety Guidelines While Walking Outdoors

1. Walk in numbers.
2. Wear colors that are bright and reflect in the night. (Reflective decals can help)
3. Walk in lighted areas.
4. Carry a whistle or cell phone to use if you need help - tucked away in a pocket instead of your purse or bag.
5. Tell someone when you're going for a walk and when he or she should expect you back.
6. If you're walking alone, select a route that is highly visible to other people- if others can see you, you'll increase your safety.
7. Walk so that oncoming traffic is facing you.
8. Use crosswalks when crossing streets and obey traffic signals.
9. Bring your dog with you.
10. If you wear an audio player, try to keep the volume to a minimum so you are still aware of your surroundings.

How to Choose Exercise Shoes

If you have tried to buy a pair of exercise shoes recently, you have probably realized that the old shoes of the past have been replaced by state-of-the-art exercise shoes. You are faced with so many options that the task of choosing a pair of shoes has become increasingly complicated. Basic information about exercise shoes can help to sort through the choices available.

- Exercise shoes no longer require a breaking-in period. In fact, it is more important to be aware of when they wear out, because they will lose their cushioning which absorbs the pounding and jarring action of walking with regular use. It is important to replace shoes regularly, to prevent knee, foot, and/or ankle injuries. Once shoes become stiffer and less flexible they need replacing.
- It is possible to spend anywhere from a few dollars for no-name brands to more than \$200 for the latest fashions. Consider both your budget and your fitness needs before spending a large amount of money on exercise shoes.
- Once you know the brand and style of shoe that is best for you, consider shopping on the Internet at websites that offer discounts on popular exercise shoes, including walking shoes. See Appendix for resources to buy shoes.

Know What You Need

When choosing exercise shoes, the most important step is finding a good store that carries a wide variety of shoes and sizes for you to try. Once you have decided on the particular type of shoe, it is important to know how to get a good fit. Remember, no matter how popular a shoe is or how good it may look, it won't do you any good if the shoes cause blisters after the first day.

Guidelines for Buying Shoes

When purchasing exercise shoes you must consider your foot type. After considering the type of shoe needed for a particular activity and evaluating your needs based on foot type, use the following information to ensure you get the best fit:

- **Try the shoes on with your own socks.** Some socks can be thicker and can make a difference on how your shoe fits.
- **Try to get fitted for footwear at the end of the day,** when foot size is at its maximum. It is not unusual for an individual's foot to increase one-half a shoe size during the course of a single day.
- **Allow 1/2 inch, or the width of your index finger, between the end of your longest toe and the end of the shoe.** If one foot is larger than the other, buy the larger size.
- **The shoe should be as wide as possible across the forefoot without allowing slippage in the heel.** If the shoe has variable-width lacing, experiment with the narrow and wide eyelets to achieve a custom fit.

Remember that everyone's foot is different and requires specific features. The right shoe for everyone should have: good arch support, appropriate tread, sufficient durability, flexibility, cushioning, and comfort!

Chapter 3

Strength Training



Strength Training

This chapter is designed to give basic instructions for a home-based strength-training program and to outline some general safety considerations when starting such a program. It is best used as a supplement to instructions received by a trained professional in a supervised setting.

Safety Considerations

- Before initiating any of the exercises described, you should receive medical clearance from your doctor or health care provider.
- You should hold off from exercising or stop immediately if you experience any of the following symptoms:
 - Chest pain
 - Dizziness or numbness
 - Unusual shortness of breath
 - Abnormal joint or muscle pain/swelling
 - Irregular or racing heart rate

Training should be halted until you have seen a doctor and have been cleared for exercise.

Exercise Prescription

- The strength-training program should be performed **2-3 times a week**.
- The program should take **20 to 30 minutes** depending on how long you rest between sets or exercises. You may like to play some music while you are performing your workout.
- Each exercise should be performed for **8 to 15 repetitions**. If you cannot lift the weight 8 times it is too heavy and you should choose a lighter weight. If you can perform 15 repetitions of each exercise, you should choose a heavier weight. After you have completed 8 to 15 repetitions, **rest for 1 to 2 minutes** then repeat the exercise for another 8 to 15 repetitions. Each 8 to 15 repetitions is called a set. You should perform **1-2 sets of each exercise** listed on the following pages.

General Training Considerations When Using Weights

- When seated, small of back should be pressed firmly against chair back.
- When standing, natural arch in the back should be maintained.
- When lying down, small of the back should be pressed firmly against surface.
- Focus should be forward with space maintained between chin and chest at all times.
- All movements should be made slowly with control. Never allow the weights to drop your arms or legs back into your starting position. Always resist gravity.
- Spend 2-3 seconds in the lifting phase and 3-4 seconds in the lowering.
- Always breathe during the lift. Exhale during lifting and inhale during lowering.
- Never hold your breath when exercising.

Strength Training Exercises

Below is a complete list of all the strength training exercises presented in this chapter. If you have any concerns about any of the exercises please see your health care provider who may modify the exercises and will also make sure you are completing the exercises correctly. If there are too many exercises for you to learn all at once, pick two exercises from each group and slowly add exercises when you become more confident.

Your warm-up should consist of light walking, cycling or marching in place to get the muscles warm and the body temperature up. You may perform the exercises below in any order you wish.

Upper Body Strength Training Exercises

- _____ Seated Lateral Raise
- _____ Biceps Curl
- _____ Shoulder Shrugs
- _____ One Arm Triceps
- _____ One Arm Row
- _____ Chest Press
- _____ Abdominal Crunch

Lower Body Strength Training Exercises

- _____ Leg Extension
- _____ Heel Raises
- _____ Hamstrings Curl
- _____ Gluteals Extension
- _____ Body Weight Squat

Exercises for the Upper Body

Seated Lateral Raise

For shoulders.

1. Take a seat in a chair without arm rests. Make sure the small of your back is pressed firmly against the back of the chair. Body should be straight with shoulders back. Focus should be forward with chin up, away from the chest. Feet should be flat on the floor and shoulder width apart.
2. With weights in each hand and arms at your side, form a 90-degree angle between forearm and upper arm (See Figure 1). This is your starting position.
3. Take a deep breath and exhale as you slowly raise your elbows out to your side. Hold for one second (See Figure 2).
4. Slowly return to your starting position, inhaling on the return.



Figure 1



Figure 2

Biceps Curls

For front of upper arms.

1. Take a seat in a chair without arm rests. Make sure the small of your back is pressed firmly against the back of the chair. Body should be straight with shoulders back. Focus should be forward with chin up, away from the chest. Feet should be flat on the floor and shoulder width apart.
2. With weights in each hand, hold your arms straight at your side (**Figure 3**). Keep elbows pressed firmly to your side.
3. Take a deep breath and while exhaling, slowly raise your forearms (**Figure 4**). Hold for 1 second.
4. Slowly return to the starting position while inhaling.



Figure 3



Figure 4

Shoulder Shrugs

For upper back and shoulders.

1. Take a seat in a chair without arm rests. Make sure the small of your back is pressed firmly against the back of the chair. Body should be straight with shoulders back. Focus should be forward with chin up, away from the chest. Feet should be flat on the floor and shoulder width apart.
2. With weights in each hand and arms at your side (Figure 5), take a deep breath.
3. Maintain space between chin and chest, and slowly shrug shoulders while exhaling (Figure 6).
4. Imagine lifting shoulders to ears without altering head position for one second, and then slowly lower shoulders to starting position, inhaling as you return.



Figure 5



Figure 6

One Arm Triceps

For back of upper arms...

1. Take a seat in a chair without arm rests. Make sure the small of the back is pressed firmly against the back of the chair. Body should be straight with shoulders back. Focus should be forward with chin up, away from the chest. Feet should be flat on the floor and shoulder width apart.
2. With one weight in hand, hold the arm with weight directly over the shoulder, elbow pointing to the ceiling with opposite arm supporting elbow (Figure 7).
3. Slowly straighten arm with weight while exhaling (Figure 8).
4. Take a deep breath and slowly lower the arm to the starting position.



Figure 7



Figure 8

Be careful to not hit your head with the weight on the return movement as this can hurt.

One Arm Row

For back and shoulders.

1. Stand next to a secure surface (i.e. dining room table or counter top). With feet shoulder width apart, place near hand on secure surface and bend at waist (approximately 45 degrees). Keep shoulders and head up, maintaining a space between chin and chest.
2. With free arm extended and slightly forward (almost perpendicular to the floor), hold weight in this hand (Figure 9).
3. Take a deep breath and exhale, while slowly drawing elbow straight back, keeping arm close to body, until hand weight touches body (approximately midway between the hip and the shoulder (Figure 10).
4. Hold for one second, and then slowly return to starting position inhaling as you return.



Figure 9



Figure 10

Chest Press

For chest.

1. Lay on your bed facing up or on the floor, place feet flat on bed and bend your knees until the small of your back is firmly on the bed. Make sure to keep focus forward with your chin away from chest.
2. With weights in hand, hold arms out to your side creating a 90-degree angle between your upper arms and your forearms (Figure 11).
3. Take a deep breath and exhale as you slowly press your arms forward until the sides of the weights come together above your chest (Figure 12).
4. Slowly return to the starting position inhaling as you return.



Figure 11



Figure 12

Exercises for the Lower Body

Leg Extension

For upper front of legs.

1. Take a seat in a chair without arm rests. Make sure the small of your back is pressed firmly against the back of the chair. Body should be straight with shoulders back. Focus should be forward with chin up, away from the chest. Both feet should be flat on the floor and should be shoulder width apart.
2. With ankle weights secured firmly to each ankle, hold chair seat with both hands (Figure 13). Do not grip too tightly.
3. Take a deep breath and exhale as you slowly straighten one leg. Do not lock knee into place and maintain contact between lower back and chair back (Figure 14).
4. Hold for one second and slowly return to starting position inhaling as you return.
5. After desired number of repetitions, switch legs and repeat.



