DEDICATION

Lee Memorial Heath System’s Older Adult Services Department and the National Parkinson Outreach Center gratefully acknowledge the charitable donation of Mr. Curtis Brunk. Mr. Brunk’s Legacy gift provided the financial support that made this publication possible. We also acknowledge the support of Trustee Joan Kruge.

Curtis’ Legacy continues to provide its positive direction with this meaningful publication. Achievement of a healthy, happy lifestyle is our shared goal.

If you, like Mr. Brunk, would like to “Leave a Legacy” to help future generations, please contact LMHS Foundation at (239) 985-3550.

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Nathalie Grondin, PT

Nathalie graduated from the University of Ottawa, Canada with a B.Sc. in Physiotherapy in 1992. She was licensed in Florida in 1993. She achieved neuro-developmental training certification in 1994. Nathalie also completed competency in vestibular rehabilitation in 1998 and pursued advanced training in 2003 with Dr. Susan Herdman. Her primary areas of interest include evaluating and treating balance and vestibular dysfunction as well as work with patients who have Parkinson’s Disease. She is actively involved in education seminars on Fall Prevention throughout the community.
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Section 1
INTRODUCTION

The purpose of this workbook is to bring you up to date information about falls. This will assist you in learning about your own risk factors related to falls and finding out about simple changes you can make in your lifestyle and environment to help you improve and maintain your independence and quality of life.

This information is presented to raise your awareness about the potential for falls. This is NOT a substitute for speaking with your physician. In fact, through your self-assessment you will have definite points to address with your physician. It will be important to ask your physician if it is recommended for you to increase your activity level and start a simple exercise program. Research has shown that exercise and increased activity will not only improve strength, but also improve balance.

Why should we discuss falls?

Falling is one of the leading health concerns for people over 60. In fact, according to Dr. Lawrence Rubenstein “Falls are the most common, serious, and devastating problems faced by the older population”.

The following topics will be addressed:

- The importance of discussing falls and the fear of falling
- An overview of risk factors involved in falling
- A review of recommended lifestyle and environmental changes to lower your risk of falling
- A review of products and devices available to increase your safety and improve your confidence
- A list of suggested exercises to improve your flexibility, strength and balance
- A list of suggestions on how to handle a fall

Certain chronic conditions make people more susceptible to falling and Parkinson’s Disease is one of these. We will review special considerations and needs for the Parkinson’s population.
Section 1
INTRODUCTION

Hello, my name is Nathalie Grondin and I will be your host for “FALL FACTOR.”

The purpose of this educational program is to assist you in learning about your own risk factors related to falls and finding out about simple changes you can make in your lifestyle and environment to help you improve and maintain your independence and quality of life.

Why should we discuss falls?

“Falls are the most common, serious, and devastating problems faced by the older population”. Dr. Lawrence Rubenstein, MD

This educational program will include a series of four 30-minute presentations covering the following topics:

- The importance of discussing falls and the fear of falling
- An overview of risk factors involved in falling
- A review of recommended lifestyle and environmental changes to lower your risk of falling
- A review of products, devices and programs available to increase your safety and improve your confidence
- A list of suggestions on how to handle a fall

Throughout the program we will welcome experts for interviews related to the effects of medications on falling, the importance of physical activity in preventing falls and the availability of community resources to assist in fall prevention.

A Fall Prevention Workbook is available to assist you in following the information provided to you and to serve as a self-assessment tool to provide insight into your risk of falls.

Certain chronic conditions make people more susceptible to falling and Parkinson’s Disease is one of these. Each program will include a segment dedicated to the special considerations and needs for the Parkinson’s population.

Let's get started!
Section 2
WHAT IS BALANCE AND HOW DO WE MAINTAIN IT?

Balance is our ability to maintain an upright position in any given environment: on uneven surfaces, in low or changing light conditions, or on moving surfaces. The ability to maintain balance depends on information your brain receives from three important and different sources:

- **Your eyes** - are sensitive to light and detect movement around you. You rely on information received from your eyes to help to orient yourself to your surroundings.

- **Your muscles and joints** - are sensitive to stretch and pressure. Nerve impulses coming from the neck, ankles and feet are especially important and give information to the brain about the amount of body sway you have in relation to the ground. This provides information about the type of surface you are standing on: whether it is uneven, moving, hard or soft.

- **Your inner ears** - are sensitive to head movements in all directions and allow for clear vision during head movements.

Your balance system includes all the senses in your body. The brain gathers information from all of these areas together. It sends messages to the muscles to control your movements and to keep you from falling. This complex system needs regular practice to keep it healthy. As adults we tend to not give our balance system the practice it needs. Health problems can also weaken the balance system.

Activities that involve moving around freely in all directions, activities that increase or maintain strength in our legs, and maintaining healthy vision through regular eye exams and wearing proper prescription glasses will do much to help you maintain a healthy balance system.

A healthy balance system makes you look and feel great. It allows you to move freely and confidently with increased energy and strength. Keeping your balance system healthy is especially important if you have problems due to chronic illness, joint pain, weakness or dizziness.

Isn’t it amazing what a healthy, active body can do?
Section 3
Self-Assessment Questionnaires

Are you unsure of whether you might have a balance problem?

This self-test will help you determine if you might be headed for a fall. If you answer yes to one or more of the questions, you may be at risk. Complete this test and take the results with you to your physician.

Balance Self-Test

__ Yes  __ No    Have you fallen more than once in the past year?

__ Yes  __ No    Do you take medicine for two or more of the following diseases: heart disease, hypertension, arthritis, anxiety, and depression?

__ Yes  __ No    Do you have blackouts or seizures?

__ Yes  __ No    Have you experienced a stroke or other neurological problem that has affected your balance?

__ Yes  __ No    Do you experience numbness or loss of sensation in your legs and/or feet?

__ Yes  __ No    Do you use a walker or a wheelchair, or do you need assistance to get around?

__ Yes  __ No    Are you inactive? (Answer yes if you do not participate in a regular form of exercise, such as walking or exercising 20-30 minutes at least three times a week.)

__ Yes  __ No    Do you feel unsteady when you are walking, climbing stairs?

__ Yes  __ No    Do you have difficulty sitting down or rising from a seated or lying posture?
Confidence in Activities of Daily Living

Listed below are a number of tasks that people perform every day. They are activities of daily living. These items are often used by healthcare workers to determine a person’s ability to remain independent in their own home. These activities require a certain amount of strength, flexibility, balance, coordination and endurance. Check the items on the list that are important for you to remain in your current living situation. Then look at the chart and check the items you have some difficulty performing. This chart assesses your confidence in performing activities of daily living. This book and video series will give you suggestions that can help boost your confidence in safely maintaining your independence. People who are aware of their limitations can learn to take extra precautions and reduce the risk of falls.

Mark with a check the areas that are problematic and your priorities.

<table>
<thead>
<tr>
<th>I have some difficulty</th>
<th>CONFIDENCE IN BALANCE</th>
<th>Priority for me</th>
<th>Physical Requirements</th>
<th>Code #</th>
</tr>
</thead>
<tbody>
<tr>
<td>How easily you can stand up after you have been sitting?</td>
<td></td>
<td>Lower Extremity Strength Balance</td>
<td>1, 5</td>
<td></td>
</tr>
<tr>
<td>How easily can you sit down safely after you have been standing?</td>
<td></td>
<td>Lower Extremity Strength Balance</td>
<td>1, 5</td>
<td></td>
</tr>
<tr>
<td>How easily can you sit up after you have been lying down?</td>
<td></td>
<td>Lower &amp; Upper Extremity Strength, Balance</td>
<td>1, 2, 5</td>
<td></td>
</tr>
<tr>
<td>How easily can you turn around when you are standing?</td>
<td></td>
<td>Lower Extremity Strength, Balance</td>
<td>1, 5</td>
<td></td>
</tr>
<tr>
<td>How well can you prevent yourself from falling when off balance?</td>
<td></td>
<td>Lower Extremity Strength, Balance</td>
<td>1, 5</td>
<td></td>
</tr>
<tr>
<td>How well can you walk in a crowded shopping center where people walk past you quickly?</td>
<td></td>
<td>Lower Extremity Strength, Balance, Endurance</td>
<td>1, 5, 6</td>
<td></td>
</tr>
<tr>
<td>I have some difficulty</td>
<td>CONFIDENCE IN WALKING</td>
<td>Priority for me</td>
<td>Physical Requirements</td>
<td>Code #</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------------------------------------------------------------</td>
<td>----------------</td>
<td>---------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td></td>
<td>How well can you walk around your home taking into consideration thresholds, doors, furniture, and a variety of floor coverings?</td>
<td></td>
<td>Lower Extremity Strength, Balance, Endurance</td>
<td>1, 5, 6</td>
</tr>
<tr>
<td></td>
<td>How well can you walk up and down a ramp?</td>
<td></td>
<td>Lower Extremity Strength, Balance, Endurance</td>
<td>1, 5, 6</td>
</tr>
<tr>
<td></td>
<td>How well can you step up and down a curb step?</td>
<td></td>
<td>Lower Extremity Strength, Balance, Endurance</td>
<td>1, 5, 6</td>
</tr>
<tr>
<td></td>
<td>How well can you walk on uneven surfaces (grass, sand, gravel) without losing your balance?</td>
<td></td>
<td>Lower Extremity Strength, Balance, Endurance</td>
<td>1, 5, 6</td>
</tr>
<tr>
<td></td>
<td>How well can you walk on slippery surfaces without falling?</td>
<td></td>
<td>Lower Extremity Strength, Balance, Endurance</td>
<td>1, 5, 6</td>
</tr>
<tr>
<td></td>
<td>How well can you walk on soft surfaces (plush carpet) without losing your balance?</td>
<td></td>
<td>Lower Extremity Strength, Balance, Endurance</td>
<td>1, 5, 6</td>
</tr>
<tr>
<td></td>
<td>How well can you walk outside of your house to the car?</td>
<td></td>
<td>Lower Extremity Strength, Balance, Endurance</td>
<td>1, 5, 6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I have some difficulty</th>
<th>CONFIDENCE IN LOWER BODY STRENGTH</th>
<th>Priority for me</th>
<th>Physical Requirements</th>
<th>Code #</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>How well can you get up from a chair/couch?</td>
<td></td>
<td>Lower Extremity Strength, Balance</td>
<td>1, 5</td>
</tr>
<tr>
<td></td>
<td>How well can you get up from your bed?</td>
<td></td>
<td>Lower &amp; Upper Extremity Strength, Balance</td>
<td>1, 2, 5</td>
</tr>
<tr>
<td></td>
<td>How well can you get up from the floor?</td>
<td></td>
<td>Lower &amp; Upper Extremity Strength, Balance</td>
<td>1, 2, 5</td>
</tr>
<tr>
<td></td>
<td>How well can you get up when you use the toilet?</td>
<td></td>
<td>Lower &amp; Upper Extremity Strength, Balance</td>
<td>1, 2, 5</td>
</tr>
<tr>
<td></td>
<td>How well can you get out of a car without using your hands?</td>
<td></td>
<td>Lower Extremity Strength, Balance</td>
<td>1, 5</td>
</tr>
<tr>
<td>I have some confidence in self-care activities</td>
<td>Priority for me</td>
<td>Physical Requirements</td>
<td>Code #</td>
<td></td>
</tr>
<tr>
<td>---</td>
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<td>---</td>
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<td></td>
</tr>
<tr>
<td>How well can you bathe or shower independently?</td>
<td>Lower &amp; Upper Extremity Strength, Flexibility, Balance</td>
<td>1, 2, 3, 4, 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well can you get dressed and undressed?</td>
<td>Lower &amp; Upper Extremity Strength, Flexibility, Balance</td>
<td>1, 2, 3, 4, 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well can you prepare a light meal?</td>
<td>Lower &amp; Upper Extremity Strength, Flexibility, Balance</td>
<td>1, 2, 3, 4, 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well can you bend over and pick up an object off the floor?</td>
<td>Lower Body Strength, Flexibility, Balance</td>
<td>1, 3, 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well can you reach for a small tin of food from a shelf at eye level?</td>
<td>Upper Body Strength, Flexibility, Balance</td>
<td>2, 4, 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well can you stand on your tiptoes and reach something above your head?</td>
<td>Lower &amp; Upper Extremity Strength, Flexibility, Balance</td>
<td>1, 2, 3, 4, 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well can you make a bed?</td>
<td>Lower &amp; Upper Extremity Strength, Flexibility, Balance</td>
<td>1, 2, 3, 4, 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well can you do the laundry?</td>
<td>Lower &amp; Upper Extremity Strength, Flexibility, Balance</td>
<td>1, 2, 3, 4, 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well can you open a heavy door?</td>
<td>Upper Body Strength, Balance</td>
<td>2, 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well can you answer the door?</td>
<td>Lower &amp; Upper Body Strength</td>
<td>1, 2, 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well can you answer the phone?</td>
<td>Upper Extremity Strength, Balance</td>
<td>2, 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well can (or could) you step on/off a bus?</td>
<td>Lower Body Strength, Flexibility, Balance</td>
<td>1, 3, 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well can you do simple shopping?</td>
<td>Lower Extremity Strength, Balance, Endurance</td>
<td>1, 5, 6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Physical Requirement Code:
- 1 = Lower Extremity Strength
- 2 = Upper Extremity Strength
- 3 = Lower Extremity Flexibility
- 4 = Upper Extremity Flexibility
- 5 = Balance
- 6 = Endurance
My Personal Activity Needs to Remain Independent:

Add up the number codes next to items you checked as a priority and place the totals below:

<table>
<thead>
<tr>
<th>Code Number</th>
<th>Total</th>
<th>Type of Exercises Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>Leg Strengthening</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Arm Strengthening</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Leg Flexibility</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Arm/Trunk Flexibility</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Balance</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Endurance</td>
</tr>
</tbody>
</table>

Use this list to determine which exercise should be a priority for you. We will discuss the types of recommended exercises and give you a list of exercises that can help you to increase your confidence and remain independent in the final segment of this booklet.
HOW DO I KNOW IF I HAVE A BALANCE PROBLEM?

Fact: Most people acknowledge a balance problem only after they experience a fall. Understanding potential signs of balance problems will help keep you from becoming a statistic.

Can you identify with any of the following statements? Check off the items that may apply to you:

☐ I have a tendency to touch walls/furniture when I walk around my house.
☐ I avoid walking on uneven surfaces like grass, sand or ramps.
☐ I feel my body becoming very tense when I am in a standing position or while walking.
☐ I feel unsteady when I need to go to the bathroom at night.
☐ I feel imbalanced when I shower and/or wash my hair, especially when I close my eyes.
☐ I feel uncomfortable about my balance when I am in crowds, when I am at the grocery store in the aisles, or when getting on to an escalator.
☐ I feel I must walk much slower than my usual speed.
☐ I notice I have a tendency to keep my feet far apart when I am standing or walking.
☐ I feel I need to look down all the time to keep my balance.
☐ I have a lot of trouble negotiating curb steps or stairs.
☐ I avoid moving my head when I am standing or walking.
☐ I feel a sense of imbalance after moving my head when I am standing.
☐ I am worried about doing my usual activities. I tend to avoid going out.
☐ I feel an overall decreased sense of self-confidence

If you have checked off four or more of these statements, you should discuss this with your healthcare providers.
FACT: Falls injure millions of people ever year.

A fall is an unintentional change in body position in a downward direction, which may or may not result in a physical injury. Beware, if you lost your balance and made it to the ground but did not hurt yourself, this is still considered a fall.

How many people fall?

- One out of three adults over age 65 fall each year.
- One out of two adults age 85 and older fall each year.

How serious is this problem?

- Falls are the leading cause of injury deaths in adults over 65.
- Falls are the most common cause of hospitalizations.

What are the causes of falls?

