Fit and Fall Proof™

Revised 07-2012

Class Leader Manual

Do it for life!

IDAHO DEPARTMENT OF
HEALTH & WELFARE

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Introduction

"No one is too old to enjoy the benefits of regular physical activity. Of special interest to older adults is evidence that muscle strengthening exercises can reduce the risk of falling and fracturing bones and can improve the ability to live independently." Physical Activity and Health: A Report of the Surgeon General, 1996

Welcome to the Fit and Fall Proof™ Program (FFP)! The Idaho Department of Health and Welfare Physical Activity and Nutrition Program (PAN), in conjunction with district health departments, is pleased to initiate this group physical activity program designed for older adults who want to improve their health and reduce their risk of falling. It has been documented that people who have difficulty doing daily activities, as well as people who are physically fit, can benefit from regular physical activity.

We salute you as a peer educator or younger adult for being a vital part of this program. The Fit and Fall Proof™ manual is designed to assist a successful community exercise program. It is our hope that you will find our suggestions helpful, because you play a key role in improving the quality of life for your students.

Functional fitness is the primary theme for the Fit and Fall Proof™ program. This will help the older adult maintain an independent, freely functioning lifestyle. Muscle strength and flexibility play a primary role in balance and maintaining physical activity. Regular muscular strength transfers into maintaining vitality - lifting a grandchild for a hug, getting out of a chair with ease, or climbing stairs without puffing.

Adequate flexibility allows the older adult to bend over and tie their shoes or reach an item on a top shelf without hesitation. In addition, the Fit and Fall Proof™ Program is designed to focus on various components associated with balance, including balance exercises, posture awareness, and balance assessments, all of which can reduce the risk of falls and help to maintain static and dynamic balance, taking the fear out of falling and building confidence.

This manual includes background information explaining why this type of training is so important, guidelines for starting your program and leading the class, exercises, class sequences, and handout materials.

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Chapter 1
The Importance of Physical Activity for Fall Prevention

Why Fit and Fall Proof™ education?

Falls are a major health issue for older adults.

- It is estimated that more than one-third of individuals over the age of 65 fall at least once each year. Rates increase with age.
- Falls are a major cause of hip fractures. Half of those with hip fractures never regain their previous level of function.
- Falls are the leading cause of injury death for individuals aged 65 and older.

What is happening in Idaho?

- Idaho's fall death rate is almost 1.5 times the national rate.
- In Idaho, more than three-quarters of individuals who die from falls are 65 years of age or older.

Most falls are preventable!

- Physical activity combined with simple home modifications can reduce the risk of falling.

Why do older adults fall?

Inactivity.

Hazards found in homes and communities.

- Poor lighting, loose rugs, no bathroom safety equipment, slippery surfaces, and tripping hazards.

****See Chapter 9 for "A Home Fall Prevention Checklist" that can be copied for student use.****

Physical challenges the older adult may face because of aging or chronic diseases.

1. Medical Conditions

- Many conditions can affect the sensory systems and musculoskeletal structures. They include arthritis, diabetes, disorders of the inner ear, osteoporosis, Parkinson's disease, strokes, and vision disorders.
- Medications for treating these illnesses can disrupt balance.
- Inner ear disorders can cause dizziness.
- Arthritis and osteoporosis cause pain and damage joints and bones, reducing mobility.

- Macular degeneration, cataracts and other eye disorders reduce vision and limit activity levels.

- Vitamin D deficiency (see Student Handout section for more information).

2. Posture

Correct posture, which aligns the body and controls excessive swaying, is a key to balance.

- Aging and chronic illnesses can cause muscle and joint problems that reduce the postural stability of the older adult, causing them to lose their balance and putting them at risk for falling.

- Poor posture contributes to falls.

Correct Standing Posture

Correct Sitting Posture

- Ear in line with shoulders
- Chin parallel to floor
- Shoulders in line with hips (back and down)
- Slightly tucked abdominals
- Chest lifted
- Knees “soft”
- Feet comfortably apart (hip or shoulder width) and well-grounded
- Knees flexed at a 90 degree angle
- Legs parallel with floor, shoulders aligned over hips (let spine assume natural curve)
- Chest lifted
- Bottom of chin parallel with the floor

3. Balance

Balance is an automatic and unconscious process that controls how a person manages their center of mass while standing or moving. Our sense of balance depends on three sources:

- The eyes, which tell us where the body is relative to our surroundings
- Sensory nerves, which provide feedback about the movement and position of different body parts
- The vestibular system of the inner ear, which detects head movements and motion

If disruptions occur to our senses due to medications, illnesses, poor vision or weak muscles, dizziness occurs and falls can result.

Summary of fall risk factors

Risk factors you might see in older adults include:

Dizziness and fainting	Balance disorders	Acute illness	Medications**
Nerve damage	Foot disorders	Arthritis	Fear of falling
Poor circulation	Gait impairments	Chronic pain	Past falls
Reduced hearing	Poor arm strength	Dementia	Chemotherapy
Slowed reaction time	Poor leg strength	Diabetes	
Hypotension*	Weak ankles	Osteoporosis	
		Parkinson's disease	
		Stroke	
		Long-term steroid treatment	

* Sudden drop of blood pressure when standing

** Use of four or more prescriptions

The Fit and Fall Proof™ program can help reduce the risk of falling.

Regular physical activity can aid the older adult in many ways:

- **For older adults, physical activity programs that challenge the visual and vestibular systems help them learn to compensate or retrain these senses.**
- **Balance and postural training reduces postural sway, improves the sensory systems, and reduces the risk of falling.**
- **Older adults who improve their strength and flexibility gain the following benefits:**

Improved posture	Increased gait speed	Improved stability
Quicker reaction time	Greater mobility	Reduced risk of falls

Exercise improves the older adult's confidence in physical abilities.

- Older adults who have more confidence in their physical ability are less afraid of falling and are more physically active.
- A greater level of confidence reduces the risk of falling and encourages more activity in every other aspect of life.

Chapter 2
Setting Up a Community Fit and Fall Proof™ Program

Your health district has arrranged for a site for your Fit and Fall Proof™ class. Even so, it is important for you to inspect the facility and meet the appropriate facility coordinator before starting class. Questions concerning the facility, access, class-related equipment and recruitment of participants should be directed to the health district injury prevention program staff.

Class Logistics

- Classes are to target community-dwelling seniors aged 65 years and older.
- Classes are intended to be free to low-cost.
- Class are to be held a minimum of twice per week.
- Classes should be a minimum of 45 minutes in length.
- Classes should be held, at minimum, in six- to ten-week consecutive blocks.
- Class should be held on days and at times most convenient for potential participants.
- Class size should be small enough so the leader can observe participants for proper technique. (Example: 10-20 participants.)

Site Selection

Site selection is a health district responsibility. Spend a few minutes perusing the room to make sure it is safe. Sites should be places seniors naturally gather, such as:

- Senior centers
- Churches
- Community centers
- Recreation centers
- Senior housing complexes (but not assisted living facilities unless seniors living in the community are targeted to attend)

The following equipment should be available at the site:

- Chairs (non-skid, sturdy)
- First aid kit
- CD player
- A place for securing class materials/files

Site Kit provided by the health district may contain:

- Class leader notebook
- Music CD(s)
- CD player (if one is not available at the class site)
- Locking file box (if a locked file is not available at the class site)
- Video of sample exercises
- Therabands (red, yellow, green, blue, and some kits may have black)
- Alternatives for people with latex allergies (i.e. non-latex Therabands)
- Data collection forms and/or participant activity log books

- 8-foot Timed Up And Go Test materials including:
    i. Instructions
    ii. 8-foot measure (string 8-feet in length)
    iii. Cone (for turn around point)
    iv. Stopwatch
    v. Participant activity log books (pages 3 and 13 of activity log book) or data collection forms

Recruitment Strategies - Class Participants

Targeted class participants:

- Individuals aged 65 years and older who are living in private homes and able to come to the class site.
- We are not targeting individuals living in assisted/long-term care facilities.

Health districts are responsible for recruiting class participants.

- Classes will be advertised using newsletter and newspaper articles, TV and radio interviews, static displays, presentations at sites where seniors gather, and distribution of flyers.
- Classes will be advertised by at least two of the above routes for each six-week class series.

Simple and effective mechanisms that class leaders might use to supplement health district efforts are:

- Provide short on-site demonstrations at other site activities.
- Ask class members to let their friends know about the class.

*****Copies of flyers that could be used can be found in Chapter 8.****

Fit Note: Word of mouth often is the best advertisement.

Fit and Fall Proof™ Checklist - Know Your Facilities

Many details need to be addressed before class begins. On the following pages you will find a checklist. Please note it is not all inclusive and you may need to add some items of your own. You also may find some of the information is not relevant to your circumstances.

This "Know Your Facilities" checklist should be completed when you meet with the facility coordinator and inspect the exercise area. **Fill out the checklist and maintain a copy for your records.**

Why is the checklist so important? It will help you ensure the safety of your participants. Knowing emergency procedures and inspecting the facility will assist with identification of potential problems. Working with the equipment also will provide added confidence for you when you begin teaching. In addition, it will help you understand your exercise area and allow you to develop class management strategies.

Know Your Facilities Checklist

I. *Names and Contact Information of Key Personnel (facility and program directors, custodians etc.):*

_____
_____
_____
_____

II. *Review Specific Facility Rules and Emergency Procedures:*

Where is the first aid kit?

III. *External Access to Exercise Room*

Handicapped accessible _____
Hand rails _____
Clear walkways (shoveled in the winter) _____

IV. *Exercise Room - Do you have access to the following?*

Exercise room - Are keys needed? _____
Temperature controls _____
Lighting controls _____
Restrooms for the participants _____
Access to water _____
Phone for emergencies _____
Cleaning equipment (broom, dustpans, etc.) _____

V. *Exercise Area*

Space - Is there room to move? _____
What movement patterns could you use? _____
Are the floors non-skid? _____

No obstructions _____
No loose cords _____
No unattached carpets _____

Fit Note: You may need to tape down carpets or cords that cannot be removed.

VI. *Equipment - Is the site kit available? Where is it stored? Do you have enough of the following?*

- ☐ Par Q Forms
- ☐ Emergency contact form
- ☐ Lesson plan
- ☐ Assessment tools
- ☐ Stopwatch
- ☐ Pencils
- ☐ Chairs (Are they sturdy and non-skid?)
- ☐ Music system (Make sure you try it out and work with it before class.)
- ☐ CDs/tapes
- ☐ Resistance bands

Additional items:

_____

Chapter 3
Participants and Assessment Procedures

The following chapter will help prepare you and your students for class. The level of student abilities will give you some insight into what you might expect from participants. Common postural changes are detailed, as well as cues for promoting correct posture. Clothing and shoe recommendations are listed as well as screening procedures, assessments, and waivers.

Levels of Student Abilities

The most important person in the Fit and Fall Proof™ program is YOU! You must be energetic, enthusiastic and sensitive to the needs and levels of ability represented in the group. You will need to model activities appropriately, communicate effectively (older adults may have difficulty hearing), detect signs of physical problems, and react calmly to any situation that might occur.

To assist you in this endeavor it is important to understand the possible functional levels of the students. All levels may be present. Some students will lead active lifestyles, while others will have lost physical function primarily due to lack of physical activity. (See the following list.)

Effects of Aging on Balance

Decreased ability to:

- Balance with smaller base of support
- Adjust to unpredictable situations
- Respond to moving surfaces
- Cope with changing environments
- Adapt when sensory information is incomplete

Decreased speed of response and even delayed response
Decreased intensity of response
Increased postural sway

All of your participants can respond positively to balance training. To challenge them, you must continually encourage them to work at their own pace. Note the following general guidelines for fit (level 1) to frail (level 3).

Level 1: Physically Fit

Healthy active seniors who travel, play a sport, work part-time, garden, or pursue a host of other interests are represented in this group. They may participate in regular activity, functional fitness or organized classes, three to five days per week.

They can stand on one leg, eyes open, for up to 30 seconds and 2-20 seconds with eyes closed. Regular physical activity is important for maintaining this level of fitness.

For Level 1 Exercisers

- Do all movements while standing.
- Use large muscle groups in the lower and upper body.
- Gradually increase intensity of movement.
- Include arm movements, keeping arms at heart level and above for brief periods.
- Provide activities that strengthen all body systems that relate to balance - foot, ankle, lower leg, quadriceps, abdominals, back, and arm strength.

Level 2: Physically Independent

This group includes older adults who have become sedentary or moderately active due to modifications in movement exercise patterns associated with chronic conditions (e.g. arthritis, osteoporosis, hearing and vision changes, or use of multiple medication for such conditions).

A loss of strength and personal concern about a fall or a threat of a fall may be evident. Regular physical activity will improve their function and reduce risk of falling.

For Level 2 Exercisers

- Use a sturdy chair or wall for balance when necessary, but most activities take place standing, hands free from support.
- Include ankle strengthening and range of motion activities as well as a variety of balance training activities.
- Practice good posture and confidence-building activities along with assessments which can show improvement.
- Use large muscle groups of both the upper and lower body.
- Include arm and hand movements with arms at heart level and occasionally above the heart level.
- Gradually increase the pace of movement.

Level 3: Physically Frail

This group consists of older adults who have lost some independence or have medical conditions that impair balance and mobility (e.g. diabetes, Parkinson's disease, stroke, or dementia). These participants often use assistive devices. Ankle range of motion and strength may have deteriorated significantly. Weakness in core muscles - back, hip, abdominals - may occur.

Individuals who are physically frail can be the most challenging to teach and at the same time, the most inspirational when they make positive changes. Although the best way to improve mobility and balance is standing exercises, the physically frail participant may need to modify the exercises and do them while sitting in a chair.

For Level 3 Exercisers

- Use a sturdy chair for balance or have them exercise while sitting in a chair.
- Include individually paced activities.
- Complete fewer repetitions for basic strength and range of motion.
- Increase duration gradually, working up to 20 minutes.
- Encourage frequent breaks.
- Use slow and controlled movements.
- Maintain a slow pace, use the Talk Test to maintain low level of intensity.

The Talk Test is successfully used as a valid measure of individual exercise intensity:

Low Level: Your participants can talk easily to each other or sing a song without pausing to take a breath. In this case, they may want to pick up the pace.

High Level: If your participants cannot talk at all, they are working at too high a level. In this case, they need to reduce their level of exertion.

Participants should be able to exercise to the point that they're able to get 3-5 words out per breath and hold a comfortable conversation. Above this point, participants begin to breathe heavily and may not be able to maintain a conversation.

Posture Awareness

Posture changes are an inevitable aspect of aging. Daily posture patterns while sitting, sleeping, standing, or performing various physical activities have a cumulative effect on posture alignment as we age. For older adults, posture changes directly affect their ability to balance. However, many changes can be controlled. **Posture checks should be a part of every exercise class that you teach.** Maintaining good posture is not merely for appearance, but also enhances movement efficiency. Correct posture prevents aches and pains, reduces the risk of stumbling or falling, and contributes to improved quality of life.

Correct Standing Body Alignment

- Slight hollow at neck and in lower back
- Ear in line with shoulders
- Chin parallel to the floor
- Shoulders in line with hips
- Ribs lifted
- Knees "soft"
- Weight centered on feet

- 8-foot Timed Up And Go Test materials including:
    i. Instructions
    ii. 8-foot measure (string 8-feet in length)
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- Community centers
- Recreation centers
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The following equipment should be available at the site:

- Chairs (non-skid, sturdy)
- First aid kit
- CD player
- A place for securing class materials/files

Site Kit provided by the health district may contain:

- Class leader notebook
- Music CD(s)
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- Video of sample exercises
- Therabands (red, yellow, green, blue, and some kits may have black)
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- Data collection forms and/or participant activity log books

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Shoes*

- As gentle as walking is, feet and legs absorb a blow equivalent to twice your body weight with every step. Careful attention to shoe selection is important to maximize comfort and minimize potential for injury.
- Well-fitting shoes designed for walking are a must.
- Avoid soles that mark the floor.
- Avoid shoes with slick soles.
- Participants should check soles of their shoes on a regular basis, inspecting them for signs of wear or damage.

Fit Note: Older adults who walk in a shuffling manner will wear soles of their shoes out quickly.
*See Choosing a Walking Shoe on page 143.

Liability Issues

Class Leader Liability Protection

Your liability as a class leader should be covered by one or more of the following:

- If you are 55 or older and sign up with RSVP (Retired Senior Volunteer Program), you will receive $1,000,000 in liability insurance.
- Senior centers carry liability insurance.
- Student interns should be covered. Check with your instructor to ensure you are covered.
- Some health districts have coverage for health district volunteers. Check with your health district
- Students must sign the PAR-Q form. One has been approved by the Idaho Department of Health and Welfare as a liability release (see Chapter 9).

Participant Screening and Assessment

The following are guidelines for screening and assessment of participants. Screening forms are essential to protect you and participants. Participants may not take the class until they are completely filled out. Assessments also are critical. They will determine the success of your program, and they are a tremendous motivational tool for participants. These items will be found in your site kit.

Release of Liability Waiver

The PAR-Q and You (2002 revision) form must be completed and signed by participants before beginning class. This form includes a statement that advises potential class participants to talk with their health care provider if they answer "yes" to any of the seven screening questions. Those who answer "yes" will not be required to talk with their health care provider before class, but they must sign the waiver, indicating they have been advised to talk with a health care provider. When signed, this form has been approved for use as a release of liability waiver by the Idaho Department of Health and Welfare.

****See Chapter 9 for form.****

Statement of Medical Clearance for Exercise

The Statement of Medical Clearance for Exercise form is provided for class participants who answer "yes" to any of the seven PAR-Q and You (2002 revision) screening questions, and who plan to visit their health care provider prior to beginning the class series.

****See Chapter 9 for form.****

Emergency Contact Form

The Emergency Contact form is provided for class participants to fill out at the beginning of the first class. The completed form will be stored with the site kit for the duration of the class for reference in case of emergency. After the class ends, the Emergency Contact forms may be kept on file if the participant chooses to continue with the Fit and Fall Proof™ exercise program. Outdated Emergency Contact forms should be shredded or given to the Fit and Fall Proof™ Health District Coordinator to be destroyed.

8-Foot Timed Up and Go Test - (To be recorded on the *Fit and Fall Proof™ class data form*)

The 8-Foot Timed Up and Go Test tracks individual improvements over the course of a class series. The number of seconds it takes a person to rise to a standing position, walk three meters, return to the chair, and sit back down has been linked to their risk for falling. Tests will be done prior to the first class and immediately after the sixth class. Test results will be recorded on Fit and Fall Proof™ class data form provided by the Health District Coordinator.

Test instructions can be found in Chapter 9 and in the site kit. Materials required for the test include:

- A chair
- A stopwatch
- An 8-foot measure
- A cone for the 8-foot turnaround point

Chapter 4
Safety Precautions for Exercise

Most older adults, even those individuals with chronic ailments such as arthritis, osteoporosis, diabetes and joint replacements, can participate in physical activity if they are careful. Exercise for these populations can help maintain or improve their ability to complete daily activities increasing their quality of life. Safety is the key.

10 Safety Precautions You Can't Live Without

Consider the following safety precautions as you design and implement your class for older adults:

1. Wear comfortable clothing that allows for a full range of motion for all joints. Careful attention to shoe selection is important to maximize comfort and minimize potential for falling. As gentle as walking can be, feet and legs absorb a blow equivalent to twice your body weight with every step. If you haven't already done so, invest in a pair of well fitting shoes designed for walking.

2. Know the difference between normal vs. unhealthy reactions to physical activity.
   A. Normal reactions include:
      - Increased depth and rate of breathing
      - Increased heart rate
      - Mild or moderate sweating
      - Dull ache as muscle becomes fatigued (relieved after exercise)

   B. Unhealthy reactions include:
      - Pain for two hours after physical activity
      - Excessive fatigue
      - Increased weakness
      - Joint swelling or pain
      - Chest pain or heart palpitations
      - Severe shortness of breath
      - Abnormal pain
      - Fever (over 100 degrees)
      - Numbness or tingling in an arm or leg

3. Respect pain – distinguish between the normal discomforts of moving a stiff joint and sudden or severe pain caused by a movement that's too intense. If it hurts, stop!

4. Watch for inflammation in a joint where heat, redness, swelling, puffiness or pain occurs (avoid vigorous movement of inflamed joints). Do consider moving joint gently through its range of motion if it is not too uncomfortable.

5. Drink plenty of water during both warm and cold weather. (Thirst mechanisms become less efficient as we age so they may not realize their fatigue is caused by a fluid shortage.) *See hydration handout in Student Handouts section.

6. Avoid wearing perfumes which can activate an allergic reaction in susceptible exercise partners. As body temperature rises, perfumes become more intense.

7. Maintain a regular breathing pattern during all phases of an exercise. Avoid holding the breath during more challenging exercises.

8. "Listen to your body" and watch for signs of over exertion: unusual fatigue, headache, excessive perspiration, dizziness, leg cramping, chest pain, nausea. Changes in medication or time lapses away from physical activity may alter your ability to perform as easily as previous occasions.