Figure 13



Figure 14

Heel Raises

For calves, bottom back of leg

1. Stand next to a secure surface (i.e. dining room table or countertop). Keep feet shoulder width apart and body erect. With ankle weights on each ankle, place hands on secure surface. Keep head erect and chin off chest (Figure 15).
2. Take a deep breath and slowly raise both heels off the ground, exhaling during the movement (Figure 16), (you are basically standing on your toes). Maintain an erect posture throughout the movement.
3. Hold for one second, and then return to starting position, inhaling as you return.

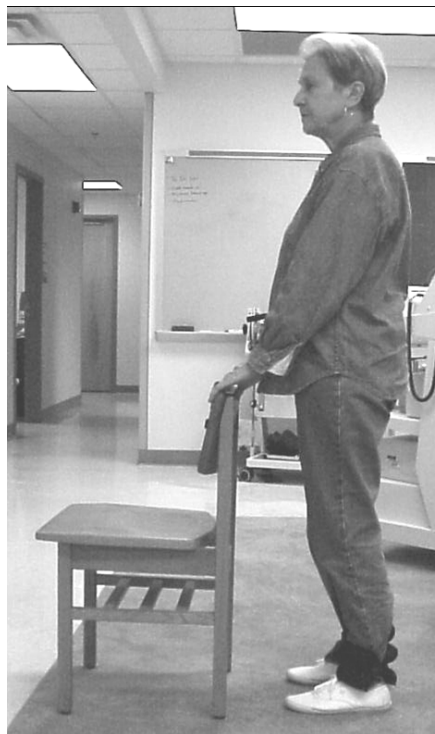


Figure 15



Figure 16

Hamstrings Curl

For upper back of legs.

1. Stand next to a secure surface (i.e. dining room table or countertop). Keep feet shoulder width apart and body erect. With ankle weights on each ankle, place hands on secure surface. Keep head erect and chin off chest (Figure 17).
2. Take a deep breath and slowly raise your heel off the ground until your upper and lower body form approximately a 90 degree angle, exhaling during the movement (Figure 18).
3. Hold for one second and then return to starting position, inhaling on the return.
4. After desired number of repetitions, switch legs and repeat.

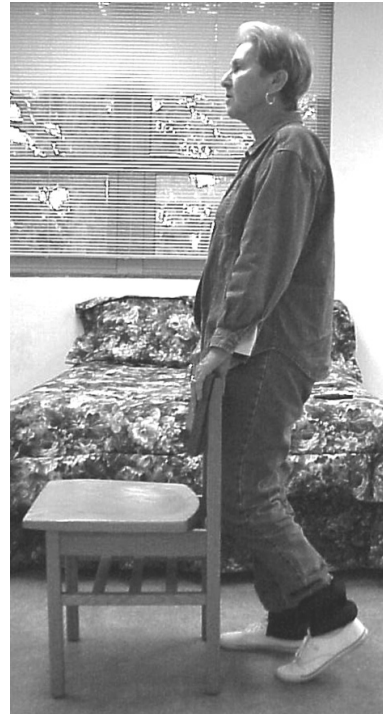


Figure 17

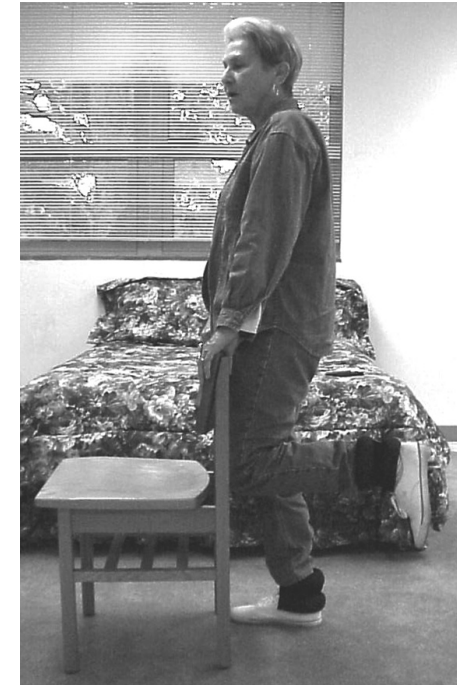


Figure 18

Gluteals Extension

For bottom and back of upper legs

1. Stand next to a secure surface (i.e. dining room table or countertop). Keep feet shoulder width apart and body erect. With ankle weights on each ankle, place hands on secure surface. Keep head erect and chin off chest (Figure 19).
2. Take a deep breath. Slowly extend rear leg backwards as far as possible without bending at the waist exhaling during the movement. Maintain erect torso throughout the movement.
3. Keep working leg straight lift up (Figure 20); hold for one second then return to starting position inhaling as your return.
4. After desired number of repetitions, switch legs and repeat.



Figure 19



Figure 20

Body Weight Squat

For legs and bottom.

1. Stand in front of a chair with a seat that is just at or below your knee joint. Feet should be shoulder width apart and heels should be approximately 4-8 inches in front of a chair. Body should be erect with shoulders back; focus should be forward with chin up and away from your chest (Figure 21).
2. Inhale as you slowly bend your knees and begin to sit backwards towards seat. Extend arms straightforward and parallel to the ground as counterbalances to the movement.
3. Stop movement when back of your legs or buttocks touch seat of chair (Figure 22). It may be necessary to sit fully at first until greater leg strength is developed.
4. Hold for one second then reverse the movement back to a standing position.
5. Exhale during the return to a standing position.

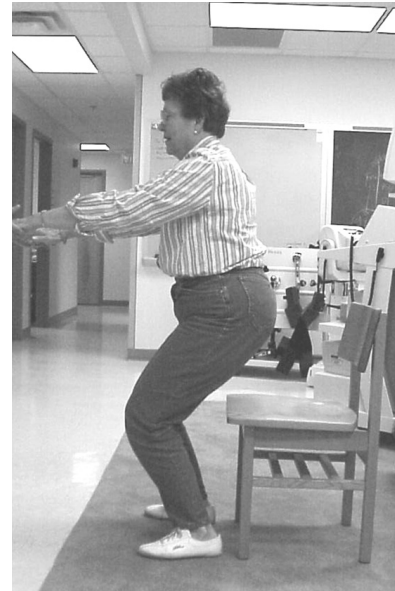


Figure 21



Figure 22

A slight arch in the back should be maintained throughout all phases of movement.

Abdominal Crunch

For abdominals.

1. Lay on a bed facing up or on the floor, place feet flat on bed or floor and bend your knees until the small of your back is firmly on the bed or floor. Make sure to keep focus forward with your chin away from the chest.
2. With hands behind your head at the base of your skull, take a deep breath. Slowly lift your torso off the bed or floor, exhaling as you squeeze your abdominal muscles (Figure 23).
3. Try to imagine a string attached to the middle of your chest (the sternum) pulling your upper body towards the ceiling without altering your head and neck position.
4. Hold for one second and then slowly return to starting position, inhaling as you return.