- Thirty-one percent of falls are because of tripping.
- Seventeen percent of falls are because of balance and walking problems.
- Thirteen percent of falls are because of dizziness.

Where do most falls occur?

- Sixty percent of falls occur in the home.
- Most falls occur in the bathroom.

What are the consequences of falls?

- Loss of mobility and independence.
- Hip fractures and other bone injuries or head trauma.
- Falls trigger fear and anxiety resulting in a loss of confidence.
FACTS AND STATISTICS ABOUT FALLS RELATED TO PARKINSON’S DISEASE

Fact: With advancing stages in Parkinson’s Disease, there are inherent risks related to falls due to the nature of this disease with symptoms of slowness of movement, stiffness and rigidity throughout the body and balance difficulties.

HOW MANY PEOPLE FALL?
• Approximately 38 percent of people with Parkinson’s Disease fall each year.

HOW SERIOUS IS THIS PROBLEM?
• People with Parkinson’s Disease may require more time for rehabilitation as hospitalization usually affects their “normal routine” and renders a patient less mobile.

WHAT ARE THE CAUSES FOR FALLS?
• Falls in Parkinson’s Disease occur mostly when turning or changing directions and is often related to a “freezing episode.”

WHAT IS A FREEZING EPISODE?
For a person with Parkinson’s Disease, a freezing episode is defined as the inability to move the feet or other parts of the body when wanting to initiate movement. Freezing can occur when getting out of a chair, at doorways, hallways, elevators, closets, kitchens, bathrooms, or generally any small closed area. It may also occur with the start of a movement, when changing positions, or turning. It is of special concern because it is a problem that leads to falls. Freezing can also increase anxiety, which worsens the symptoms.

If you have Parkinson’s Disease, consult your healthcare provider to find out where you can participate in a rehabilitation program to learn how to cope with freezing episodes. Many communities also offer exercise programs for people with this. Research shows that exercise is as important for the person with Parkinson’s Disease as their medication.

Fact: Not all people with Parkinson’s Disease experience freezing episodes but those who do are at a much higher risk of falling.
Section 5
INVENTORY OF PERSONAL RISK FACTORS

Fact: Falling is not a normal part of aging.

Falls can happen without warning. Knowing the risk factors and assessing your own status is one way that you can prevent falls and keep from becoming a fall statistic. There are many factors that affect balance and can lead to falls. These may be personal or environmental factors. Personal factors include: health, behavior and lifestyle. Complete the following self-assessment questionnaire to determine if you have personal factors that put you at risk for a fall.

__ Yes __ No  Do you often feel depressed?

__ Yes __ No  Are you anxious about your safety and health?

__ Yes __ No  Do you frequently have trouble remembering things?

__ Yes __ No  Do you fail to use good judgment at times and place yourself at risk?

__ Yes __ No  Are you ignoring the fact that your body is changing and that some changes might make you less safe in your environment. (For instance, is your vision impaired and have you failed to obtain proper glasses)?

__ Yes __ No  Do you have family or friends who can help you make your environment safer, or are you all alone?

__ Yes __ No  Do you have medical issues that affect your health, but do you fail to mention them to your physician?

__ Yes __ No  Do you follow your physician's advice about your medical health?

__ Yes __ No  Do you take your medications as instructed?

__ Yes __ No  Do you have financial issues or concerns that prevent your from obtaining your medications?

__ Yes __ No  Do you have access to medical care, or do you avoid care due to a lack of medical insurance?

__ Yes __ No  Do you have trouble keeping your mind focused on what you are doing?

__ Yes __ No  Do you ask for help when you need it?

__ Yes __ No  Do you participate in risk-taking behaviors such as consuming more than one glass of alcohol a day or smoking?

__ Yes __ No  Have you become inactive, mostly sitting and watching TV?

__ Yes __ No  Are your muscles becoming weak from a lack of exercise?

__ Yes __ No  Are you afraid of falling?
FEAR OF FALLING

Fact: If you are fearful of falling, you are not alone.

A 1993 research study by Howland et al. asked respondents about fears that are not uncommon among older adults. These were their results:

- 47 percent were afraid of falling
- 17 percent were afraid of being robbed in the street
- 8 percent were afraid of forgetting an important appointment
- 12 percent feared financial problems
- 5 percent feared losing a cherished item

This means that many older adults rate the fear of falling very high on their list of concerns.

The fear of falling is very prevalent among older adults. A fear of falling can create tremendous anxiety. When people move based on fear, they often limit their activities and socially isolate themselves. This can lead to further problems including depression and a sense of helplessness.

Many older adults believe they can do nothing to prevent falls. Although it may not be possible to prevent all falls, older adults can minimize some of the risks. Simple activities such as walking regularly can lower your risk of health problems like heart disease and depression. Climbing stairs or doing housework can increase strength, stamina, and self-confidence. Increasing muscle strength through activity will increase confidence in getting in and out of chairs or cars. Activity helps to keep the mind sharp and increase the ability to use good judgment.

You can increase your confidence in mobility with several simple lifestyle changes. Here are some suggestions:

- Build physical activity into your daily routine: gardening, housework or washing the car
- Walk with a friend
- Attend a community exercise program
- Move around frequently: walk during commercials if you tend to watch TV
- Put on some upbeat music and dance
- Take a grandchild for a walk

I accept the challenge and I will do the following two activities to increase my confidence in mobility:

1. ________________________________________________________
2. ________________________________________________________

Falling is NOT a normal part of aging. Physical activity can help you to remain independent, increase your self-esteem, improve your energy level, and sleep better. Physically active adults will keep the strength, endurance and flexibility they need to do everyday tasks independently and with confidence.
Section 7
Test Your Knowledge – Part A

__ True __ False  Every year, one out of three elderly people falls.

__ True __ False  Most falls result in serious injury

__ True __ False  If you fall but do not injure yourself, this is not considered a fall.

__ True __ False  Dizziness is the main cause of falls.

__ True __ False  Most falls occur in the bathroom.

__ True __ False  After a fall, you should acknowledge that you are afraid and limit your activity to prevent another fall.

__ True __ False  Vision changes occur as a normal part of aging.

__ True __ False  Vision affects our balance.

__ True __ False  Our sense of touch sensitivity does not affect our personal safety.

__ True __ False  Falls can trigger fear.

__ True __ False  Only the frail elderly are at risk of falling.

__ True __ False  Falls are not preventable.
Section 1
Test Your Knowledge Answers

True
1. Every year, one out of three people over the age of 65 falls.

False
2. Most falls do not result in serious injury. Falls are the leading cause of hospitalizations and many can lead to serious injury and death. For most people, however, the worst consequence of falling is emotional. It is embarrassing to admit that we have had a fall.

False
3. If you fall but do not injure yourself, this is still a fall. You should assess your risk factors that lead to the fall so that you can take positive steps to prevent further falls.

False
4. Tripping—not dizziness—is the leading cause of falls.

True
5. Most falls occur in the bathroom.

False
6. After a fall, you should acknowledge it. Limiting your activity so that you prevent another fall will lead to further weakness and increase the risk of falling again. Increase your balance ability and confidence through physical activity.

True
7. Vision changes occur as a normal part of aging. It is important to have your vision checked every year.

True
8. Vision affects our balance. You rely on information received from your eyes to help orient yourself to your surroundings.

False
9. Our sense of touch sensitivity does affect our personal safety. A loss of touch sensitivity in your feet may hinder your ability to detect changes in surfaces and ultimately affect your balance.

True
10. Falls can trigger fear. A fear of falling is often the consequence of a fall. Increasing your knowledge about risk factors can help you prevent falls. Acknowledging a balance problem before a fall can help to decrease your risk of becoming a fall statistic.

False
11. The media has led us to believe that only the frail elderly are at risk of falling. Multiple factors contribute to falls and in fact, we are ALL prone to falls and fall-related injuries. Increased knowledge about risk factors can help to reduce risks.
False
12. Most falls are preventable. Falls can be prevented by paying attention to: 1) our vision; have regular check-ups, wear corrective lenses, use sufficient lighting, allow ample time to adjust to changing lighting conditions, and keep glasses clean; 2) risk factors; adapt your habits to your body changes; discuss risk factors with your healthcare provider; maintain/increase your activity levels to increase strength, agility, balance and coordination; don’t smoke or drink; and always wear proper footwear; and 3) understand potential signs of balance problems before you become a fall statistic.
Section 8
PERSONAL STORY – A FEAR OF FALLING

Pearl Drake, 86, knows what it’s like to suffer a fall. Not long ago, she noticed the clock on the wall behind the couch had stopped. ‘I guess that clock needs a new battery,” she thought to herself.

Pearl looked through the battery drawer and found that she had an extra AA battery. She could have asked her stepson for help—especially since he lived in the condo above her—but Pearl decided to replace the battery herself. She did not pull out the couch to reach the clock. She took off her shoes and stood on the piece of furniture. As she reached up to lift the clock off the hook, she fell backwards, hitting her head on the coffee table.

Thankfully, Pearl’s stepson was just passing by the condo and heard the crash. He rushed in to find Pearl on the floor. She did not have any noticeable injuries, but he decided to take her to the emergency room for an exam. Doctors discovered that Pearl had sustained a fractured rib in the fall, but did not have a concussion.

Afterwards, the fall left Pearl fearful and depressed. Instead of carrying on with her independent lifestyle, she refused to drive her car, limited her community activities and even hired a woman to help with the cleaning.

Pearl’s neighbor, a healthcare worker, noticed the changes in her friend. The neighbor suggested that Pearl return to working out at the Wellness Center so that she could regain some of her old confidence.

As Pearl slowly returned to her exercise program, she began to resume her normal shopping routine. She also decided she was spending too much time at home alone. She began volunteering at the hospital two days a week. She is now happy and healthy again and looks forward to her new activities.

The next time Pearl saw her neighbor, she happily stated she is no longer fearful of falling. She instead focuses on improving her strength and balance through exercise, and has a job where she does not spend so much time just sitting and watching television. She has truly turned her life around.

Don’t let a fall limit your ability to get out and enjoy life. Help yourself by recognizing your risks, seeking ways to improve your strength and balance and getting involved with social activities that encourage you to get out of your home and socialize.
Section 9
Normal Changes With Aging and Recommendations

Aging begins the moment we are born and it is NOT a disease. A number of physiological changes occur as we grow older. Our bodies age at different rates but we have certain changes in common. Many of the illnesses and disabilities associated with aging are related to modifiable lifestyle factors that are present in middle age. The following are some of the normal aging changes.

VISION

- Most common sensory problem of older adults
- Macular Degeneration - changes in the macula results in blurred or distorted vision
- Cataracts – clouding of the lens results in reduced visual acuity and increased glare sensitivity
- Glaucoma – damage to the optic nerve results in a loss of side vision
- Diabetic neuropathy – bleeding in the retina leads to blurred vision
- Parkinson’s disease – poor control of eye movements with reduced ability to look up or down

HEARING

- Early warning system
- Hearing loss is very common yet one of the most correctable problems
- Hearing loss leads to social isolation
- Signs of hearing impairment may include:
  - Difficulty hearing women and children
  - It may sound as if people do not speak clearly
  - Background noises may make it harder to hear
  - Certain sounds may seem loud and annoying
  - Social events may be less enjoyable because you can’t hear as well

INNER EAR

- The sense of balance is carefully orchestrated by the participation of the inner ear
- The inner ear is the “vestibular system”
- The vestibular system detects head movements and helps maintain balance
- A sedentary lifestyle can lead to a loss of function in the inner ear

SMELL

- Sense of smell is not as sharp as we age
- Smell is important in stimulating our appetite
- A decreased sense of smell may lead to decreased food intake
- The inability to detect fumes that may warn of danger may occur
- It may be hard to smell spoiled food or smoke
- The sense of smell is essential for environmental safety and nutrition
**TASTE**
- Decreased sensitivity with age
- Poor fitting dentures may affect taste
- May lead to poor nutritional habits and have a negative impact on overall health

**TOUCH**
- Decreased response to touch and painful stimuli
- Decreased sensitivity to touch, pain or pressure and slower reflexes may mean that injury can occur before you realize it or are able to move away from danger
- Loss of touch sensitivity in the feet may lead to balance problems
- Maintaining good foot health is important for everyone
- People with impaired circulation (diabetics, people with peripheral neuropathy, and sensory impairments) need to take extra care of their feet

**SKIN**
- Loses its elasticity and thickness with age
- Is less able to retain fluids and can become dry and cracked with age
- Skin is the largest organ of the body and is our first defense mechanism against infection and disease

**MUSCLES**
- Decreases in strength and endurance with age
- Decreases in muscle mass can be prevented by maintaining physical fitness

**BONE**
- Bone is always changing
- After age 30, bone is broken down faster than it is made
- Bone health can be maintained with weight-bearing exercise, calcium and Vitamin D
- Accelerated bone loss is known as osteoporosis
- Joint changes occur with age

**CIRCULATORY SYSTEM**
- Mild changes occur in the heart and blood vessels
- Organs that adjust blood pressure when changing positions become less sensitive
- Most cardiac conditions can be prevented by positive lifestyle changes at an earlier age
- Heart health can be improved through increased physical activity and nutrition
IMMUNE SYSTEM
- Our bodies are less able to produce antibodies to fight infections with age
- Diet and lifestyle are important in preserving a healthy immune system

RESPIRATORY SYSTEM
- Lung volume decreases with age
- Poor posture may affect ability of rib cage to move and further decrease lung volume
- Lungs may be damaged by environmental exposure such as smoking

KIDNEYS
- The kidneys filter blood and remove waste products from the body
- Kidney mass decreases with age
- Renal changes make older persons more susceptible to dehydration
- Clearance of medications from the system rely on the kidneys, dosages may need to be adjusted
- The aging bladder decreases in capacity

NEUROLOGICAL
- Reduced reaction time is the result of aging
- This may result in a decreased ability to react to balance changes
- Aging affects the autonomic nervous system which affects the ability to respond to environmental temperature changes

COGNITIVE FUNCTION
- Cognitive functions includes but are not limited to:
  - Memory
  - Attention
  - Visual-spatial ability
  - Reaction time
- Memory loss and mental disability are NOT a necessary outcome of aging
Getting older is not a disease and most normal age related changes do not threaten our health. Environmental changes can help us maintain our safety and compensate for normal aging changes of the body. Review the following recommendations that relate to age-related bodily changes and check those that can help you to maintain a safe and independent lifestyle.