9. Maintain good posture throughout your workout.
    - Neck long
    - Chin level
    - Chest lifted
    - Shoulders back and down
    - Ears over shoulders
    - Shoulders over hips
    - Gently hollow out your belly button
    - Knees soft

    Emphasizing good posture is not merely for the sake of appearance, but it also enhances movement efficiency, prevents aches and pains and reduces the risk of falling.

10. Plan to enjoy yourself!

Muscle Soreness

As an exercise leader, you must be alert for any participant who may be experiencing undue discomfort during the exercise session. If a participant experiences a dull soreness in the muscle that is relieved with the cessation of the exercise, he or she may be feeling normal muscle fatigue. If the participant experiences a sharp pain in or near the joint which worsens, have them stop exercising. One method, reflecting a subjective measure of pain before, during and after an exercise, can be used for the student with an arthritic flare-up or the student who may be returning to class after an illness. You might ask the student, "On a scale of 1-7, select the number that reflects your discomfort." In general, exercise should be postponed if a student reports severe (5), very severe (6) or intense (7) pain levels prior to exercise. Exercise should be terminated if the pain level rises to the 5-7 level during physical activity.

The old adage—use it or lose it but don't abuse it—is appropriate.

If you should experience pain that doesn't go away after several days, check with your health care provider. Remember, the recommended treatment for possible injury is the PRICE Rule:

- **P**rotect the injured area
- **R**est by decreasing activity
- **I**ce should be applied to reduce swelling
- **C**ompression should be firm but not too tight. Wrap injured area with a flexible bandage
- **E**levation reduces blood flow to the injured area

Resume gentle stretching and strengthening exercises as the swelling and discomfort go away.

Muscle Cramps

When a few muscle fibers (or even the whole muscle) contract involuntarily it is called a muscle spasm. If the contraction continues and is strong, it is called a muscle cramp. While muscle cramps are very common, they occur more frequently as we age.

Causes of Muscle Cramps

Muscle injuries
Fatigued or cold muscles
A breakdown of coordination between opposing muscle groups
Movements that shorten the muscle (this frequently happens at night)
Dehydration
Low blood calcium, magnesium, or potassium
Vitamin deficiencies
Medications
Poor circulation

If a participant in your class experiences a muscle cramp, it can be very painful. There are a few simple techniques that can be followed to relieve the cramping.

1. Have them stop the exercise
2. Stretch the affected muscle group(s)
3. Gently massage the affected muscles

If these techniques do not work and the cramps continue or return, have the participant consult their health care provider.

Safely Picking Up Objects from the Floor

You drop a piece of clothing on your way to the laundry room. Your keys slip out of your hand while you are juggling groceries. These are common every day occurrences that require us to bend over and pick up an object from the ground or floor. When we are in our youth we don't even think about how we gather up items from the ground.

As we age, however, this task can become more difficult. Several of the strength exercises require bending over to pick up the band. The first and primary rule is to **let your participants reach down and place or pick up the band on their own**. This is an activity of daily living that they need to be able to do to live independently; only in extreme cases should you help.

The following are steps for safely reaching objects that are on the floor.

1. Slightly flex both knees to protect the low back.
2. Place one hand on a chair or other stable object for support. If no item is available, participants can place their hand or elbow on their thigh.
3. Tuck the chin slightly, curl down (starting with the upper part of the back), bend the knees more and reach down to the floor.
4. To stand reverse the action and uncurl.

Hydration and the Older Adult

All instructors need to be aware that the older adults in your class may not be adequately hydrated. As we age the thirst mechanism becomes less efficient. When a young person is thirsty they know they should drink water. (Typically the thirst signal with a younger individual means that they are already dehydrated.) Older adults may not even get the thirst signal at all. The solution is to encourage older adults to drink frequently even if they aren't thirsty. For more information, see the student handout on page 150.

Safe Exercises with Adaptations

"An exercise that is safe for one may not be safe for another."

Many of the participants will have chronic conditions that need special attention. For these individuals there may be specific exercises that they will need to avoid or adapt. The primary rule should be **"if it hurts don't do it", or in the case of arthritis sufferers "if it hurts more than normal don't do it"**. If one exercise does not work for them they should be shown a modification or even a different exercise that will work the same muscle group. Consider the following precautions for participants who are managing some of the most common chronic conditions.

Osteoporosis

Bone mass is lost throughout the body causing the bones to become weakened and brittle. It is common in women over 50 and men over 80 and anyone who has taken long-term steroid medications and/or chemotherapy. Bones in the spine, wrist, and neck of the femur are particularly vulnerable. Assume everyone in your class has osteoporosis.

Do's

-Keep the three curvatures in the back when standing and sitting (neck, shoulder blades, lower back).
-Use good body mechanics.
-Support the back when leaning forward (picking up an object from the floor) by placing a hand or arm on the leg.
-Emphasize gentle impact movements.
-Stabilize the trunk.
-Stretch the hamstrings.
-Sit and stand tall.
-Encourage low impact walking.
-Start slowly with exercise and gradually increase time and action.
-If endurance is impaired encourage short walking bouts.
-Carry heavy items near the body.

Don'ts

-Forcibly pulling the neck forward.
-Excessively bend forward or bend forward while twisting.
-Engage in high impact exercises.
-Excessively load the spine.
-No weighted lifting with arms away from the body.
-Engage in sudden jerky movements.

Arthritis

Arthritis causes inflammation of the joints. It is important for those who suffer from arthritis to keep physically active and exercise with modifications. Regular exercise has been found to reduce pain and stiffness, increase strength and joint stability, improve flexibility, and endurance. If someone in your program is just starting an exercise program, they need to begin slowly by first working to improve their range of motion and then add resistance exercises. If they have any joint swelling or any pain lasting for more than one hour, they exercised too much. If they have a flare-up, they can gently stretch the joint and do isometric (where there is a muscle contraction with no noticeable movement) exercises.

Do's

-Warm-up.
-Increase range of motion.
-Work without resistance until there is minimal joint pain.
-Maintain correct posture.
-Gradually increase resistance to get stronger.
-Hold stretches for a shorter period of time if there is joint pain.
-Maintain correct form to prevent further joint problems (neutral wrist position; see General Guidelines for Using Resistance Bands, page 90).
-Relax any gripping motion frequently.
-During flare-ups, exercise the non-involved joints.
-Use longer resistance bands so the participant can wrap the band around the hand to avoid gripping.

Don'ts

-Exercise inflamed joints.
-Engage in heavy resistance exercises during flare-ups.
-Put undue pressure on a joint.

Fit Note: If a grip is uncomfortable, wrap the resistance band around the palm of the hand.

Joint Replacements

Total hip and knee joint replacements are very common today. They frequently can restore the range of motion for the joint, eliminate pain and return the patient to normal activities of daily living.

Do's

-Encourage your participants to follow their physician's exercise recommendations.
-Encourage low impact exercise.
-Emphasize appropriate strength training.

Don'ts

-Engage in high impact activity.
-Bend at the hip more than 90 degrees.
-Cross the leg past the midline of the body.
-Rotate the thigh inward.

Cardiovascular Disease, High Blood Pressure, Peripheral Arterial Disease, Pulmonary Diseases

The PAR Q and You (2002) is designed to screen for these conditions and older adults who want to participate in the program are encouraged to talk with their health care provider. These people, like all of the other participants, should be monitored for shortness of breath, chest pains, and dizziness. If they have any of these signs, they need to stop exercising and seek medical attention.

Do's

-Encourage these participants to work at their own pace.
-Encourage exercise at a lower intensity.
-If endurance is impaired encourage short walking bouts.
-Focus on gradually increasing the duration of the exercise as opposed to raising the intensity level.

Don'ts

-Hold your breath.
-Engage in high-intensity exercises.
-Engage in exercises where the arms are kept above the head for prolonged periods.

Diabetes

Physical activity is very important for people with diabetes and can improve their ability to control their blood sugar levels. If you know one of your participants has diabetes, talk to them privately and ask them if they have glucose tablets or hard candy with them in case they have problems.

Do's

-Encourage lower intensity exercises.
-Begin with lighter resistance and gradually increase the level.
-Encourage them to change positions slowly.
-Encourage proper footwear to reduce injuries.
-Begin with short walking bouts and gradually increase the duration.

Don'ts

-Engage in high-intensity exercises.
-Engage in heavy-resistance training.
-Engage in jarring-type activities.

Back Pain

It is estimated that as many as 80% of all people will have low back pain at some time in their life. Low back pain can come on suddenly and go away quickly or it can persist for months or even years. Frequently, low back pain will limit the range of motion in the spine.

Do's

-Encourage low-impact exercise.
-Encourage good posture during all of the exercises (sitting and standing).
-Maintain the 3 back curves (neck, shoulder blades, lower back).
-Encourage trunk stabilization.
-Support the back when leaning forward (picking up an object from the floor) by placing a hand or arm on the leg.
-Use legs as opposed to the back when lifting.
-Balance any weight carried on both sides.

Don'ts

-Over-arch the back.
-Engage in twisting exercises while bending.
-Lift and twist.
-Engage in high-impact exercises.

Asthma

It is estimated that asthma affects as many as 7% of the older adult population. If you have participants in your class who have asthma, it is a very serious condition that can be life threatening if left untreated. Regular exercise is important for people with asthma because it can improve lung function, cardiovascular health, and quality of life. Common asthma triggers include exercise, indoor dust, some medications, and strong odors or sprays. Symptoms of an asthma attack are wheezing, coughing and shortness of breath, and tightness in the chest. It is recommended that people with asthma limit exercise when they are ill. To help prevent potential asthma attacks, ask participants to refrain from wearing perfume or after shave lotion to your exercise class. If you know one of your participants has asthma, talk to them privately and ask them if they have an emergency inhaler that is handy in case of an attack.

Do's

-Remind students to avoid wearing perfumes and shaving lotions that might aggravate asthma attacks.
-Encourage people with asthma to check with their physician regularly.
-Encourage them to work at their own pace.
-Warm-up and cool-down completely.
-Gradually increase exercise intensity.
-Encourage participants to stop when needed.

Don'ts

-Rapidly increase exercise intensity.
-Exercise when there are irritants in the air.

Fibromyalgia and Chronic Fatigue Syndromes

Fibromyalgia and Chronic Fatigue Syndromes are complex disorders with a great deal of similarity. Some experts believe that they may actually be the same condition with fatigue being more prominent with those with Chronic Fatigue and pain more associated with those who have Fibromyalgia. The disorders are thought to be caused by illness, or physical or emotional injury. More women than men are diagnosed with the syndromes which are found in approximately 2% of the population. Symptoms of the disorders include widespread pain, fatigue, and cognitive and sleep problems. Exercise has been found to help individuals with these syndromes by improving sleep, reducing pain and improving function. When beginning an exercise program individuals with these conditions will find some increase in fatigue and pain following exercise which will decrease after a few weeks. These individuals need to begin exercising at low intensity and gradually progress.

Do's

-Encourage participants to check with their physician regularly.
-Encourage them to work at their own pace.
-Warm-up and cool-down completely.
-Encourage participants to take frequent breaks when first starting the program.
-Gradually increase exercise intensity.

Don'ts

-Engage in high-intensity exercises.
-Engage in heavy-resistance training.
-Engage in jarring-type activities.

Contraindicated Exercises

Some exercises should never be used because they have the potential to cause harm.

Do Not Use

Pulling the head forward with excessive hand pressure can cause injury to the spine and is especially dangerous for individuals with osteoporosis.

Do Not Use

Excessively bending the neck backward can cause vertigo and dizziness. Gentle forward motions are acceptable.

Do Not Use

Excessively bending the back backwards while standing or sitting can put extra pressure on the lumbar spine. Avoid these positions:

Do Use

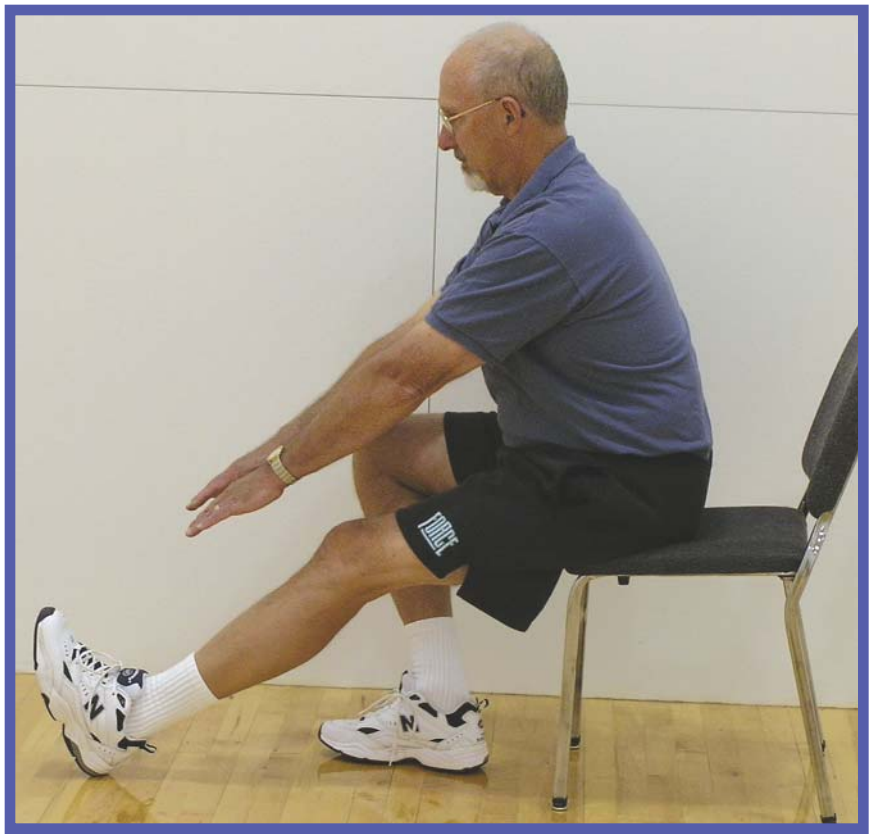
Acceptable alternative: Leg lift.

Do Not Use

Standing or twisting toe touches. Bending forward while twisting puts undue pressure on the lumbar spine and can cause injury, particularly for participants with osteoporosis.

Do Use

Acceptable alternative for toe touches: Keep the back straight and stabilize the torso before reaching forward.

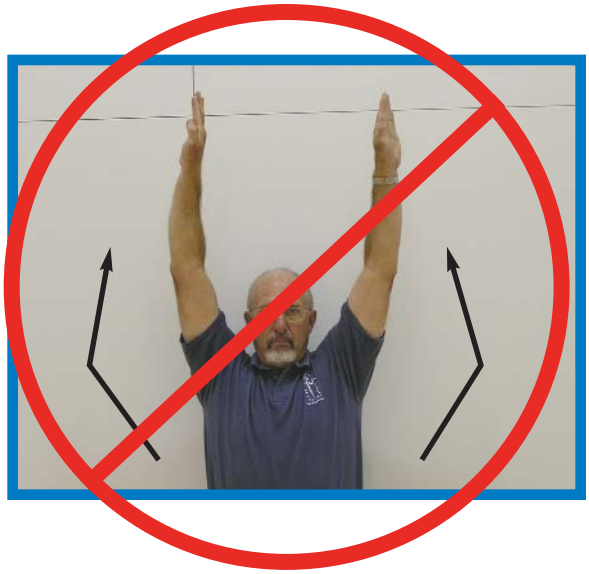


Do Not Use

No excessive bending of the knee joint. It puts undue pressure on the joint.

Do Use

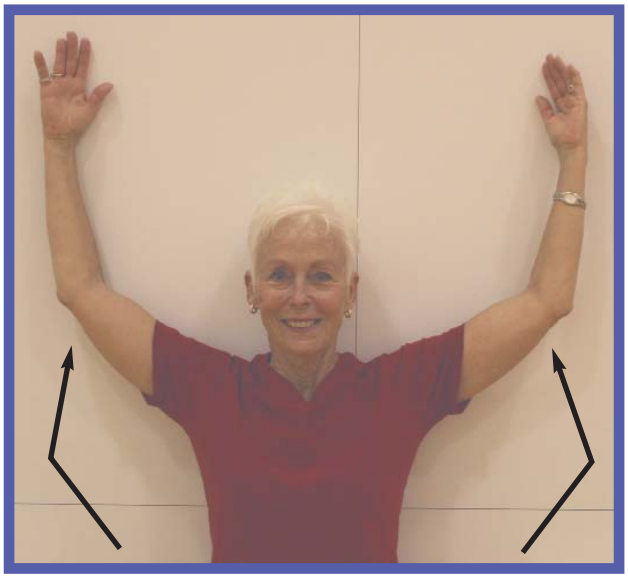
Acceptable alternative quad stretching exercises: Move the thigh backward.



Do Not Use

Side lifting arms over head with palms down. The picture shows final position. This can cause an impingement injury in the shoulder joint.

Please note palms are facing out.



Do Use

Acceptable alternative exercise: Arms overhead with palms up.

Please note palms are facing in.

Strategies for Safe Exercise Classes

Concern	Teaching Strategy
Inability to stand safely with support	- all exercises must be completed while seated
Mobility concerns – uses cane or walker	- standing exercises must be done with support either holding on to the back of a chair or an able bodied partner - encourage slow and deliberate movements
Cognition issues	- provide multiple cues visually and verbally - slow down your instructions (but don't talk "down" to them) - keep it simple
Inability to multitask (talk and walk)	- practice multitasks while seated or supported
Incorrect exercise form	- breakdown the exercise and use visual cues - provide positive feedback - make individual corrections
Pain in a joint/ injury, or replacement	- use gentle stretching exercises - avoid over fatigue - encourage frequent breaks - build strength slowly - teach modifications (hip replacements should not cross leg over midline)

Strategies for Safe Exercise Classes (continued)

Concern	Teaching Strategy
Stiffness or sore muscles	- extend the warm up period - encourage gentle stretching exercises
Visible signs of exhaustion i.e. red face, stopping during exercise	- have participant stop - encourage short exercise bouts with frequent rests - encourage participants to work at their own pace
Coughing attacks	- have participant stop exercising - encourage slow breaths
Coughing continued	- provide sips of water after coughing has stopped
Breathing difficulties, ashen appearance	- if acute, stop exercise - no strengthening exercises above the head - practice deep breathing exercises
Dizziness	- stop exercise until dizziness has abated - avoid fast position changes i.e. chair to standing
Back pain	- teach correct posture and torso stabilization exercises
Hearing loss	- give visual cues that all can see and lower the volume

Chapter 5
Designing a Successful Activity Program

This section provides you with the basics to organize your class, including teaching and class management.

Designing a Successful Activity Program

The Fit and Fall Proof™ program presents activities that address balance.

Goals of the program:

- Improve flexibility and range of motion
- Increase muscular strength and endurance
- Improve posture and mobility
- Decrease anxiety about falling
- Provide a social experience within a safe environment for appropriate physical activity

Objectives:

- Teach stretches and gentle joint range of motion activities
- Teach strength exercises
- Practice walking and other dynamic balance activities
- Provide opportunities to practice balance training
- Provide a safe and comfortable environment for fitness-related activity components

Model for General Class Sequence

The following is a breakdown of what should be included in a 45-minute class.

Time in Minutes	Phase	Specific Exercise Examples
10 minutes	Warm-up – Use mobility, balance and flexibility exercises. Walk and begin to warm-up the body, start with small slow actions and gradually increase the range of motion. Add combination motions with both arms and legs. End with brief stretching period.	 Walk and add head turns, shoulder shrugs, arm circles, leg circles, toe walks and leg lifts etc. Step kicks with side pushes Marching with rope climbs Arm cross, calf stretch, hamstring stretch
10 minutes	Mobility and Balance – Use mobility, balance and strength with body resistance. Incorporate movements that challenge balance and/or change directions.	Elevators, heels raises, partial squats Motor cars, grapevine, tight rope, waltz
15 minutes	Use strength using body resistance and bands. Use exercises that work all areas but focus on the legs and ankles.	 Partial squats, hamstring curls, leg lifts
10 minutes	Cool-Down - Use static balance and flexibility exercises. Work on standing balance. Stretch all areas.	 One legged stand, ankle circles, trombone Hamstring, calf, penny, chin tuck, lean back

Fit Note: As a class leader, you must select appropriate activities that address the needs of participants. Explore and experiment to find challenging ways to do the exercises.

Effective Classroom Management Strategies

Before class begins:

- Know your site.
- Have a well-defined emergency plan that correlates to your facility .
- Check out physical space as a safety precaution for loose cords, slick spots on the floor, unattached carpet, and defective chairs that could contribute to the likelihood of a fall.
- Check out music and equipment.
- Note air temperature, classroom space and doorways into and out of classroom.
- Create a positive atmosphere with background music (not too loud). Some groups, particularly in retirement homes, may prefer no music due to problems with hearing and sight. Instrumental music is preferable due to hearing loss in a significant number of participants.
- Be available for every class in your session, if possible. Participants identify strongly with the instructors because participants feel "let down" if an instructor does not show up. If you must be absent, make appropriate arrangements ahead of time, if possible.

After the class:

- Take time to evaluate what went well and what did not.
- Make changes in your exercise progressions if needed.
- Evaluate how effective you were in matching the difficulty of the exercise progression to each participant's individual capabilities.
- Remember your goal as an exercise leader is to maximize the challenge associated with each activity with minimum risk to participants.
- If possible, allow time after class to talk with participants and answer questions. This is an excellent time to provide positive feedback to participants.