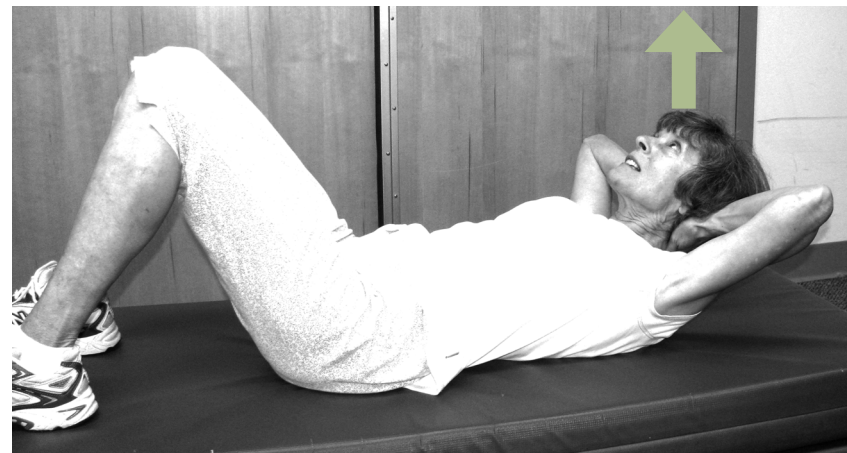


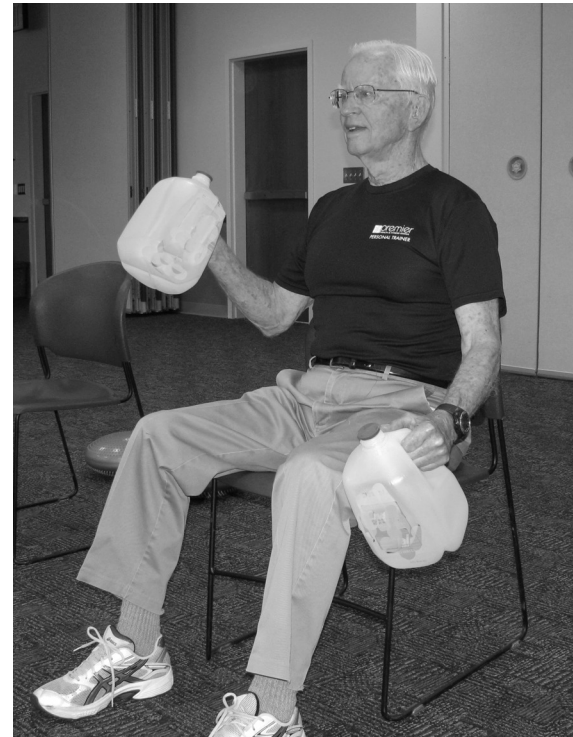
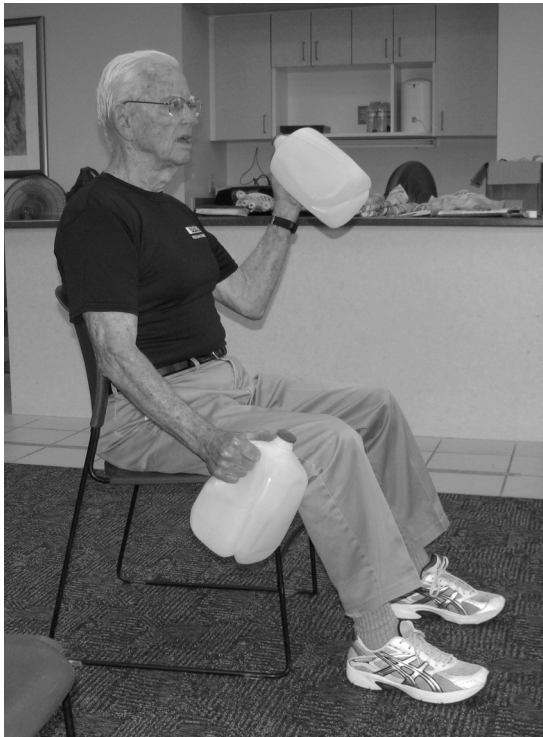
Figure 23

Do not pull on the back of your neck with your hands or squeeze the sides of your neck!

After the conclusion of the strength training session,

1. Thoroughly stretch the muscles you have exercised (see the **Flexibility Chapter**).
2. Wait 48 hours before repeating the strength training program.
3. Record your exercises in the **Strength Training Log** located in the Appendix.

Even though hand weights are used in the pictures you can substitute the hand weights with milk jugs with handles, books, or soup cans. As you get stronger you can put water or sand in the milk jugs or get larger books or cans.



Chapter 4

Flexibility Training



Flexibility Training

Stretching improves range of motion for activities of daily living, such as combing hair, getting dressed, or picking up objects from the floor. Stretching may also prevent pain or injury. Stretching exercises are thought to give you more freedom of movement to do the things you need and like to do. If you are more flexible you are less likely to become injured or have lower back pain.

Flexibility activities include stretching of major muscle groups to improve muscle length, flexibility, and joint health.

Getting Started with Stretching

1. Choose stretches based on your needs (for example, if you have functional limitations in your upper body, perform upper body stretches to target the limitations). Add other stretches as needed.
2. Begin with a total of 5 to 10 stretches of the upper and lower body.
3. Warm up your muscles first by walking, riding a bike, or working out. Stretch muscles while they are warm and have increased blood flow for maximum benefit and minimal risk.
4. **Hold the stretch without bouncing** to a position of mild discomfort for **15-30 seconds**.
5. Continue breathing while holding stretches. Do not hold your breath.
6. Stretch **at least 2-3 days/wk, ideally 5-7 days/wk**, preferably after an aerobic or strengthening workout.
7. If you can't find the time to stretch, stretch while watching TV or before going to bed at night.
8. Some exercises are not appropriate. If you have degenerative disk disease, osteoporosis, hip or knee replacements, have just undergone surgery or if you have any concerns at all please see your doctor or health care provider.

Stretching Safety

- Always warm up before stretching, by stretching after aerobic or strength exercises or by doing some easy walking or arm-pumping first. Stretching muscles before they are warm may result in injury.
- Stretching should never cause pain, especially joint pain. If it does, you are stretching too far, and you need to reduce the stretch so that it does not hurt. Mild discomfort or a mild pulling sensation is normal.
- Never bounce into a stretch – make slow steady movements instead.
- Never hold your breath (this is very important). Try exhaling as you make the stretch and inhale as you come back from the stretch.
- If you have had a hip replacement, check with the doctor who did your surgery before doing lower body stretching exercises.
- If you have had a hip replacement, do not cross your legs or bend your hips past a 90-degree angle.
- Avoid locking your joints into place when you straighten them during stretches. You should always have a very small amount of bending in your joints while stretching.
- Some exercises may have you getting down on the floor. If you are afraid to lie on the floor in case you cannot get up try using a couch or a bed but be careful they are big enough so you do not fall off. Knowing the correct way to get up and down from the floor (please refer to the following page). If you have had a hip replacement or have osteoporosis, please check with your doctor before trying these movements.

Getting to a Lying Position (See Getting Up from a Fall in Chapter 1)

1. Stand next to a very sturdy chair that will not tip over. Put the chair against the wall if that will help.
2. Put your hands on the seat of the chair.
3. Lower yourself down on one knee then bring the other knee down.
4. Put your left or right hand on the floor and lean on it as you bring your left or right hip to the floor.
5. Your weight is now on your left or right hip.
6. Straighten your legs out.
7. Lie on your left or right side.
8. Roll onto your back.

Getting Up from a Lying Position

1. Roll onto left or right side.
2. Use right or left hand, placed on the floor at about the level of ribs, to help push shoulders off the floor.
3. Weight is on left or right hip.
4. Roll forward, onto knees, leaning on hands for support.
5. Put hands on the seat of the chair used to lie down.
6. Lift one of knees so that one leg is bent, foot flat on the floor.
7. Leaning hands on the seat of the chair for support rise from this position.



Stretching Exercises

Below is a complete list of all the flexibility exercises (stretches) presented in this chapter. If you have any concerns about the stretches please see your health care provider who may change or modify some of the exercises and will also make sure you are completing the stretch correctly. To start off choose **4 to 6 stretches for the upper body** and **2 to 4 stretches for the lower body**. Stretches should be performed at least **2 to 3 times per week**. Stretches should be repeated **3 to 4 times each** and held for **15-30 seconds**. Remember to exhale when moving into the stretch and inhale when you return to the starting position.

Upper Body Stretches

- _____ Triceps Stretch
- _____ Chest Stretch
- _____ Straight Arm Chest Stretch
- _____ Shoulder Stretch
- _____ Neck Stretch
- _____ Wrist Flexor Stretch
- _____ Interlaced Fingers Stretch
- _____ Side Bend Stretch
- _____ Lower Back Stretch
- _____ Abdominal Stretch

Lower Body Stretches

- _____ Double Hip Rotation Stretch
- _____ Hip Rotator Stretch
- _____ Hamstrings Stretch
- _____ Standing Quadriceps Stretch
- _____ Calf Stretch
- _____ Gluteals Stretch
- _____ Groin Stretch
- _____ Seated Butterfly Groin Stretch

Exercises to Try - Upper Body

Triceps Stretch

This exercise lengthens muscles in the back of the upper arm.

1. Lift both arms above your head and bend your elbows so that your forearms are behind your head, but not resting on it (Figure 24).
2. Try and get your left elbow to point to the sky.
3. Gently grasp your left elbow with your right hand.
4. Allow your left hand to drop towards the middle of your shoulder blades.
5. Feel the stretch on the outside of your upper left arm.
6. Gently pull your left elbow towards your right shoulder to deepen the stretch.
7. Repeat on opposite arm.



Figure 24

Chest Stretch

This stretch is often called the swimmers' stretch as it works the shoulder muscles.

1. Clasp your hands together behind your back with your thumbs down.
2. Extend your arms behind you.
3. Slowly and gently pull your arms upward (Figure 25).



Figure 25

Straight Arm Chest Stretch

1. With your arm extended, position your hand on a fixed structure at shoulder height. (Figure 26).
2. Turn your body away from your positioned arm.
3. Hold stretch.
4. Repeat with opposite arm.



Figure 26

Shoulder Stretch

This shoulder exercise stretches your shoulder muscles.

In a sitting or standing position, bring the first arm across your chest.

1. In a sitting or standing position, bring the first arm across your chest.
2. Using your second arm pull your first arm towards your chest (Figure 27).
3. You should feel this stretching your shoulder muscles.



Figure 27

1. You can also do this stretch by holding on to a counter with both hands.
2. Keeping a slight bend in your knees, bend over at the waist and slowly stretch the shoulders (Figure 28).
3. Sometimes you may feel dizzy when putting your head down so make sure you are careful not to move your head too quickly and hold on to the counter.



Figure 28

Another stretch for the shoulders can be done while sitting or standing.

1. Clasp your hands behind your neck and slowly press elbows back, but make sure not to push or pull on your neck. (Figures 29 and 30).



Figure 29



Figure 30

Neck Stretch

1. Sitting or standing try to relax the shoulders.
2. While breathing deeply let your head drop down slowly forwards until you feel the muscles in the back of the neck pull slightly.
3. Hold this position and then return back to the start position.
4. Now repeat the process for the sides of the neck bringing your left ear to your right shoulder (Figure 31) and then doing the same for the left side (Figure 32).
5. Do not pull on your neck with your hands or tilt your head backwards. This can put stress on the arteries of your neck. If your neck has painful arthritis do not move quickly this can also cause dizziness.
6. Move head from side to side slowly and do not forget to breathe.

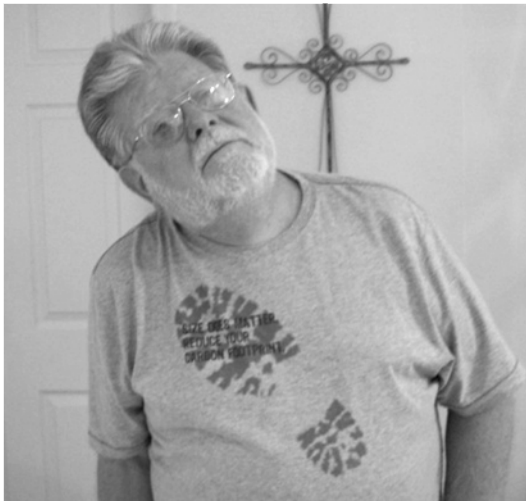


Figure 31



Figure 32

Wrist Flexor Stretch

1. With your palm facing downward, grasp the underside of your fingers with your other hand and straighten your elbow.
2. Now pull your fingers and wrist upward and back toward your forearm. (Figures 33 and 34).
3. Hold stretch.
4. Switch arms, repeat.