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<thead>
<tr>
<th>System</th>
<th>Recommendations</th>
<th>Already doing this</th>
<th>Need to make this happen</th>
<th>Does not apply to me</th>
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<tbody>
<tr>
<td><strong>Vision</strong></td>
<td>Yearly eye exams</td>
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<td></td>
<td>Wear recommended prescription</td>
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<td>Ask for artificial tears for dry eyes</td>
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<td>Use sufficient lighting</td>
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<td>Wear sunglasses with UV protection</td>
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<td>Keep glasses clean</td>
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<td><strong>Hearing</strong></td>
<td>Yearly hearing exam</td>
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<td></td>
<td>Wear prescribed hearing devices</td>
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<td>Check batteries frequently</td>
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<td>Avoid exposure to loud noises</td>
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<td>Avoid inserting objects into the ear canal</td>
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<td><strong>Inner ear</strong></td>
<td>Maintain activity levels to promote head movements</td>
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<td>Use medication such as Antivert only when prescribed by MD</td>
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<td>If diagnosed with inner ear problem, ask MD if vestibular rehabilitation would benefit you</td>
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<td><strong>Smell</strong></td>
<td>Make sure smoke detectors are working properly</td>
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<td>Install carbon monoxide detector in home</td>
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<td>If using a gas stove, have connections and pilot light checked frequently</td>
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<td>Perform visual checks of oven and stovetop</td>
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<td><strong>Taste</strong></td>
<td>Add more seasoning to food to enhance aroma and taste</td>
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<td>Eat meals with friends</td>
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<td>Prepare favorite foods</td>
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<td>Eat small but more frequent meals</td>
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<tr>
<td>System</td>
<td>Recommendations</td>
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</table>
| **Touch** | Inspect feet daily  
Use lotion to keep skin soft but do not apply between the toes  
Keep nails trimmed across, not rounded  
Always ask your MD or nurse to remove corns and calluses  
Do not use a razor blade or knife on your feet  
Never walk barefoot  
Wear loose fitting socks and well-fitted shoes with plenty of toe space | | | |
| **Skin** | Drink six to eight glasses of water a day  
Use moisturizing lotion  
Use UV lotion when out in the sun or protective clothing  
If you notice a sore that does not heal, see your MD promptly | | | |
| **Muscles** | Keep active, exercise daily  
Avoid over exercising  
Speak to your MD before you start an exercise program to find out what type of exercise would be right for you | | | |
| **Bones** | Educate yourself about nutrition and bone health  
Ask your MD if you should consider a calcium-supplement, Vitamin D or minerals  
Protect yourself against falls by making changes in your environment and lifestyle  
Ask your MD about a bone density test  
Consider wearing protective devices such as hip pads | | | |
| **Heart** | Increase your activity level as prescribed by your MD  
Take heart medications as recommended  
Educate yourself about how nutrition affects cholesterol levels | | | |
<table>
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<tr>
<th>System</th>
<th>Recommendations</th>
<th>Already doing this</th>
<th>Need to make this happen</th>
<th>Does not apply to me</th>
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<tbody>
<tr>
<td>Heart</td>
<td>Get adequate rest&lt;br&gt;Change positions slowly&lt;br&gt;Avoid hot environments&lt;br&gt;Eat smaller balanced meals more frequently</td>
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<td>Immune</td>
<td>Consume at least the current recommended minimal daily servings of fruits, vegetables, unrefined grains and protein&lt;br&gt;Limit consumption of saturated fats, transfats, cholesterol, sodium and refined grains&lt;br&gt;Ask your MD about taking vitamin supplements&lt;br&gt;Exercise regularly&lt;br&gt;Get adequate rest&lt;br&gt;Manage stress</td>
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<td>Lungs</td>
<td>Avoid smoking and second-hand smoke&lt;br&gt;Have a regular exercise routine&lt;br&gt;Practice deep breathing and relaxation techniques&lt;br&gt;Avoid compromising environments such as paints, cleaning products, solvents&lt;br&gt;Obtain flu vaccine each fall and a pneumococcal vaccine every five years (if over 65)</td>
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<td>Kidney</td>
<td>Maintain adequate fluid intake (six to eight glasses of water a day)&lt;br&gt;Review medications with your MD and pharmacist periodically&lt;br&gt;Limit fluids three hours before bedtime</td>
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<td>Nervous</td>
<td>Avoid excessive use of alcohol&lt;br&gt;Avoid excessive use of sleep aids&lt;br&gt;Tell your MD about any over-the-counter drugs you are taking&lt;br&gt;Wear extra layer of clothing or blankets in cold weather to avoid hypothermia&lt;br&gt;Ask your MD about supplements that may serve as neuroprotective agents</td>
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<td>Cognition</td>
<td>Keep your mind active and engaged in challenging activities</td>
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<td></td>
<td>Use lists, daily planners and memory aids to keep appointments</td>
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<td>Exercise your mind with puzzles, computer games, cards and reading</td>
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<td>Maintain social contacts</td>
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<td></td>
<td>Avoid helplessness, isolation and loneliness by taking advantage of community programs</td>
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Section 10
Common Diseases Affecting Balance

POSTURAL HYPOTENSION

Definition - Postural hypotension is also sometimes referred to as “orthostatic hypotension”. People may use these terms interchangeably. It is a sudden drop in blood pressure with changes in body position like moving from lying down to sitting or standing. It may be caused by dehydration, illness such as the flu or diarrhea, or even by medication.

Symptoms – Lightheadedness, which is very different than spinning, dizziness, blurry vision and possibly weakness. The signs of dehydration are headache, fatigue, nausea, palpitations (high heart rate), lack of sweating and decreased urination.

How does this affect balance? - Postural hypotension can lead to sudden weakness making a person collapse to the ground. The lightheadedness can lead to a momentary sense of disorientation and poor vision, which could cause unsteadiness and a fall. This would be likely to happen during the night as a person hurries to the bathroom or early in the morning after a person has been sleeping and immobile for a long period of time.

Tests - Checking if the blood pressure changes when you move from a supine position to a standing position. Your healthcare provider may order a tilt table test to determine if you have this condition. See your MD if you have concerns about this

Treatment Options –
• Education about the need for changing positions slowly, waiting one minute between changes of position
• Moving the arms and legs before changing position especially after being immobile for long periods of time such as getting up in the morning or after watching TV
• Avoiding dehydration by drinking at least eight glasses of water per day unless a person must follow a fluid restricted diet suggested by their physician
• Avoiding alcohol
• Taking extra precautions when in warm weather or conditions such as after a hot shower
• Your healthcare provider may suggest compressive stockings and regular exercise
• In more severe cases, medications can help control the blood pressure to prevent such significant drops
PARKINSON'S DISEASE

Definition – A neurological condition that affects movement and balance and is characterized by tremors, rigidity and stiffness in the body, slowing of movements, walking and balance problems.

Symptoms - Tremors, rigidity, slow movements, shuffled walking, stooped posture, having problems with starting and stopping walking especially in doorways and maneuvering in small spaces, small handwriting, decreased voice volume, decreased facial expression and drooling are a few signs a person may notice when they have Parkinson’s Disease.

How does this affect balance? - Parkinson’s Disease eventually can lead to slow and delayed balance responses. It may cause tripping episodes due to the shuffling walking pattern. Sometimes a person may experience “freezing episodes” that can lead to a sudden loss of balance and falls because the body moves in a direction but the feet won't move.

Tests - The diagnosis of Parkinson’s Disease is based on clinical examination. Your physician may order other tests to rule out other conditions such as small strokes or normal pressure hydrocephalus. These tests may include brain-imaging studies.

Treatment Options
  • Medication-- in some cases deep brain stimulation
  • Rehabilitation
  • Support groups to educate and learn from others who may experience similar situations

PERIPHERAL NEUROPATHY

Definition - Damage to the nerves resulting in decreased sensation in the skin and joints.

Symptoms - Numbness and tingling in the feet and/or legs, loss of touch sensation and loss of sense of temperature, muscle weakness, burning pain and possibly early muscle fatigue. In more advanced cases, a person may experience burning pain and cramping at night.

How does this affect balance? - The loss of position sense that gives problems on uneven ground, which is one of the three important components of balance. In more advanced stages, this can also lead to severe weakness and lack of sensation in the feet affecting the overall balance and making a person unable to create enough muscle power in the ankles and legs to produce the necessary balance reactions. At times, a person may be unable to start for more then a few seconds without arm support.

Tests - Your healthcare provider would check your position sense during your visit by having you close your eyes and see if you can tell whether your toe is pointing up or down. Some physicians use a tuning fork to check vibration
sense, which use the same nerves to send information to the brain. Additional tests may be ordered to determine the extent of damage such as nerve conduction studies (NCS) or electromyography (EMG).

**Treatment Options**
- Safety education and fall prevention
- Determination of need for assistive device (cane or walker)
- Balance retraining using other senses to balance and strengthening exercises
- Possible bracing options, in some cases braces may be necessary
- Some medications may help with control of the pain

**VERTIGO/DIZZINESS**

**Definition** - Sensation that either yourself or your surroundings are moving, usually compared to spinning, making you feel off balance.

**Symptoms** - Feeling of being on a merry-go-round or feeling like swirling can occur when rolling in bed or lying down in bed. Symptoms may also include nausea and/or vomiting, imbalance and disorientation, or decreased hearing in one ear.

**How does this affect balance?** - This sensation can lead to a sense of disorientation and inability to react appropriately to prevent a fall. It can lead a person to become inactive due to the fear of experiencing the symptoms again.

**Tests** - If you have these symptoms you need to talk to your healthcare provider, he or she will look into what may be causing your symptoms

**Treatment Options**
- Medications
- Rehabilitation

**NOTE:** One of the most common causes of vertigo is “Benign Positional Vertigo” caused by displacement of salt-like crystals in the inner ear. Specifically, this condition produces a spinning sensation lasting less than one minute and is usually provoked by activities such as lying down, rolling in bed, looking up, or bending over. For Benign Positional Vertigo, there are successful treatments for this condition. Consult your physician if you have similar symptoms or questions about Benign Positional Vertigo.
Section 11
Keys to Healthy Aging

The Need for Good Sleep

Not only does hair turn gray, vision change and skin wrinkle with age, often sleep patterns also change. These are natural changes. You may have more difficulty falling asleep, awaken more often during the night, not sleep as soundly and even doze off during the day. These are normal age-related changes. Sleep is important for the body. It is not just a “time out” from daily life. It is an active state important for renewing our mental and physical health each day. If you fail to get a good night’s sleep regularly, below is a list of things you can try.

1. **Keep a regular sleep schedule.** Try to maintain a regular sleep and wake time, even on weekends when it is tempting to sleep in.

2. **Avoid caffeine.** Avoid caffeine in coffee, tea, colas and chocolate six to eight hours before bedtime.

3. **Avoid alcohol.** Alcohol can disrupt sleep and cause nighttime awakening.

4. **Avoid nicotine.** Nicotine can cause difficulty falling asleep, staying asleep, and waking in the morning.

5. **Don’t eat or drink too much close to bedtime.** Avoid a heavy meal near bedtime. Spicy food can cause heartburn that interferes with sleep. Restrict liquid intake near bedtime to minimize nocturnal awakenings to go to the bathroom.

6. **Exercise at the right time promotes sleep.** Exercise at the right time has a positive influence on sleep. Exercising less than three hours before bed can interfere with sleep.

7. **Use relaxing bedtime rituals.** A relaxing routine away from bright light can help prepare you for sleep. Reading or listening to music can help you relax. Soaking in a hot tub can also prepare the body for sleep but leave enough time to avoid being over heated.

8. **Create a sleep-promoting environment.** Design your bedroom for sleep. Remove distractions such as television and computers. Maintain a cool, dark environment and make sure your mattress is comfortable and supportive.

9. **Associate your bed with sleep and sex only.** Do activities like paperwork, business calls or other stressful activities elsewhere so that you think of your bed as a restful, relaxing place.

10. **Limit sleep time in bed.** If you cannot go to sleep, get up and engage in a calming activity such as reading or listening to music in subdued lighting until you are sleepy. Then go back to bed.
NUTRITIONAL HEALTH

Our bodies need proper fuel to function. We need to drink plenty of water, eat at least five servings of fruits and vegetables daily, take a multivitamin, and talk to our doctors about additional supplements. We should not go for long periods of time without eating: low glucose levels in the blood may be responsible for some dementia later in life. We can stay lean with physical activity and balanced eating rather than dieting. Check your nutritional health with the following checklist.

Read the statements below. Circle the number in the “yes” column for those that apply to you. For each “yes” answer, score the number in the box. Total your nutritional score.

<table>
<thead>
<tr>
<th>YES</th>
<th>2</th>
<th>3</th>
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<tr>
<td>I have an illness or condition that made me change the kind and amount of food I eat.</td>
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<td>I eat fewer than two meals per day.</td>
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<td>I eat few fruits and vegetables or milk products.</td>
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<td>I have three or more drinks of beer, liquor or wine almost every day.</td>
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<td>I have a tooth, or mouth, problem that makes it hard for me to eat.</td>
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<td>I don’t always have enough money to buy the food I need.</td>
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<td>I eat alone most of the time.</td>
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<td>I take three or more different prescribed or over-the-counter drugs a day.</td>
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<td>Without wanting to, I have lost or gained 10 pounds in the last six months.</td>
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<td>I am not always physically able to shop, cook and/or feed myself.</td>
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</table>

Total your Nutritional Score. If it is:

0-2  Good! Recheck your nutritional score in six months.

5-5  You are at moderate nutritional risk. See what can be done to improve your eating habits and lifestyle. Your office on aging, senior nutrition program, senior citizen center or health department can help. Recheck your nutritional score in three months.

6 or more YOU ARE AT HIGH NUTRITIONAL RISK. Bring this checklist with you the next time you visit your physician, dietitian or other qualified healthcare professional.
BENEFITS OF AN ACTIVE LIFESTYLE

Lack of physical activity is an important contributor to most chronic diseases such as heart disease, diabetes, and high blood pressure. A lack of physical activity and poor nutrition are factors contributing to the obesity level in America.

An active lifestyle has beneficial effects on most if not all organ systems. Substantial benefits are evident for people at moderate activity levels. Incorporating activity into normal routines is a simple way to initiate an active lifestyle. Activities such as raking leaves, washing the car, taking a walk or swimming can have great immediate benefits.

Some benefits of an active lifestyle are:

- Lower risk of coronary disease
- Lower risk of colon cancer
- Lower risk of diabetes
- Lower risk of developing high blood pressure
- Improved mood
- Relief of depression
- Improved quality of life
- Prevention of bone loss
- Improved quality of sleep

Recent research at Northwestern University Feinberg School showed that even short-term exposure to physical activity and socialization in the elderly, not only improved sleep, but also improved cognitive function. The research concluded that many of the health changes associated with aging could be attributed to a sedentary lifestyle.

What you can do:

- Make activity a part of your life through activities that you enjoy
- Consult your physician about any medical conditions you may have and any problems that may affect safety
- Set specific, realistic activity goals
- Start slowly and build up; try to be active 30 minutes a day.

MEDICATION TIPS FOR SAFETY

Many medications taken by older adults can contribute to falls by reducing mental alertness, worsening balance and gait, and causing drops in systolic blood pressure while standing. People taking multiple medications are at a greater risk for falling.

Drugs that are likely to contribute to falls are in the following categories: sedatives, anti-depressants, and anti-psychotic drugs. If you take four or more medications, you should consult with your physician or pharmacist and discuss this best course of action for you.
Here are some tips that can help you prevent a medication related fall:

- Know the common side effects of all the medications that you take
- Talk to your physician or pharmacist about ways to reduce your chances of falling by using the lowest effective dosage, regularly assessing the need for continued medication, and the need for a walking aid while taking medications that affect balance
- Remove all out-of-date medications and those no longer in use
- Have a physician or pharmacist conduct a “brown bag” medicine review of all current medications
- Limit intake of alcohol as it may interact with medications
- Never stop taking a medication without consulting your physician

KEEPING THE MIND MENTALLY ACTIVE

Just as physical activity keeps your body strong, mental activity keeps the mind sharp and agile. Challenging the mind and continuous learning not only keep the mind healthy, they impact our entire physical well-being. When you want a plant to grow, you give it water, sun and nourishment. Our brain is very similar. Regardless of age, new dendrites, the connections between nerve cells that allow cells to communicate with each other, are produced. New connections help you to store and retrieve information more easily, even if the gray matter is covered with gray hair. Mental decline is NOT a part of normal aging.

Tips for maintaining a healthy mind:

★ Staying physically active reduces the risk of Alzheimer’s, stroke, and osteoporosis.

★ Daily exercise of only 30 minutes can improve blood flow to the brain.

★ At any age the brain continues to absorb information, make new connections, acquire new skills and enhance memory.

★ Social interaction is key to the human experience and to keeping the mind sharp.

★ Seek positive social interaction by staying involved with friends and family.

★ Volunteer-- it gets you out of the house and involved with others.

★ Reduce stress. Normal aging can make the mind less efficient, but don’t stress about it.