Add variety:

As an exercise leader you must select appropriate activities that address the needs of your class participants. Start simply and gradually increase activity, time and intensity. Maximize the teaching moment with challenging, safe ways to do the exercises. There are many options attached to a single exercise that can add challenge and variety to a lesson plan. Take the one-leg stand as an example:

- Change arm position
- Eyes open/closed
- Moving the head side to side
- Shifting up on toes
- Partial squat
- Shifting from one leg to another

As you add variation to a balance activity, consider how the performance of a particular exercise might improve functional skill.

Fit Note: Many participants require 6 weeks to progress from low to moderate intensity levels. For others this process may take much longer (10-12 weeks).

Ways to add variety and fun to class format:

- Use theme classes e.g. crazy hat day, beach play in the middle of winter, freaky Fridays.
- Share success stories of participants.
- Celebrate special events, e.g. birthdays, anniversaries, or special accomplishments in the community.
- Offer awards attached to program sponsored special events.
- Create partner sharing opportunities, using questions that build camaraderie and rapport among the participants in the class.
- Tell funny stories that enhance a positive social experience.
- Set up a buddy system in which each participant can partner with someone for whom they are responsible to see that they make it to class.
- Enlist participants to help you set up the equipment or greet new members to make them feel welcome.
- Send "Miss You" notes to absent participants.
- Incorporate ice breaker activities into class format to build "connection" or live music.
- Develop certificates to celebrate accomplishments and achievements for improved health among class members.

Instructional Methods

- Make students feel welcome. Greet participants by name and encourage interaction with one another. You may want to use name tags at first to enhance communication and community-building.
- Give positive reinforcement - smiles, encouragement and support.
- Start each class on time.
- Make sure every participant can see and hear you.
- Keep directions simple and direct.
- Be flexible. Vary the class according to energy needs of participants. Pay attention to body signals, and respond appropriately.
- Use familiar "landmark" exercises that students enjoy and feel comfortable doing, but vary the format to encourage interest. Start slowly and build gradually, finding ways to challenge the class with more advanced activities, distribute handouts on pertinent topics, use resistance bands, or increase repetitions.
- Vary moves to avoid overstressing weight-bearing joints.
- Avoid abrupt or severe turns or twisting that compromise joints (especially the knees).
- Use gradual transitions, cue clearly and well in advance.
- Teach footwork before arm work.
- Respect pain or discomfort (check students' safety precautions and contraindicated exercises).
- Model good body mechanics - sit and stand tall.
- Instruct students to breathe out as they move against resistance and breathe in as they return to a starting position.
- End class on an upbeat note to enhance a sense of camaraderie as well as individual well-being.

Choosing Music

Music is an excellent tool to motivate, entertain, or add variety to the program. Select music, preferably instrumental, from oldies, jazz, swing, or pop familiar to participants. Encourage them to bring in favorite songs to use in class. When selecting music, keep this in mind:

- Play it at low volume. For students with hearing aids, music can interfere with their ability to hear you.
- Progress from slow to up-tempo songs for warm-up.
- Play slow music for cool down and resistance training.
- Avoid music that causes exercisers to use fast, jerky movements.
- Avoid fast-tempo music that inhibits full range of motion.

Fit Note: Some groups, particularly retirement homes, may prefer no music due to its conflict with hearing aid devices.

Using Visualization to Increase Balance

A research study in the *Physical Therapy Journal* compared balance in two groups of women. The first group listened to visualization/relaxation tapes while they performed various balance activities; the other group listened to music. The visualization group scored significantly superior improvements in balance-related skills in comparison to the other group.

As you practice balance skills, use imagination exercises. For example, while standing on one leg, you can pretend you are a brightly colored bird or a single tall tree. Think back to balance games you played as a child, such as walking along a curb, and incorporate those images into your visualization.

In Case of a "Life Event" Emergency

Although it is unfortunate, you, as a class leader, could possibly deal with loss issues attached to a participant's sudden illness or death. As class members deal with the shock and emotional loss after such an event, you might hear comments like: "But, she seemed fine last Monday" or "I can't believe it, I just talked to him yesterday."

The scheduled class after such an event requires sensitivity. As the class leader, you can show dignity and respect with a class announcement and a brief "sharing" time to mobilize appropriate acts of caring as part of an adjusted class activity plan. When such a crisis occurs, celebrating the friendship of the person who has experienced the catastrophic event or death remains important to the remaining class members.

Continuing the class as previously planned with compassion for the sudden life event can defuse some of the discomfort felt by class members and strengthen the spirit of community during a difficult moment.

Chapter 6
Exercises

Falls often trigger a vicious cycle: A fall is followed by decreased activity which, in turn, reduces stability and increases the potential of falling again. Although there are various degenerative conditions and processes that affect our ability to maintain good balance, a major risk factor is decreased muscular strength.

Fortunately, older people, regardless of their number of birthdays, can increase static and dynamic stability with appropriate exercises promoting flexibility, mobility and strength. Older adults who have confidence in their physical ability are less afraid of falling and remain more physically active, which, in itself, reduces the risk of falling and increases the potential for living fully functioning, independent lives.

Exercises from each of these three categories are included in each class to provide a complete work-out. Please note that exercise to improve balance will also improve strength.

1. **Flexibility**
2. **Mobility**
3. **Balance and Strength with Body Resistance**
4. **Strength with Resistance Bands**

Landmark Exercises

While overall fitness is important for the older adult, research has found that improvements in leg strength and balance are the most beneficial for reducing the risk of falls. Every class that you teach needs to contain exercises that address the following four primary areas.

Primary Areas	Number of Exercises to Include	Exercise Recommendations	Exercise Number
1. Hip and Upper Leg Strength	Choose at least 4-6 for every class. Complete at least 8-10 repetitions of the exercise.	Chair Stands Squat and Raise Elevator *Partial Lunge *Partial Squat *Side Leg Lift Sumo *Hamstring Curl *Knee Lift Wall Slide	B1 B14 B3 B8, J34 S9 S10 B17 S11 S1 B20
2. Ankle and Lower Leg Strength	Choose at least 4-6 for every class. Complete at least 8-10 repetitions of the exercise.	Standing Heel Raises Squat and Raise Toe Heel Walking Three Tap Around *Toe Taps Hot Floor Ankle Marathon *Seated Calf Press	B16 B14 M9 M17 S14 M22 J36 S12
3. Mobility	Choose at least 4-6 for every class.	Tight Rope Toe Walking Tandem Walk Crossover Walk V-Step Dance Steps Walking/Marching Combinations Grapevine**	M24 M9 M16 M18 M20 M19, 21, 23 M1-7 M13
4. Balance on Single Leg	Choose at least 4-6 for every class.	Slide Trombone Tailor Raises Tipsy 5 Point Star Snow Angels Stork Peddler Pose Knee Circles Slap and Tap	B13 B10 B23 B25 B19 B9 B22 B24

* Using resistance bands

Fit Note: As students progress increase the intensity by holding positions longer, moving slower through the range of motion, using a more resistant band (or two bands if necessary), or increase the number of repetitions.

Flexibility Exercises

The following stretching exercises can be used in the warm-up phase or the cool down phase.

Warm-up Phase: Stretching prepares the body for more vigorous movements and can prevent injuries. Stretches in this phase typically are held for shorter periods of time.

Cool Down Phase: Stretching increases flexibility. You will need to have students hold stretches to a point where there is tension but no pain.

Exercise Menu

F1. Forward Neck Stretch
F2. Neck Side Stretch
F3. Head Turn Neck Stretch
F4. Chin Tuck
F5. Shoulder Shrugs
F6. Shoulder Circles
F7. Elbow Circles
F8. Swim Stroke
F9. Arm Reach with Head Turn
F10. The Clapper
F11. Shoulder Stretch
F12. Penny Squeeze
F13. Arm Across
F14. Triceps Stretch
F15. Wrist Flexion and Extension
F16. Side Reach
F17. Hug a Tree
F18. Washing Machine
F19. Lean Back Stretch
F20. Standing Hip Stretch
F21. Standing Hamstring Stretch
F22. Standing Quad Stretch
F23. Leg Across Stretch
F24. Seated Tailor Stretch
F25. Standing Calf Stretch
F26. Ankle Circles
F27. Toe Extension and Flexion
F28. Posture Pull Down
F29. Full Body Stretch on Wall

F1. Forward Neck Stretch

- Tuck chin to the rear and bend neck forward, bringing chin toward chest as if trying to hold an orange under the chin.
- Hold for 10-30 seconds.

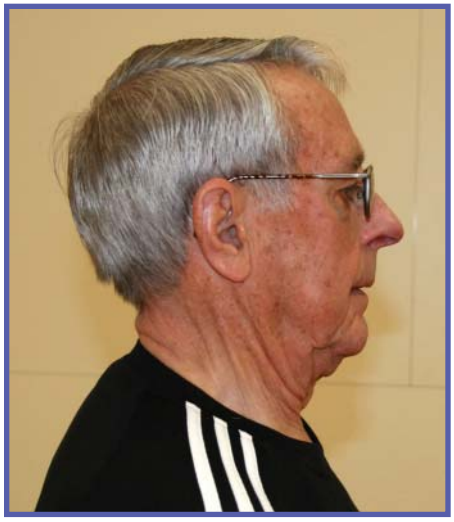
F2. Neck Side Stretch

- Slowly tip head to the left while pressing right shoulder down.
- Hold 10-30 seconds.
- Repeat, tipping head right.

F3. Head Turn Neck Stretch

- With shoulders back and down, turn head to the right and tip chin down to right shoulder.
- Hold 10-30 seconds.
- Repeat, turning head left.

F4. Chin Tuck



- With shoulders held back and down, tuck chin, pulling in.
- Hold 10-30 seconds.

F5. Shoulder Shrugs

- Lift your shoulders up and toward your ears.
- Press the shoulder back down toward the ground.
- Repeat 8-12 times.

F6. Shoulder Circles

- Circle the shoulders backward.
- Circle the shoulders forward.
- Repeat each motion 8-12 times.

Variation: Alternate between circling shoulders forward and backward.

F7. Elbow Circles

- Place hands on the shoulders.
- Circle both elbows forward.
- Circle both elbows backward.
- Repeat the motion 8-12 times.

Variation: Alternate one forward, the other backward. Write your name with your elbows.

F8. Swim Stroke

- Sit on the edge of chair, stand or walk.
- Simulate a front crawl as if you are swimming.
- Turn head side-to-side.
- Do breast stroke using both arms simultaneously.

Precaution: You may need to begin with very small movements and gradually make the strokes bigger.

F9. Arm Reach with Head Turn

- Stretch the right arm forward to the front and the left arm backward.
- Turn your head and look backward over the left shoulder at the same time.
- Switch arm positions and look backward over the right shoulder.
- Repeat.

F10. The Clapper

- Swing your arms forward and clap your hands together.
- Swing arms back and clap your hands behind your back.
- Reach as high as you comfortably can on the back clap.

Fit Note: Use a walking warm-up.

F11. Shoulder Stretch

- Place right hand, thumb up, in middle of lower back.
- Gently raise hand toward shoulder blades.
- Hold 10-30 seconds.
- Repeat for other arm.

F12. Penny Squeeze

- Pretend to squeeze a penny between shoulder blades.
- Hold 10-30 seconds.

F13. Arm Across

- Extend right arm to front and cross toward the left at shoulder height.
- With left hand gently grasp right arm above the elbow, pull it toward the left side.
- Hold 10-30 seconds.
- Switch and repeat for left arm.

Precaution: Do not grasp arm directly on elbow.

F14. Triceps Stretch

- Raise right arm above head, and pat yourself on the back.
- With the left arm behind and toward lower back, slide hands toward each other.
- Switch arm positions and repeat.

F15. Wrist Flexion and Extension

- Flex right wrist, pointing fingers toward the ground.
- With the left hand, gently press the back of the right hand and hold 10–30 seconds.
- Repeat for the other hand.
- Extend the right wrist pointing fingers toward the ceiling.
- Press the right palm with the opposite hand.
- Repeat for the other hand.

F16. Side Reach

- Extend right arm over the shoulder.
- Reach right arm up and over the left side.
- Switch and repeat for left side.

F17. Hug a Tree

- Hug a tree in front of your chest, hands touching.
- Sway the tree hug gently without twisting from side-to-side, or rotate.

Variation: Turn your head as you sway.

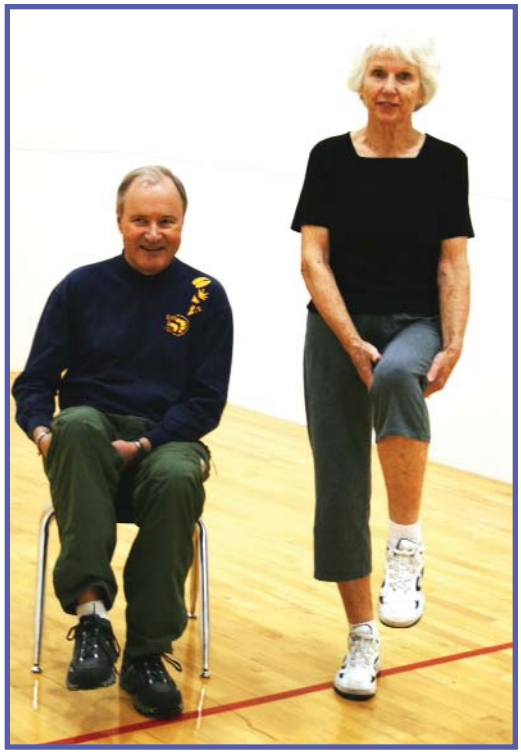
F18. Washing Machine

- Stand or walk with arms at your side.
- Sway arms loosely across your body.

Variation: Turn head side-to-side with the sway.

F19. Lean Back Stretch

- Stand with feet slightly apart with knees bent.
- Place hands in small of your back.
- Bend backwards gently at the waist.
- Hold the position one or two seconds.
- Repeat several times.
- Look up without cocking your neck backward.
- Repeat several times.

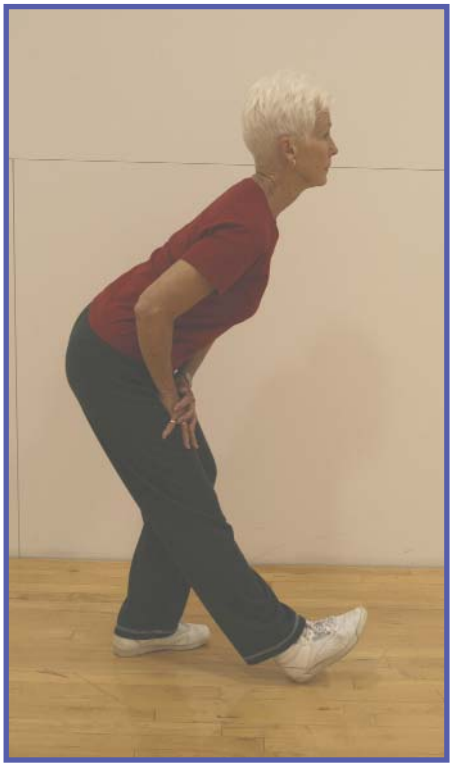


F20. Standing Hip Stretch

- Stand with back against a wall and stabilize torso.
- Lift right leg with knee bent and grasp leg with both hands, bringing knee gently to the chest.
- Hold 10-30 seconds.
- Switch and repeat for left leg.

Precaution: Keep torso stabilized and the three curves in the back (at the neck, shoulder blades, and lower back). Individuals with a hip replacement should not go beyond a 90 degree angle.

F21. Standing Hamstring Stretch



- Step right leg forward in a stride position.
- Bend left knee and place both hands on left thigh for support, keeping three curves in the back (at neck, shoulder blades, and lower back).
- Extend right leg and, leaving the heel on the ground, bring toes of right foot back toward the face.
- Keeping the back straight, slowly bend forward at the hip.
- Hold 30 seconds.
- Switch and repeat for left leg.

F22. Standing Quad Stretch

- Stand with left hand on wall.
- Bend right knee backward, bringing foot up toward the thigh as far as is comfortable.
- Keeping abdominals tight and torso stabilized, move right leg backward without locking the knee.
- Hold 30 seconds.
- Switch sides and repeat for left leg.

Precaution: Avoid arching the back.

F23. Leg Across Stretch

- Stand (hold on to the back of a chair, if needed).
- Cross the left foot in front of the right.
- Keep both feet on the ground and push the right hip out to the right and hold.
- Repeat the exercise pushing the hip to the left.

Precaution: Individuals with hip replacements should avoid this exercise.

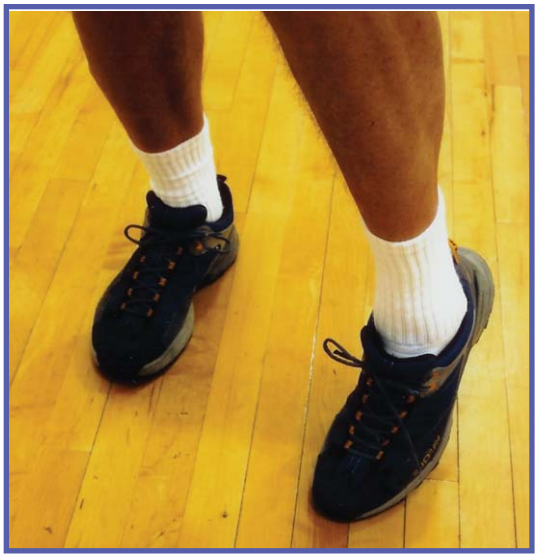
F24. Seated Tailor Stretch

- Cross the right leg over the left leg and place the right ankle on top of the left knee.
- Lean forward with the chest and hold the stretch for 10-30 seconds.
- Repeat the stretch for the left leg.

Precaution: For individuals with hip replacements, rotate the thigh outward leaving the ankle on the floor. Do not cross the foot over the other leg.

F25. Standing Calf Stretch

- With both hands on the back of a chair (or wall), stand with left leg forward and right leg back.
- Keeping torso erect, bend left knee while keeping right leg straight and heel on the ground.
- Hold 30 seconds.
- Maintaining the left leg position, bend right knee while still keeping the heel on the ground.
- Hold 30 seconds. Switch and repeat for left calf.



F26. Ankle Circles

- Stand with left hand in contact with wall, pick right foot off the ground, and circle the ankle clockwise five times.
- Circle the ankle five times counter-clockwise.
- Switch and repeat for left ankle.

Variation: Write your name on the floor with your big toe.

F27. Toe Extension and Flexion

- In a seated position, lift toes of one foot toward ceiling. At the same time, point the toes of the other foot.
- Hold 10 seconds.
- Curl toes as tight as possible, and hold 10 seconds.

F28. Posture Pull Down

- Stand with knees bent, or sit.
- Stretch arms above head, slightly apart, palms forward.
- Pull elbows down toward sides/back, exhaling and contracting abdominal muscles.
- Pull shoulders and scapula back, down, and together.

F29. Full Body Stretch on the Wall

- Stand facing the wall.
- Crawl your fingers up the wall.
- Roll up on your tip toes as your arms reach as high as possible.
- Hold for 10 seconds.

Mobility Exercises

These exercises stimulate the cardiorespiratory system by elevating heart and breathing rates. **It is very important that participants exercise at their own pace**. To achieve this, create an atmosphere where they feel comfortable "doing their own thing." Demonstrate modifications, and **verbally remind them to listen to how their body is feeling**.

To assess participants' exercise level during this phase use the **Talk Test**:

Talk Test

The talk test is successfully used as a valid measure of individual exercise intensity:

Low Level: Your participants can talk easily to each other or sing a song without pausing to take a breath. In this case, they may want to pick up the pace.

High Level: If your participants cannot talk at all, they are working at too high a level. In this case, they need to reduce their level of exertion.

Participants should be able to exercise to the point that they're able to get 3-5 words out per breath and hold a comfortable conversation. Above this point, participants begin to breathe heavily and may not be able to maintain a conversation.

Basic Rules for Mobility Exercises

- Begin leg actions first. When your participants have learned leg movements, add arm actions.
- Balance the exercises. Move to both the left and right equally.

Exercise Menu

M1. Walking in a Circle
M2. Fast and Slow Pace Walking
M3. Forward and Backward Walking
M4. Diagonal Walk
M5. Box Walk
M6. Marching
M7. Basic Arm Actions for Marching and Walking

a. Marching Arms
b. Drum Major
c. Side Pushes
d. Rope Climbs

M8. Motor Car Walks
M9. Toe and Heel Walking
M10. Step Backs
M11. Lifts to the Rear
M12. Step Kicks
M13. Grapevine
M14. Heel Taps
M15. Step Together Step Variations
M16. Tandem Walk
M17. Three Tap Around
M18. Cross Over Walk
M19. Dance Box
M20. V-Step
M21. Waltz Step
M22. Hot Floor
M23. Cha Cha Cha
M24. Tightrope Walker
M25. Push Me – Pull Me

Fit Note:

- Have the participants check the heels of their shoes for signs of uneven wear. This indicates poor distribution of weight while walking. (See Choosing a Walking Shoe on page 151.)
- Knees should not be bent or locked but loosely held straight.
- Allow spine to assume its natural curve.
- Avoid leaning the head forward.