Figure 33



Figure 34

Interlaced Fingers Stretch

You should feel the stretch in your shoulders, middle of your upper back, arms, hands, fingers, and wrists.

1. Sit or stand with your arms out in front of you at chest level.
2. Turn your palms towards you and interlace your fingers (Figure 35).
3. Push your hands away from your body (Figure 36).



Figure 35



Figure 36

Side Bend Stretch

The muscles between the ribs, waistline and upper hip are stretched.

1. Sit or stand.
2. Put one hand on your hip and the other hand over your head.
3. Reach up and stretch slowly lean over to one side. Try not to lean forwards or backwards (Figure 37).
4. Hold and stretch, then switch sides.



Figure 37

Lower Back Stretch

This stretch can really aid in lower back pain, muscle spasms, and reduce injuries from exercising tight muscles.

1. Lay on the ground.
2. Slowly and gently pulling your knees into your chest
(Figure 38).



Figure 38

Another stretch for your lower back is to ...

1. Lay on your back on a firm surface.
2. Grab one knee and bring it to your chest (Figure 39).
3. Hold and switch sides.



Figure 39

Another way to stretch your lower back is to...

1. Sit in a solid chair.
2. Slowly lean forward dropping your arms to the floor (Figure 40).
3. Please do not use a recliner or a chair that can tip forwards.



Figure 40

Abdominal Stretch

This stretch works on your abdominal muscles.

1. Lay face down (prone) on the floor.
2. Gently and slowly pressing your torso up in the air by extending your arms (Figure 41).



Figure 41

Exercises to Try - Lower Body

Double Hip Rotation Stretch

This exercise stretches the outer muscles of hips and thighs.

This exercise should not be performed if you have had a hip replacement, unless approved by your doctor.

1. Lie on the floor on your back, knees bent and feet flat on the floor (Figure 42).
2. Keep shoulders on floor at all times.
3. Keep knees bent together and gently lower legs to one side as far as possible without forcing them (Figure 43).
4. Return legs to upright position and repeat towards other side.

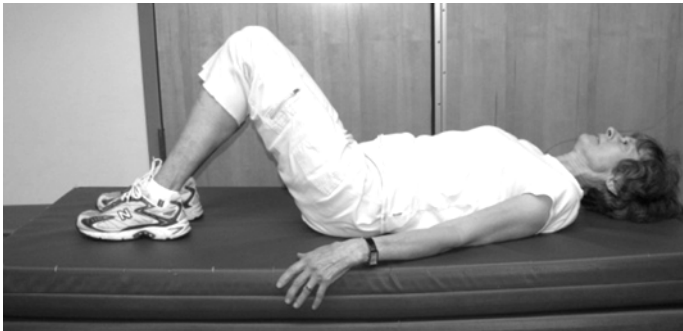


Figure 42



Figure 43

Hip Rotator Stretch

This exercise also stretches the outer muscles of hips and thighs.

1. Lie on your back with both knees bent and your feet on the floor.
2. Put the ankle of the leg you are going to stretch on your opposite thigh near your knee.
3. Push gently on the knee of the leg you are stretching until you feel a gentle stretch around your hip (Figure 44).



Figure 44

Hamstrings Stretch

Your hamstrings are located at the back of your upper leg. There are a number of different ways you can perform this stretch.

1. Lie on your back, with lower back flat on floor, knees bent and feet flat.
2. Slowly extend one leg up until you feel a gentle pull behind the knee (Figure 45).

To increase the stretch, gently flex the ankle.

3. Repeat with other leg.

Do not over stretch or pull leg down hard with hands.



Figure 45



Figure 46

1. You can also sit on the floor and extend one leg out in front of you.
2. Bend the opposite knee with foot toward extended leg.
3. Slowly reach down the extended leg (Figure 46).



1. You can also sit with both legs straight out in front.
2. Slowly bend forward towards your toes and try to touch the top of your legs (Figure 47).
3. As you get more flexible try and touch your ankles than your toes.
4. Make sure you exhale when moving into the stretch.

Figure 47

1. You can also do this stretch standing up if you are steady on your feet.
2. Place one of your feet on an elevated platform or step.
3. Slowly lean down the elevated leg (Figure 48).
4. Switch feet and perform the stretch on the opposite side.



Figure 48

Standing Quadriceps Stretch

This exercise stretches the whole group of quadriceps muscles, which are located above your knee on the front side of your leg.

To stretch the whole group of quadriceps muscles, your hip has to be straight while you stretch.

If you are steady on your feet,

1. Stand holding a chair, counter, or wall.
2. Bend the knee of the leg you want to stretch and grab the front of your foot with the hand on the opposite side (for example, if you're stretching the right leg, use the left hand).
3. Keeping your knees next to each other, pull your foot toward your buttocks until you feel a gentle stretch across the front of your hip and down the front of your thigh (Figure 49).
4. Your knee should be pointed directly to the ground, and not out to the side.



Figure 49

Calf Stretch

This exercise stretches your muscles at the back of your lower legs.

1. Stand facing a wall with your hands on the wall at about eye level.
2. Put the leg you want to stretch about a step behind your other leg.
3. Keeping your back heel on the floor, bend your front knee until you feel a stretch in the lower muscles of the back leg (Figure 50).



Figure 50

Gluteals Stretch

This exercise stretches your muscles in your buttocks.

1. Sit on the floor with your legs out in front of you.
2. Bend the knee of the leg you want to stretch and put that foot on the floor on the outside of the opposite leg (your legs will be crossed).
3. Twist your shoulders toward your bent leg and put your opposite elbow on that knee.
4. Push your arm against your knee to feel a gentle stretch at the back of your buttocks and around your hip (Figure 51).



Figure 51

Groin Stretch

This exercise stretches the muscles in your inner legs.

1. Get into a standing position with your hands on your hips.
2. Lean to your first side and bend this knee while keeping the other leg straight. Both feet should be pointing forward (Figure 52).
3. Hold and then repeat to the opposite side.

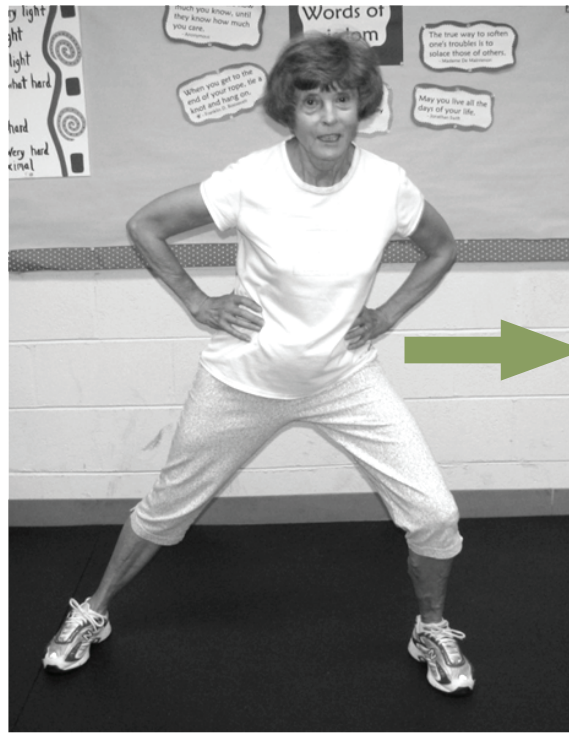


Figure 52

Seated Butterfly Groin Stretch

This exercise stretches your inner legs.

1. Sit on the floor, back straight, shoulders down, abdominals tight, soles of the feet together in front of you, and knees bent to the sides.
2. Pull your heels towards you while simultaneously relaxing your knees towards the floor (Figure 53).



Figure 53

Chapter 5

Balance Training



Balance Training

Loss of balance is common in certain medical conditions that are associated with aging. This can contribute to falls and difficulty walking. Therefore, it is important to learn and consistently perform simple exercises that will improve your balance skills and help you feel more confident in your activities of daily living.

Balance exercises are specific activities that help build lower extremity (leg) muscle strength as well as improve balance. Balance exercises are particularly beneficial in the older adult as they have been shown to help prevent falls. Each year, U.S. hospitals have 300,000 admissions for broken hips, and falling is often the cause of those fractures. Balance exercises can help you stay independent by helping avoid disabilities that may result from falling.

Your brain, muscles and bones, nerves and inner ear all work together to maintain your body's balance and keep you from falling. These systems will all be used when performing the balance exercises provided on the following pages. As you will see there is a great deal of overlap between strength and balance exercises. Many times one exercise will serve both purposes in helping strength and balance.

The following are guidelines designed to help you successfully integrate balance training within your well-rounded exercise program. Please review the guidelines prior to beginning balance training.

- Most of the balance exercises you can do almost anytime, anywhere, and as often as you like, as long as you have something sturdy nearby to hold onto if you become unsteady.
- Simply start by incorporating balance training in daily activities, such as standing on one foot while doing dishes or brushing teeth.
- You should do balance exercises in sturdy shoes or bare feet.
- Having a sturdy object (e.g., kitchen or bathroom counter) in front to grab is important in case a loss of balance occurs.
- You can begin with five balance-specific exercises, performed **two times per week** with each exercise lasting for **10 to 15 seconds**.
- Exercises based on your needs and abilities should be selected. If you are unsure which exercises to do or unsure how to perform any of the exercises, please check with your doctor or health care provider.
- With safety being a critical factor, it is important to clear your environment of any obstacles.
- It is also important to remember that if you have poor balance or are nervous about trying these exercises, you should have someone assist you especially when certain medical conditions exist.
- **Always** have a cell phone or portable phone nearby in case you fall or need some help.