★ Exercise and challenge your mind daily with puzzles, games, and mental exercises.

★ Healthy aging requires good nutrition and a balanced diet with fruits, vegetables, breads and cereals which contain folic acid, Vitamin B12 and thiamin to keep the memory healthy.
Water is an essential part of humans and needed for good memory. Lack of water leads to dehydration. Choose water over soda and coffee as these can lead to dehydration and fatigue.

A positive attitude leads to more focus, increased memory and alertness.

Vary your activity to keep the mind strong and healthy. Creativity in everyday life provides excellent mental stimulation.
Section 12
Test Your Knowledge – Part B

__ True __ False  Vision problems are the most common sensory problems of older adults.

__ True __ False  The sense of touch does not impact balance.

__ True __ False  A sedentary lifestyle can lead to loss of function in the inner ear and can affect balance.

__ True __ False  Bones are the largest organs of the body.

__ True __ False  Most cardiac conditions can be prevented by positive lifestyle changes at an earlier age.

__ True __ False  Bone only changes in people with osteoporosis.

__ True __ False  Medications are cleared from the system through the kidneys.

__ True __ False  Reduced reaction time is the result of normal aging.

__ True __ False  Memory loss and a decline of mental function are a normal part of aging.

__ True __ False  There is nothing we can do to compensate for the normal aging changes that occur in our body.

Test Your Knowledge Answers

True
1. Vision changes are the most common sensory problem of older adults and they can include problems with contrast and colors, glare sensitivity, difficulty adjusting to sudden changes in lighting and night vision as well as problems with depth perception. The most common eye diseases are cataracts, macular degeneration, glaucoma and diabetic neuropathy.

False
2. The sense of touch sensitivity in the feet may lead to balance problems. A simple way to test your sense of touch is to brush the bottom of your feet with a cotton ball. Brush the back of your hand with the cotton ball. Compare the results. If you have difficulty feeling the cotton ball touch the bottom of your foot, mention this to your physician.

True
3. A sedentary lifestyle can lead to a loss of function in the inner ear. When we are more active we move our head more and keep our inner ear functioning at a higher level.
4. The skin is the largest organ of our body and our first defense mechanism against infection and disease.

5. Most cardiac conditions can be prevented by positive lifestyle changes at an earlier age. Good nutritional habits, exercise and not smoking are lifestyle changes that will help prevent cardiac conditions.

6. Bone is always changing. From the time we are born until our mid thirties bone is being laid down faster than it is broken down. From then on we lose a little bone growth each year. Bone health can be maintained by weight-bearing activity, calcium in the diet and Vitamin D.

7. The kidneys filter blood and remove waste products from the body including medications. Kidney mass declines with age and impairs the ability of the kidney to clear medications from the system.

8. Reduced reaction time is a normal part of aging and may result in decreased ability to react to balance changes. Taking extra caution and being alert to environmental changes can help compensate for this loss of reaction time.

9. Memory loss and a decline of mental function are NOT a normal part of aging. The mind needs exercise just like the muscles do. Doing puzzles, playing games, reading and remaining socially active will help to maintain mental function.

10. We can do many things to compensate for normal body changes. Making simple environmental changes can help us remain safe in our own homes.
Section 13
PERSONAL STORY - CHRONIC DISEASES AND BALANCE

Don is a 70-year old former truck driver who injured his back in a job-related fall 20 years ago. Because he has constant back pain, he has become very sedentary. He used to do a lot of heavy work and never felt he had to exercise because he has always had strong muscles. Recently, he noticed that he was having trouble standing from low chairs and purchased a toilet riser for his bathroom.

Don’s wife Mary is 67 and she is more than 50 pounds overweight. She recently joined a local gym for women. She noticed that she has more energy since joining the gym and although she has only lost a few pounds, she has lost eight inches off her waist and arms combined.

Mary and Don live across from a park and often take their little dog, Roscoe, out for a walk. On a recent walk, Roscoe saw a squirrel and began to tug on the leash. Don was holding the leash and he failed to see the spot in the sidewalk that was cracked and raised. Mary was also watching Roscoe and she did not see the crack in the sidewalk either. Don and Mary both tripped on the sidewalk. Fortunately for Mary, her recent workouts at the gym had helped her to gain strength and she was able to regain her balance and not fall.

Don was not so lucky. His reduced activity level over the past 20 years left him with poor reaction time. He fell and because his muscle strength in both his arms and legs was poor, he was unable to get up. Mary called for help. The fall jarred his already injured back. Don’s recovery was hindered by his decreased strength and balance. He was hospitalized for four days and then was placed in a nursing home for 20 days until he was strong enough to go up the steps into his home. He now needs to use a walker to get around in his home. His doctor has told him he cannot drive until he is able to move around without the walker. This former truck driver is now depressed at not being able to get out and drive when he feels like it.

Don did not realize how his sedentary lifestyle could complicate his future independence. Staying physically active will help maintain reaction times and prevent falls.
Accidental falls do not “just happen.” They are often associated with certain risk factors. Older adults may not be able to eliminate all falls, but it is possible to minimize some of the risk factors. Environmental factors can be found indoors and outdoors.

A safe home environment is important for everyone, but it is especially crucial for the elderly. A majority of elderly live at home and a large number of fatal falls happen in the home. Although many falls do not result in injury, they have been found to be a contributing factor in the decision to transition into different living arrangements such as moving in with family, going to an assisted living facility or even into a skilled nursing home.

Making changes in your environment could prevent a fall and allow you to remain independent in your home longer.

Most every room in the home can be adapted or modified to create a safer environment, often at little or no cost. Taking a good look at the home environment can reduce the risk of falls and help to maintain independence. The following chart looks at each room of the home and offers suggestions for improving safety. Survey your home by taking the chart with you through each room of your home and note which areas you can change to improve your own safety. Keeping the outside entrance and approach to the home free of clutter is also important. Let’s review each room in your house…
BATHROOM

Most falls take place in the bathroom. Many problems occur in the bathroom due to difficulties getting on/off the toilet; in/out of the tub; difficulty seeing due to poor lighting; slipping on wet surfaces; tripping on throw rugs; or getting dizzy while standing from the toilet or at the sink.

**Rug:** All throw rugs should have rubber backing and if carpeted, carpets should be secure and wrinkle free. Keep floors clean and free of debris. Bathroom floors should be unwaxed and should not have items that may cause a tripping hazard stored on them.

**Tub rail:** If you do not have access to a shower and use a tub for bathing, install a tub rail for support and safety when getting in and out of the tub.

**Rubber mat or non-skid decals:** The surface of the tub or shower can be slippery. A bath mat or non-skid decals can prevent slipping on wet surfaces.

**Grab bars:** These bars attached to the walls of the tub or shower area or on the wall near the toilet can help provide a safe hand-hold when getting in and out of the tub/shower or on/off the toilet. They can also help prevent falls.

**Bath bench or shower stool:** These devices are useful for sitting on when bathing or showering. They can also be used to sit on when washing at the sink if you get dizzy when standing.
**Shelving:** Installing a shelf in the tub or shower area prevents bending to pick up items. Shelving works best when items can be stored between the level of the shoulders and knees. Items stored between the knees and shoulders are easier to reach.

**Hand-held shower:** Install a hand-held shower and lower your hot water temperature to less than 120 degrees. A hand-held shower allows you to safely sit on a shower bench while bathing. Lowering the water temperature of the hot water heater will prevent accidental burns.

**Elevated toilet seat:** Getting off the toilet may be difficult unless you have adequate leg strength. Using an elevated toilet seat will help get up safely and with less effort.

**Toilet frame:** You could also install a sturdy toilet frame to provide stability and safety when getting on and off the toilet. This also helps to stabilize you when you are balancing yourself to manage your clothing.

**Light switch:** A light switch next to the door will prevent you from walking into a dark area. Always put the light on before entering the bathroom. A nightlight in the bathroom is helpful to light the way to the room at night.

**Floors clean and free of debris:** Bathroom floors should be unwaxed and should not have items that may cause a tripping hazard stored on them.

After reading these recommendations, see if you could make your own recommendations in the following situation. Below, you will find a drawing of what is considered an “unsafe setting” and later you will find a “preferred setting.” Write down the safe considerations you would take if this were your home.
WHAT CHANGES WOULD YOU SUGGEST TO IMPROVE HER SAFETY?

Suggested safety modifications include:

1. ..............................................................................................................................................................
2. ..............................................................................................................................................................
3. ..............................................................................................................................................................
4. ..............................................................................................................................................................
5. ..............................................................................................................................................................
6. ..............................................................................................................................................................
7. ..............................................................................................................................................................
KITCHEN

Safety in the kitchen is important. Because of the many activities taking place at one time in the kitchen, setting up a safe environment can prevent falls. The following recommendations can create this environment.

**Drawers:** Install sliding drawers to store commonly used items to avoid the need to reach or bend over too far to look in the back of a cupboard.

**Faucet:** A single handle faucet is easier to control and turn on or off.

**Reacher:** Use a long-handled reacher for lightweight items on high shelves. Additional shelves and hooks can be used under cabinets to store items. A wall rack keeps items organized and the counters free of clutter.

**Potholders:** Install fixture on the wall to keep commonly used pots and pans to ease reach in preparation for cooking tasks.
Suggested safety modifications include:

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10. ............................................................................................................................
Keep all floors wax free and clear of throw rugs: Avoid slips by keeping the floors wax free. Throw rugs are a tripping hazard. Rugs by the sink should have a non-skid backing.

Cabinet handles: Use longer cabinet handles as opposed to knobs because they are easier to manipulate to open and close cupboard doors.

A rolling cart can be used to transport items.
Stepstool: Obtain a stepstool with a high handle to hold onto for safety.

Items for cooking: Place commonly used items for cooking near the stove to avoid reaching over the stove which may cause burns.

Adequate lighting throughout the area: Good lighting is necessary to enable you to see where to safely store items; keep a close watch on items when cooking; see if liquids have spilled onto the floor; and to prevent accidental spills by bumping surfaces when removing items from the stove, refrigerator and cupboards. Always wipe up spills as soon as they occur.

Keep all supplies within easy reach: Keep items between the shoulders and knees to avoid the need for step stools and bending. U-shaped handles make cupboard doors easier to open.

Keep towels, curtains and other items that may catch fire away from the stove: Maintain safety by keeping flammable items far away from the stove surface. If you have a gas stove with an open flame, be extra cautious.
WHAT CHANGES WOULD YOU SUGGEST TO IMPROVE HIS SAFETY?
Suggested safety modifications include:

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
BEDROOM

The bedroom should be thought of as a safe haven. The following recommendations can help to ensure that your bedroom is hazard free.

**Night-lights:** Night-lights are very useful in illuminating your path from the bedroom to the bathroom. This is especially important because many people need to get up frequently at night.

**Room is free of throw rugs and runners:** Throw rugs can be a tripping hazard and the corners of runners can curl. Runners should be secured with double-sided tape.

**Lamps or light switches are within reach of the bed:** Lamps should be where they can easily be turned on/off so that you do not need to walk around in the room in the dark. Use bulbs of correct wattage. If the correct wattage is not known, use a bulb no larger than 60 watts. Keep a flashlight next to the bed so that it is handy for night time trips to the bathroom. Install a nightlight to light the pathway to the bathroom at night.

**Clothes are accessible:** Clothing rods should be at a height that is easily reachable. Install lighting in the closet. Make sure to store clothing in dressers that will allow access without stooping or bending.

**Path to bathroom and other areas are free of clutter including elevated thresholds in doorways:** The floor in the bedroom should be free of clutter and allow easy access to the closets, dressers, and bathroom.

**Telephone/Clock:** Have a telephone on the bedside table.

**Bed is of adequate height to get in/out of easily:** 22 inches is an average height.

**Lighting:** Good lighting is used to illuminate adjacent rooms.

**Lighting in closet:** Always have a light on in the closet when looking for clothing or objects. The activity of reaching at different heights is already challenging. Sufficient lighting is a must.

**Edges of rugs and carpets are secure:** Carpets should create a smooth, safe walking surface.

**Smoke alarm:** Install a smoke alarm to alert you of danger.
WHAT CHANGES WOULD YOU SUGGEST TO IMPROVE HIS SAFETY?
Suggested safety modifications include:

1. ..........................................................................................................................
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**Living Room**

The living room is a place to relax and entertain friends, so it is necessary that it be a safe environment.

**All furniture is secure and does not swivel.** Chairs should have arms and of a height that makes them easy to get in/out of. Swivel chairs may move when sitting or standing and pose a fall risk. All furniture should be sturdy and secure.

**Tables should be of appropriate height to hold items.**

**Light switches are easily accessible:** Light switches should be at a level that is easy to reach. Touch sensitive lamps, or sound activated lighting can allow lights to be activated before entering the room.

**There is adequate lighting for reading:** Inadequate lighting can cause eye strain. Check lamps for correct wattage and if wattage is unknown, use only 60 watts. Older adults require two to three times as much lighting as young people.

**There is adequate space to move freely around furniture:** Avoid having coffee tables and other items in front of couches and easy chairs to allow free access to sitting areas.

**All pathways are clear and free of clutter including throw rugs:** It is important to be able to safely walk through the living area without tripping.

**Adjustable blinds or shades to regulate glare.** Sunlight at different times of the day can cause glare and make it difficult to see.

**Extension cords and telephone cords are out of the flow of traffic:** Traffic areas are well lit and free of cords. Do not place electrical cords underneath rugs or in pathways.
WHAT CHANGES WOULD YOU SUGGEST TO IMPROVE HER SAFETY?
Suggested safety modifications include:

1. 
2. 
3. 
4. 
5. 
6. 
7.
INTERIOR STAIRS AND LANDINGS

Stairways and even small steps up and down into rooms can be treacherous at all ages. To improve safety, make the following modifications:

**Install handrails on at least one side of the steps:** Handrails two to three inches from the wall permit good grasp. Secure handrails into studs for safety.

**Furniture:** Install sturdy furniture around bottom of stairs to store commonly used items. Remove obstacles that could cause tripping hazards.

**Apply non-skid surfaces to the steps:** A non-skid surface will reduce falls when steps become wet from rain or snow. Floor material should not be loose or in ill repair.

**Apply brightly colored tape to the top and bottom steps to signal the beginning and end of the steps:** Brightly colored tape will help you know how many steps there are and compensate for decreased visual acuity. Tape colors should be in the yellow to red range for high visibility.

**Light switches:** Light switches should be placed at both the top and bottom of the steps.

**Adequate lighting over steps:** Be sure steps are brightly lit to increase safety.

**Keep steps clutter free:** Keep all steps and landings free of clutter. Do not store any items on stairs.

**Install a ramp over the steps if unable to safely climb steps:** Ramps are easier to go up and down with a walker. If you have trouble negotiating steps, have someone build a ramp over the steps so that you can safely enter and leave your residence.

**If unable to use walker, cane or other mobility aid on steps, place a second aid at the top or bottom for safety:** Sometimes it is necessary to have two assistive devices to allow you to safely go up or down your steps.
WHAT CHANGES WOULD YOU SUGGEST TO IMPROVE HIS SAFETY?
Suggested safety modifications include:

1. 
2. 
3. 
4. 
5. 
6. 
7.
OUTDOORS

Lighting: A lighted walkway adds safety at night. Fixtures should be beside the front door. Use all outdoor lights available when going in/out of the house when natural lighting is low. Automatic lighting that turns on over the garage or front entrance when motion is detected adds to safety. Make sure lighting is available to the path leading to your entrance door. Be sure all walkways are free of clutter and have cracks repaired to prevent tripping.

Peephole: Allows you to see who is at the door.

Mailbox: Install a mailbox, mail slot, or mail basket on or near the front door. Place it at a level that does not require you to bend over to pick it up. Ask the newspaper carrier to place the paper where it is easy and safe for you to retrieve. If you must walk to a mailbox, make sure the path is free of obstacles. Use an assistive device is you are not confident in your ability to manage walking to the mailbox.