M1. Walking in a Circle

- Basic walking motion.
- Walk in a large circle left.
- Repeat, moving right.

Variations: Add arm actions listed under *M7 - Basic Arm Actions*.

Precaution: Encourage participants to pick their own pace.

M2. Fast and Slow Pace Walking

- Basic walking motion.
- Vary walking pace.
- Walk fast with small steps and large steps at a slower pace.

Variations: Add arm actions listed under *M7 - Basic Arm Actions*.

Precaution: Encourage participants to pick their own pace.

M3. Forward and Backward Walking

- Basic walking motion.
- Vary walking pace moving forward and backward.

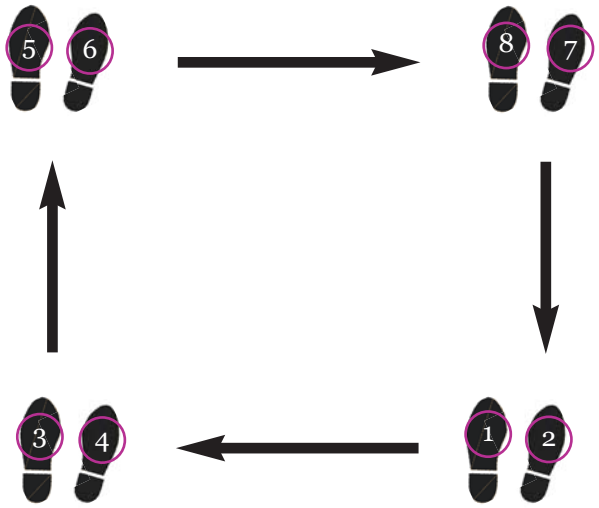
Variations: Add arm actions listed under *M7 - Basic Arm Actions*.

Precaution: Encourage participants to pick their own pace.

M4. Diagonal Walk

- Basic walking motion.
- Walk diagonally forward to the right eight steps and diagonally backward eight steps to the starting position.
- Repeat, moving diagonally to the left.

Variations: Add arm actions listed under *M7 - Basic Arm Actions*.



M5. Box Walk

- Basic walking motion.
- Walk in a box pattern.

Variations: Add arm actions listed under *M7 - Basic Arm Actions*.

M6. Marching

- Begin in a standing position.
- Raise right knee 45 degrees to the front.
- Set right leg down and raise left knee to the front 45 degrees.
- Repeat, alternating legs.

Variations: Add arm actions listed under *M7 - Basic Arm Actions*.

Precaution: Encourage participants to modify height the knee is lifted.

M7. Basic Arm Actions for Walking and Marching

These arm actions can be added to walking and marching exercises to increase exercise intensity.

Variations:

a. Marching Arms

- Begin with both arms bent 90 degrees.
- When right knee is raised left arm is moved forward, and right arm moves backward.
- Alternate so right arm is forward when left leg is raised.

b. Drum Major

- Begin with left arm extended forward at shoulder height and right arm bent 90 degrees at the elbow.
- Bend left arm bringing hand toward shoulder, while extending right arm forward at shoulder height, as in pushing.
- Alternate arm action, and combine with marching action.

c. Arm Pushes

- Begin with left arm extended at shoulder, high and to the left. Right arm should be at shoulder level with right elbow bent so right hand is just below the chin.
- Switch positions with right arm extending to the right side in a punching action, and left arm bending.
- Repeat in an alternating fashion and combine with marching.

d. Rope Pulls

- Begin with right arm extended diagonally in front of body (where you can see the hand) and left arm bent.
- Switch arm positions in an alternating fashion as though you are climbing a rope.
- Repeat.

M8. Motor Car Walks

- Bend knees and lower the body, keeping torso erect with hands in front holding a pretend steering wheel.
- Walk in bent-knee position "steering" your car in and out around the room.

Precaution: If bent-knee position is not comfortable, have participants use a basic walking pattern.

M9. Toe and Heel Walking

Description

- Walk on toes.
- Walk on heels.

Variation: Add arm actions listed under M7 – Basic Arm Actions.

M10. Step Backs

- Step right leg back and swing right arm forward 45 degrees, left arm down and behind body.
- Step right foot down beside left foot, then step left foot back, switching arm position.

M11. Lifts to the Rear

- Lift right leg to rear, bending knee 45 degrees.
- Step foot back in place, repeat for left leg, and alternate.

Precaution: Keep abdominal muscles tight to prevent bending the back.

M12. Step Kicks

- Step right foot forward and kick left foot forward.
- Step on left foot and kick right foot forward.
- Repeat.

Variations

Kick Outs
- Kick legs out to side.

Kick Across
- Kick legs across in front of body. (This should not be done by those with hip replacements.)

Moving Step Kicks
- Move forward eight kicks and backward eight kicks.

Knee Lifts
- Lift knee 45 degrees instead of kicking lower leg out.

Arm Actions
- Add Drum Major listed under *M7 - Basic Arm Actions*.

M13. Grapevine

- Step left foot across and in front of right foot.
- Step right with right foot.
- Step left foot behind right foot.
- Step once again to the side with right foot.
- Repeat three times. On the last time, instead of stepping to the side with the right, tap right foot in place.
- Cross it across and in front of left foot.
- Continue moving left, and repeat three times.

Precaution: Individuals with hip replacements or other mobility issues can simply side step as an alternative.

M14. Heel Taps

- Lift the right leg forward, touch right heel to ground and return.
- Repeat with left leg.

Variations:

- Touch heels diagonally to the side.
- Add arm actions (listed under M7 – Basic Arm Actions).

M15. Step Together Step Variations

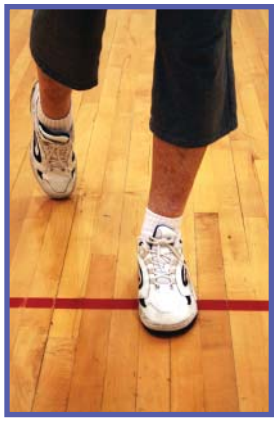
- Step to the right side with right foot.
- Close left foot to the right.
- Step the right foot right again, and tap left foot next to the right.
- Repeat, beginning with left foot and moving to the left.

Variations:

- Lift left knee 45 degrees instead of tapping.
- Kick leg forward instead of tapping.
- Walk forward and kick the leg instead of tapping.
- Add arm actions.

M16. Tandem Walk

- Step with the right foot forward.
- Place left foot directly in front of the right, touching the heel.
- Repeat, walking forward.



M17. Three Tap Around

- Stand on right leg and cross the left foot in front. Tap the left toe in front of the right foot, then to the side and to the back (all to the left-hand side of the body).
- Switch legs and repeat, tapping with right foot but this time tap the foot to the right-hand side of the body.

Precaution: Individuals who have had a hip replacement need to modify the activity and tap the foot in front of the body, instead of crossing the leg.

M18. Cross Over Walk

- Lift right foot and cross it in front of the left.
- Cross left foot and place it in front of the right.
- Repeat.

Precaution: Individuals with hip replacements need to modify the exercise by placing the foot in front of the other foot, instead of crossing over.

M19. Dance Box

- Step forward with your left foot. (Forward)
- Swing the right leg forward and then step sideways to the right. (Side)
- With the left foot step next to the right foot. (Close)
- Step back with the right foot. (Back)
- Swing the left leg backward and then step sideways to the left. (Side)
- Step with the right foot next to the left. (Close)
- Repeat the action.

Variation: Try the same step by stepping forward with the right and switching the actions of the feet.

Cues: Forward, side close, backward, side close

Note: This is a traditional Foxtrot box step.

Precaution: Keep the pace slow. Caution participants to take small steps backward.

M20. V-Step

- Start with feet together, standing.
- Step forward with left foot, then step forward with right foot to form the top of the “V”.
- Step back to start position with left foot, then right foot.

Add:

- As you step forward, extend left arm, then right arm out in a “V”.
- As you return to starting position, fold left arm, then right arm in front of your heart.

Add:

- Repeat “V” step backwards.
- Start with stepping movements, then add the arm movements.

Add: “X” Step

- Do one front V-step pattern with arms.
- Do one back V-step pattern with arms to form an “X”.

Precaution: Start slowly and gradually increase the pace.

M21. Waltz Step

- Begin in a standing position.
- Step the left foot forward, flat on the sole of the foot.
- Step the right foot next to the left, rising to the ball of the foot.
- Step left in place on the ball of the foot.
- Repeat the exercise.
- The cueing is: “Down, up, up”.

M22. Hot Floor

- Begin in a seated or standing position.
- Lift up the right foot quickly pretending the floor is "hot".
- Place the right foot down in a different position while quickly picking up the left foot and set it down in a different area.
- Repeat the exercise moving the feet quickly around the area in front of the chair.

Precaution: Stabilize the torso to protect the back.

M23. Cha Cha Cha

- Begin in a standing position.
- Step forward with the left foot shifting your weight in to the left leg.
- Step backward on the right foot shifting your weight to the right leg.
- Step the left foot next to the right.
- Step the right foot in place.
- Step the left foot in place.
- Repeat the step starting by moving the right leg backward.

The cues of the motion are:

Left, right, quick (left), quick (right), quick (left)

Or

1, 2, cha cha cha

This can be done sitting in a chair.

M24. Tightrope Walker

- Use a taped line on the floor as a substitute for a balance beam.
- Walk forward and backward.

Variations

- Walk turning head side-to-side.
- Lift knees while walking forward and backward.
- Lift knee, extend, and step forward.
- Swing leg and step forward.
- Tandem Walk (see M16).
- Walk sideways.
- Cross Over Walk (see M18).

M25. Push Me-Pull Me

- Lunge forward with right leg and simultaneously push your arms out in front palms forward.
- Return to start position and pull your arms back in place.
- Repeat on the other leg.

Using Body Resistance

Muscle loss causes increasing difficulty with everyday tasks, like carrying groceries or just getting out of a bathtub or chair. In the average American adult, strength dips just 10-20% between the ages of 20 and 50; but over the next two decades strength falls by an additional 25-30% and plummets even faster after that for the deconditioned person.

Fortunately, balance and resistance exercise, purposely practiced, can minimize the downward de-conditioning spiral. Research supports that a person is never too old to make progress.

Muscles put stresses and strains on bones that make them stronger. That's why weight-bearing exercises help to prevent bone loss. Less muscle means weaker bones and the greater likelihood of suffering fall-related injuries.

Balance and resistance exercise using body weight for resistance can prevent some of the damage done by muscle loss and, at the same time, generate self esteem and personal confidence that spills into other aspects of daily living.

As you instruct any of the following exercises, start with leg movements, then add arm movements. Some students may need a supportive touch on the wall or the back of a chair.

About Core Strength

Your lower back, along with the abdominals, the hips and lateral trunk muscles, make up the core. When you have weakness in these muscles, there's a greater tendency toward injury and poor balance.

Strengthening your core helps your entire lower half function more efficiently and reduces your risk of back pain and falls. To strengthen your core, level your pelvis whenever you are standing; stand tall, draw in your abdominal muscles toward your spine or hollow out your belly button: and soften your knees.

Exercise Menu

B1. Chair Stands
B2. Chorus Line
B3. Elevator Going Up and Down
B4. Faux Jumps
B5. Footprints
B6. Hydrants
B7. Ice Cream Cone
B8. Partial Lunge
B9. Pedaler's Pose (Bicycle Ride)
B10. Tailor Raises
B11. Rock and Roll
B12. Romberg Drill
B13. Slide Trombone
B14. Squat and Raise
B15. Spin Cycle
B16. Standing Heel Raises
B17. Sumos
B18. Wall Push-Ups
B19. Stork
B20. Wall Slide
B21. Single Leg Raises
B22. Knee Circle
B23. Tipsy 5-Pointed Star
B24. Slap and Tap
B25. Crazy Snow Angel
B26. Paper Wad
B27. Kegals and Core Strength

Fit Note: Core strength is a key to good balance.

B1. Chair Stands

- Sit at front edge of chair with arms crossed over chest or placed on thighs.
- Stand up completely and sit back down.

Fit Note: It may be more beneficial to perform this exercise slowly and for a longer period of time to increase muscle strength and endurance.

B2. Chorus Line

- Stand tall with hands resting on hips.
- With both hands on hips, bend right leg at knee, so foot is behind the body.
- Lean slightly forward and straighten right leg behind the body to a comfortable position.
- Gently point toes.
- Bend knee. Return to starting position and relax.
- Repeat with left leg.

Variation

- If needed, have participants stand tall with hands resting on a stationary chair. Have participants continue to hold onto chair with both hands while bending and straightening leg.
- "Play the piano" on chair with fingertips, slowly raising arms to the balance point.
- Extend right leg behind the body, leaning toward chair. Hold for a count of three and repeat using left leg.
- Repeat sequence with feet placed a little further away from chair.

Fit Note: Remember, if participants feel they are losing their balance, encourage them to place their hands back onto the chair to steady themselves.

B3. Elevator Going Up and Down

- Sit in a stationary chair with feet a comfortable distance apart and arms at sides, or hands resting on knees or thighs.
- Move upward as if on an elevator going up one floor at a time, and stopping (holding the position) for a few seconds at each floor.
- Repeat in reverse, returning to sitting position.

Variations

- Sing "Grand Ole Duke of York" lyrics while practicing the Elevator. Lyrics:
  Grand 'Ole Duke of York, he had the thousand men, he marched them up the hill, and marched them down again. So when you're up you're up, and when you're down you're down and when you're only half way up, you're neither up nor down.
- Pretend participants are in a Department store and have them select what floors they want to shop. Examples: second floor: shoes; fifth floor: housewares; and seventh floor: furniture.

B4. Faux Jumps

- Pretend to vertically jump without leaving the ground.
- Explode up with full arm swing.

Precaution for those with osteoporosis: Avoid vertical jarring.

Advanced Variation

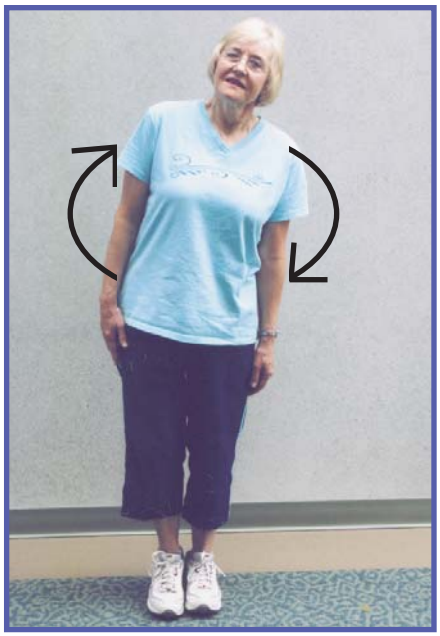
- Leave the ground when jumping.
- Land gently with "give" in the knees.

B5. Footprints

- Stand with feet close together.
- Press feet into floor attempting to make a complete footprint with each foot, as if standing in wet concrete or sand.
- Cross arms over chest.

B6. Hydrants

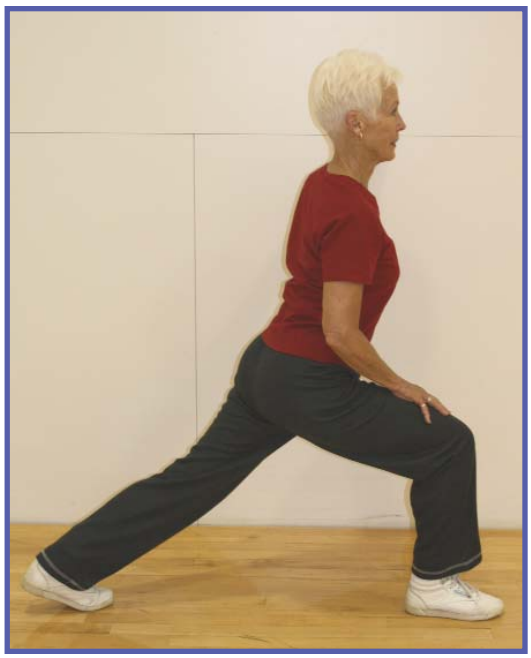
- Face a supporting chair or wall, feet astride.
- Shift weight onto left leg and raise right leg sideways.
- Lead with the heel, keeping right knee facing forward.
- Do not bend right hip.
- Keep trunk upright.
- Build up to 8-10 repetitions on each side.



B7. Ice Cream Cone

- Stand with feet close together and pressed to floor (as in Footprints).
- Imagine yourself as an ice cream cone with your feet at the bottom of the cone.
- Roll around in the cone, shoulders touching the inside of the cone, movement coming from the ankles.
- Keep knees, hips, waist, shoulders, and head still.

B8. Partial Lunge



- Stand straight with feet comfortably apart.
- Rest right hand on back of chair or wall.
- Shift weight to right leg and extend left leg in front, in slight lunge position.
- Keep torso upright and bend knees.
- Align front knee above ankle.
- Keep upper body upright, and return to start position.
- Repeat with other leg.

B9. Pedaler's Pose (Bicycle Ride)

Description

- Stand tall, feet slightly apart and arms extended out at shoulder level.
- Raise the right knee, putting the foot on a make-believe bicycle pedal that is just off the floor.
- Point the toes downward.
- Start to "pedal" by moving the right foot in a downward, circular path and brushing the floor with the toes.
- Return the right foot to the floor and relax.
- Repeat with the left leg.

Variations:

Praying Pedaler

- Close the eyes during Pedaler's Pose.
- Place hands in praying position in front of chest.
- Drop head gently, chin toward chest.
- Close eyes.
- Bend one knee and lift heel toward buttocks.
- Try to maintain balance while counting slowly to five.
- Work up to 10 and beyond.

Slow Back Spin

- Bend right knee and gently place toes of right foot on floor behind torso.
- Lift right heel toward buttocks.
- Move toes in a small, slow, gentle circle, first clockwise, then counter-clockwise.
- Lower right foot to floor and repeat with left leg.

Side-Winder

- Lift right leg out to the side.
- Complete two small circles, clockwise.
- Lower leg and relax.
- Repeat, using left leg.

B10. Tailor Raises

- Stand and pretend to pick up a “marble” with toes of right foot.
- Lift the “marble,” bending ankle inward and raising knee.
- Repeat, bending ankle to the outside.
- Repeat for left ankle.

B11. Rock and Roll

- Stand with feet close together.
- Roll from side to side feeling edges of feet in contact with floor.
- Rock forward and back, keeping heels and toes on floor.

B12. Romberg Drill

There are four parts to the drill:

- Normal stance with feet a few inches apart.
- Feet together.
- Semi-tandem - step forward with one foot.
- Tandem - bring back foot up behind forward foot.

Arms are crossed over chest, or in any other position that maintains balance.

In each of the listed positions, participant practices:

- Standing still.
- Eyes open.
- Eyes closed (if capable).

Step 1

Step 2

Step 3

Step 4

B13. Slide Trombone

- Stand on right leg.
- Slide left leg from ankle to knee of right leg, with foot in contact with right leg.
- Repeat while standing on left leg and sliding right leg.

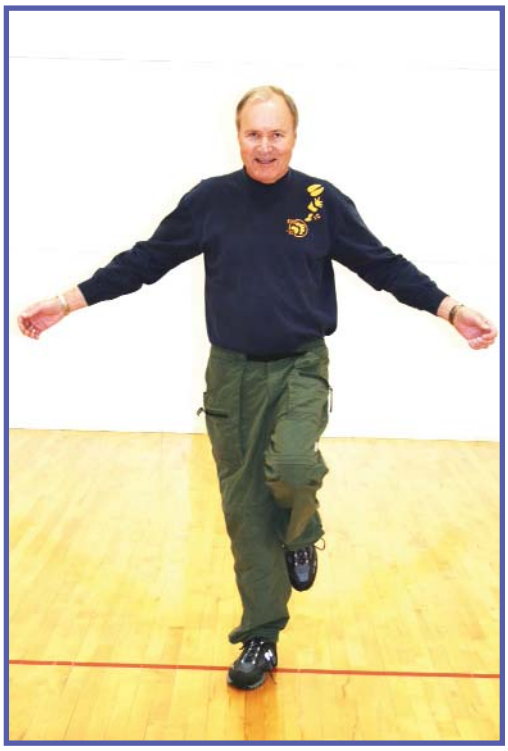
B14. Squat and Raise

- Stand with feet a comfortable distance apart.
- Squat (small knee bend).
- Straighten and roll up onto toes.
- Lower to starting position.

Advanced Variation:

- Perform on single leg for more intense strength training.

B15. Spin Cycle



- Stand tall, feet slightly apart, arms at sides.
- Raise right knee so foot is just off floor.
- Lift arms to side at shoulder level, and trace small clockwise circles in the air.
- Lower right leg and arms and relax.
- Repeat, using left leg.
- Again, raise right knee so foot is just off floor.
- Stretch arms up in a "V," palms inward, and trace small clockwise circles in the air.
- Lower leg and arms and relax.
- Repeat, using left leg.
- Bend right leg at the knee so foot is behind torso and just off floor.
- With arms hanging loosely at sides, gently trace small clockwise circles.
- Lower leg and arms and relax.
- Repeat, using left leg.