In the beginning, **always** have an object or person close by for assistance if you need it. Many of the examples will have you hold on to a sturdy chair or table for balance. Hold on to the chair or table with one hand. As you progress, try holding on with just your fingertips then maybe with one finger. As you continue to improve, try not to hold on at all. When you become very steady on your feet try to do some of the activities with your eyes closed to improve your balance even more.

Progress Check: In order to acquire a starting baseline value and to monitor progress, you should perform the following progress check periodically. You will need a stopwatch or a watch with seconds.

1. Time yourself as you stand on one foot, without support, for as long as possible.
2. Stand near something sturdy to hold onto in case you lose your balance.
3. Repeat the test while standing on the other foot.
4. Test and record scores each month. A chart has been provided below.

Yearly Balance Progress Chart

	Right Foot	Left Foot		Right Foot	Left Foot
Month 1:	_____	_____	Month 7:	_____	_____
Month 2:	_____	_____	Month 8:	_____	_____
Month 3:	_____	_____	Month 9:	_____	_____
Month 4:	_____	_____	Month 10:	_____	_____
Month 5:	_____	_____	Month 11:	_____	_____
Month 6:	_____	_____	Month 12:	_____	_____

Balance Exercises to Try

Single Leg Stand

Beginner:

1. Stand up straight behind a tall chair or at a counter top. Lightly grasping the chair or counter top with your finger tips.
2. Raise one leg a foot off the ground (**Figure 54**). You can lift your leg out to the side, back, or front. Find which position is the easiest or the hardest.
3. Maintain your balance while standing on one leg.
4. Hold for a count of 10-15 seconds. Repeat with other leg.
5. Perform five times on each leg.



Figure 54

Intermediate:

1. Stand up straight behind a tall chair or at a counter top for safety only.
Without holding on to the chair or countertop raise one leg a foot off the ground.
2. Maintain your balance while standing on one leg.
3. Hold for a count of 10-15 seconds. Repeat with other leg.
4. Perform five times on each leg.

Advanced:

1. Stand up straight behind a tall chair or at a counter top for safety only.
2. Close both eyes.
3. Without holding on to the chair or countertop raise one leg a foot off the ground.
4. Maintain your balance while standing on one leg.
5. Hold for a count of 10-15 seconds. Repeat with other leg.
6. Perform five times on each leg.



Figure 55

Tandem Standing

1. Place one foot directly in front of the other, touching heel to toe and hold (Figure 56).
2. Repeat with other foot in front.
3. Use a sturdy chair for support as needed.



Figure 56

Tandem Walking (Heel-to-Toe)

You might recall this movement from balance beam work in grade school, or just as a childhood pastime in which you tried to walk along a crack in the sidewalk.

1. Position the heel of one foot directly in front of the toes of your opposite foot (Figure 57).
2. Alternate each time you take a step.
3. You may need or want to use your arms to help balance you.



Figure 57

Chair Sitting and Standing

Getting into and out of the seated position can be a challenge for older adults. The movement requires balance and core strength, so that – even if it’s hard for you – it is a good thing to practice standing up and sitting down without using your hands (Figure 58). Have someone beside you for assistance if you need help.



Figure 58



Tandem Standing

Place one foot directly in front of the other touching heel to toe and hold (Figure 59). Repeat with other foot in front. Use a sturdy chair for support as needed.

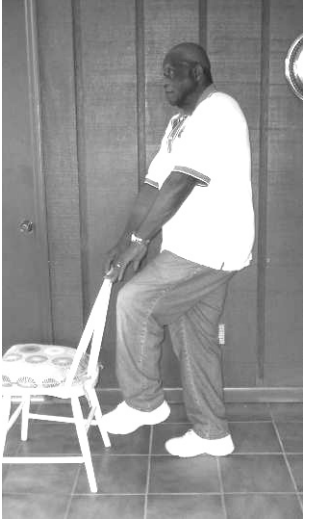
Figure 59



One Leg Balance

Lift foot to stand on one leg. Repeat on other leg, Use a sturdy chair for support as needed (Figure 60).

Figure 60



Standing Hip Raise

Lift the hip and knee. Repeat on the other leg. Use a sturdy chair for support as needed (Figure 61).

Figure 61



Standing Knee Bend

Bend the knee pulling the heel upward. Repeat on the other leg. Use a sturdy chair for support as needed (Figure 62).

Figure 62



Standing Kick

Extend the knee and kick forward. Repeat on other leg. Use a sturdy chair for support as needed (Figure 63).

Figure 63



Standing Side Kick

Extend the knee and kick out to the side. Repeat on other leg. Use a sturdy chair for support as needed (Figure 64).

Figure 64

More Advanced Activities to Try



Standing on Balance Discs

Stand with both feet on a balance disc. Use a sturdy chair for support as needed (Figure 65).

Figure 65



One Leg Stand on Balance Ball

Lift foot to stand on one leg while on balance ball. Repeat on other leg. Hold on to a sturdy support as needed (Figure 66).

Figure 66

See Appendix for where a balance disc or ball can be purchased.

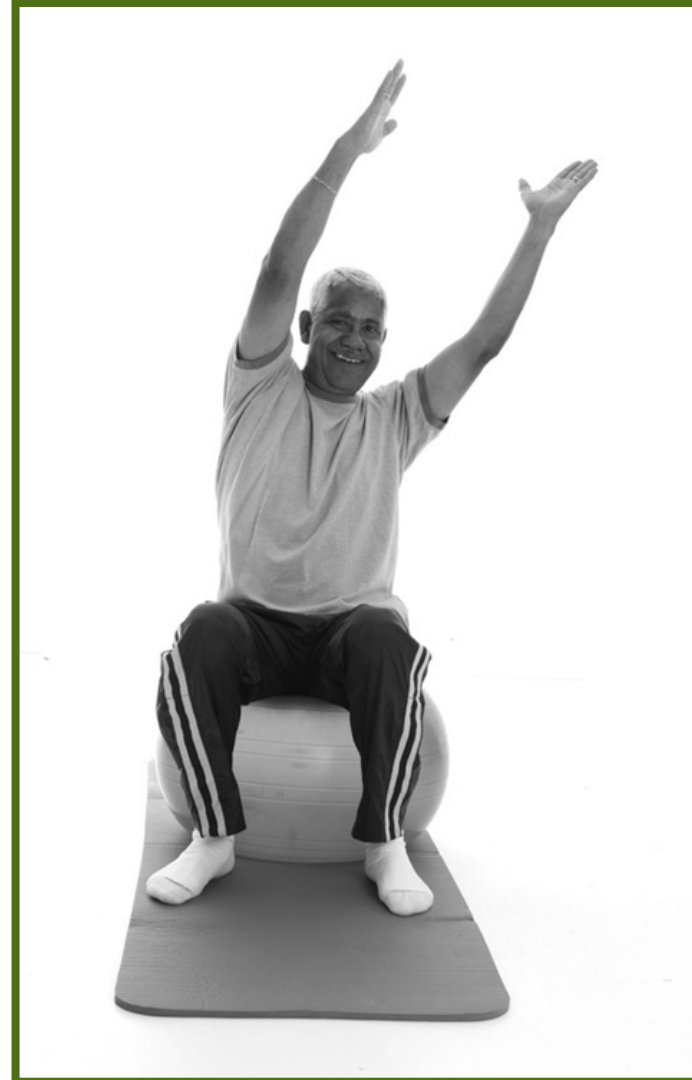
Tai Chi Program

Practicing Tai Chi can reduce the fear of falling by strengthening muscles and training your body to maintain balance in a variety of positions. This ancient Chinese dance-exercise uses smooth, easy movements, and it really helps: In a study at Armstrong Atlantic State University in Savannah, Georgia, 45 women (ages 65 to 96) who did 30 minutes of Tai Chi twice a week for three months not only improved their

balance, but also reduced their fear of falling by 30 percent. Many falls occur when someone is doing one thing and thinking about something else, explains Steven Wolf, Ph.D., of Emory University in Atlanta. Tai Chi helps your balance become automatic, even when distracted. Tai Chi exercises can be effective balance builders for older persons.

Tai Chi classes have become popular at Senior Centers, Churches, Activity Centers, and YMCAs. There may be a class taught in your area. Give it a try and see if your balance improves.

Appendix



American Heart Association/American College of Sports Medicine Health/Fitness Health Risk Assessment Facility Preparticipation Screening Questionnaire for Older Adults

Assess your health status by marking all true statements.