Deadbolt lock: Add a deadbolt lock to the front door and a security door or system if possible.

Bushes: Bushes should be trimmed under the windows.

Additional door: Sometimes it is a good idea to have an additional sturdy screened door that still provides privacy but may allow for better ventilation.

Automatic garage door opener: Permits you to enter the garage without getting out of the car.

Lighting over garage door: Proper lighting in all entrance areas is suggested for safety.

Sun protection: Always wear a hat and sunglasses when outdoors in the sunshine to reduce glare and to protect against UV rays.

Handrails: Have handrails placed on all stairways leading to the entrance of your home.
OTHER GENERAL SAFETY TIPS

In addition to room modifications, there are several home management issues that you should consider to improve your safe environment.

**Fire Safety**
Have all hazardous materials safely stored.

Have all electrical appliances checked for safety.

Be sure outlets are not overloaded.

Use extension cords properly. Be sure they do not provide a tripping hazard.

**Lighting**
Use only light bulbs of the proper wattage for your light fixtures or lamps.

Use all space heaters correctly. Keep all flammable materials far away from heaters.

Keep chimneys and flues adequately cleaned and repaired.

Have smoke detectors installed and check the batteries when the time changes twice a year.

Have an emergency escape plan in place.

Post all emergency numbers.

**Home Security**
Be sure all locks on doors and windows are in good working condition.

Keep outside areas well lit and free of vegetation. Use low profile shrubs under windows.

Keep a phone at your bedside.

Keep emergency numbers close to all phones

**Laundry**
Provide a stool for sitting on while getting items out of front-loading washers and dryers.

Use a table to sit at while folding laundry.

Use a bag to carry items up and down the steps rather than a basket. You can hold the railing with one hand.

Empty the lint trap often.

**Housekeeping**
Clean up all spills immediately to avoid falls.
Keep all floors free of clutter. Use long-handled cleaning items such as dustpans and mops.

Use a lightweight vacuum.

**Doors**
Install lever-type door handles for ease of opening, especially if you have arthritic joints.

**Windows**
Install lever or crank type windows. If this is not possible, have someone check your windows for ease of opening.

**Telephone**
Keep the path to the phone free of clutter.

Carry a portable phone with you from room to room if you can afford one. Someone is always just a phone call away.

Inform friends, neighbors and family to allow the phone to ring 10 times to ensure adequate time for you to answer the phone without rushing.

Use an answering machine to allow you to get messages without hurrying to answer.

Have a buddy calling system in place so that someone checks on you everyday at the same time.

**Medication**
Use a pillbox, egg carton, or envelopes to organize a day’s or week’s worth of medications.

Review your medications with the pharmacist and know why you are taking each of them.


Take a list of all over-the-counter medications with you to the physician on each visit.

Discuss the effects of each medication with your physician or pharmacist so that you know if it is safe to take them at the same time.

Tell the doctor about any side effects you may experience from your medications.

**Footwear**
Choose shoes that are comfortable and fit well. Shoes that are too tight can cause sores or corns; shoes that are too loose can slip and cause instability.

Wear shoes that are low-heeled and have firm support. (Athletic shoes or shoes with a low, leather sole are best.)

If you wear slippers, be sure they fit snugly and have a non-skid sole.
## Section 15
### HOME SAFETY CHECKLIST

<table>
<thead>
<tr>
<th>Room</th>
<th>Suggestions</th>
<th>I have in place in my home</th>
<th>I need to install this in my home</th>
<th>Not a problem in my home</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bathroom</strong></td>
<td>Grab bars in tub, shower and toilet</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Bath bench available for tub or shower</td>
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<tr>
<td></td>
<td>Rubber mat in tub or shower or non-skid decals</td>
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<td></td>
<td>Elevated toilet seat available for toilet</td>
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<td></td>
<td>Light switch near the entrance</td>
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<td></td>
<td>Floors clean and free of debris</td>
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<tr>
<td></td>
<td>Often used items stored between shoulder and knee height</td>
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<td></td>
<td>Water temperature at less than 120 degrees</td>
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<tr>
<td></td>
<td>Throw rugs removed and replaced with non-skid backed rugs</td>
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<tr>
<td></td>
<td>Adequate lighting</td>
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<tr>
<td><strong>Bedroom</strong></td>
<td>Bed is of adequate height to get in/out of easily</td>
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<tr>
<td></td>
<td>Path to bathroom and other areas are free of clutter</td>
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<td></td>
<td>Lamps or light switches are within reach of the bed</td>
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<td></td>
<td>The bed is not on wheels and is secure against the wall</td>
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<td></td>
<td>Lamp, telephone and extension cords are out of the flow of traffic</td>
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<td></td>
<td>Room is free of throw rugs and runners</td>
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<td></td>
<td>Edges of rugs and carpets are secure</td>
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<td></td>
<td>Clothes are accessible</td>
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<td></td>
<td>Consider a bedside commode or urinal if the bedroom is not close to the bathroom</td>
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<td></td>
<td>A flashlight is kept on the bedside table</td>
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<tr>
<td></td>
<td>If not carpeted, the floor has a non-skid surface</td>
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</tr>
<tr>
<td>Room</td>
<td>Suggestions</td>
<td>I have in place in my home</td>
<td>I need to install this in my home</td>
<td>Not a problem in my home</td>
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<tr>
<td>Living Room</td>
<td>All pathways are clear and free of clutter including throw rugs</td>
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<td></td>
<td>Extension cords and telephone cords are out of the line of traffic</td>
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<tr>
<td></td>
<td>All furniture is secure and does not swivel</td>
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<td></td>
<td>There is adequate space to move freely around furniture</td>
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<tr>
<td></td>
<td>Light switches are easily accessible</td>
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<tr>
<td></td>
<td>There is adequate lighting for reading</td>
<td></td>
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<tr>
<td>Stairways</td>
<td>Install handrails on at least one side of the steps. Handrails two to three inches from the wall permit good grasp</td>
<td></td>
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<tr>
<td></td>
<td>Apply non-skid surfaces to the steps</td>
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<tr>
<td></td>
<td>Apply brightly colored tape to the top and bottom steps to signal the beginning and end of the steps</td>
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<tr>
<td></td>
<td>Adequate lighting over steps</td>
<td></td>
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<tr>
<td></td>
<td>Keep steps clutter free</td>
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<tr>
<td></td>
<td>Install a ramp over the steps if unable to safely climb steps</td>
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<tr>
<td></td>
<td>If unable to use walker, cane or other mobility aid on steps, place a second aid at the top or bottom for safety</td>
<td></td>
<td></td>
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<tr>
<td>Kitchen</td>
<td>Keep all supplies within easy reach</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Keep towels, curtains and other items that may catch fire away from the stove</td>
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<tr>
<td></td>
<td>Adequate lighting throughout the area</td>
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</tr>
<tr>
<td></td>
<td>Keep all floors wax free and clear of throw rugs</td>
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</tbody>
</table>
Section 16
Test Your Knowledge – Part C

Below are questions and statements that pertain to in-home safety. Put your answers in the spaces provided. After you have filled in the spaces, look for the words in the puzzle entitled “Home Safe Home.” If you are having trouble with some of the answers, they are listed below the section entitled “Home Safe Home”. Number one has been done for you as an example. Good luck and have fun!

What I need to know

1. The most important task I can do is to SURVEY my home for potential hazards.
2. I must clean up _ _ _ _ _ _ as soon as they occur, or I may forget about it and slip and fall.
3. When getting up at night to go to the bathroom I should use a _ _ _ _ _ _ or a nightlight to prevent injury.
4. There should be at least one _ _ _ _ _ _ _ _ along stairways to ensure stability when going up/down the steps.
5. Electrical _ _ _ _ should NOT be placed in the flow of traffic or under rugs.
6. If I do not know the correct wattage for my lamp I should use one that is no higher than _ _ _ _ _ _ watts.
7. Change the _ _ _ _ _ _ _ _ _ in the smoke alarm when the time changes for Day Light Savings Time.
8. The best type of shoes to wear is ones with _ _ _ heels and thin soles.
9. The best color range for tape strips to mark the steps is in the _ _ _ _ _ _ _ _ to red color range.
10. Pillboxes, egg cartons and envelopes can be used to organize _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ for the day or week.
11. It is wise to carry a cordless _ _ _ _ _ _ _ from room to room.
12. Older adults require two to three times more _ _ _ _ _ _ _ _ _ _ _ _ _ _.
13. Be sure to wear a _ _ _ and sunglasses to reduce _ _ _ _ _ _ when you are outdoors.
14. Hazards such as _ _ _ _ _ _ _ _ _ _ should be removed from all floors of the home.
Word Puzzle - Home Safe Home

Words listed below are hidden in the puzzle above. The words may be displayed forward, diagonal, or backward.

The words below are the answers to the questions on the puzzle labeled “What I Need to Know.”

1. SURVEY  6. SIXTY  11. TELEPHONE
2. SPILLS  7. BATTERIES  12. LIGHTING
3. FLASHLIGHT  8. LOW  13. HAT, GLARE
4. HANDRAIL  9. YELLOW  14. BALANCE
5. CORDS  10. MEDICATIONS  15. THROWRUGS
Section 17
HOME SAFETY DEVICES – ADAPTIVE EQUIPMENT

There are several options to make your home environment safer. Here are a few suggestions. Bathroom equipment is reviewed first as this is the most common area where falls occur. Other equipment will aid in your safety in the bedroom especially when needing to go to the bathroom at night. Then we suggest rails and ramps to make your steps or thresholds safer to maneuver. Finally, we suggest a few more devices to help in self-care activities to minimize the need for reaching too far or bending over as these activities often can put you at risk of losing your balance. You will also encounter photos of a peddler and stationary bike that are a good option for becoming more active to move your legs while still being safe. All of this equipment is available at most medical stores and some of it may be either partially or completely covered by Medicare. Check with a local medical supply store to obtain the latest information on this equipment and coverage options.

Raised Toilet Seats
Getting off the toilet may be difficult unless you have adequate leg strength. Using an elevated toilet seat will help get up safely and with less effort. Most seats will add four to six inches. Raised toilet seats come in a variety of designs. Some are portable and attach to the seat with an adjustable screw mechanism. This seat without handrails is appropriate to use when wall mounted handrails are available.

Raised Toilet Seat With Attached Handrails
For some people, the use of the hands is necessary and the addition of the handrails will greatly improve the ease of getting into a standing position.
Grab Bar
These bars attached to the walls of the tub or shower area, or on the wall near the toilet, can help provide a safe handhold when getting in and out of the tub/shower or on/off the toilet. This is useful when you take on and off your clothing. The bars provide support while you are reaching for your clothing. They can also help prevent falls. A grab bar next to the toilet will allow you to push from sit to stand and provide a safe place to hold onto while adjusting your clothing. Grab bars by the toilet can be free standing or attached to the toilet frame. They should be anchored firmly into the studs in the wall and should be installed by someone who is skilled in this type of work.

Grab Bars Attached To The Toilet
This type of grab bar is attached directly to the toilet.
Shower Seats
A shower seat allows you to shower in the sitting position. If you have balance problems or multiple medical conditions, sitting to shower will increase safety and reduce the risk of falls. Shower seats come in a variety of sizes, some do not have a back on them and some extend over the edge of an existing tub.

Bath Seats
These devices are useful for sitting on when bathing or showering. They can also be used to sit on when washing at the sink if you get dizzy when standing. These bath seats allow you to shower while sitting down. This model makes it easy to get into and out of a shower that is located in an existing tub. The person is able to sit on the outer edge and slide across into the tub without having to step over the tub edge.

Tub Rail
For those who need to use the tub, using a tub rail, which secures on the edge of the tub, can provide additional safety while entering and exiting the tub.
Handheld Shower Heads
A handheld shower head can make showering easier, especially if you are using a shower or bath seat. The shower head can be installed with two or three mounting positions to allow it to be used by standing or seated bathers. Shower heads can be attached to the wall nozzle where the old shower head was situated.

Bath Mats
The surface of the tub or shower can be slippery. A bath mat or non-skid decals can prevent slipping on wet surfaces.

A rubber mat should be placed in the bottom of the tub and shower. Bath mats make showers and tubs less slippery and increase safety. Bath mats can be washed in the washing machine.
Three-In-One Commodes

A three-in-one commode can be placed at the bedside to prevent trips to the bathroom in the middle of the night. Commodes are height adjustable. They can also be placed over the toilet if necessary.

Night Lights

These affordable lights can improve your balance by illuminating your path to the bathroom. As mentioned before, vision is so important to help with balance and having a night light will enhance your ability to use your eyes to help you maintain your balance. Use as many as you need and make sure they illuminate your whole path.

Adjustable Bed

A hospital or automatic bed allows height adjustment of the bed and convenience in positioning. Bed rails on the automatic bed make turning easier.
Bed Rails
Bed rails make it easier to turn in bed and provide a stable handle to hold onto for safety when entering or exiting the bed. Most bed rails can be installed by inserting a board between the mattress and box spring or slide under the bed. Bed rails are available at the medical department store.

Reachers
For people who have difficulty bending or reaching high places, a reacher can be used. These come in a variety of sizes and may have magnets, suction cups, or flat ends to grasp the object to be reached.

Long Handled Shoe Horn
A long-handled shoehorn makes it easier to slip on shoes without bending.
Sock Aid
A sock aid allows you to slip your socks on while sitting upright in your bedside chair without bending down.

Step Stool With Handle
To step up or down in the home, use a step stool with a handle for added stability and safety.

Rolling Kitchen Table Or Cart
A rolling table can be used to move items around the kitchen or to the table, eliminating having to carry items while walking.
**Hand Rails**
For safety in going up and down steps, handrails should be installed at least along one edge.

**Ramp**
Ramps are easier to go up and down with a walker. If you have trouble negotiating steps, have someone build a ramp over the steps so that you can safely enter and leave your residence. Ramps should be installed by a person skilled in this task. A ramp should have one inch of rise for every twelve inches of length.

**Portable Ramps**
Portable ramps can be used to eliminate the need to step over small steps or thresholds. They are available by the inch and can make it easier to access all areas of the home and eliminate steps.
**Lift Chair**
If you have difficulty moving from sit to stand, a lift chair will help you to assume the standing position more safely. It is necessary to make sure you need this and not depend on it too much.

![Lift Chair Image](image1.jpg)

**Exercise Peddler**
This portable exerciser can be used to strengthen the legs or the arms. For leg strengthening, place the peddler on the floor near a chair allowing enough room to fully move the pedals in a circle. For arm strengthening, place it on a tabletop and place your hands in the loops and move them in a full circle. You can pedal forward or backward with both the arms and the legs.

![Exercise Peddler Image](image2.jpg)

**Stationary Bike**
A convenient way to exercise at home is a stationary bike. These bikes come in a variety of sizes and shapes. They allow you to exercise the legs while watching TV or reading.

![Stationary Bike Image](image3.jpg)
Section 18
WHEN IT MAY BE TIME TO USE AN ASSISTIVE DEVICE

Walking is an essential part of life. It is a simple means of mobility that permits an individual to explore his or her environment. It is necessary for maintaining health, socialization and learning. Daily walking may seem simple for most people, but it becomes challenging for others. Several reasons a person may need an assistive device are for balance, weight bearing, pain, limited endurance or posture. For many people, the thought of using an assistive device may create thoughts like:

- “I am giving in”
- “Now I am really old”
- “I don’t want to depend on anything”
- “It’s too cumbersome”
- “It’s too much trouble”
- “I don’t want to look handicapped”
- “It gets in my way”
- “It’s going to slow me down”

It is understandable that this period of transition in using something new can be awkward and sometimes uncomfortable. But the truth about using an assistive device is that it will provide you with more stability and increase your safety to allow for more mobility and ultimately increase your overall level of activity. Many people have developed an increased sense of self-confidence after using an assistive device. If you feel you need to touch objects, walls or furniture to feel secure or better balanced, it may be time to think of using an assistive device such as a cane or a walker to prevent a fall. If you feel afraid or unsteady when you are outdoors or in public, or even if you avoid going out for these reasons, it may be time to consider an assistive device. If it is time for you to use an assistive device and you choose to ignore this, the consequences can be much more devastating.