Variations:

- With arms in positions described above (at shoulder level, in a "V," below shoulder level), trace circles in the air, clockwise and counter-clockwise.
- Once arm movements are mastered, trace simultaneous circles with raised foot.
- Trace clockwise circles with right hand while left hand moves counter-clockwise.

B16. Standing Heel Raises

- Stand, holding onto a sturdy chair or wall, if needed.
- Rise up onto the toes as high as possible.
- Pause and slowly lower to starting position.

Advanced Variation:

- Perform exercise without holding onto chair or wall.

B17. Sumos

- Stand with legs slightly apart and arms at sides.
- With left foot, take large step to the left.
- Squat into a sumo (bent-knee) position.
- Push up so weight is on left foot.
- Stand upright with body weight on left foot, raise right foot out to side.
- Take large step onto right foot while keeping torso upright.
- Repeat while stepping off with right foot.

Advanced Variation:

- Progress to a lower sumo with a wide step by saying:
  - side-step into the tub; and
  - side-step out of the tub.

B18. Wall Push-Ups

- Stand two feet from a wall, facing wall.
- Place hands on wall at shoulder height.
- Stabilize torso, and slowly lean forward toward wall, bending arms.
- Press against wall, returning to standing position.
- Repeat.

Variation:

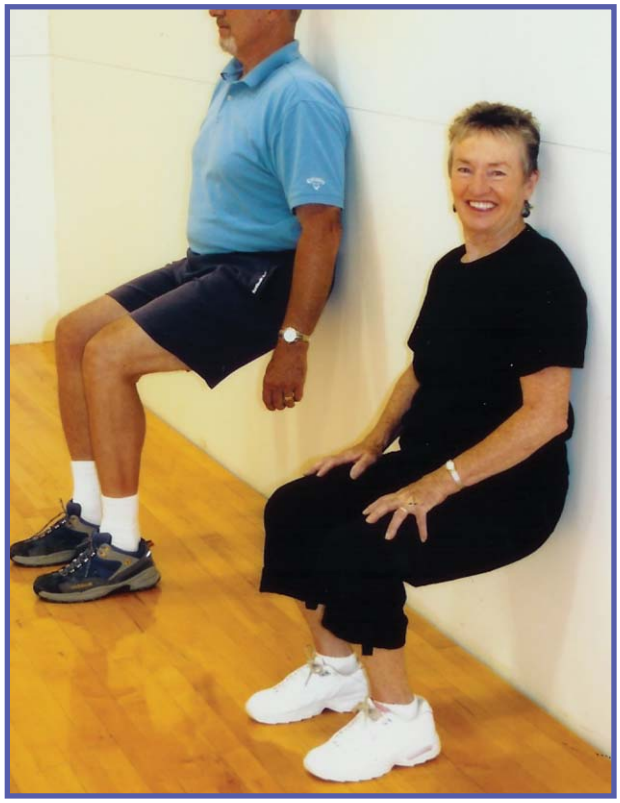
- Repeat exercise with weight on one foot.

B19. Stork

- Shift weight to one foot while looking ahead at some immovable object.
- Lift other knee, level with floor.
- Lift arms to shoulder level.

Variation:

- Bring arms forward, and hold parallel to floor.



B20. Wall Slide

- Stand with back against a wall with feet shoulder-width apart.
- Slide down into a crouch with knees bent to about 90 degrees.
- Count to 5 and slide back up the wall.
- Repeat 5 times.

B21. Single Leg Raises

- Sit upright in chair with legs straight and extended at an angle to the floor.
- Gently hollow out your belly button.
- Lift one leg waist high.
- Slowly return leg to the floor.
- Do the same with the other leg.
- Repeat 5-10 times with each leg.

B22. Knee Circle

- Hold on to the back of a sturdy chair or wall.
- Shift weight to the inside leg, soft in the knee.
- Raise knee and circle slowly in each direction while the rest of the body remains "frozen".
- Repeat on the other leg.

B23. Tipsy 5-Pointed Star

- Balance on one leg, stretch arms out and lift your head toward the ceiling.
- Lift one leg to the side.
- Stretch 5 points of the body away from its core or center.
- Repeat on the other side.

B24. Slap and Tap

- Lift the right knee and slap gently with your right hand.
- Tap big toe of right foot back as you reach the right arm up overhead.
- Repeat on the other side.

Add variation: Using partners facing one another, slap knee and reach hand up to give partner a "high five."

- **Fit Note:** Some participants may feel more comfortable touching the back of a sturdy chair or the wall for stability.

B25. Crazy Snow Angel

- Begin while standing and holding on to a chair with your right hand.
- Lift the left arm up to shoulder height horizontally while at the same time lifting the right leg out to the side.
- Hold the position for 5 seconds and return to the standing position.
- Repeat the action holding onto the chair with the left hand, lifting the right arm and left leg.

B26. Paper Wad

- The exercise can be done while seated or standing.
- Place the paper in the right hand and slowly crumple it up (with the right hand only) until it is in a tight ball.
- Using only the right hand undo the paper ball until the whole sheet is completely uncrumpled.
- Repeat the exercise for the left hand.

Variation

- Crumple the band focusing on each finger and squeeze.

B27. Kegals and Core Strength

- Begin in a standing or seated position.
- Draw up and tighten the pelvic floor muscles (those that cut off the flow of urine) and at the same time pull navel back toward the spine.
- Hold the position for 10 seconds, release, and relax for 10 seconds.
- Repeat the exercise.

Fit Note: For maximum benefit, work up to 80 repetitions per day.

Strength With Resistance Bands

Resistance Bands

Building muscle at any age boosts muscle strength, improves balance and decreases the potential for falling and susceptibility to fracture. Strength training translates into maintaining vitality, lifting a grandchild for a hug, carrying 10 lb. grocery bags, or getting out of a chair.

Exercises offered in this section use resistance bands to help build strength.

Exercise Menu

Upper Body

S1. Biceps Curl
S2. Back of Arm Press-Back
S3. Lateral Raise
S4. Counter Cleaner
S5. Seated Upright Row
S6. Overhead Pull Down
S7. Chest Press
S8. Standing Bow Exercise

Lower Body

S9. Partial Squats
S10. Side Leg Lift
S11. Hamstring Curl
S12. Seated Calf Press
S13. Knee Lift
S14. Toe Taps

Alternatives to Latex Bands

In case you have an individual in your class who is allergic to latex, here are a few alternatives:

1. There are new types of exercise bands that are latex free. Contact your Health District Coordinator to see if they have access to them. The latex free bands need to be stored separately.

2. Fill a small plastic bag with sand, remove the air, and secure the top . Place it in another plastic bag, close and secure it as well, once again removing all of the air. Place the bags in a sock and tie the top in a knot. Make at least two. Participants then hold on to the sock while they are doing the resistance exercises.

3. Unopened soup cans may be used.

4. Fill empty plastic juice bottles with screw top lids with sand or small gravel.

FFP - General Guidelines for Using Resistance Bands

- Warm up and stretch thoroughly before beginning resistance training.
- Perform each exercise through a full range of motion with slow, controlled movements.
- Discontinue any exercise that causes pain or discomfort.
- Complete 8-15 repetitions before muscle fatigue. (The last repetition should feel somewhat hard.)
- Gradually increase resistance when it is easy to complete 15 repetitions by choosing a band with greater resistance or using two bands together.
- Ideally, breathe out during the exertion phase and breathe in while returning to the starting position. Avoid holding your breath.

The exercise bands that are provided in class come in a series of colors that have been designed to provide 20-30 % increase in force between the colors. The bands are:

Lowest Resistance	Medium Resistance	Greatest Resistance
Yellow Red	Green Blue	Black

Fit Note: When participants increase their resistance, it is very important to watch their form and make sure they are keeping their wrists straight.

About Band Length

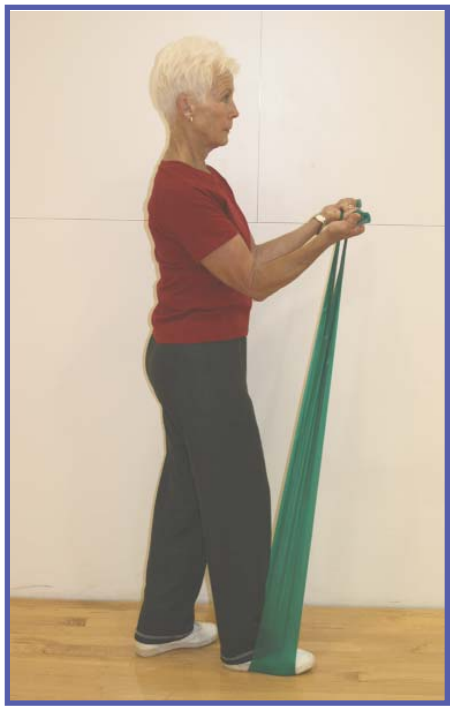
- Band length recommendation is a minimum of 5 - 6 feet.
- Other bands may need to be longer to accommodate:
  - Knotting for handles at the ends of bands.
  - Wrapping bands around hands to ease arthritic pain in hands.
  - Taller or larger participants who need greater range.

Fit Note: Never tie two bands together for safety's sake!

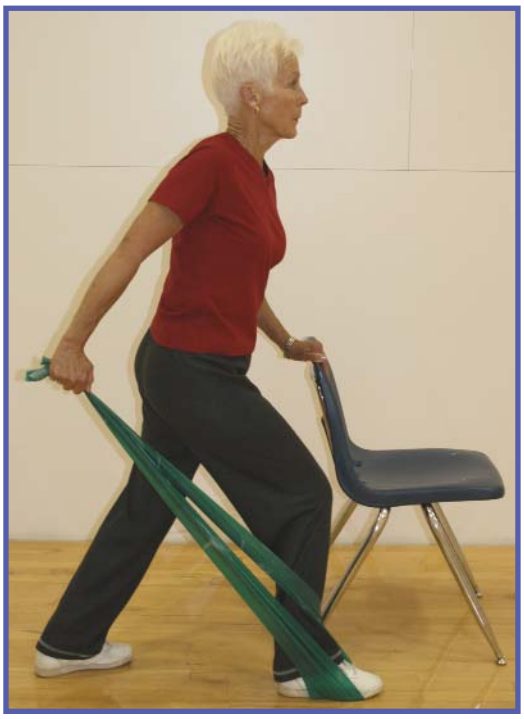
Fit Note*:*

1. To decide the proper color-coded resistance band, remember that the exercise should be difficult, but attainable, during the eighth repetition. If it is easy throughout repetitions, the participant is ready for a stronger resistance band. If exercise is difficult at the fourth repetition, the participant needs to work with a lighter level.
2. Check resistance bands for nicks, small tears or punctures that may cause the band to break. Store bands at room temperature and away from direct sunlight.
3. Maintain a neutral wrist in all activities, using resistance bands to avoid injury.

S1. Biceps Curl



- Stand (or sit toward front of chair), with middle of band anchored under feet. (If the band is too short, use only one foot to anchor it.)
- Grasp ends of band, palms forward, elbows touching waist.
- Seated upright, raise hands toward shoulders without tilting the back or moving elbows.



S2. Back of Arm Press-Back

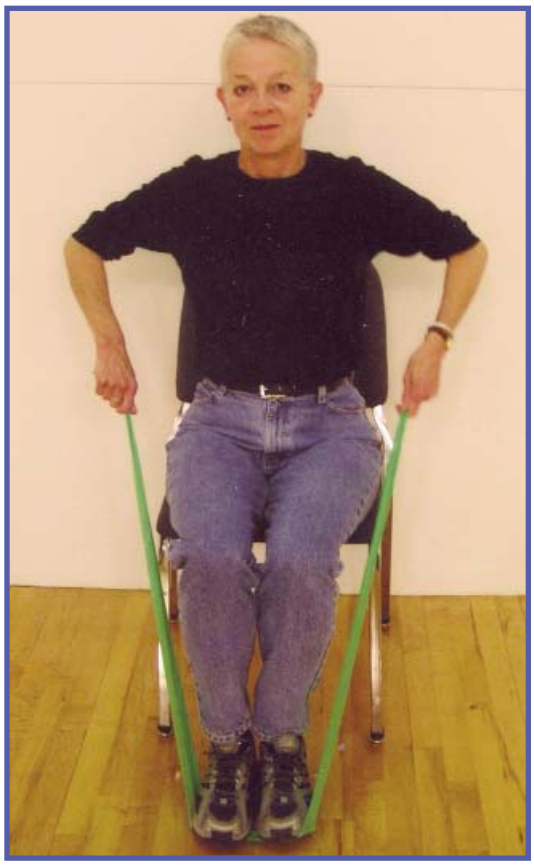
- Standing with feet together and using a chair for balance, anchor end of band under one foot.
- Step opposite foot back.
- Hold other end of the band in fist with palm down.
- Press palm straight back.
- Release slowly to starting position.
- Repeat on other side.

S3. Lateral Raise

- Stand on one end of band.
- Raise one arm out to side with thumb down.
- Move arm 45 degrees forward.
- Slowly lower arm, then reverse steps.
- Repeat, using other arm.

S4. Counter Cleaner

- Grasp band in middle and hold at chest.
- Hold opposite end of band in other hand with elbow hugging the side of body, and arm across stomach.
- Rotate arm out to side and slowly return.
- Repeat, using other arm.



S5. Seated Upright Row

- Sit toward front of chair, legs extended and heels resting on floor.
- Holding one end of band in each hand, place band around bottom of feet.
- Seated upright, and with wrists held in a neutral (straight) position, draw elbows back, letting them flare out to side, until hands reach ribs and shoulder blades squeeze together.
- Keep back straight and shoulders down.
- Return arms to starting position and repeat.

Precaution: Not recommended for participants susceptible to shoulder injury.

S6. Overhead Pull Down

- Stand with the feet apart or sit in a chair.
- Grasp both ends of band.
- Stretch arms up in front of body.
- Slowly lower arms to chest level, moving apart and to sides.
- Avoid arching back and locking elbows.
- Bring hands back together in front of body and repeat.

S7. Chest Press

- Wrap band around middle of back.
- Grasp ends of band next to armpits.
- Press arms straight out, keeping shoulders down.
- Avoid locking elbows as the arms are extended.
- Bring hands back to arm pits and repeat.

S8. Standing Bow Exercise (strengthens arms and shoulders)

- Stand in neutral position with left foot in front of right foot.
- Grasp a resistance band a comfortable. distance apart with each hand.
- Raise both arms to shoulder height.
- Rotate left thumb toward ceiling.
- Bend right elbow and pull back.
- Repeat on opposite side.

S9. Partial Squats

- Stand with balls of feet in middle of band, while holding ends of band.
- Squat as if lowering into a chair.
- Avoid arching or rounding the back or letting knees come forward.
- Contract buttocks while straightening up.

S10. Side Leg Lift

- Tie ends of band together and wrap around ankles. An alternative is to tie ends of band together and stand on band after the knot.
- If seated, lift leg 6-8 inches out to side.
- If standing, side step the outside leg 6-8 inches.
- Repeat on other side.

S11. Hamstring Curl

- Tie one end of band around middle of foot, or wrap folded band around leg at the ankle.
- Holding onto the back of a chair, stand on other end of the band about 7-10 inches in front of tied foot.
- Raise tied foot behind torso as high as possible by bending knee.

S12. Seated Calf Press

- Sit in a chair with one foot flat on floor and opposite leg parallel to floor.
- Wrap band around ball of foot of extended leg.
- Keeping extended leg straight and pressing against band, point toe toward floor.
- Flex foot back as if planning to rest toes on shin.
- Repeat on both sides.

S13. Knee Lift

- Holding onto the back of a chair or wall, step on both ends of band with one foot.
- Wrap band around opposite foot.
- Raise knee toward chest while the back remains straight.
- Return to starting position.
- Repeat on other side.

S14. Toe Taps

- Stand or sit tall.
- Wrap band around ball of working foot.
- Stand on ends of band with other foot (feet need to be very close together).
- Tap working foot on ground as if keeping time to music.
- Repeat on other foot.

Chapter 7
Jazz Up Your Class

Try some of these ideas to enhance fun, add variety and maximize class time.

Dance Steps

J1. Hokey Pokey
J2. Chicken Dance or Birdie Dance
J3. Macarena
J4. Bunny Walk (Hop)
J5. Modified Square Dance

Adapted Tai Chi Movements

J6. Resting Pose or Standing Meditation
J7. Washing Machine
J8. Shoulder Rolls or Rolling the Ball
J9. Holding Up the Sky with One Hand
J10. Hula Circles or Hip/Knee Circles
J11. Rocking Motion
J12. Bird Flaps its Wings
J13. Paint Brush or Painting the Wall
J14. Playing the Accordion
J15. Passing Clouds
J16. Around the Platter
J17. Bass Drum

Standing Yoga Postures

J19. Mountain Pose
J20. Five-Pointed Star Pose
J21. Modified Triangle Pose
J22. Crescent Moon Pose
J23. Chair Pose
J24. Warrior I
J25. Warrior II
J26. Stork Pose
J27. Tree Pose
J28. Eagle Pose

Fun with Walking for Fitness Using Partners

J29. Double Circle Mirror Movements
J30. Driving Test
J31. Mix it Up
J32. Trust Mobile
J33. A Walking Circuit

Combination Exercises

J34. Partial Lunge Combination
J35. Building on the Stork
J36. Ankle Marathon
J37. Shake it Up and Stretch it Out
J38. Snap Tappers
J39. Imaginary Progressive Relaxation

Dance Steps

There are a variety of dances that your participants can do (at least modified versions) in your class. The following are just a few that you can use. The dances require some multitasking. These dances can be done in either the seated or standing position.

J1. **Hokey Pokey** – have your participants sing the words as they make the movements. *Sample lyrics: "You put your right foot in, you put your right foot out. You put your right foot in and you shake it all about. You do the Hokey Pokey and you turn yourself around. That's what it's all about"*

J2. **Chicken Dance or Birdie Dance**
Close and open the hands three times
Flap the wings three times (hands under arm pits)
Clap three times
Repeat the above three more times
Walk around (or in place) 32 counts
Repeat all of the above

J3. **Macarena**
Right arm out to the front palm down
Left arm out to the front palm down
Turn the right arm palm up
Turn the left arm palm up
Touch the right hand to the left shoulder
Touch the left hand to the right shoulder
Touch the right hand to the front of the left hip
Touch the left hand to the front of the right hip
Touch the right hand to the back of the right hip
Touch the left hand to the back of the left hip
Hey Macarena! And repeat

J4. **Bunny Walk (Hop)**
Form a line one behind the other. Hold on to the waist of the person in front of you (this is optional).

- Tap your left foot to the left side twice
- Quickly switch feet and tap the right foot to the ride side twice
- Tap the left foot to the side once
- Tap the right foot to the side once
- Step forward
- Step backward
- Walk forward quickly three steps
- Repeat from the beginning

Precaution: Students in your class may remember this dance. It is important that you encourage them to complete the actions with steps and not hops.

J5. Modified Square Dance

Form two lines or scatter the partners around the room. Partners should be at least five feet apart and facing each other.

- Bow or curtsey to your partner.
- Walk forward and around your partner (by right shoulders) and back to your line.
- Walk forward, hook right elbows, walk around, release arms, and walk back to your line.
- Repeat the above hooking left elbows.
- Walk forward, hook right little fingers, walk around, release fingers and walk back to the line.
- Repeat, hooking left pinkies.
- Etc.

Variations:

- Change the walk to a different type of mobility movement such as tip toe walk, step kick walk, or a crossover walk.
- Change what you have them do when they meet their partner. For example, touch right elbows, make a silly face, chin tuck, four trombone slides for each leg, etc.

A Dozen Adapted Tai Chi Movements

Adapted tai chi emphasizes rhythmic, easy-to-follow movements that focus on relaxation, trunk alignment, a calm mental state, breathing and an awareness of the body's position as it moves through space. All movements are done gently and slowly. To give you an idea of timing, take Exercise J14. Playing the Accordion. Time yourself as you move an imaginary accordion between your hands, calmly breathing in and out with the movements. Three complete in and out movements can take about half a minute.

Fit Note: Each exercise begins and ends with standing still in the Resting Pose for a few seconds. The stillness becomes a part of the exercise.

Note: This segment is used by permission from the Over 60 and Getting Fit Exercise Leader's Manual by Jan Mittleider.

"Experience non effort in all movements" Judi McAllister

J6. Resting Pose or Standing Meditation:

- Feet shoulder width apart, weight evenly distributed.
- Knees "soft" not bent or locked but loosely straight.
- Slight tension in abdominals.
- Shoulders aligned over hips and relaxed.
- Head squarely above shoulder; ears in line with shoulders.
- FOCUS on rhythmic, gentle breathing cycle.
- Inhale – as hands rest on belly finger tips will touch.
- Exhale – finger tips will separate slightly.

Fit Note: Imagine your spine as a stack of silver dollars or a string of pearls hanging straight.

J7. Washing Machine: (from resting pose position)

- Rotate your upper torso slowly (from the waist up).
- Let your arms swing freely; hands may slap against your body.
- Increase the intensity of your rotation gradually.
- Shift weight from one foot to the other.

Variation: Excellent in walking warm-up.