History

Have you ever had

- | | |
|--|---|
| <input type="checkbox"/> a heart attack | <input type="checkbox"/> rhythm disturbance |
| <input type="checkbox"/> heart surgery | <input type="checkbox"/> heart valve disease |
| <input type="checkbox"/> cardiac catheterization | <input type="checkbox"/> heart failure |
| <input type="checkbox"/> coronary angioplasty (PTCA) | <input type="checkbox"/> heart transplantation |
| <input type="checkbox"/> pacemaker/implantable cardiac defibrillator | <input type="checkbox"/> congenital heart disease |

Symptoms

- | | |
|---|--|
| <input type="checkbox"/> Have you experienced chest discomfort at rest or with exertion? | <input type="checkbox"/> Do you take heart medications? |
| <input type="checkbox"/> Have you experienced unreasonable breathlessness at rest or with exertion? | <input type="checkbox"/> Do you get palpitations or a racing heart beat? |
| <input type="checkbox"/> Have you experienced dizziness, fainting, or blackouts? | <input type="checkbox"/> Do you get swelling in your ankles? |
| | <input type="checkbox"/> Do you have difficulty breathing when lying down or difficulty breathing that wakes you up when you are asleep? |

Other health issues

- | | |
|---|--|
| <input type="checkbox"/> Do you have diabetes? | <input type="checkbox"/> Do you have musculoskeletal problems that limit your physical activity? |
| <input type="checkbox"/> Do you have asthma or other lung disease? | <input type="checkbox"/> Do you have concerns about the safety of exercise? |
| <input type="checkbox"/> Do you have burning or cramping sensations in your lower legs when walking short distances or climbing stairs? | <input type="checkbox"/> Do you take prescription medications? |

If you marked any of these statements in this section, consult your physician or other appropriate health care provider before engaging in exercise.

You may need to use a facility with a medically qualified staff.

Cardiovascular risk factors

- | | |
|---|---|
| <input type="checkbox"/> Are you a man older than 45 years? | <input type="checkbox"/> Is your total cholesterol level greater than 200 mg/dl? |
| <input type="checkbox"/> Are you a woman older than 55 years, have had a hysterectomy, or are postmenopausal? | <input type="checkbox"/> You do not know your total cholesterol level? |
| <input type="checkbox"/> Do you smoke, or have you quit smoking within the previous six months? | <input type="checkbox"/> Do you have a close blood relative who had a heart attack or heart surgery before age 55 (father or brother) or age 65 (mother or sister)? |
| <input type="checkbox"/> Is your blood pressure greater than 140/90 mmHg? | <input type="checkbox"/> Are you physically inactive (i.e. you get less than 30 minutes of physical activity on most days of the week)? |
| <input type="checkbox"/> You do not know your blood pressure? | <input type="checkbox"/> Are you greater than 20 pounds overweight? |
| <input type="checkbox"/> Do you take blood pressure medication? | |

If you marked two or more of the statements in this section you should consult your physician or other appropriate health care provider before engaging in exercise. You might benefit from using a facility with a professionally qualified exercise staff to guide your exercise program.

I have none of the above conditions

You should be able to exercise safely without consulting your physician or other appropriate health care provider in a self-guided program or almost any facility that meets your exercise programs needs.

Physical Activity Readiness Questionnaire (PAR-Q)

PAR-Q is designed to help you help yourself. Many health benefits are associated with regular exercise, and the completion of PAR-Q is a sensible first step to take if you are planning to increase the amount of physical activity in your life.

For most people, physical activity should not pose any problems or hazard. PAR-Q has been designed to identify the small number of adults for whom physical activity might be inappropriate or those who should have medical advice concerning the type of activity most suitable for them.

Common sense is your best guide in answering these few questions. Please read the carefully and check YES or NO opposite the question if it applies to you. If yes, please explain.

<u>YES</u>	<u>NO</u>	
_____	_____	1. Has your doctor ever said you have heart trouble? Yes, _____
_____	_____	2. Do you frequently have pains in your heart and chest? Yes, _____
_____	_____	3. Do you often feel faint or have spells of severe dizziness? Yes, _____
_____	_____	4. Has a doctor ever said your blood pressure was too high? Yes, _____
_____	_____	5. Has your doctor ever told you that you have a bone or joint problem(s), such as arthritis that has been aggravated by exercise, or might be made worse with exercise? Yes, _____
_____	_____	6. Is there a good physical reason, not mentioned here, why you should not follow an activity program even if you wanted to? Yes, _____
_____	_____	7. Are you over age 60 and not accustomed to vigorous exercise? Yes, _____
_____	_____	8. Do you suffer from any problems of the lower back, i.e., chronic pain, or numbness? Yes, _____

<u>YES</u>	<u>NO</u>
_____	_____
_____	_____

9. Are you currently taking any medications? If YES, please specify.
Yes, _____
10. Do you currently have a disability or a communicable disease? If YES,
Please specify,
Yes, _____

If you answered **NO** to all questions above, it gives a general indication that you may participate in physical and aerobic fitness activities and/or fitness evaluation testing. The fact that you answered **NO** to the above questions, is no guarantee that you will have a normal response to exercise. If you answered **YES** to any of the above questions, then you may need written permission from a physician before participating in physical and aerobic fitness activities and/or fitness evaluation.

Print Name Signature Date

EXERCISE READINESS & PRESCRIPTION



Patient's name: _____ DOB: _____ Date: _____

Physician's Signature _____

CURRENTLY EXERCISING: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Type/s of Activity _____	
How Hard _____ (Light, moderate, intense)	
How Long _____ (Minutes/session)	
How Often _____ (Times/week)	
PATIENT'S STAGE OF CHANGE	
Precontemplation (Patient not ready to exercise)	<input type="checkbox"/>
Contemplation (Patient interested in/beginning to exercise)	<input type="checkbox"/>
Preparation (Patient's exercise inconsistent/less than optimal)	<input type="checkbox"/>
Action and Maintenance (Patient exercising recommended amount)	<input type="checkbox"/>

PHYSICIAN'S RECOMMENDATIONS

Aerobic Exercise _____

Strength Exercise _____

Flexibility Exercise _____

Sports Exercise _____

Referral to Exercise/Sports Professional _____

My Goals

Target Date: _____ Start Date: _____ Date Achieved: _____

Goal: _____

Making your goal **SMART**:

Specific: What exactly will you accomplish?

Measurable: How will you know when you have achieved your goal?

Adjustable: In case of a setback or progression, how will you adjust your goal?

Realistic, yet challenging: Is your goal moderately difficult? If not, please adjust it.

Time-based: When will your goal be achieved?

This goal is important to me because...

The benefits of achieving this goal are...

Plan for success!

Potential Obstacles/setbacks

Potential Solutions

Seek Social Support: Who will you ask to help you achieve your goal and how will you ask them to help?

Person

How they will help

The more people you tell about your goal, the more likely you are to achieve it!

Stepping Stones: What steps need to be taken in order to achieve your goal?

Step

Expected Completion Date

Completed

Exercise Benefits Analysis

Benefits of Exercise	Will this Benefit Me?	How will I specifically Benefit
↑ Flexibility can improve the range of motion of your joints		Example: combing hair, getting dressed, picking up objects from the floor
↑ Ability to perform daily activities		
Prevention and management of most chronic diseases & disabilities		
↑ Bone density, which may lead to a risk for osteoporosis		
↓ Blood pressure with aerobic training		
Improved glucose and insulin metabolism- <i>helps with diseases like diabetes</i>		
Improved cholesterol profiles		
↓ Triglyceride levels		
Improved body composition (reduction in fat with an increase in muscle)		
Improvements related to cardiovascular disease risk factors		
↑ Strength- <i>helps you stay or become more independent</i>		
↑ Energy to do the things you would like to- playing with grandchildren, walking the dog, going to the mall, sightseeing		
Improved balance- <i>may ↓ the risk of falls or reduce the severity of a fall</i>		

Benefits of Exercise	Will this Benefit Me?	How will I specifically Benefit
Mood enhancement and ↓ depression		
↑ Cognitive function		
↑ Feelings of personal control		
↑ Well-being		
Stress reduction		
↓ Insomnia		
Improved quality of life		
Pain reduction/prevention		
↓ Chances of injury		
Enhanced immunity		
↑ Mobility & gait		

6-Week Aerobic Activity Log

For the next six weeks, it is important to keep track of the time walked or any aerobic activity is done. The goal is to increase your physical activity consistently. It is recommended that everyone over the age of 2 should get 30 minutes of activity on most days of the week. Whether the goal is to move thirty minutes a day, or to lose five pounds, the goal is better achieved if it is written down.

Record the time and activity each day.	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						
TOTALS						

<u>Goals</u>
<p>By writing goals on the lines below you will have a constant reminder of what you have set out to do.</p> <p>Daily goal:</p> <hr/> <hr/> <hr/> <p>6-Week Goal:</p> <hr/> <hr/> <hr/> <p>Overall Goal:</p> <hr/> <hr/> <hr/>

6-Week Pedometer Log

For the next six weeks, keep track of the number of steps you take. The goal is to slowly increase physical activity. The first week is used to get a baseline so keep your normal routine and do not change your activity the first week. After week 1 or 2, increase the number of steps by 10% (multiply your average by 0.10)

Record the number of steps per day.	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						
Averages for the week						

Goals

By writing your goals on the lines below you will have a constant reminder of what you have set out to do.

Daily goal:

6-Week Goal:

Overall Goal:

Strength Training Log

	Name of Exercise		Week # 1				Week # 2				
			Day 1		Day 2		Day 1		Day 2		
			Set	1	2	1	2	1	2	1	2
1	<i>Biceps Curl</i>	Wt	2lbs	2lbs	2lbs	2lbs	2lbs	2lbs	2lbs	2lbs	2lbs
		Reps	8	8	10	10	10	11	12	12	
2	<i>Chest Press</i>	Wt	2lbs	2lbs	2lbs	2lbs	2lbs	2lbs	5lbs	5lbs	
		Reps	8	9	10	11	12	12	8	9	
3	<i>Leg Extension</i>	Wt	12lbs	12lbs	10lbs	10lbs	10lbs	10lbs	15lbs	15lbs	
		Reps	8	9	10	11	12	12	8	8	
4	<i>Hamstring Curl</i>	Wt	10lbs	10lbs	10lbs	10lbs	10lbs	10lbs	10lbs	10lbs	
		Reps	9	9	10	11	11	12	12	12	
5		Wt									
		Reps									
	Date		4/11	4/11	4/15	4/15	4/18	4/18	4/21	4/21	

Strength Training Log

	Name of Exercise	Set	Week #				Week #			
			Day 1		Day 2		Day 1		Day 2	
			1	2	1	2	1	2	1	2
1		Wt								
		Reps								
2		Wt								
		Reps								
3		Wt								
		Reps								
4		Wt								
		Reps								
5		Wt								
		Reps								
	Date									

Strength Training Log

	Name of Exercise		Week #				Week #				
			Day 1		Day 2		Day 1		Day 2		
			Set	1	2	1	2	1	2	1	2
6		Wt									
		Reps									
7		Wt									
		Reps									
8		Wt									
		Reps									
9		Wt									
		Reps									
10		Wt									
		Reps									
	Date										

Performance and Body Mass Index Evaluation

Chair Stand

For this task you will need a stable chair and something to count seconds.