HOW DO I KNOW WHICH DEVICE IS RIGHT FOR ME?

Deciding which device to use can be a daunting task. There are many factors to consider:

- Weight of device (putting in and out of vehicle)
- Ability to use inside the home (carpet, thresholds, doorways, furniture)
- Ability to maneuver outdoors (pavement, grass, gravel, sand)
- Level of coordination to manipulate device
- Level of assistance needed (minimal support versus maximal support)
- Weight bearing restrictions (non-weight bearing or partial weight bearing)
- Pain levels
- Endurance level (should decrease amount of energy needed to walk)
- Cognitive ability (able to manipulate brakes when needed, proper use of device)
- Price and coverage options (varies by state legislature and insurance)
There are many options available to you for different types of assistive devices. Ideally, you should verify with your physician or physical therapist if you are wondering which device may be best for you. Here is a review of the more popular devices out on the marker.

The two major types of assistive devices used by seniors are canes or walkers.

**HOW TO CHOOSE A CANE?**

A cane is a stick made of wood, metal or plastic. A cane provides support, increases the sense of touch and improves balance and confidence in one’s ability to move around. The different types of canes are:

1. **Standard canes** – usually easy to use, lightweight, and usually not very expensive. The handles come in different shapes to better fit your hand. Different tips are also available to ensure a good contact and friction on the ground. A tripod tip is available which can help increase the sense of stability due to an increased base but also allows for the cane to stand on its own.

![Image of a standard cane]

2. **Broad based canes** – these canes have four legs, small base and large base which usually provide more support but also can be more awkward to use.

![Image of broad based canes]

3. **Forearm cane** – this type has an elongated edge from the handle and supports your forearm. It provides more stability because of the increased area of contact with the body.

![Image of an forearm cane]

4. **Foldable cane** – This is probably the best option for a person needing intermittent assistance and is practical due to its ability to be folded and carried in a purse or bag. It comes in different styles and you could make quite the fashion statement!
5. **Laser cane** – This is probably the best option for a person with Parkinson’s Disease who is still walking well but needing a minimal amount of assistance as well as help with controlling “freezing episodes.” When pressure is applied to the cane, a laser light beams a red line from the bottom of the cane creating a visual cue to trigger the person to take a step.

6. **Walking stick** - This is a good option for the Parkinson’s patient as it encourages improved posture during gait due to the height and nature of the handgrip position. Many people with Parkinson’s Disease prefer this option compared to a straight or standard cane.

**HOW DO I MEASURE FOR MY CANE?**

Ideally, your wrist line should be level with the top of the handle if your arm is hanging comfortably by your side. This means that once your hand is resting on the cane, you should have a slight bend in your elbow. A cane that is set at an incorrect height can actually cause balance problems, poor posture and create pain in the shoulder. You may even experience numbness or pain in your hand or fingers. A cane that is too high will make you work harder to pick it up and move it. A cane that is too low will cause you to lean and may impede your balance. Generally, the cane should be held on the opposite side of the “weaker” leg. That is, if your left leg is weaker, you should carry the cane in your right hand. A note of caution about carrying objects while you walk: as one
hand is occupied by the cane, it is highly recommended the other hand be free to assist in balance if needed. This means that carrying bags or purses could be detrimental to your balance. You could consider a bag that attaches around your waist or even a backpack. Limit the amount of things you need to carry around with you.

Types of Handles for Canes:
- Arthritic
- Round
- Curved
- Straight

Types of Tips for Canes:
- Cane Tip
- Tripod Cane Tip

A pliable rubber tip on the end of your cane grips the ground better and provides better traction. Make sure the rubber tip is supple and that the tread is not worn. This could cause your cane to slip and may cause a fall.
Sometimes, a cane does not provide sufficient support or assistance and you may need to consider a walker. A walker may include a seat which allows you to stop and rest at any point, it may also come with brakes to allow you to control the speed of your walking especially when going down a ramp.

**HOW TO CHOOSE A WALKER?**

A walker is a device used to promote an extension of the upper extremities to help transmit body weight and provide support and balance for the person. The walker supplies the most support and balance of all the assistive devices. The different types of walkers are:

1. **Standard walker** – this type of walker simply has four legs and must be picked up. This may be a good type of walker for a person who has weight-bearing restrictions or is fearful of a rolling walker moving away from them. However, this walker generally creates slow and awkward gait, creates poor posture and necessitates more energy expenditure. The standard walker requires that a person have sufficient upper body strength to lift the device.
2. **Two-wheeled walker** – A two-wheeled walker promotes freedom of movement and allows for a more normal walking pattern. The person must still pick-up the walker to turn or change directions if the wheels are non-swivel type. It is possible to obtain swivel wheels but this requires more control on the user's part.

3. **Three-wheeled walker** – A three-wheeled walker provides much freedom of movement, may be a better fit indoors compared to a standard, two-wheeled or four-wheeled walker due to width comparisons. Unfortunately, due to the configuration it is very difficult to maintain ideal posture with this type of walker. Most people tend to keep the walker too far ahead and develop poor postural habits. The walker can be easily folded temporarily to fit narrow spaces but be sure to lock it back in place as soon as possible.

4. **Four-wheeled walker** – This is probably the best option for a person needing improved mobility with the option of resting as needed. It provides confidence in walking knowing you can stop and rest at any time. Many people avoid walking outside for fear of not being able to “make it back.” This type of walker also comes with a braking system that can be locked in place for a person to turn and sit to rest. The seat and basket increase its' practical use.
5. **U-Step walker** – This type of walker is specially designed for the Parkinson’s Disease patient or patient with neurological condition. It's uniqueness lies in the fact it has a reversed braking system, allows for modulation of resistance, has a larger base with seven-wheels improving maneuverability and the option of having a “laser light” to create a visual cue for the Parkinson’s patient to “step over.” This greatly helps increase the size of steps and also can assist during “freezing episodes.”

![U-Step walker](image1.png)

**LASER LIGHT**

![U-Step walker with laser light](image2.png)

**HOW DO I MEASURE FOR MY WALKER?**

Ideally, when you step into your walker and place your hands on the grip, your elbow should be bent at a comfortable angle – about 20 to 30 degrees. If you relax your arms by your side, the top of your walker handle should line up with the crease on the inside of your wrist. Your wrist line should be level with the top of the handle if your arm is hanging comfortably by your side. A properly fitted walker can reduce the stress on your shoulders and your back especially if used correctly with special emphasis on good posture.

![Measuring for walker](image3.png)
WHAT IS A PROPER WAY TO USE THE WALKER?

The key is to stand inside, not behind, your walker as you push it. Your elbows will remain slightly bent at all times and will often feel as though they are behind you. Train yourself to develop good habits for improved posture and ultimately better safety.

INCORRECT POSTURE    CORRECT POSTURE

TYPES OF HANDLES FOR WALKERS:

<table>
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<tr>
<th>STRAIGHT</th>
<th>ARTHRITIC</th>
<th>RUBBER</th>
<th>SHEEP SKIN</th>
</tr>
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The constant contact and pressure through the hands can lead to pain and numbness. You may want to consider a grip that is softer and provides more contact area to dissipate the forces going through the hand. This is especially important for people who have arthritis, as they must protect their joints from injuries.

TYPES OF ACCESSORIES FOR WALKERS:

<table>
<thead>
<tr>
<th>WALKER BASKET</th>
<th>WALKER TRAY</th>
<th>WALKER POUCH</th>
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</table>
Several types of accessories can be obtained to ease functional activities such as carrying objects and freeing the hands to allow for safe use of the walker. You could also attach a pouch to carry papers or magazines.

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- **STRAIGHT**
- **ARTHRTIC**
- **RUBBER**
- **SHEEP SKIN**

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- **WALKER BASKET**
- **WALKER TRAY**
- **WALKER POUCH**

Several types of accessories can be obtained to ease functional activities such as carrying objects and freeing the hands to allow for safe use of the walker. You could also attach a pouch to carry papers or magazines.

**OTHER SAFETY TIPS IF USING A WALKER**

Check the floor to make sure it is safe for using the walker. Certain types of surfaces are more challenging such as plush carpets, gravel, and grass. The floor must be clean, dry, well lit, and free of clutter. Throw rugs are very hazardous as the back of the walker, especially two-wheeled walkers, can catch and lift the rug causing you to lose your balance and fall. Be especially careful of this when going to unfamiliar places. Always scan the environment for potential problem areas with your walker. Ideally, avoid looking straight down at your feet. This affects your posture and balance. In general, you should look straight ahead and occasionally glance down to make sure there are no obstacles in your way.
Section 19
Personal Story – Home Safe Home

Laura Anderson is a 64-year-old teacher. Unemployed for over a year, Laura has been depressed and has become sedentary. Laura is not a very physically active person. Although she has snow skied in the past, she does not participate in any walking programs or exercise. Recently, she was hired full-time at a Charter school. The new responsibilities of the job have made her less conscientious about keeping up her housework. She has multiple projects started and has left materials piled on the floor and furniture. And on top of that, she’s not been as diligent about replacing light bulbs in the lamps or ceiling fixtures.

Laura’s best friend from high school recently got married and Laura flew to Boston to attend her wedding. When she returned, she put her open suitcase on the floor of her bedroom and began removing items from it that needed to be washed. She piled the clothes on the floor near the bed. When her phone rang she went into the living room to answer it. When Laura returned to the room, she did not put on the ceiling light because the bulb had burned out before she went on her trip. She walked into the dark room to turn on the lamp and tripped on the clothes she had piled on the floor.

Laura sustained a compound fracture to her ankle in the fall. She had surgery and is to be non-weight bearing for eight weeks and needs to use a walker. Laura received a call from her employer who stated they have had to fill the position with someone else because her non-weight bearing status does not allow her to work.

There’s an important lesson in Laura’s story. For safety reasons, keep your environment free of clutter, repair or replace items when they are not in working order, and asking for help when you are unable to accomplish all the tasks necessary to keep you safe and independent in your own home.

A fall could mean a drastic change in your lifestyle and livelihood.
Section 20
IMPORTANCE OF PHYSICAL ACTIVITY

Staying safe in our environment and maintaining independence of function require a certain amount of strength, flexibility, balance and endurance. Many people engage in activities everyday that help them keep their muscles strong and flexible. Gardening and walking the dog are examples of this activity. Spending time and energy on your health and safety can provide a big payoff in terms of how you feel and how long you can remain independent. Regular exercise can reduce your risk of falls or injury by helping you improve your strength, flexibility, balance and endurance. Physical activity also works to help people feel more positive and confident in their own self. Even people who are sedentary can improve their health through increasing their activity level.

The benefits of being physically active include:
- Increased joint mobility
- Stronger bones and muscles
- Better heart and lung function
- Decreased risk of heart disease, diabetes, some cancers, and high blood pressure
- Improved digestion, decreased constipation
- Better sleep
- Increased energy levels
- Less depression and anxiety
- Improved ability to cope with stress
- Opportunities to socialize

**Aerobic Exercises**

This type of exercise will improve your endurance and help your heart and lungs work better. Aerobic exercises will make it easier for you to walk further distances and be able to perform activities of daily living without fatigue. The cardio-respiratory fitness that occurs as a result of this type of exercise is one of the most controllable risk factors in chronic disease. Simply adding more steps to your daily routine (such as parking your car at the far end of the parking lot) can help. A pedometer is a useful tool to help you measure how many steps you take each day and keep track of your progress.

Aerobic exercises are recommended at least three times per week. Some regular daily activities have an aerobic or conditioning benefit: vigorous yard work or household chores such as mopping, vacuuming, or walking the dog. A reasonable goal is 30 minutes three times a week.

Benefits of aerobic conditioning exercises:
- Strengthen heart and lungs
- Reduce stress
- Improve mood and self-esteem
- Improve stamina and endurance
- Reduce high blood pressure and cholesterol
- Reduce the effects of osteoporosis
Types of endurance exercises:
- Walking
- Swimming
- Cycling
- Dancing
- Tennis
- Golf
- Pedaller
- Three-Wheeled Bike
- Stationary Bike

Try to work up to 30 minutes four to seven days a week.

**FLEXIBILITY**

Flexibility activities help you to move more easily and maintain the ability to put on our clothing, comb our hair, pick up objects from the floor and put on our shoes; that is to remain independent in our activities of daily living. Stretches can be done anytime of the day. Try to incorporate stretches throughout the day into ordinary tasks (while holding the phone, during commercials, or when drying off after a shower).

Most kinds of activity such as housework, gardening, or simply walking will help you to remain limber. The more you move, the more you will be able to stay flexible.

Benefits of stretching or flexibility exercises:
- Improved range of motion and joint mobility
- Improved circulation
- Release muscle tension
- Helps improve posture
- And it feels good…

Try to do stretching exercises daily for at least five minutes.

Tips for safe stretching:
- Breathe naturally
- Stretch slowly without bouncing
- Hold the stretch for 20 to 30 seconds

You can stretch while on the phone, waiting in line, or during commercials.

**STRENGTH EXERCISES**

Strong muscles are essential for staying active. Muscle strength is an important part of balance and mobility. You can improve your muscle strength regardless of your age. Strengthening exercises help to maintain muscle and bone mass, improve balance, reduce the risk of falls, improve heart and lung function and improve overall functional ability to perform activities of daily living (getting in/out of bed, opening jars, carrying groceries, dressing) independently. Older adults
have more potential gain from strengthening than any other activity. In fact, it is possible to improve your strength by 200 percent.

Benefits of strength exercises:
- Keeps muscles and bones strong
- Reduces falls
- Enables a higher level of activity
- Reduces fear of falling
- Improves postural stability
- Helps maintain quality of life

Strength exercises allow you to stay in your own home environment longer.

Perform strength exercises two to four days per week
- Start slowly, when you can do an activity 10 times easily, then add weights
- Breathe naturally

Check with your physician before you start your exercises.

**BALANCE EXERCISES**

Good balance is essential to maintaining independence. Balance includes sensory input, processing of information by the brain, and a reaction of your muscles in response to signals from the brain. Balance exercises are designed to improve the way your brain processes information from the senses. Balance exercises let your brain practice how to coordinate and organize information from your eyes, feet and joints. Your brain also coordinates messages to the muscles so that they work smoothly to keep you from falling. Balance exercises improve postural stability, gait, balance coordination and reduce the risk of falls and fear of falling.

Balance exercises that change the base of support (move the feet closer together), change the visual input (eyes closed), and change the head position (head turns) will help to exercise the vestibular system and help the body to be ready for environmental situations that challenge balance. Performing balance exercises can build confidence for simple daily activities such as stepping up a curb, walking on sand or gravel, and maneuvering in tight places.

Benefits of balance exercises:
- Keeps muscles and bones strong
- Reduces falls
- Enables a higher level of activity
- Reduces fear of falling
- Enables a higher level of activity
- Reduces fear of falling
- Improves postural stability
- Helps maintain quality of life
- Lets your stay in your own home longer
Perform balance exercises two to four days per week.
- Start slowly, when you can do an activity without difficulty, then modify the base of support, close your eyes and move your head.
- Breathe naturally
- Check with your physician before you start

Due to the challenging nature of these exercises, always have a support surface close by or ask a family member to guard you closely.
Section 21
TIPS FOR BECOMING PHYSICALLY ACTIVE

Most people know that physical activity is good for them and that being physically fit can help them prevent falls. Getting started on an activity program often seems too difficult. Some people set their expectations too high and set themselves up to fail. By breaking down activities into smaller segments, you will find that you are actually doing more than you realize.