J8. Shoulder Rolls or Rolling the Ball: (from resting pose position lift hands forward and bend elbow 45 degrees with fingers pointing forward)

- Circle hands in front of body like "choo choo" train from the shoulder.
- Move forward and backward.

J9. Holding Up the Sky with One Hand:(from resting pose position)

- Inhale and raise one hand up to eye level.
- Exhale and bring left hand (palm down) downward to left side and concurrently bring right hand (palm up and flat) to the sky over your head.
- Look over opposite shoulder from your hand "holding up the sky".
- Breathe comfortably.

Variation: Excellent in walking warm-up.

J10. Hula Circles or Hip/Knee Circles: (from resting pose position)

- Circle hips like you're using a hula hoop.

Variation: put feet together and circle hula hoop around your knees.

J11. Rocking Motion: (from resting pose position with arms relaxed at side, palms forward and knees "soft")

- Rock slowly forward onto balls of feet (heels lift 1-2 inches) while simultaneously bringing your palms forward and up (arms remain straight with elbows slightly flexed) to shoulder height.
- Turn palms over (facing down) and bring hands down and back (slightly beyond hips) as weight shifts back on heels (big toes lift in your shoes).
- Continue back and forth motion in a smooth, flowing manner.
- Conclude in resting pose and take a deep belly breath.

Fit Note: Think of hands floating up as you "scoop" up the air and gently float down as toes lift gently up in your shoes and heels press down. As you breathe in, think "relax"; as you breathe out, think "smile".

J12. Bird Flaps its Wings (from resting pose position)

- Cup your palms by your navel.
- Touch heels together with toes out 45 degree angle in a V-Shape.
- Separate your palms by bending in a flapping motion while bending your knees (sink toward floor 1-4 inches) and heels lift 1-2 inches.
- Return to starting position slowly in reverse order (heels down).

Fit Note: Imagine you are holding raw eggs under your armpits as the tips of wings (your hands) softly open.

- Repeat sequence again.
- As you repeat a third time, circle your hands forward one rotation from the wrists.
- Pause briefly and return to starting position.
- Perform 3-9 rounds and conclude in resting position.

Fit Note: Move very slowly.

J13. Paint Brush or Painting the Wall: (from resting pose position)

- Let hands float forward and up to shoulder level.
- Lead with the wrists softly as if you were caressing a wall with the bristles of the brush.
- Return to starting position, pause and take a deep breath.

J14. Playing the Accordion: (from resting pose position)

- Place your arms in front of body as if you were hugging a surf board to your chest (elbows at chest level).
- Move your hands as if you are playing an accordion.
- Lead gently with your wrists.
- Return to start position, pause, breathe.

J15. Passing Clouds: (from resting pose position)

- Shift your weight gradually sideways on to right foot as knees bend gently.

Fit Note: As weight shifts imagine the non weight-bearing leg as empty.

- As you shift to left foot, right hand (fingers up, elbow down) arcs low across body as left hand sweeps high (across the face).
- Start with one hand, then bring other hand into the circular motion.
- Return to rest position, take deep belly breath.

Fit Note: As your weight shifts from one foot to the other, imagine your buttocks sliding back and forth across a piano bench.

J16. Around the Platter: (hands describe a horizontal circle or "platter" palm down at the upper chest level.)

- Place feet in comfortable front/back position (imagine a line between your feet).
- Shift your weight gradually forward while moving your hands forward, at chest height, curving out over your extended left leg. When your weight arrives fully on your left foot, your hands are at the halfway point around the imaginary platter.
- Return your weight gradually backward while completing the description of the platter.
- When your weight rests fully on your right foot, your hands are at the beginning position closest to the upper chest.
- Perform 9 or more front-to-back repetitions, then conclude with the resting pose.
- Perform the same number of repetitions with your right foot forward (hands reverse direction), then conclude with the resting pose.

Fit Note: Imagine hands floating through very heavy air. Elbows remain close to body. You can practice foot pattern while you're brushing your teeth.

J17. Bass Drum: (Hands move in a vertical circle in front of the torso, as though tracing the rims of a bass drum.)

- Place feet in front/back position about one foot apart.
- Shift your weight gradually forward while moving your hands down from the mid-torso and halfway around the imaginary bass drum. When your weight arrives fully on your left foot, your arms are at their fullest forward extension.
- Return your weight gradually backward while completing the description of the bass drum.
- When your weight rests fully on your right foot, your hands are at beginning mid-chest position.
- Perform 9 or more front-to-back repetitions, and then conclude with the resting pose and take a deep breath.
- Perform the same number of repetitions with your right foot forward, and then conclude with the resting pose.

Fit Note: Imagine you're hanging from the ceiling like a puppet on a string as you concentrate on vertical alignment.

Standing Yoga Postures

Yoga, derived from the Sanskrit word "yuj" meaning to unify, can be beneficial to everyone, regardless of age. The postures can be modified to accommodate various fitness levels including chair yoga for older adults who may have limited mobility. The goal of yoga is to integrate a harmonious relationship between body and mind through the combination of physical postures, breathing rhythms and visualization practices. Standing postures to increase balance, strength and flexibility can be integrated successfully into our exercise sequences.

J19 . Mountain Pose: (balance and also basis for all standing poses)

- Stand tall with feet hip width apart.
- Lift and spread your toes and let them softly ease back into the floor.
- Tuck your tailbone under to lengthen your spine.
- Relax your shoulders down and let your arms hang by your sides.
- Visualize your head and torso rising away from your feet.
- Take several full breaths- imagine the breath pushing your belly button out gently on the inhale and relaxing back on the exhale.
- After holding the mountain pose for several breaths:
- Inhale and raise your arms above your head as your shoulders relax toward the floor.
- Exhale and let your arms return to starting position.

J20. Five-Pointed Star Pose: (upper torso flexibility)

- Stand tall in mountain pose.
- Step your feet shoulder-width apart and make sure they are parallel, toes are pointed straight ahead.
- Raise arms to shoulder height with palms facing down and fingertips extended outward.
- Relax shoulders down and tuck in tailbone gently.
- Press your feet into floor.
- Hold the pose up to 30 seconds as you breathe in and out gently.
- Repeat on other side.

J21. Modified Triangle Pose: (ankle, leg and hip strength)

- Stand tall in mountain pose.
- Turn your left foot in 45 degrees and then turn your right foot out at 90 degrees.
- Make sure your right foot is aligned with the middle of your left foot.
- Inhale as you raise your arms up to shoulder level like five pointed star pose as you shift your hips to the left and extend your upper body to the right.
- Exhale as you place your right hand on the outside of your knee.
- Stretch your left arm up toward the ceiling with palm of hand facing forward.
- Hold your head in a neutral position keeping spine straight and neck relaxed.
- Hold pose for 10 seconds.
- Return to start position by pressing soles of feet into floor as you\

J22. Crescent Moon Pose: (upper torso flexibility)

- Stand tall in mountain pose.
- Raise your arms to shoulder height at your sides.
- Turn palms to face ceiling.
- Inhale and bring hands together over your head with fingers interlacing and index finger pointing to ceiling (keep upper arms hugging your ears).
- Exhale and slightly bend from the waist as you lean to the right as your hips gently press to the left.
- Hold the pose for 10 seconds (NOT your breath).
- Inhale as you return torso to an upright position.
- Repeat on other side.

J23. Chair Pose: (strengthens lower body and torso)

- Stand tall in mountain pose.
- Inhale as you raise your arms over your head with palms facing each other.
- Exhale as you bend your knees as if you were going to sit in a chair.
- Hold the pose for 10 seconds and gradually increase the time
- Inhale as you straighten your legs.
- Exhale as you bring your arms back down to your sides in mountain pose.

Fit Note: Make sure your shoulders and arms stay relaxed.

- Make sure your heels hug the floor.
- Tuck your tailbone under to protect your lower back from arching.
- Make sure your knees do not extend past your toes and your knees are hip width apart.

Variation: Pose with your arms extended in front of you.

J24. Warrior I: (leg strength and upper torso flexibility)

- Stand tall in mountain pose.
- Step your right foot forward 2 to 4 feet with your toes pointing forward.
- Bend your right knee slightly while your left leg remains straight.
- Face your head, shoulders, hips and knees forward.
- Inhale as you raise your arms above your head, palms facing each other and fingers pointing to ceiling.
- Hold pose and continue to breathe smoothly.
- Exhale as you lower your arms to your sides and return to mountain pose.
- Repeat on other side.

Fit Note: If it is difficult to raise your arms over your head, rest your hands gently on your hips. Visualize a smooth line of your body from the heel of your back foot to your fingertips. Caution should be used as you move participants into this posture if they have knee, hip or back weaknesses.

J25. Warrior II: (upper torso strength and flexibility and leg strength)

- Stand tall in mountain pose.
- Step your right foot to the right 2 to 4 feet.
- Turn your right foot out 90 degrees and then turn your left foot in 45 degrees.
- Inhale as you raise your arms up to shoulder height with palms facing down.
- Exhale as your bend your right knee until it is in line with your right ankle (kneecap facing the same direction as your toes).
- Gaze over your fingertips of your right hand.
- Hold the pose or gently move in and out of the gentle lunging position.
- Exhale as you lower your arms to your sides and straighten your right leg.
- Repeat on other side.

Fit Note: Visualize your legs as pillars of strength that support your expanding chest and stretching arms. If arms become tired, place your hands on your hips rather than raising your arms to shoulder height. If your neck is sensitive, do not turn your head to gaze over your hand; instead keep neck straight and look forward. Use caution with participants who may have knee problems.

J26. Stork Pose: (leg strength and balance)

- Stand tall in mountain pose.
- Shift your weight onto your left leg and foot.
- Bend your right leg and lift your right heel off the floor.
- Bring your right knee up until your thigh is parallel to the floor and toes are pointed.
- Inhale as you raise your arms to shoulder height in front of you.
- Hold the pose up to 30 seconds.
- Repeat on other leg.

Fit Note: Point the crown of your head toward the ceiling and gaze at a fixed point in front of you. Your participants may find it easier to balance on one leg than the other. Feel free to use a wall or the back of a chair for support.

J27. Tree Pose: (leg strength and flexibility; upper torso flexibility)

- Stand tall in mountain pose.
- Shift your weight onto your left leg and bend the right leg.
- Place the sole of your right leg against the inside of your left leg at the ankle, the calf, inside of the knee or as high up the leg as it feels comfortable with toes pointing to floor.
- Bring palms together in prayer position.
- Inhale as you raise your arms above your head, keeping palms together and fingertips stretched to the sky.
- Hold the pose 10 to 20 seconds (NOT your breath) and exhale and return to mountain pose.
- Repeat on other leg.

Fit Note: Visualize your body stretching downward through your supporting leg, upward through your arms and outward through your bent leg. Gazing at a fixed point in front of you can help maintain balance.

J28. Eagle Pose: (upper torso flexibility, leg strength and balance)

- Stand tall in mountain pose.
- Inhale as you raise your arms up to shoulder height at your sides with palms facing up.
- Cross your left arm over your right arm so your elbows are on top of each other.
- Bend your elbows and wrap your forearms around each other so your palms are facing one another.
- Bend your knees slightly and then shift your weight to your left foot.
- Cross your right leg over your left leg and touch your toe to the side of your left foot or lower leg.
- Hold the pose for 10 to 20 seconds and return to mountain position.
- Repeat on other side.

Fit Note: Visualize your spine lengthening. Gazing out at a fixed point 4 or 5 feet ahead of you can help maintain balance. Participants with hip, knee or shoulder sensitivities must be careful with this pose.

Fun with Walking for Fitness Using Partners

Noncompetitive games add variety and fun to your workout after participants are thoroughly warmed up.

Fit Note: The instructor may have to participate if there is an uneven number of participants.

J29. Double Circle Mirror Movements

- Form 2 circles, one inside the other, everyone face a partner.
- On signal, those on the outside circle must move counterclockwise and perform an activity, i.e., forward kicks, march with arm movements, knee lifts.
- Those partners on the inside must mirror whatever their partner does.
- On signal, everyone stops and walks in place.
- Everyone on the outside circle moves one place clockwise and gets a new partner.
- Repeat.

J30. Driving Test

- Partner A stands behind partner B and places their hands on B's shoulders.
- Partner B then steers A around the workout area.
- Instructor can call out "green" which means speed up, "red" to slow down, and "blue" means change drivers.

Fit Note: Drivers may come close to other moving pairs, but no bumping is allowed.

J31. Mix It Up and find someone who...

- Have participants stand in the middle of the workout area.
- Encourage each participant to keep their feet moving.
- Ask them to find a partner with...(see list below)
  A. Find someone with the same color eyes as yours.
  B. Find someone with the same color socks as yours.
  C. Find someone whose last name begins with the same letter as your last name.
  D. Find someone who shares your favorite dessert.
  E. Find someone who has close to the same number of grandchildren as you do.
  F. OR customize activities for your particular group.

Fit Note: This can be a fun get acquainted activity. When they find this person, they can hook elbows and walk around the edge of the workout area, then return to the middle for the next "hook up."

J32. Trust Mobile

- Choose a partner.
- Partner A closes eyes while partner B places their hand on the partner's shoulders and walks them around the room by applying appropriate pressure to the shoulders.
- Neither partner may verbally communicate with the other.
- After several minutes, partners reverse roles.

Adapted from Aerobics with Fun by Charles & Beth Kuntzleman and Michael & Gail McGly

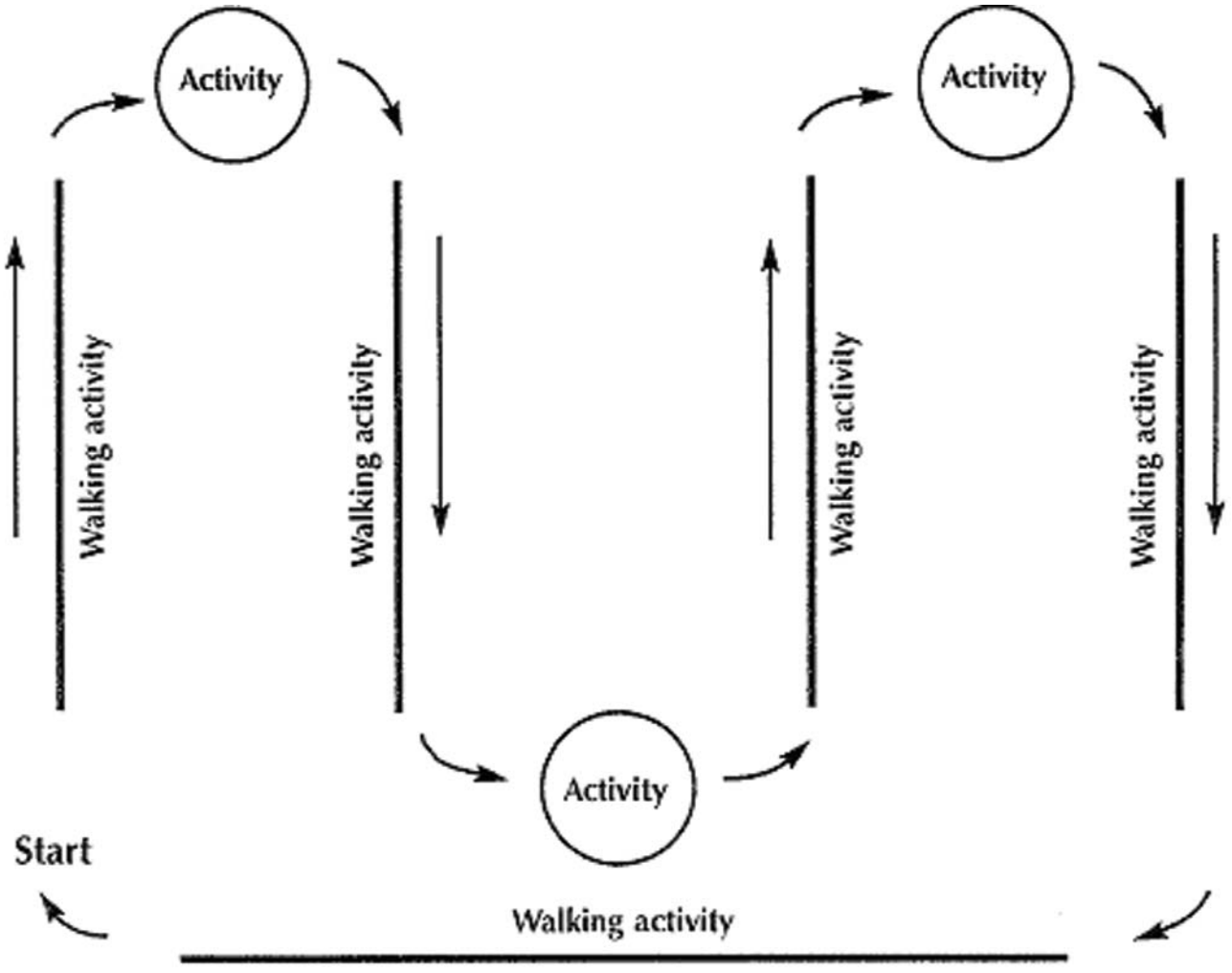
Putting chairs, cones, hula hoops, etc. together to create a walking circuit with stations. The class can be divided into 2-3 participants at each station and line. Arrows can be drawn to keep people moving in the right direction.

J33. A Walking Circuit

Putting the equipment together to create circuits provides another teaching opportunity. While I have used these successfully, I recommend that you consider your population, the space available, and the skills you intend to teach when designing a circuit. When you introduce a circuit, you will have to decide whether you want to provide time for exploration and practice or have the participants watch while you demonstrate each activity. You may need to do both, depending on the level of attention and concentration that characterizes your group.

Some circuits use only one piece of equipment for an entire class. Some use a variety of equipment.

The following is a walking circuit I have used for a large group. The diagram shows the walking lines, whether single or double (if double, 4" apart), with stations between. The class is divided into groups of two to three participants at each station and line. Arrows can be drawn to help keep people moving in the proper direction. Signs may be used to identify each activity or you may repeat the directions during the circuit. The five walking activities may be selected from the following list but do not need to be limited to these activities:



Walking activities might include: Tandem walking, cross-over walking, stomp marching, stepping over hurdles like a hula hoop, tiptoe walking, walking and looking side to side.

Stations may include:

Chair stands, one-leg stand on a spot, partial lunge, rock and roll, wall push ups.

Fit Note: As the exercise leader, you may wish to create stations that fit your participants.

-Adapted from Balance Training by Bovre.

Combination Exercises

Combining exercises can be a great way to maintain interest and keep your class challenged. It will also help your participants develop their ability to multitask, keep their brains "sharp," and will allow you to do more exercises during each session. Just follow these simple steps.

1. Get comfortable teaching the basic exercises.
2. Practice one or two new combinations before you teach.
3. Begin showing the foot movements first, when your students are comfortable, add the arm actions (you can do this in reverse, too).
4. Keep the pace slow and monitor your participants to see if they have the correct motions.

Sample Combinations

J34. Partial Lunge Combination:

- Begin with a Partial Lunge.
- As you bend your forward leg, push your arms forward with a Chest Press (using a band).
- When you rise up, bring your arms back to your chest.
- Repeat this action.

J35. Building on the Stork: (to improve balance)

- Stand on one leg, shoulders relaxed, and try to hold for 30 seconds. Repeat several times each leg.
- To make it more challenging:
  - Swing your arms as if you are running.
  - Make small circles with your knee.
  - Spell your name in the air with your toe.
  - Try all of the above with your eyes closed.

J36. Ankle Marathon: (sitting or standing)

- Circle foot at the ankle without moving lower leg.
- Flex and extend ankle.
- Tap toes.
- Tap heels.
- Lift toes for three counts, lower on four.
- Move toes like a windshield wiper.
- Move heels like a windshield wiper.
- Move toes to the right; then heels to the right and repeat 8 times.
- Repeat to the left.
- Roll back and forth from heel to toe.

J37. Shake it Up and Stretch it Out:

- Stand tall, feet comfortably apart, arms at sides.
- Stretch arms up over head, palms inward.
- Stretch arms out to sides, palms facing floor, and stretch fingertips toward floor.
- Relax, feeling an overall "looseness," as if arms and whole body were "cooked spaghetti" – face, eyes, lips, neck…right down to the toes.
- Shake right arm.
- Shake left arm.
- Wiggle buttocks.
- Keep moving arms, legs and buttocks until loose and relaxed.

J38. Snap Tappers:

- Tap right foot about 12 inches behind the left foot.
- Simultaneously swing your arms forward to shoulder height and snap your fingers.
- Tap right foot about 12 inches in front, then swing the arms behind and snap fingers.
- Repeat on the other foot.
- Step forward on the right foot and place weight on it.
- Swing the arms behind and snap your fingers.
- Repeat on the opposite side.

J39. Imaginary Progressive Relaxation

Sit comfortably at the end of class activities.
Put your arms at your sides, relaxed with feet on the floor.
Close your eyes and take a deep breath.
Simply watch your breath without judgment.