- Sit in the chair with both feet on the floor and arms crossing your chest.
- Stand up straight and then sit down.
- Repeat this for 30 seconds.
- Count the number of stands.
- Your score is the total number of stands.

Sit and Reach

For this task you will need a stable chair and a ruler.

- Sit on the edge of the chair
- One leg should be extended out in front of the chair. The heel should be on the floor and the ankle flexed towards your body. Your other leg should be bent with your foot on the floor.
- Reach with one hand towards your toes (Figures 67 and 68).
- Repeat. Switch which leg is extended and which leg is bent.
- Measure the distance between your fingertips and toes. If you don't reach your toes give yourself a minus score. If you reach past your toes give yourself a positive score.



Figure 67

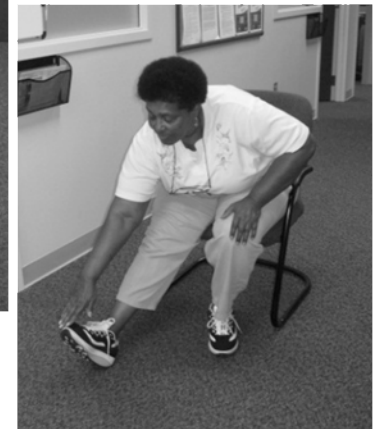


Figure 68

Biceps Curl

For this task you will need a stable chair, something to count seconds, and a dumbbell.

- Sit in the chair with both feet on the floor.
- Once you are sitting hold the dumbbell to the side with one hand.
- Curl your arm up to your shoulders and then lower your arm back down to your side.
- Make sure you are only moving your lower arm.
- Repeat this for 30 seconds.
- Your score is the number of curls completed.
- Repeat on opposite side.

Shoulder Flexibility

For this task you will need a ruler.

- Reach over your shoulder towards the middle of your back.
- Use your other hand to reach up towards the middle of your back.
- Measure the distance between your middle fingers (Figure 69).
- If your fingers do not touch give yourself a minus score. If your fingers touch/overlap, give yourself a positive score.



Figure 69

2-Minute March

For this task you will need something to count seconds, a tape measure and masking tape.

- Place a piece of masking tape on the wall that is as high as your hip.
- Use the masking tape as a marker for the height of your steps.
- Begin stepping in place. Make sure you are raising your knee as high as the masking tape on the wall (Figure 70).
- The score is the number of full steps completed in 2 minutes.
(1 step is counted when you lift the right knee)

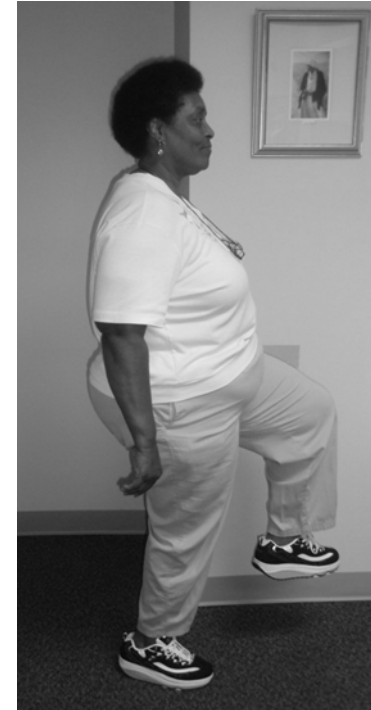


Figure 70

6-Minute Walk

For this task you will need a tape measure, something to count minutes, and items to mark off the course.

- Mark off a course with a distance you can measure.
- Start walking as fast as you can.
- Count how many laps that you completed within 6 minutes.
- The score is the distance you walked.

Get Up and Go

For this task you will need a stable chair, something to count seconds, a tape measure, and something to mark 10 feet.

- Mark a distance 10 feet away.
- Sit in the chair with hands in lap.
- Get up and walk as fast as you safely can to the item you used to mark 10 feet and then return back to the chair.
- The score is the number of seconds it took you to get up from the chair walk to the ten foot mark and sit back down in the chair.

How to Calculate Body Mass Index (BMI)

For this task you will need a scale and a tape measure (or something to measure your height).

- Stand up straight against the wall. Line the tape measure up with the top of your head to obtain an accurate height.
- Step on the scale so you can obtain body weight.
- Once you have your height and weight look at the chart on the next page to find BMI.

Body Mass Index Chart

Height \ Weight	5'0"	5'1"	5'2"	5'3"	5'4"	5'5"	5'6"	5'7"	5'8"	5'9"	5'10"	5'11"	6'0"	6'1"	6'2"	6'3"	6'4"
100	20	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13	12
105	21	20	19	19	18	18	17	16	16	16	15	15	14	14	14	13	13
110	22	21	20	20	19	18	18	17	17	16	16	15	15	15	14	14	13
115	23	22	21	20	20	19	19	18	18	17	17	16	16	15	15	14	14
120	23	23	22	21	21	20	19	19	18	18	17	17	16	16	15	15	15
125	24	24	23	22	22	21	20	20	19	18	18	17	17	17	16	16	15
130	25	25	24	23	22	22	21	20	20	19	19	18	18	17	17	16	16
135	26	26	25	24	23	23	22	21	21	20	19	19	18	18	17	17	16
140	27	27	26	25	24	23	23	22	21	21	20	20	19	19	18	18	17
145	28	27	27	26	25	24	23	23	22	21	21	20	20	19	19	18	18
150	29	28	27	27	26	25	24	24	23	22	22	21	20	20	19	19	18
155	30	29	28	28	27	26	25	24	24	23	22	22	21	20	20	19	19
160	31	30	29	28	28	27	26	25	24	24	23	22	22	21	21	20	20
165	32	31	30	29	28	28	27	26	25	24	24	23	22	22	21	21	20
170	33	32	31	30	29	28	27	27	26	25	24	24	23	22	22	21	21
175	34	33	32	31	30	29	28	27	27	26	25	24	24	23	23	22	21
180	35	34	33	32	31	30	29	28	27	27	26	25	24	24	23	23	22
185	36	35	34	33	32	31	30	29	28	27	27	26	25	24	24	23	23
190	37	36	35	34	33	32	31	30	29	28	27	27	26	25	24	24	23
195	38	37	36	35	34	33	32	31	30	29	28	27	27	26	25	24	24
200	39	38	37	36	34	33	32	31	30	30	29	28	27	26	26	25	24
205	40	39	38	36	35	34	33	32	31	30	29	29	28	27	26	26	25

Height \ Weight	5'0"	5'1"	5'2"	5'3"	5'4"	5'5"	5'6"	5'7"	5'8"	5'9"	5'10"	5'11"	6'0"	6'1"	6'2"	6'3"	6'4"
210	41	40	38	37	36	35	34	33	32	31	30	29	29	28	27	26	26
215	42	41	39	38	37	36	35	34	33	32	31	30	29	28	28	27	26
220	43	42	40	39	38	37	36	35	34	33	32	31	30	29	28	28	27
225	44	43	41	40	39	38	36	35	34	33	32	31	31	30	29	28	27
230	45	44	42	41	40	38	37	36	35	34	33	32	31	30	30	29	28
235	46	44	43	42	40	39	38	37	36	35	34	33	32	31	30	29	29
240	47	45	44	43	41	40	39	38	37	36	35	34	33	32	31	30	29
245	48	46	45	43	42	41	40	38	37	36	35	34	33	32	32	31	30
250	49	47	46	44	43	42	40	39	38	37	36	35	34	33	32	31	30
255	50	48	47	45	44	43	41	40	39	38	37	36	35	34	33	32	31
260	51	49	48	46	45	43	42	41	40	38	37	36	35	34	33	33	32
265	52	50	49	47	46	44	43	42	40	39	38	37	36	35	34	33	32
270	53	51	49	48	46	45	44	42	41	40	39	38	37	36	35	34	33
275	54	52	50	49	47	46	44	43	42	41	40	38	37	36	35	34	34
280	55	53	51	50	48	47	45	44	43	41	40	39	38	37	36	35	34

BMI Ranges

- Underweight: <20.0
- Ideal weight: 20.0-24.9
- Overweight: 25.0-29.9
- Obese: 30.0-39.9
- Extremely Obese: ≥40.0



For a healthy BMI you will want to stay within the white boxes

Performance Score Sheet

Name _____

Date ____/____/____

Sex: M ____ F ____

Age _____

Height _____

Weight _____

Blood Pressure _____

Heart Rate _____

	Trial 1	Trial 2	Comments
Chair Stand		----	
Sit and Reach--right side			
Sit and Reach--left side			
Biceps Curl--right side		----	
Biceps Curl--left side			
Shoulder Flexibility --right hand over			
Shoulder Flexibility--left hand over			
2-Minute March		----	
6-Minute Walk		----	
Get Up and Go			

Exercise Supplies

Below is a list of a few examples of equipment or accessories that you can purchase to help you with your exercise programs (weight training and balance training). Most of the equipment can be bought in athletic, discount or department stores. Remember you do not have to spend a great deal of money. Many things can be obtained around the house to help you to exercise. For example books, soup cans, or empty milk jugs filled with water or sand can be used for hand held weights.