Here are a few tips to increase your chance of success:

1. **Get started…**
   Start your day with some gentle stretching exercises. You can even stretch in bed before you get up. Take short walks around your home, down the hallways if you live in an apartment, or to the mailbox.

2. **Get a walking buddy…**
   Ask a friend to walk with you. You will act as a support system for each other.

3. **Be realistic…**
   Don’t try to do too much too soon. Start with doing activities for a few minutes a day. Even 10 minutes three times a day adds up to 30 minutes of activity.

4. **Keep track…**
   Using a chart such as the one below or writing your activities on the calendar acts as a motivator. It can also boost your self-esteem when you see how much you have done.

5. **Make it a habit…**
   Look at the activities you do everyday and make it a habit of doing it a little differently. Walk all the aisles in a store. Park a little farther away when you shop. Take the stairs when you can. Exercise while you watch TV.

6. **Have fun…**
   Do things that you enjoy. Having another person do activities with you makes it more enjoyable. Remember the rewards: better sleep, less stress, more energy, better self-esteem, relaxation, and prevention.
Use an activity chart like the one below and add up the minutes spent on each activity every day. You will be surprised at how much you can do to stay active.

<table>
<thead>
<tr>
<th>Date:</th>
<th>Activity</th>
<th>Minutes</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Morning Stretches</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Housework (List what kind)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.</td>
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<td></td>
<td>2.</td>
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<td></td>
<td>Climbing Stairs</td>
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<tr>
<td></td>
<td>Walking</td>
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<td></td>
<td>☑ From the back of the parking lot</td>
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<td></td>
<td>☑ At the mall</td>
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<tr>
<td></td>
<td>☑ In my neighborhood</td>
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<tr>
<td></td>
<td>☑ Walking the dog</td>
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<tr>
<td></td>
<td>☑ Doing errands</td>
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<tr>
<td></td>
<td>☑ Shopping</td>
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<tr>
<td></td>
<td>Strengthening exercises while watching TV</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Balance exercises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other activities (dancing, bowling, tennis, swimming, golf, shuffleboard)</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 22
SUGGESTED EXERCISES

LIST OF SUGGESTED EXERCISES

WARM-UP

- Hands open and close
- Ankle pumps
- Marching in place
- Head movements

FLEXIBILITY

1A. Seated trunk twist
1B. Seated trunk twist with cane
2A. Overhead reach with cane
2B. Overhead reach hands clasped
2C. Overhead reach alternating arms
3. Chest stretch
4. Lower body twist
5. Hip stretch
6A. Hamstring stretch lying down with sheet
6B. Hamstring stretch sitting
6C. Hamstring stretch sitting with chair
7A. Calf stretch standing with chair
7B. Calf stretch standing at wall with book

STRENGTHENING

8A. Sit to stand without hands
8B. Sit to stand with hands on chair
8C. Sit to stand picking up pillow
9. Bridging
10. Seated press-ups
11. Seated pull backs
12. Shoulder strengthening
13. Heel and toe lifts

BALANCE

14. Single leg stance
15. Standing with eyes closed
16. Toe taps on book
17. Step-ups on book
18. Standing foot on step with head movements
19. Side stepping at counter
ANKLES PUMPS
Sitting tall, bend your ankles up and down as far as possible to feel a stretch in the back and front of the leg. Build to a rhythm that is comfortable for you and continue for 30 seconds.

HAND PUMPS
Sitting tall in your chair, open and close your hands making a tight fist. Build to a rhythm that is comfortable for you and continue for 30 seconds.

ARM SWINGS
Sitting tall at the edge of the chair, feet flat on the floor, Swing your arms from the shoulder only as high as is comfortable for you. Build to a comfortable rhythm and continue for 30 seconds.

MARCHING IN SITTING
Sitting tall at the edges of the chair, alternately lift your feet and place them down with control. Build to a rhythm that is comfortable for you and continue for 30 seconds.

HEAD TURNS
Sitting tall at the edge of your chair, feet flat on the ground and spine straight, gently turn your head to the right looking over your right shoulder, then turn your head to the left looking over your left shoulder. Hold each position for 5 seconds. Repeat this cycle 10 times.

HEAD TILTS
Sitting tall at the edge of your chair, feet flat on the ground and spine straight, gently tilt your head sideways to the right, then tilt your head sideways to the left. Hold each position for 5 seconds. Repeat this cycle 10 times.
Section 22
SUGGESTED EXERCISES

STRETCHING EXERCISES

1A. SEATED TRUNK TWIST

1. Sit tall with the lower back away from the back of the chair. The shoulders should be relaxed, with the head erect, eyes directed forward, feet flat on the floor and shoulder width apart.

2. Fold arms across the chest. Take a deep breath in to expand your lungs.

3. Gently rotate the trunk to one side as far as comfortable. Exhale during the twisting motion. Hold the end position for five to 10 seconds, breathing evenly throughout the hold.
4. Breathe in as you slowly rotate the trunk as far to the opposite side as is comfortable. Exhale during the twisting motion.

5. Keep hips facing forward throughout the exercise.

6. Repeat the exercise five times to each side, alternating sides.

1B. SEATED TRUNK TWIST WITH CANE
1. Sitting tall with the lower back away from the back of the chair, feet flat on the floor and shoulder width apart, grasp the cane in both hands with an overhand grasp.

2. Lift the cane to shoulder height while breathing in.
3. Slowly turn to one side, exhaling as you turn your upper body. Turn your head and your eyes to follow the cane as you turn. Hold five seconds.

4. Breathe in as you slowly turn in the opposite direction, turning your head and your eyes to follow the cane.

5. Repeat five times in each direction.

2A. OVERHEAD REACH WITH CANE

1. Hold a cane, yardstick or towel in both of your hands, shoulder width apart using an overhead grip.
2. Raise the cane overhead as far as possible. Take a deep breath in as you reach up. Keeping your chin level, bring your head backward as if you are sliding your chin along a tray.

![Image of person raising a cane overhead.]

3. Bring cane down behind your head to rest on your shoulders.

![Image of person sitting with cane behind the head.]

4. Hold for five seconds. Lift cane up overhead.

![Image of person lifting a cane overhead.]

5. Lower your arms and breathe out. Repeat eight to10 times.
2B. OVERHEAD REACH HANDS CLASPED
1. Sitting tall with feet flat on the floor, chin level, hands resting on your lap.

2. Raise both arms up over your head while taking a deep breath in. Hold for five seconds.

3. Bring arms back down onto lap, breathing out as you lower the arms. Repeat eight to 10 times.
2C. OVERHEAD REACH ALTERNATING ARMS
1. Sitting with chin level, feet shoulder width apart.

2. Alternately reach arms up as high as possible, breathing in as you reach up, exhaling as you lower your arm.

3. Repeat eight to 10 times with each arm.

3. CHEST STRETCH

1. Stand facing a corner of the room, placing one hand on each wall.
2. Lean forward into the corner. Keep feet flat on the floor and breathe out. You can vary the height of the hands to stretch different parts of the chest.

3. Hold for 20-30 seconds. Repeat five to 10 times. Make sure to take deep breaths throughout the exercise, keeping shoulders down.

4. LOWER BODY TWIST

1. Lie on your back, with your knees bent and your feet flat on the bed or floor surface. Arms should be outstretched at your side.

2. Rotate both knees to one side, keeping arms and upper torso flat. Hold the position for 20 seconds.
3. Repeat, rotating the knees in the opposite direction. Repeat sequence five to 10 times, making sure to breathe throughout exercise.

5. HIP STRETCH

1. Lie on your back by the edge of the bed. Knees bent and feet flat on the surface.

2. Bend the knee that is furthest from the edge of the bed up toward the chest. Hold that knee in position for the rest of the exercise.

3. Dangle the leg closest to the edge of the bed over the bed. You should feel a stretch in the front part of your thigh. Hold for 10-20 seconds. Repeat 8-10 times.
4. For an additional stretch, try to bend the knee of the leg that is dangling so that your foot moves closer towards you.

5. Reverse the position and repeat with the other leg.

6A. HAMSTRING STRETCH LYING DOWN WITH SHEET

1. Lie on your back with one knee bent and one leg straight. Hook a long sheet or beach towel around the ball of the foot of the straight leg.

2. Using your hands, pull the sheet up slowly as far as you can making sure to keep your knee as straight as possible throughout. You will feel a stretch in the back of your leg. Hold for five to 10 seconds. Repeat eight to 10 times.

3. If keeping your knee straight is too difficult at first, you can let your knee bend slightly.
4. Then repeat with the other leg.

6B. HAMSTRING STRETCH SITTING

1. Sit forward in your chair so that you can keep your knee straight and rest your heel on the floor.

2. Raise both arms up overhead and inhale.
3. As you exhale reach down toward your toe on the leg that is straight. Hold for 20-30 seconds. Repeat five to 10 times. You should feel a stretch behind your knee. Do not bounce, just reach and stretch.

4. Relax, change legs. Position your other leg with the knee straight and the heel resting on the floor. Repeat the stretch five to 10 times holding for 20-30 seconds.

6C. HAMSTRING STRETCH SITTING WITH CHAIR

1. Sit forward in your chair so that you can put one leg up on a chair placed in front of you. If a chair is too high, you could use a step stool.

2. Reach forward with both arms leaning with your back as straight as possible as if reaching towards your toes.
3. Rounding your back and bending your knee are NOT recommended for this exercise. At first, it may be the only way to achieve this but eventually, you will be able to keep your back straighter.

4. Repeat the stretch on the same leg five to 10 times, holding the position for 20-30 seconds. Relax, change legs.

7A. CALF STRETCH STANDING WITH CHAIR

1. Stand up and hold onto the back of a chair or the counter.

2. Place one foot forward in front of the other. Make sure your feet are parallel, not turned out.
3. Keeping your heels flat on the floor, push your hips forward while bending the forward knee slightly. You should feel a stretch in the back of the calf (lower leg).

4. Hold 20-30 seconds. Repeat five to 10 times. Switch legs and repeat.

**7B. CALF STRETCH STANDING AT WALL WITH BOOK**

1. Stand up in front of a wall, place a phone book secured with tape in front of you.

2. Place one foot forward making sure the ball of the foot is over the book, keeping the heel on the floor. Make sure your feet are parallel, not turned out.
3. Keeping your heels flat on the floor, push your hips forward while bending the forward knee slightly. This will create a lean towards the wall. You should feel a stretch in the back of the calf (lower leg).

4. Hold 20-30 seconds. Repeat five to 10 times. Switch legs and repeat.

STRENGTHENING EXERCISES
8A. SIT TO STAND WITHOUT HANDS

1. Sitting tall in your chair with feet shoulder width apart and away from the back of the chair, tuck in the abdomen and chin while looking down toward the floor. Cross your arms across your chest.

2. Bring your upper body forward over your legs. Use your legs to stand from the chair. Exhale as you raise your body from sit to stand.
3. Tighten your buttock muscles as you come all the way to standing. Your spine will start straightening, as well as your hips and knees. Your knees should be the last to straighten.

![Image of person standing]

4. Make sure to achieve full standing position with your arms relaxed to your side and find your balance point before sitting to repeat this exercise. Work up to 10 stands.

![Image of person standing]

5. To return to sit, slowly lower your buttocks back to the chair. Sit softly as though you were sitting on a cart of eggs. Relax and repeat five times. Work up to 10 stands.
8B. SIT TO STAND WITH HANDS ON CHAIR

1. Sit tall in a chair. Move forward in the chair so that you are sitting close to the edge of the seat. Lean your upper body forward and place your hands on the arms of the chair. Keep your spine as straight as possible, bending at the hips. Avoid rounding the shoulders. Begin rocking the body to create some momentum.

2. Count to “three”, on the count of “three” lift buttocks and lift yourself out of the chair. Stand as straight as you can and bring your head up.

3. Release your hands from the chair as you start to straighten your spine. Do NOT straighten your knees at this time.
4. Take a breath. Stand as straight as you can, find your balance point. Then slowly reverse this action to sit down. Start this by bending your knees.

5. Place your hands onto the arms of the chair while lowering your head. Repeat the exercise five to ten times.

8C. SIT TO STAND – PICKING UP PILLOW

1. Sit tall in a chair. Move forward in the chair so that you are sitting close to the edge of the seat. Place a pillow in front of you, between your legs.

2. Lean your upper body forward and position your hands around the pillow.
3. Tighten your buttocks and lift yourself out of the chair while moving the pillow towards your body. Stand as straight as you can and bring your head up.

4. Stand as straight as you can and bring your head up. Take a breath.

5. To sit down, reverse this action. Move slowly, in a controlled fashion. Repeat this movement five to 10 times.

9. BRIDGING

   1. Lie on your back with your knees bent up.
2. Raise your hips up off the surface several inches by tightening your buttocks. You should feel your buttocks tighten as you raise your pelvis. Hold this position for a count of 10, breathing naturally.

3. Slowly lower your pelvis to the surface. Relax and repeat 10 times.

4. To increase the level of difficulty, while still maintaining your hips up, straighten one leg to make it even with the bent leg. Hold for five counts and lower slowly. You can alternate with the other leg.

10. SEATED PRESS UPS

1. Sit tall in a chair with your back a little away from the back of the chair.
2. Tuck in the chin and abdomen, keeping eyes directed forward. Grasp the sides of the chair or the arm rests near your hips. Inhale.

3. Slowly lift your body up from the surface while keeping your back straight. Exhale as you lift. Hold the position for 10-15 seconds.

4. Slowly lower yourself to the surface. Repeat 10 times.
11. SEATED PULL BACKS

1. Sitting tall with your lower back away from the back of the chair, feet flat on the floor and shoulder width apart, grasp the elastic band in both hands. You could use cans of soup or a towel instead of the elastic.

2. Lift both arms to shoulder height.

3. Slowly pull both arms out to the side, pinching the shoulders together as you pull. Breathe out as you pull.
4. Slowly bring both arms back to the center. Breathe in. Relax and repeat 8-10 times.

12. SHOULDER STRENGTHENING

1. Sitting or standing with weights in your hands and arms relaxed at your sides, inhale. You could also use cans of soup for this exercise.

2. Slowly raise both arms out away from your body to shoulder height, exhaling as you lift. Hold arms out for three seconds.
3. Slowly lower both arms to your side. Relax. Repeat 10 times.

13. HEEL AND TOE LIFTS

1. Stand with your feet shoulder width apart. Hands on sturdy chair, wall behind you for safety.

2. Hold onto the back of a sturdy chair or a kitchen counter. Rise up onto your toes, lifting the heels up off the floor. Hold this position for five seconds.
3. Slowly lower your heels and rock back onto your heels, lifting the toes. Hold for five seconds. It is normal to have a slight bend at the hip when rocking back on your heels. Try not to touch the wall behind you.

4. Repeat 10 times. Another option would be to do this without the help of your hands. Raise arms up when rising to your toes, lower arms when rocking onto your heels.

**BALANCE EXERCISES**

**14. SINGLE LEG STANCE**

1. Standing next to the counter or behind a sturdy chair, hold onto the surface of the chair or counter.
2. Shift your weight to one leg.

3. Lift the other leg off the floor. Hold this position for three seconds.

4. Relax and lower your foot to the floor. Try this again and try to keep from holding onto the counter or chair. Try to slowly increase the amount of time you can stand on one leg.

5. Repeat with the other leg. Once you feel comfortable standing on one leg, try to repeat this with your eyes closed. Remember to always stand next to something you can hold onto for support if you need it.
15. STANDING EYES CLOSED

1. Stand with you feet apart and even next to a counter or in a corner with a sturdy chair in front of you. With your eyes open, maintain this position for 10 seconds.