- Think to yourself: When I finish this exercise, I will feel fully refreshed.
- Think about your feet...wiggle your toes, flex your ankles, then "let it go."
- Let go of all the tension.
- Let your feet rest limp and heavy.
- Think about your lower legs, your knees and thighs, up your hips...
- Imagine your hips sinking in the floor...feeling warm...heavy and relaxed.
- Think of your hands. Wiggle your fingers and flex your wrists, then let them go.
- Think about your lower arm, elbow and upper arm -- all the way up to your shoulders.
- Picture the tension melting away.
- Think about your stomach and chest, up to your throat and neck.
- Breathe more deeply as you release all the tension.
- Think about your throat, neck and head feeling limp and relaxed.
- Relax your facial muscles.
- Drop your jaw, parting your teeth slightly.
- Relax the skin on the roof of your mouth.
- Focus on your breathing...without judgment for a few moments.
- Take a deep breath and open your eyes and stretch slowly.
- Take as much time as you need to stand up slowly as you return to your daily activities.

Adapted from The Arthritis Foundation's Exercise Program.

Fit Note: Simple relaxation exercises can be an effective way to end class if 5-10 minutes are available. Be sure to give class members an option to participate in activities such as this.

FFP—A Sample Lesson Plan (45-minute class)

Equipment Needed

- Chairs for those participants who need them during all phases of the exercise session
- Chairs for everyone for portions of the balance and strength components
- Music and boom box
- Exercise bands

Time Frame	Phase and Exercises
10 - 15 Minutes	**I. Warm-up using mobility, flexibility and balance** 1. Walk in place, sitting or standing and add: a. Shoulder Shrugs (F5) b. Elbow Circles (F7) 2. Hug a Tree and Sway it Side-to-Side (F17) 3. Rope Climber (M7-d) 4. The Clapper (F10) 5. Toe Taps (S14) 6. Heel Taps (M14) a. Combination of Toe and Heel Taps 7. March and add: (M6) a. Stomp and March b. Tiptoe March c. Combination of Stomp and Tiptoe March 8. Faux Jumps (B4) 9. Hot Floor (M22) a. Combination of Faux Jumps and Hot Floor 10. The "V" Step (M20)
5-7 minutes	**II. Balance and Strength--squat sequence with a chair** (Try for 4-8 repetitions in each set) (B1) 1. Chair stands with feet comfortably apart 2. Chair stands with arms across chest 3. Chair stands with arms reaching over your head 4. Chair stands with feet together (Add a walk or a dance step around the chair between sets)

Time Frame	Phase and Exercises
10 - 15 Minutes	**III. Standing to the side of the chair with a supportive touch on the back of chair** (Try for 4-8 repetitions each) 1. Knee Lift (S13) 2. Slap and Tap (B24) 3. Side Leg Lift (S10) 4. Hamstring Curl (S11) (Repeat on other side)
10 minutes	**IV. Strength with Resistance Band** (Try for 4-12 repetitions each) 1. Upright Row (S5) Add partial squat (lift band, squat, stand upright, return band to start position) (S9) 2. Biceps Curl (S1) Add back toe tap as you lift 3. Chest Press (S14) Add partial lunge (step forward, press front, release band, return to start) (B8)
10 Minutes	**V. Cool down with Flexibility Exercises** 1. Penny Squeeze (F12) 2. Neck Side Stretch (F2) 3. Arm Across (F13) 4. Lean Back Stretch (F19) 5. Quad Stretch (F22) 6. Calf Stretch (F25) 7. Hamstring Stretch (F21) 8. Leg Across Stretch (F23)

FFP - A Sample Lesson Plan (60-minute class)

Equipment Needed

- Chairs for those participants who need them during all phases of the exercise session
- Chairs for everyone for portions of the balance and strength components
- Music and boom box
- Exercise bands

Time Frame	Formation	Phase and Exercise
10 Minutes	Standing in lines and walking in place Circle around room Standing in a circle or lines	**I. Warm-up using mobility, flexibility and balance** 1. Head Turn Neck Stretch (F3) 2. Shoulder Shrug (F5) 3. Elbow Circles Forward-Backward (F7) 4. Arm Reach with Head Turn (F9) 5. Swim Stroke (F8) 6. Hug a Tree (F17) 7. Walk and Change Focus–look up, down 8. Toe Heel Walking (M9) 9. Heel Taps (M14) 10. Lift to the Rear (M11) 11. Step Kicks (M12) 12. Step Backs (M10) 13. Lean Back Stretch (F19) 14. Ankle Circles (F26) 15. Arm Across Stretch (F13) 16. Standing Calf Stretch (F25)
11 - 40 Minutes	Circle around the room Standing in circle use chair for support if needed	**II. Mobility, Balance and Strength with Body Resistance** 1. Circle Walking – add arms (M1) a. Drum Major (M7) b. Rope Climb c. Side Pushes d. Forward Presses 2. March-add arms from the above 3. Fast and Slow Paced Walking (M2) 4. Motor Cars (M8) 5. Waltz Step (M21) 6. Grapevine (M13) 7. Tight Rope (M24) 8. Tandem Walk (M16) 9. Elevator (B3) 10. Heel Raises (B16) 11. Knee Circles (B22) 12. Tailor Raise (B10)

Time Frame	Formation	Phase and Exercise
		13. Slap and Tap (B24) 14. Toe Taps (S14) 15. Crazy Snow Angel (B25) 16. Foot Prints (B5) 17. Stork (B19) 18. Paper Wad (B26)
41 - 55 Minutes	With a chair	**III. Resistance Bands** 1. Partial Squat (S9) 2. Hamstring Curl (S11) 3. Side Leg Lift (S10) 4. Seated Row (S5) 5. Biceps Curl (S1) 6. Back of Arm Press-Back (S2) 7. Seated Calf Press (S12)
55 – 60 Minutes	With the wall or chair if needed	**IV. Cool-Down Flexibility** 1. Standing Hamstring Stretch (F21) 2. Leg Across Stretch (F23) 3. Standing Quad Stretch (F22) 4. Standing Calf Stretch (F25) 5. Clapper (F10) 6. Triceps Stretch (F14) 7. Penny Squeeze (F12) 8. Shoulder Stretch (F11) 9. Chin Tuck (F4) 10. Wrist Flexion and Extension (F15) Close with Deep Breathing

A Sample Fall Prevention Class for Frail Elders

(This can be done sitting in a chair or the participants can be standing.)

Warm-up

1. March up and down
2. Toe point and flex
3. March up and down
4. Touch toe forward and back
5. March out (like a side step) and in
6. Ankle rotations
7. March up and down as arms press front
8. March and push arms to the side
9. March (use different arm movements as you march) eg. Hug a tree, climb a ladder
10. Toe front with front arm push
11. March out and in
12. Toe lift
13. March up and down
14. Heel lift
15. March (free style)
16. Rock forward and back
17. Lift leg straight out front to the right and then to the left
18. Sit and reach (as if you were squatting over a public toilet, opposite hand on thigh)
19. Toe tap (tap slow, tap fast)
20. Toe tap with arms pushing front, side, up

Squat sequence with a chair

1. Stand up with feet comfortably apart
2. Stand with arms across chest
3. Stand with arms reaching over head
4. Stand with feet together
5. Stand with feet front and back in tandem position, hands on thighs

Standing at the side of the chair with a supportive touch on the back of the chair

1. Lift knee up, 4-8 counts on each side
2. Lift knee out and front
3. Pulse knee up for a count of 8
4. Repeat on the opposite side of the chair

Standing with a supportive touch on the back of the chair

1. Take a wide side step slow
2. Take a wide step fast
3. Shake legs out
4. Rock up on your toes
5. Rock back on your heels

Standing at the side of a chair with a supportive touch on the back of the chair

1. Step forward in a lunge
2. Step back in a lunge
3. Add one, then both arms forward as you step

Standing in front of the chair

1. Squat into the chair as arms fly forward

Sitting in the chair

March
Touch heel front with arms
    Alternate same arm and leg
    Alternate opposite arm with leg
Toe taps to side arms out
    Alternate arms with toe taps

Cool down

Shoulder shrugs with the breath
Shoulder rolls
Raise arms up over head with the breath
Pat yourself on the back, reach over and pull elbow (elbow points to ceiling)
Side hip stretch (turn in the chair, drop your knee toward the floor in line with hip)
Turn and look over your shoulder in gentle twist
Give yourself a hug in front sitting position
Nod forward
Open chest and reach toward back of chair
Raise both arms over head (rasise one arm first, then the other)
Press one hand up (hold up the sky with one hand)
Lateral bend to each side (pretend you are a teapot)
Neck stretch side to side
Shoulder roll

Fit Note: Be sure to repeat sequence on each side of body with same number of repetitions. Choose the number of repetitions that is appropriate for your group.

Chapter 9
Forms and Handouts

PAR-Q & YOU
(A Questionnaire for People Aged 15 to 69)

Regular physical activity is fun and healthy, and increasingly more people are starting to become more active every day. Being more active is very safe for most people. However, some people should check with their doctor before they start becoming much more physically active.

If you are planning to become much more physically active than you now are, start by answering the seven questions in the box below. If you are between the ages of 15 and 69, the PAR-Q will tell you if you should check with your doctor before you start. If you are over 69 years of age, and you are not used to being very active, check with your doctor.

Common sense is your best guide when you answer these questions. Please read the questions carefully and answer each one honestly: check YES or NO.

		Yes	No
1	Has your doctor ever said that you have a heart condition and you should only do physical activity recommended by a doctor?		
2	Do you feel pain in your chest when you do physical activity?		
3	In the past month, have you had chest pain when you were not doing physical activity?		
4	Do you lose your balance because of dizziness or do you ever lose consciousness?		
5	Do you have a bone or joint problem that could be made worse by a change in your physical activity?		
6	Is your doctor currently prescribing drugs (for example, water pills) for your blood pressure or heart condition?		
7	Do you know of any reason why you should not do physical activity?		

If you answered YES to one or more questions, talk with your doctor before you start becoming much more physically active or BEFORE you have a fitness appraisal. You may be able to do any activity you want - as long as you start slowly and build up gradually. Or, you may need to restrict your activities to those that are safe for you. Talk with your doctor about the kinds of activities you wish to participate in and follow his/her advice. Find out which community programs are safe and helpful for you.

If you answered NO to all questions, you can be reasonably sure that you can start becoming more physically active - begin slowly and build up gradually. This is the safest and easiest way to go. You can take part in a fitness appraisal - this is an excellent way to determine your basic fitness so that you can plan the best way for you to live actively. It is also highly recommended that you have your blood pressure evaluated. If your reading is over 144/94, talk with your doctor before you start becoming much more physically active.

DELAY BECOMING MUCH MORE ACTIVE:

- If you are not feeling well because of a temporary illness such as a cold or a fever - wait until you feel better; or
- If you are or may be pregnant - talk to your doctor before you start becoming much more active.

Please note: If your health changes so that you then answer YES to any of the above questions, tell your fitness or health professional. Ask whether you should change your physical activity plan.

I have read, understood and completed this questionnaire.
Any questions I had were answered to my full satisfaction.

NAME _____

SIGNATURE _____

DATE _____

WITNESS _____

NOTE: This physical activity clearance is valid for a maximum of 12 months from the date it is completed and becomes invalid if your condition changes so that you would answer YES to any of the seven questions.

This form, when signed by the class participant, has been approved as a liability waiver for Fit and Fall Proof™ class participants by the Idaho Department of Health and Welfare.

Informed Use of the PAR-Q: The Canadian Society for Exercise Physiology, Health Canada, and their agents assume no liability for persons who undertake physical activity, and if in doubt after completing this questionnaire, consult your doctor prior to physical activity.

You are encouraged to copy the PAR-Q but only if you use the entire form.

STATEMENT OF MEDICAL CLEARANCE FOR EXERCISE

Participant's Name _____

Address _____

Date of Birth _____

Diagnosis _____

Physician's Name _____

Address _____

Telephone Number _____

☐ YES, My patient, _____, has no current unstable medical problems that are a contraindication to participating in an exercise or resistance-training program. I approve of and support his or her participation in this progressive strength, balance, and flexibility-training exercise program.
Comments:

☐ NO, My patient, _____, is not eligible to participate in the exercise program due to his or her current medical status.
Comments:

Please indicate any special recommendations or specific comments:

_____

_____

_____

_____

_____

Physician's Signature_____ Date_____

From Exercise for Frail Elders by E. Best-Martini and K.A.Botenhagen-DiGenova, 2003, Champaign, IL: Human Kinetics.

Fit and Fall Proof™
Emergency Contact Information

Name_____ Age_____ Date_____

Address_____City_____St___Zip code_____

Home Phone_____

Personal Physician_____Phone_____

In case of emergency, please contact_____

Relationship_____Phone_____

8 FOOT TIMED "UP AND GO" TEST INSTRUCTIONS

Results of any test are only as good as the care taken in administering the test. It is crucial that test administration protocol is correct and consistent every time the test is given. Otherwise, measurements are meaningless and cannot be used to draw any conclusions. To compare results against normative data, such as fitness categories, the test must be administered exactly as it was when the norms were developed. To measure the effect of an intervention, such as a fitness program, on an individual, the pre-test must be administered under the same conditions as the post-test. Otherwise, a change in score could simply be the result of measurement inconsistencies. So, strive to administer this test just as it is written below, and do it every time.

TEST DESCRIPTION

The test begins with the client seated. At the starting command, the client stands up, walks around a cone set 8 feet in front of the chair, walks back to the chair, and sits down. The client's score is the time it takes to complete the test, to the nearest tenth of a second. The test measures dynamic balance, gait speed, and functional capacity for household and community independent mobility.

ESTIMATED TIME TO ADMINISTER TEST

- 5 minutes

EQUIPMENT REQUIRED

- 1 chair, with a seat height of about 46 centimeters (18 inches), preferably with arms (arms not required)
- 1 stopwatch
- 1 small cone
- 1 measuring tape or string
- Smooth floor (may be carpeted), free of tripping/slipping hazards

ADVANTAGES

- Quick and simple
- Measures change over time
- Can be used as screening or descriptive tool

INSTRUCTIONS FOR TEST SET-UP

- Choose a comfortable room with adequate floor space, temperature about 65^0 to 80^0 F., and access to a telephone in case of emergency.
- Set the chair that will be used in the test up against the wall. This will prevent it from sliding or tipping backwards.
- Using measuring string found in the 8-foot timed "Up and Go" test packet, measure straight out from the forward edge of the front leg of the chair.
- Place the cone at the far end of the measuring string, centered on the chair. This is the turn-around point. Remove the string from the floor so participants do not trip over it.

INSTRUCTIONS FOR TEST

- Test administrator reads verbal instructions to client.
- Test administrator demonstrates the test.
- Test administrator asks client if there are any questions, if the client wishes to practice the test first (allow this if desired), and if there are any reasons for the client not to take the test.
- Client sits in the chair (starts with back against the chair back, arms resting on arm rests or on legs; wears regular footwear; uses customary walking aid; no physical assistance is given).
- Test administrator says “Go!” and simultaneously starts stopwatch.
- Client stands up, walks around cone, and returns to original seated position.
- Test administrator stops stopwatch when client is seated in starting position.
- Test administrator records client’s time to nearest tenth of a second (e.g. 10.2, or 13.9)

VERBAL INSTRUCTIONS

These verbal instructions shall be read to each client before testing (they may be read once to a group of clients to be tested, making sure all clients hear them):

“This is the 8 foot timed Up and Go test. It is used to measure balance, walking speed and functional mobility. You will start seated, with your back against the chair and your arms on the arm rests or on your upper legs. You should use any walking aid that you customarily use, but you cannot be assisted by any person. On the word “go,” stand upright, then walk at your normal pace around the cone (either direction) and return to the chair, sitting down in your original starting position. Your score will be the time it takes to complete the task.”

“I will demonstrate the test.” (administrator demonstrates)

“Do you have any questions?” (administrator answers any questions)

“Would you like to practice the test first?” (administrator allows practice if requested)

“Is there any reason you would like to not take the test today?” (postpone testing of client if so)

THE 8-FOOT UP-&-GO TEST
Scoring Criteria

PURPOSE
To assess agility/dynamic balance, this is important in tasks that require quick maneuvering, such as getting off a bus in time or getting up to attend to something in the kitchen, to go to the restroom or to answer the phone.

RISK ZONE
More than 9 seconds

Normal Range of Scores for Women, by age

	60-64	65-69	70-74	75-79	80-84	85-89	90-94
8-Ft Up-&-Go (seconds)	6.0 - 4.4	6.4 - 4.8	7.1 - 4.9	7.4 - 5.2	8.7 - 5.7	9.6 - 6.2	11.5 - 7.3

Normal Range of Scores for Men, by age

	60-64	65-69	70-74	75-79	80-84	85-89	90-94
8-Ft Up-&-Go (seconds)	5.6 - 3.8	5.7 - 4.3	6.0 - 4.2	7.2 - 4.6	7.6 - 5.2	8.9 - 5.3	10.0 - 6.2

The Journal on Active Aging. Measuring functional fitness of older adults. March April 2002
R.E. Rikli & C.J. Jones, 2001, Senior Fitness Test Manual. Champaign, IL: Human Kinetics.

Each Year In Idaho, Ambulances Respond to 6,000+ Calls for Falls

AVOID BEING A STATISTIC

An Active Lifestyle Can Reduce Your Risk of Falling

Be Fit and Fall Proof™!

Join a Fit and Fall Proof™ class!

Place:

Time:

Days:

1 IN 3 PEOPLE OVER THE AGE OF 65 FALLS EACH YEAR

Are you afraid of falling?

AN ACTIVE LIFESTYLE CAN REDUCE YOUR RISK

Join a *Fit and Fall Proof™* Class!

Place:

_____

Time:

_____

Days:

_____

MOST HIP FRACTURES HAPPEN DURING A FALL

1 in 4 people with a hip fracture remain hospitalized for a year or more

An Active Lifestyle Can Reduce Your Risk Of Falling

Join a *Fit and Fall Proof*™ class!

Place:

Time:

Days:

STUDENT HANDOUTS

Rising From the Floor

The grass outside is sweet smelling and you just can't resist lying down on it and rolling! You live alone and the only way you will be able to get the sock that is under the dresser is to get down on your hands and knees and reach. Your grandchild is visiting and you get down on the floor to play.

At some point in all of ours lives we will find ourselves on the ground and we will need to know safe and efficient methods to return to standing. The following are basic steps that will help you.

Step # 1
Make an appraisal of your situation. If you have fallen, determine if you have an injury from the fall. (If you are injured you need to get assistance and or medical attention.) If you are okay, look around and see if there is a chair or some other type of stable support nearby.

Step #2
You have a choice at this point. You can either roll to your side or roll to your stomach.

-If you are on your side, use your arms and push your upper body up and roll your hips until you are on your hands and knees.

-If you roll to your stomach, push up and back with your arms until you are on your hands and knees.

Step #3
Once again you have a choice.

If there is a chair or some other type of stable support in front of you

-Put both hands on the support and bring one leg forward, placing the foot on the ground, and stand up.

If there is support next to you,

-Put the hand nearest the support on it; bring the leg nearest the support forward placing the foot on the ground, and stand.

If there is no support near you

-Bring one leg forward and place your foot between your hands. (Your chest will be resting on your thigh.)

-Place your hand that is on the same side as the leg you brought forward on your knee and stand up.

RISING SAFELY FROM THE FLOOR

Participants who do the stretch and strength activities on the mat need to know the procedures for rising safely from the floor. This is, by the way, an important skill to teach your participants in case they should experience a fall at home alone.

A floor-to-standing progression which requires both upper and lower body strength is illustrated below:

Seven Steps to Better Memory

If you talk to anyone over a certain age, they will joke about lapses in memory or "senior moments." There's a distinct advantage in this: your secrets are safe with your friends because they can't remember them either.

Although scientists have not come up with any magic bullets to keep our minds intact, we do know that the brain can either be protected or devastated by lifestyle choices we make everyday. Here are seven steps to enhance memory:

1. Exercise regularly—three or more times a week. Physical activity improves brain oxygen levels, blood flow and filtration of waste products. Staying lean is a good bet to keep inflammation levels low. As little as 1 ½ hours a week can make a difference.

2. Stick to a healthy diet. The brain responds well to a heart-smart diet rich in fruit, veggies, whole grains and moderate amounts of monounsaturated fats such as olive oil and omega-3 fatty acids found in fish, flaxseed and walnuts.

3. Take a multivitamin with a daily value for folic acid (400 mcg), vitamin B-6 (2 mg) and B-12 (6mcg) to combat homocysteine, a blood protein that is elevated in the brains of people with Alzheimers. (Many studies have found a higher risk of heart disease and stroke in people with high homocysteine levels as well.)

4. Get enough sleep. During sleep the hippocampus, where memory is stored, becomes highly active and moves short-term thoughts to long-term memory. As people age, possible cognition deterioration occurs because sleep is interrupted.

5. Devise memory strategies. Make notes or underline key passages to help you remember what you have read. Writing helps transfer items from short to long term memory. Invent mnemonics (memory aides; words that are comprised of the first letters of items in a list.)

6. Maintain active social relationships. People who maintain active social relationships during the second half of life are generally mentally and physically healthier than their more isolated counterparts. Satisfyingly rich social relationships reduce the effects of stress, including anxiety and depression, and stimulate brain activity

7. Do mental aerobics. You can replenish all neuron functions if you push and test your brain in a process called "pushing the threshold". You can work on your own threshold by doing things that challenge your brain. Master new skills, dance, play a musical instrument, read or try to figure out what the heck rapper, Eminem, is trying to say...or maybe it's better we don't know.