Gold's Gym Aerobic Step



The Step



Gold's Gym 2.5 lb Adjustable Ankle / Wrist Weights



Gold's Gym 5LB Ankle Weights



AeroMAT Single Package Flat Band:
Light, Heavy, and Extra



Natural Fitness Professional Resistance Tube:
Light, Medium, Heavy, and Very Heavy



J Fit Resistance Band:
Medium, Heavy, and X-Heavy



Gold's Gym Long Resistance Tube



Cap Barbell Rubber Medicine Ball:
2 - 12 lbs



Cap Barbell Cast Iron Dumbbell:



The Bar 15-Pound Weight Bar



Cap Barbell Workout Bar



Rollup Exercise Mat - 24x68"



Natural Fitness Burst-Resistant Exercise Ball - 55 - 75 cm



AeroMAT Elite Balance Block in Blue



Gold's Gym Adjustable Core Balance Board



AeroMAT Elite Balance Disc Cushion in Purple



Fitness Quest Bosu Home Balance Trainer



Ultimate Foam Roller



Pedometer



Resources



National Institute on Aging

For more information about exercise and physical activity, visit **NIHSeniorHealth**, the senior-friendly website from the National Institute on Aging and the National Library of Medicine. There are exercise stories featuring older adults and the diverse activities they enjoy. The website can make the text bigger and the contrast better. Visit www.NIHSeniorHealth.gov

National Institute on Aging
Building 32, Room 5C27
31 Center Drive, MSC 2292
Bethesda, MD 20892
800-222-2225 (toll free)
800-222-4225 (TTY/toll free)
www.nia.nih.gov

Administration on Aging

Washington, DC 20201
202-619-0724
www.aoa.gov

American Academy of Family Physicians

P.O. Box 11210
Shawnee Mission, KS 66207-1210
800-274-2237 (toll free)
www.aafp.org
Exercise & Seniors
Exercise: How to Get Started

American Academy of Orthopedic Surgeons

6300 North River Road
Rosemont, IL 60018-4262
847-823-7186
www.aaos.org

Seniors and Exercise

Exercise for Persons 60 Years and Older

American College of Sports Medicine

P.O. Box 1440
Indianapolis, IN 46206-1440
317-637-9200
www.acsm.org

American Council on Exercise

4851 Paramount Drive
San Diego, CA 92123
888-825-3636 (toll free)
www.acefitness.org

American Physical Therapy Association

1111 North Fairfax Street
Alexandria, VA 22314-1488
800-999-2782 (toll free)
www.apta.org
For the Young at Heart: Exercise Tips for Seniors

American Podiatric Medical Association

9312 Old Georgetown Road
Bethesda, MD 20814-1621
301-581-9200

www.apma.org

Gearing up for Walking Guide

Centers for Disease Control and Prevention

1600 Clifton Road
Atlanta, GA 30333
800-232-4636 (toll free)

www.cdc.gov

Growing Stronger: Strength Training for Older Adults!
How to Avoid Portion Size Pitfalls to Help Manage Your Weight

Centers for Medicare & Medicaid Services

7500 Security Boulevard
Baltimore, MD 21244-1850
800-MEDICARE (toll free)

www.medicare.gov

Department of Agriculture Food and Nutrition Information Center

National Agricultural Library

10301 Baltimore Avenue, Room 105
Beltsville, MD 20705-2351
301-504-5414

www.nal.usda.gov/fnic

www.MyPyramid.gov

Dietary Guidelines for Americans

Department of Transportation Federal Highway Administration

Office of Safety

1200 New Jersey Avenue SE
Washington, DC 20590
202-366-4000

http://safety.fhwa.dot.gov/ped_bike/

Pedestrian Safety

Environmental Protection Agency

1200 Pennsylvania Ave NW
Mail Code 1107A
Room 2512 Ariel Rios North
Washington, DC 20460
202-564-2188

www.epa.gov/aging/index.htm

Building Healthy Communities for Active Aging

Exerciseismedicine.org

Great website for learning about the importance of exercise and talking with the health care provider.

Federal Trade Commission

600 Pennsylvania Avenue NW
Washington, DC 20580
877-382-4357 (toll free)

<http://www.ftc.gov/bcp/edu/pubs/consumer/alerts/alt113.shtm>

Avoiding the Muscle Hustle: Tips for Buying Exercise Equipment

**Food and Drug Administration
Center for Food Safety and Applied Nutrition**

5100 Paint Branch Parkway HFS-009
College Park, MD 20740-3835
888-723-3366 (toll free)

www.cfsan.fda.gov

International Council on Active Aging

3307 Trutch Street
Vancouver, BC V6L-2T3
Canada
866-335-9777 (toll free)

www.icaa.cc

National Cancer Institute

6116 Executive Boulevard,
Room 3036A
Bethesda, MD 20892-8322

1-800-422-6237 (toll free)

www.cancer.gov

Physical Activity and Cancer Fact Sheet

National Center for Complementary and Alternative Medicine

P.O. Box 7923
Gaithersburg, MD 20892
800-644-6226 (toll free)

www.nccam.nih.gov

Tai Chi for Health Purposes

National Commission for Certifying Agencies

2025 M Street NW, Suite 800
Washington, DC 20036
202-367-1165

<http://www.credentialingexcellence.org/Resources/NCCAAccreditation/tabid/82/Default.aspx>

National Council on Aging

1901 L Street NW, 4th Floor
Washington, DC 20036
202-479-1200

www.ncoa.org

**National Heart, Lung, and Blood Institute
Health Information Center**

P.O. Box 30105
Bethesda, MD 20824-0105
301-592-8573

www.nhlbi.nih.gov

Portion Distortion Quiz
Your Guide to Physical Activity and Your Heart

**National Institute of Arthritis and Musculoskeletal and
Skin Diseases**

1 AMS Circle
Bethesda, MD 20892-3675
877-226-4267 (toll free)

www.niams.nih.gov

Exercise for Your Bone Health
Living with Arthritis

**National Institute of Diabetes and Digestive and
Kidney Diseases**

National Diabetes Information Clearinghouse

1 Information Way
Bethesda, MD 20892-3560
800-860-8747 (toll free)

www.diabetes.niddk.nih.gov

*What I Need to Know About Physical Activity and
Diabetes*

**National Library of Medicine
MedlinePlus**

8600 Rockville Pike
Bethesda, MD 20894
www.medlineplus.gov

Search “Health Topics” for exercise and fitness information.

**Office of Dietary Supplements
National Institutes of Health**

6100 Executive Boulevard
Room 3B01, MSC 7517
Bethesda, MD 20892-7517
301-435-2920

<http://dietary-supplements.info.nih.gov>

Dietary Supplement Fact Sheets

Office of Disease Prevention and Health Promotion

1101 Wootton Parkway, Suite LL100
Rockville, MD 20852
240-453-8280

www.odphp.osophs.dhhs.gov

Physical Activity Guidelines for Americans
Be Active Your Way: A Guide for Adults

Pedometers

Optimal Health Products and Services
 Quantity discounts on pedometers and step pedometers
 210-824-2099 (Phone) 210-826-0566 (Fax)

Play It Again Sports

A retail store for used discounted exercise equipment
www.playitagainsports.com

President's Council on Physical Fitness and Sports

1101 Wooton Parkway, Suite 560
 Rockville, MD 20852
 240-276-9567
www.fitness.gov

www.creativewalking.com

Website has walking programs, resources and pedometers for sale

Purchasing Exercise Shoes

www.olineshoes.com

Step-By-Step: Walking Your Way To Wellness

Wellness Council of America
 9802 Nicholas St. Suite 315
 Omaha, NE 68114
 402-827-3590
www.welcoa.org

Walkability Checklist (to create walking friendly neighborhoods with a simple five question checklist to identify areas of improvement)

www.nsc.org/walkable.htm

Weight-Control Information Network

1 WIN Way
 Bethesda, MD 20892-3665
 877-946-4627 (toll free)
www.win.niddk.nih.gov

Active At Any Size

Young at Heart: Tips for Older Adults

Fit and Fabulous as You Mature

Walking... A Step in the Right Direction

YMCA

101 North Wacker Drive
 Chicago, IL 60606
 800-872-9622 (toll free)
www.ymca.net

YWCA USA

2025 M Street, NW, Suite 550
 Washington, DC 20036
 202-467-0801
www.ywca.org

About the Authors

Lynn Panton is an Associate Professor in Exercise Science in the Department of Nutrition, Food, and Exercise Sciences at Florida State University. She has been a faculty member at Florida State since 2001. She graduated from Emory University in Atlanta, Georgia with a BS in Psychology and received her Master's Degree and Ph.D. from the University of Florida in Exercise Science. Dr. Panton's research interests are in the area of strength training and the effects on the physiological measurements of strength, body composition, and functional outcomes of healthy older adults and chronically diseased populations.

Brittany Loney is a Performance Enhancement Specialist at the Special Operations Center for Enhanced Performance - Ft. Bragg, North Carolina. Brittany graduated from Texas State University with a BS in Criminal Justice and a minor in Psychology. She has earned two Master's degrees: a MA in Kinesiology with an emphasis in Sport Psychology from California State University, Fresno and a MS in Exercise Science from Florida State University. Presently, Brittany is earning her Ph.D. from Florida State University in Educational Psychology specializing in Sport Psychology. She plans to conduct her dissertation research on the psychophysiological effects of various stress reduction techniques and the subsequent performance outcomes.



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