![Feet apart](image1)

2. Now close your eyes and try to keep your balance while standing with your feet apart for 10 seconds.

![Feet apart](image2)

3. Next, bring your feet together. Start with eyes open, then try closing your eyes. Hold this position for 10 seconds.

![Feet together](image3)
4. Next move one foot in front of the other so your feet will be staggered. Try to hold this position for 10 seconds with your eyes open. When this is easy, challenge yourself by closing your eyes. Always make sure you are close to a support surface or have a family member guard you closely.

![Feet Staggered](image)

**FEET STAGGERED**

16. **TOE TAPS ON BOOK**

1. Standing by the counter with a phone book in front of your feet (be sure phone book is secured in place with duct tape or non-skid mat) You could use a chair with the wall behind you for additional safety.

![Toe Taps on Book](image)

2. Place your right foot up onto the phone book.

![Additional Safety](image)
3. Bring the right foot up back down onto the ground.

4. Then place the left foot up onto the book. Return it to the ground.

5. Keep alternating tapping the phone book with the right foot, then the left foot. Repeat 10 times. Move slowly and in a controlled fashion. Be sure to clear the book when putting your foot back down on the ground.

17. STEP UPS ON BOOK

1. Standing by the counter with a phone book in front of your feet (be sure phone book is secured in place with duct tape or non-skid mat)
2. Place your right foot up onto the phone book and step up onto the book with all of your weight on the right foot.

3. Bring the left foot up onto the book next to the right.

4. Position the right foot back in preparation for stepping down backwards. Make sure to clear the book with your toes before letting your body move.
5. Step down backwards with the right foot first, then bring the left foot down. Repeat five to 10 times with each foot. If you go up with the right first, go down with the right as well. Then start going up with the left, and go down with the left.

18. STANDING FOOT ON STEP WITH HEAD MOVEMENTS

1. Place your foot on a six inch step or on a secured phone book. Hold this position for 10 seconds. Try not to hold onto any surface with your hands.

2. Slowly turn your head to the right side while in this position. Return your head to center. Then turn your head to the left side.
3. Slowly tilt your head up, return to center and then tilt your head down.

4. Repeat this exercise five times in each direction. At first, do this holding onto a support surface. Eventually, do this without support but still close for safety. At first, ask a family member or friend to guard you closely.

19. SIDE STEPPING AT COUNTER

1. Standing by the counter or at the edge of a long table, with head in midline and eyes directed forward.

2. Move foot out to the side
3. Carefully shift your weight onto the foot.

4. Then close the feet together. Repeat this exercise five times in the same direction. Then reverse the direction. When this becomes easy, you can try this without using your hands. Ask a family member or friend to guard you closely.
Section 23
BARRIERS TO INCREASING ACTIVITY

For many, the idea of exercising or becoming more active elicits negative thoughts and brings up a list of obstacles. The most difficult step to take is the first step towards change. With a little perseverance and determination to dedicate time and energy to improving your physical activities, you may find yourself better able to complete activities you enjoy. Here is a list of several reasons others have voiced for not becoming more active.

- Lack of time
- Isolation
- Depression
- Current weight
- Poor vision
- Fear that exercise could cause injury
- Fear for one’s personal safety
- Illness or disability
- Side effects of medication
- Lack of exercise equipment
- Lack of energy
- Simply don’t like to exercise

Following are suggestions to overcome some of these obstacles:

- **Lack of time**: Incorporate activity into tasks you already do each day. For example if you go out, park further and increase your walking distance for your goal.
- **Isolation, depression, current weight**: Ask a friend to be your activity buddy or walking buddy.
- **Poor vision**: Ask someone to walk with you even if you need to hold onto their arm, consider utilizing an assistive device for your walks.
- **Fear that exercise could cause injury**: Consult with your physician prior to starting a program, they could recommend a physical therapist set-up a program to your individual needs and limitations.
- **Fear for one’s personal safety**: If your neighborhood is not safe, call a senior center near you to see if they have programs available, or walk at the mall with a friend.
- **Illness or disability**: Most illnesses will benefit from physical activity; ask your physician which activities might be more beneficial to you. Many modifications can be made for people with disabilities to still benefit greatly from activity. You may need to consult with someone to help you find solutions.
- **Side effects of medications**: Consult with your physician and pharmacist about any concerns you may have related to medications
- **Lack of exercise equipment**: You may use items you already have at home, cans of soup for weights, empty milk jugs, socks filled with rice, cans in old purses.
- **Lack of energy**: Often times light activity will give you more energy, incorporating this regularly in your daily schedule will improve your energy levels and help you sleep better.
- **Simply don’t like to exercise**: Choose activities you enjoy such as walking the dog, gardening, dancing.
Section 24
HOW TO HANDLE A FALL

For most people, the idea of falling brings about thoughts of fear, helplessness, shame and embarrassment. Few people give thought to how they might handle a fall. Let’s review a few ideas to help you handle a fall. The tendency for most people who experience a fall is to attempt to get up in a panic and this may lead to further problems and injuries. If you experience a fall you should follow these recommendations:

*** DON'T PANIC ***
After a fall, panic is often the first reaction. It is important to stay calm so you can think clearly and get help as soon as possible. Once you are on the floor or ground, stop to assess whether or not you are injured. Slowly wiggle your toes, fingers, arms and legs. Take a deep breath and check for any areas of pain, bruising, cuts or bleeding. Then look around to see if there is any support surface around and the location of the nearest telephone. If you live alone, ideally you would carry a cordless phone with you at all times or use a calling device linked to a central station warning them of a problem.

If help is nearby, call for help. Be careful, as sometimes the body goes into “shock” after a trauma and you may not necessarily feel an injury or a broken bone. This is why you must take your time and do a thorough self-check before attempting to get up.

IF YOU ARE INJURED, DO NOT ATTEMPT TO GET UP. Call 911. You should also call 911 if you cannot get up even though you may not be injured. Some people are concerned about calling for help because of cost but this is not the case, they will come to assist you at home for no charge.

REMAIN CALM
CHECK FOR INJURIES

CALL FOR HELP IF HELP IS AVAILABLE

HOW TO HANDLE A FALL - IF YOU HAVE A SUPPORT SURFACE NEARBY...

1. Once you have established you are NOT injured, then start moving by rolling yourself to either side, propping yourself up onto your elbow then hand.

2. Then push yourself up onto your hands and knees.
3. **Crawl** on your hands and knees to the nearest, sturdy support surface.

4. Put both hands on the surface and pull **one leg up** so your foot is carefully planted on the floor.

5. Count to “three” to prepare your body for movement and make sure your arm strength and leg power work together simultaneously on the count of “three” to **lift your body up** just enough for you to be able to sit on the surface. Do **not remove your hands** from the surface, sit immediately.

6. Make a mental note of what just happened, how you think it could be prevented and make sure **to let your physician and family know** you experienced a fall.
HOW TO HANDLE A FALL - IF YOU DO NOT HAVE A SUPPORT SURFACE NEARBY...

1. Once you have established you are NOT injured, then start moving by rolling yourself to either side, propping yourself up onto your elbow then hands.

2. Then push yourself up onto a side sitting position.

3. Then push yourself up onto your hands and knees.

4. Put both hands on the surface and pull one leg up so your foot is carefully planted on the floor.
5. Count to “three” to prepare your body for movement and make sure your arm strength and leg power work together simultaneously on the count of “three” to lift your other foot under yourself. Move your body weight slowly back onto your heels to establish a balanced position.

6. Unfold your body slowly by using your hands on your thighs and stand up completely. At this time, stand steady before starting to move. Make a mental note of what just happened, how you think it could be prevented and make sure to let your physician and family know you experienced a fall.
Section 25
Test your Knowledge – Part D

1. __ True __ False  Cardiovascular fitness decreases about one percent a year after the age of 25.

2. __ True __ False  Physically active people have poorer memory and reaction times.

3. __ True __ False  Physical activity lowers blood pressure.

4. __ True __ False  Older adults should consult with their physician if they plan to do more physical activity.

5. __ True __ False  It is too late for sedentary people with joint stiffness to do anything about it.

6. __ True __ False  Exercise of moderate intensity should be done three times per week.

7. __ True __ False  Physical activity can boost confidence and improve balance.

8. __ True __ False  For older people, fear of injury is an insurmountable obstacle to physical activity.

9. __ True __ False  With moderate exercise muscle strength can increase as much as 200 percent in older adults.

10. __ True __ False  An exercise program should include aerobic, strengthening, flexibility, and balance exercises.

Test Your Knowledge Answers

True
1. Cardiovascular fitness declines slightly in everyone after age 25. Aerobic exercise at a moderate intensity can improve cardiovascular fitness. A brisk walk that makes you breathe harder and makes your heart beat faster is an example of moderate aerobic exercise.

False
2. Physically active people have improved memory and faster reaction times.

True
3. Increasing physical activity will lower blood pressure as well as increase the efficiency of the heart.

True
4. Before you start an exercise program, consult with your physician. Your physician can help you to decide what kind of program is right for you.
**False**
5. Exercise and increased activity can benefit everyone. People who have joint stiffness can improve their range of motion through a gentle stretching and strengthening program. The key to success is to start with a low number of repetitions and slowly increase them as you become stronger.

**True**
6. Exercising at least three times per week can improve your health and fitness. If you can work some increase of activity into your schedule everyday, you will benefit even more.

**True**
7. Physical activity increases strength and flexibility leading to improved reaction times and a decrease in fall risk.

**False**
8. Many older adults fear that they will injure themselves through exercise because they lack the proper instruction in exercising. Through education and instruction they are able to independently perform an exercise program that is right for them. If you have questions about an exercise program, ask an exercise physiologist or physical therapist to help you get started.

**True**
9. Exercising several times a week can result in great strength gains for older adults. In frail individuals, increased activity can reverse serious functional declines and improve their ability to remain independent.

**True**
10. A well-balanced exercise program should include all forms of exercises. Setting up an activity log that reflects your needs, abilities, and interests. Starting with aerobic exercises and then adding one of the other components each day will keep your program well balanced.
Section 26
Personal story – Activity is the key

Evelyn is a 78-year old woman who has been diagnosed with Parkinson’s disease since 1999. She has taken her medication regularly and was functioning quite well until she had a stroke in 2003. The stroke left her blind in the right eye and with a severe loss of movement on the left side of her body. Evelyn stopped going out in the community, except to go to her doctor appointments, because she was able to get around only with the use of a walker and she did not feel very steady with it.

In the spring of 2005 her husband saw an ad in the paper announcing a community exercise program for people with Parkinson’s Disease. The program was offered through the National Parkinson Foundation Outreach program. Louis and Evelyn attended their first class in early March.

Evelyn found the exercise to be quite hard and challenging for her. She struggled to complete the ten repetitions. She had difficulty with the sit-to-stand exercises and needed help for the first four times that she attended. After that she was able to do five sit-to-stands without using her hands. After the first month of attending the exercises class, Evelyn started to go out to eat with her husband.

After two months, she no longer used the walker in her home, except when she got up at night to use the bathroom. By the third month she no longer needed the walker for community ambulation because her muscles were strong and the balance exercises gave her confidence that she could manage on a variety of surfaces without fear of falling.

Evelyn now goes with her husband to shop and is able to walk all the aisles without becoming fatigued. She has resumed doing some of the household chores and feels good about herself when she goes out in public.

Evelyn’s story demonstrates how someone with multiple disabilities due to chronic disease can resume a meaningful life through increased activity and exercise.
Section 27
Attitude Check

Check off the statements you feel may apply to you:

__ True  __ False  I think information about preventing falls is relevant only to older and frail people.

__ True  __ False  I don’t think I am at risk of falling because I am confident in myself and in my capabilities.

__ True  __ False  I don’t want to admit that I may be at risk of falling because that might mean I am old and frail.

__ True  __ False  I have fallen once before just because of momentary inattention. I am not likely to fall again.

__ True  __ False  I know I am at risk of falling but I really don’t think anything can be done about this, besides it’s a normal part of aging.

__ True  __ False  I believe most falls are preventable.

__ True  __ False  I realize that certain changes occur with aging and I wish to become more aware of some of my limitations.

__ True  __ False  I don’t know how I can be told how to prevent falling. You don’t do it on purpose…it just happens.

__ True  __ False  I recognize that a previous fall is a major contributing factor to the possibility of another fall.

__ True  __ False  Listening to advice on fall prevention makes me feel that I don’t have any common sense and that I need to be told everything.

__ True  __ False  I realize I can make many personal and environmental changes to decrease my risk of falling.

__ True  __ False  I recognize that everyone can be at risk for falling and I wish to increase my own awareness of this risk.

__ True  __ False  I realize that falling is not a normal part of aging.

With the above information, this may shed light on your approach to safety. Take these into consideration when planning to modify your lifestyle.
Section 28

The following is a list of 10 recommendations we have compiled to help you come up with a strategy to minimize your risk of falling.

TEN RECOMMENDATIONS FOR MINIMIZING YOUR RISK FOR FALLS

1. DON’T THINK YOU ARE IMMUNE TO A FALL OR A BALANCE PROBLEM

2. TAKE AN HONEST INVENTORY OF YOUR ABILITIES AND LIMITATIONS

3. REVIEW YOUR DAILY ACTIVITIES AND LEARN TO ANALYSE EACH SITUATION REGARDING POTENTIAL CHALLENGES TO YOUR BALANCE (should I do this?)

4. MONITOR YOUR INTAKE OF MEDICATIONS AND POSSIBLE SIDE EFFECTS (always ask your pharmacist/MD)

5. TAKE CHARGE OF YOUR PHYSICAL CONDITION (nutrition, rest, exercise, mental activity)

6. REDUCE YOUR ENVIRONMENTAL RISKS

7. CONSIDER ADAPTING YOUR SURROUNDINGS FOR IMPROVED SAFETY (grab bars, ramp)

8. CONSIDER UTILIZING AN ASSISTIVE DEVICE (cane, walker)

9. DON’T DROP YOUR GUARD – STAY ALERT! (pay attention!)

10. BE PREPARED TO HANDLE A FALL
Good balance is essential to remaining active, mobile and independent. Balance is a complex process that includes input from your senses, muscles and tendons, and the processing of that information by the brain. Refer to the next illustration to better understand all the different aspects that can influence your balance. The normal aging process affects all of the components of balance. Falls are NOT a normal part of aging and there are many things that you can do to compensate for normal aging changes and decrease the risk of losing your balance and experiencing a fall. It is a matter of knowing what the potential hazards are, taking precautions and making adjustments. These changes can make a big difference!

An active lifestyle can help keep muscles strong, keep your joints flexible and help you to maintain coordination of movement and endurance. Regular vision and hearing checkups will help you to safely compensate for natural aging changes of these senses. Adequate rest and nutrition will keep the mind alert and attentive, reducing the chance for errors in judgment. An active lifestyle combats depression and the fear of falling by increasing confidence in mobility.

Now that you have knowledge about balance and risk factors that influence it, you can make informed choices about how to maintain your independence and live well. The guide provided to you is meant to be a practical tool to help you along the way. It is our hope that you will use this booklet to work with your healthcare providers to set up a plan that is right for you so that you can remain active, mobile and independent as you age.
FACTORS AFFECTING BALANCE

- Memory
- Blood Pressure
- Hydration
- Endurance
- Stress
- Pain
- Attention
- Motivation
- Hearing
- Vision
- Fatigue
- Personality
- Sensation
- Medication
- Reaction Time
- Nutsrition
- Environment
-Alertness
- Flexibility
- Inner Ear Function
- Coordination
- Strength
- Medical Conditions
- Fear of Falling
- Dizziness / Vertigo