Do You Need a Multivitamin?

If you eat a healthy diet, do you need to take a multivitamin? Many experts would have said "no," but today there's good evidence that taking a multivitamin may be a safe, easy, inexpensive way to complement healthy eating.

We are not talking about megadose supplements which can actually overcome good intentions and produce harmful effects in some people. Here's what you need to know, in short:

"Taking a vitamin supplement is, of course, not a replacement for healthy eating," advices Dr. Walter Willett, "no pill could give you the vast array of healthful nutrients and natural chemicals found in food—or the combination of those nutrients that work in synergy to keep you healthy."

Since relatively few US adults currently get the recommended daily intake of key vitamins: the three B's: folic acid, B6 and B12 and vitamin D by diet alone, use of a multivitamin supplement may be increasingly important to some people:

People over the age of 50 should take a B12 supplement or a multivitamin containing at least the Recommended Daily Allowance (RDA). Many "recycled teenagers" have difficulty absorbing vitamin B12 from unfortified foods because the stomach produces less acid to digest food as we age.

Symptoms of B12 deficiency include memory loss, disorientation, hallucinations and tingling in the arms and legs. Some people diagnosed with dementia or Alzheimers disease are actually suffering from vitamin B12 deficiency which can be easily rectified with a supplement.

The odds are that most adults in our area don't get enough vitamin D, particularly in the winter months when we don't, or can't, get outside for at least a 15 minute daily walk in the sun. That's the time when the "Big D" forms from the action of sunlight on the skin.

Vitamin D helps ensure that the body absorbs and retains calcium and phosphorus for building bone. Insufficient intake of vitamin D increases the risk of fracture and, according to early studies, increases the risk of some cancers.

Very few foods naturally contain vitamin D so good sources include fortified dairy products and breakfast cereals and fatty fish like tuna and salmon. For most people, the most convenient way to get the recommended daily intake—5 mcp up to age 50, 10 mcp for ages 51-70, 15 mcp after age 70—is a supplement.

The Bottom Line:

--To maximize the health-enhancing potential of a variety of vitamins, minerals and antioxidants, many of which have not been identified yet, eat a healthy diet. Cover two/thirds of your plate with vegetables, fruit, whole grains and beans and one/third with lean protein.

--Make a multivitamin part of your daily diet. Don't be duped by fancy labels, celebrity endorsements or megadose claims based on too little data when you're selecting a supplement. A RDA level multivitamin, including store brands, is a suitable choice although those levels are changing as more research evolves. But, for about a dime a day, you can benefit from the least expensive insurance you can buy for the days when diet isn't quite enough.

Adapted from Jan Mittleider's Alive & Well column in the Twin Falls Times News, 2006.

Walking Improves Wellness

Regular walking is the safest, simplest way to increase your fitness level and easier on the joints than other aerobic endeavors. Walking stimulates the cardiovascular system, improves many medical conditions or limitations, strengthens bones, reduces stress and burns calories effectively. In one study, women who walked briskly (3-4 miles per hour) at least three hours per week cut their risk of heart attack and stroke by more than half.

Advantages of Walking

Requires no special equipment
Requires only a comfortable pair of shoes and casual attire
Is inexpensive, convenient
Requires no special skill
Has minimal risk of injury
Has the lowest drop out rate of all other exercise programs
Is universally enjoyable among all ages

Now, new research published in the Journal of the American Medical Association (JAMA) reports that walking regularly may help preserve mental sharpness as well. Experts suspect that better cardiovascular health promotes improved blood flow to the heart and brain and preserves the connections between brain cells.

Unfortunately, many would-be pedestrians never lace up their sneakers to reap the benefits of regular walking as part of their fitness regimen. Some stumble over the misperception that walking isn't rigorous enough to do any good while others get tripped up by excuses that they simply can't fit it into a busy schedule or it's too monotonous.

How much is enough to make a difference? Here are some tips that may help you get a walking program off on the right foot:

1. If you are new to regular walking, check with your physician first, start slowly, and build up your time in action gradually. Remember it's important to exercise at your own pace.

2. If you want to build an overall health benefit, accumulate at least 30 minutes of moderate physical activity most days. You can accomplish that goal with a single 30-minute brisk walk, several shorter walks that add up to 30 minutes or do a short walk in combination with other physical pursuits like yard work, swimming or energetic vacuuming.

3. If your goal is to lose weight, think LSD – short for Long Slow Distance. Strive for 60 minutes or more of moderate to vigorous activity most days.

4. You can crank up the cardio benefits by swinging your arms faster and your legs will follow in sync. Vary intensity using fast and slow intervals or uphill walking.

5. Take the “Talk Test” to measure intensity. You should be able to carry on a conversation as you move briskly along. If you can belt out the Star Spangled Banner, pick up the pace; if you’re too out of breath to talk comfortable, slow down the pace. Or take Harry Truman’s sage advice: “Just walk as if you have some place to go.” Exercise at your own pace.

6. Light stretching after muscles are thoroughly warmed up may improve performance and reduce risk of injury.

Try these stretches for walkers

Calf, Achilles Tendon Stretch:

- Lunge step 2 or 3 feet forward from back foot.
- Press back heel flat into floor.
- Stretch spine tall as you lean slightly forward with hands resting on a wall or on the front thigh.
- Tuck your buttocks (same format as others) under your hips while contracting abdominals.

Hamstring Stretch:

- Step into front lunge position.
- Shift weight to back foot.
- Place hands on top of front thigh.
- Slowly drop buttocks.
- Lift your toes.
- Hold and repeat on other side.

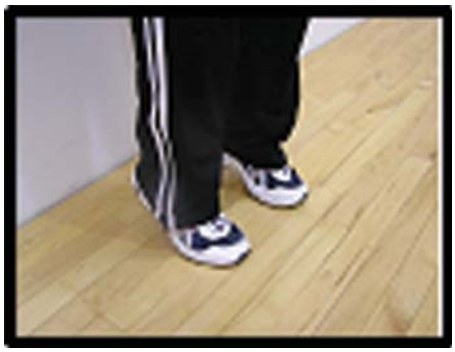
Quadriceps stretch:

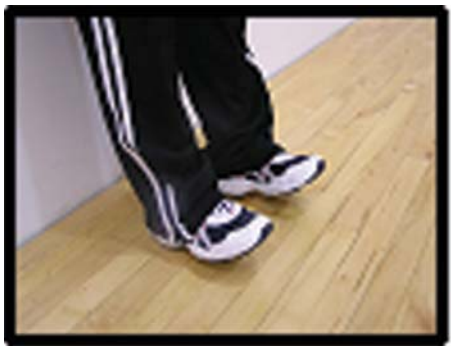
- Grasp your foot and gently pull your heel toward buttocks, keeping knee pointed down.
- Hold wall for support.
- Avoid arching back.
- Hold and repeat on other side.

Variation: If this is difficult, simply have participants fold leg back and hold.

Foot Rolls for Shin Stretches:

- Standing with your feet almost together, roll up onto your toes, hold for 2 seconds, and roll back down.
- Roll onto the outsides of your feet, hold for 2 seconds, and roll back down.
- Roll onto your heels with toes off the ground, hold for 2 seconds.
- Roll back down.





Fall Proof: 7 Tips to Improve Balance

Poor balance can lead to falls which are a significant cause of serious injury, loss of independence, even death, according to a recent report from the Centers for Disease Control and Prevention.

As you age, changes in vision, hearing, muscular strength and reflexes, medications or chronic diseases can affect equilibrium. Reduce your risk of falling and prevent possible injury with these 7 tips:

1. Assess your medications. Review your prescription and over-the-counter medications, as well as dietary supplements with your doctor. Dizziness can be a side effect of some medications, alone or in combination. You may find that you can benefit from a lower dose, a different drug or a reduction in your total number of medications.

2. Get regular physical activity. Although there are a number of risk factors that affect balance, weak muscles are a key contributor to falls. Ankle range of motion and leg strength, including variations in squats and lunges, are particularly important. Walking, stretching and strength-building activities—all can improve sensory systems, posture, muscle strength, reaction time and personal confidence.

3. Manage chronic conditions. Some ailments, including Parkinson's disease, stroke, arthritis, osteoporosis and low blood pressure can increase the potential for falls. If you suffer from a chronic condition that can affect your balance, seek medical assistance regularly for treatment.

4. See your eye doctor. Poor sight and cataracts can increase your risk of falling. Get your eyes examined at least once a year.

5. Get checked for a balance disorder if you've seen a change in balance. Poor balance may be the result of an undiagnosed medical problem such as: benign paroxysmal positional vertigo (the small displacement of small calcium stones in the inner ear) or peripheral neuropathy (damage to the nerves that carry information between the brain and the rest of the body).

6. Avoid falling hazards at home. Most falls occur at home. Make your living areas safer by removing tripping hazards like throw rugs and clutter on the floor. Use non-slip mats in the bathtub, on shower floors and install grab bars and handrails in appropriate places. Keep your home well lit.

7. Modify your diet. Make sure you get enough calcium (1200 mg daily) and vitamin D (800 IU daily) in your diet to maintain healthy bones.

The Super Six Exercises You Can Do at Home to Improve Balance

Perform these exercises on a firm surface. Use a chair, a wall or other support if you need to maintain balance.

One Leg Balance

- Balance on one leg as your eyes focus on a point in front of you.
- Circle the foot at the ankle.
- Flex and extend the ankle.
- Try to hold position for 10, 20, 30 seconds.
- Repeat on other leg.

Variation: Cradle your raised thigh, circle your ankle and extend leg gently forward.

Calf Raise

- Balance on one leg and roll gently onto your toes and hold.
- Use chair or wall for support if needed. Do 8-12 repetitions.
- Repeat on other leg.

Hip Raise

- Shift weight to one foot while looking ahead at a focus point.
- Lift other knee up, level with floor.
- Hold onto chair or wall if needed.
- As you balance on one foot, place the other foot on an imaginary soccer ball and roll it in a circular motion.
- Repeat on other leg.

Hip Extension

- Balance on one leg.
- Extend your hip behind your body.
- Hold onto chair or wall if needed.
- Reach other arm over head in a diagonal extension. Hold 10, 20, 30 seconds.
- Repeat on other leg.

Knee Bend

- Balance on one leg.
- Bend your knee 90 degrees and hold.
- Hold onto a chair or wall if needed.
- Repeat on other leg

Variation: Stand with your back away from a wall, bend your knee so that your foot is flat against wall, press your foot firmly into the wall and hold.

Chair Stands

- Sit at the front edge of the chair, arms crossed over chest or placed on thighs.
- Stand up completely and sit back down.
- Repeat several times.

Variation: Elevator Going Up and Down

- Place feet a comfortable distance apart with hands at sides or supported on a wall or chair.
- Move upward as if on an elevator going up one floor at a time.
- Stop and hold the position for a few seconds at each floor.

Fit Note: Consult your physician before beginning any exercise program. Persons with severe balance deficits should exercise under close supervision.

Home Fall Prevention Checklist

Stairways, Hallways, Pathways

- ☐ Stairs, halls, and pathways are clutter free.
- ☐ Stairs, halls, and pathways are well lit.
- ☐ There are light switches at the top and bottom of stairs.
- ☐ Handrails are tightly fastened and run the length along both sides of all stairs.
- ☐ Steps are level, same height and size, and not broken.
- ☐ Step edges are painted with a contrasting color so that you can see them better.

Living Rooms

- ☐ Electrical cords and telephone wires are placed away from walking paths.
- ☐ Rugs are well secured to floor.
- ☐ Furniture (especially low coffee tables) and other objects are arranged so they allow a clear walking path.

Kitchen

- ☐ Items you use often are on the lower shelves of your cabinets.
- ☐ Stepstool is steady and has a bar to hold. Never use a chair as a stepstool.
- ☐ Remove throw rugs from kitchen floor.

Bedrooms

- ☐ Carpets and area rugs are firmly attached to floor.
- ☐ Telephone is within easy reach near bed.
- ☐ Night lights placed so you can see where you walk.
- ☐ Lamp or light switch is within reach of bed.

Bathroom

- ☐ There are grab bars in and out of tubs, showers, and near toilets.
- ☐ There are non-skid mats or abrasive strips in tub or shower.
- ☐ There is a slip-resistant rug adjacent to tub or shower for safe exit.
- ☐ There is a night light to see where you walk.

Other Tips

- ☐ Post emergency numbers in large print near telephone.
- ☐ Get up slowly after you sit or lie down.
- ☐ Wear sturdy shoes with thin, non-slip soles. Avoid slippers and running shoes with thick soles.
- ☐ Have vision checked at least once a year.
- ☐ Talk to doctor or pharmacist about side effects of drugs you take.
- ☐ Exercise regularly. It makes you stronger and improves balance and coordination.

About Your Feet

Did you know?

- Each foot has 26 bones, 33 joints, 36 muscles and more than one mile of blood vessels and nerves.

Get the Right Fit

Have your feet measured every time you shop for shoes. Shop in the afternoon or evening, since feet swell by as much as a full size over the course of a day. Stand up to be sure your weight is distributed evenly on the foot being measured. If your feet are different sizes, choose shoes in the larger size. Walk around in the shoes, preferably on both hard and soft surfaces. Select rubber heels and soles, which absorb shock better than leather or synthetics. Consider buying a larger size to accommodate insoles for extra cushioning, and avoid heels higher than one inch.

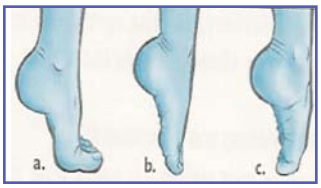
Feet and Balance

Foot ailments can affect walking balance. Loss of elastin reduces flexibility of many joints of the foot. Fat pads that protect soles, heels, and ball of the foot disappear. Calluses may form on weight-bearing points of the foot, causing pain and changing alignment and gait. Dehydration or general thinning of the skin may cause bruising and wounds that are slow to heal. Toe nails become thicker, brittle, and more difficult to care for.

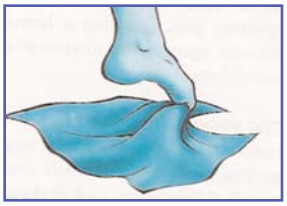
Exercise Your Feet

These easy exercises can help strengthen and stretch foot muscles. Do them seated or standing, first one foot and then the other.

1. Heel raise, toe point, toe curl hold each of these positions for five seconds:
   a. Lift heel as high as possible, keeping toes and ball of foot on floor.
   b. Point foot down as far as possible, and leave only big toe touching floor.
   c. Lift whole foot off ground, curl toes, point foot straight down, and place toe “knuckles” on floor, exerting enough pressure to stretch toes and top of foot. Repeat 10 times.



2. Towel Lifts
   a. Raise a small towel off floor, using only toes. Repeat five times.



3. Pick-Ups
   a. Pick up a marble or squeeze a soft spongy ball with bottom of foot.

4. Heel Stretches
   a. Stand 18 inches away from wall, with palms on wall at shoulder height and width. Extend left leg back two feet, and bend right knee. Keep left leg straight, pressing left heel into floor. Toes should point forward. Hold 15 seconds, then switch sides. Do twice daily, 10 times for each leg. Helps relieve heel, ankle, and calf pain and tightness. Also good for preventing foot pain.

5. Tap toes 50 times daily. Pull toes up toward shin between each tap.

Give Your Feet a Hand

As an inexpensive alternative to mechanical foot massagers, try "tootsie rolls": Move your feet back and forth over a rolling pin or golf ball for a few minutes. Or try these self-massage techniques. Repeat at least three times on each foot.

- Using thumb, heel of hand, or knuckles, stroke bottom of opposite foot in a series of straight lines from heel to toe, starting with inner arch and progressing to outer edge, then back again.
- Place thumbs in the space between the bases of the big and first toes of either foot. Move thumbs straight back across top of your foot to just above your ankle. Repeat for the other three toe spaces.
- Press bottom of foot with opposite thumb, using a small circular motion. Repeat until you've covered every part of the sole.
- "Draw" diagonal lines across bottom of foot with tips of index and middle fingers of opposite hand. Move from heel to ball of foot and back again.

Choosing a Walking Shoe

As gentle as walking is, your feet and legs will absorb a blow equivalent to twice your body weight with every step. Careful attention to shoe selection is important to maximize comfort and minimize potential for injury.

The Right Fit

Part of finding the right athletic shoe is learning your foot type. Most fall into three main categories: normal, flatfoot, or high arches. This wet test will tell you which type you have and help you choose the right shoe. To do the test, wet your feet, then stand on any surface that will leave a mark. Look at the imprint.

A. NORMAL FOOT: Your toe bed and heel are connected by a wide band, and there's a space where your arch curves off the sole. Best shoes: Those made for cushioning and stability, with moderate control.

B. FLATFOOT: Your entire sole, including the arch, leaves an imprint. Because you have a low, flexible arch, your foot rolls inward too much, which can put the knee and hip out of alignment. Best shoes: Motion-control.

C. HIGH ARCH: The imprint shows your forefoot and heel are connected by a very thin band. High-arched feet do not pronate (turn inward during motion) well and aren't as efficient at absorbing shock. Best shoes: Cushioned with flexibility.

When Selecting a Shoe

- Make sure your shoes are ½ inch longer than your longest toe, so toes are not crowded. The toe box should be roomy, but not so spacious that feet slide or blisters form.
- Fit shoes snugly in the heel.
- Choose a shoe with uppers made of material that breathes easily.
- Shop for shoes later in the day after walking. Exercise makes your feet swell slightly and changes the fit.
- Look at your old shoes to see where the "wear" is: Ball of the foot? Side? Heel?

Old Shoes Tell a Lot

- If your shoes are badly worn on the outside edge of the heel, you need good heel cushioning because your heel takes a lot of pounding.
- If you see wear on the lateral side of the sole of your shoe, or if the portion of your shoe that cradles your heel is rolling, you need a shoe with more stability.
- If you notice wear only under the forefoot, you're striking with the ball of your feet and need a lot of cushioning in the forefoot.
- If your foot budges over the side of your shoe, you need a wider shoe.
- If you have toe marks inside your shoe or your toenails become thick, you need more room in the toe area.

How to Protect Yourself from Fraud*

Why are older adults targets of fraud?

- Many older adults have good credit and have retirement money "stashed away"
- Individuals born in the 1930's – 1950's are trusting, courteous, and polite and often find it difficult to hang up on someone.
- Many victims of fraud are ashamed to tell anyone; part of the reason is because they also fear that relatives will consider them to be mentally incompetent
- Older adults often don't know who to report to if they have become a victim of fraud.
- Older adults tend to make poorer witnesses and often do not realize that they have been victimized until weeks and months have passed
- Many of the products that con artists promise deal with issues that are important to the older adult – examples include anti-aging, anti-cancer cures.

Tips on how to avoid Health Insurance Fraud

- Never sign a blank claim form or give blanket authority to a medical provider.
- Only give medical insurance identification to those that provide medical services.
- Ask questions of your health care provider.
- Review all your medical statements as well as benefit information.

Tips on how to avoid Counterfeit Prescriptions

- Always examine the packaging and appearance of drugs and consult health care provider or pharmacist if you are suspicious.
- Let your health provider know immediately if you have adverse effects from any medications.
- Use caution when purchasing drugs over the internet. Licensed online distributors will have a seal of approval called the Verified Internet Pharmacy Practice Site (VIPPS).

Tips on how to avoid Cemetery and Funeral Fraud

- Be informed and shop around. (In some states funeral homes have been bought up by corporations which price fix.)
- Embalming is not legally required, nor is a casket needed for cremation.
- It is a myth that funeral providers can determine how long a casket will preserve a body.
- Do not be pressured into buying high-priced options.
- Get everything in writing before you make a purchase and read all contracts carefully.
- If you preplan for yourself, share your wishes with those close to you.

Tips on how to avoid fraudulent Anti-Aging Products

- If it sounds too good to be true, it is!
- Contact the Better Business Bureau (BBB) to find out if there have been complaints about the product.

- Testimonials are often misleading.
- Be leery of products that “cure” things. Remember the old snake oil salesman!
- Always consult your health care provider before taking supplements.

Tips on how to avoid Telemarketing Fraud

- Watch for these warning sign phrases -
  “free items…”, “low cost vacations…”, “ you must act now…”,
  “you must send credit card or bank account information..”, “you don’t need written information…”
- Don’t buy from a company unfamiliar to you. If they want your business they will send you information including their address, phone numbers etc. Always check company with the BBB.
- Always ask for and wait until you receive written information before you send money to a charity. Check them out with the BBB.
- Don’t pay for “free prizes.”
- Never send out birthdays, social security numbers, bank numbers, or credit card numbers to anyone unfamiliar to you.
- Always think about what guarantee do I have that they are legitimate? How do I really know that they will do what they say they will do?
- Take time to make a decision, don’t be pressured.
- If you have been a victim, be wary of people who offer to help you recover your funds by paying in advance.
- REPORT ALL FRAUD!

Tips on how to avoid Internet Fraud

- Follow the same tips that you would use with telemarketing fraud prevention.
- Never give out personal information to any site unless you have checked them out with the Consumer Protection Agency, BBB, State Attorney Generals Office etc.
- **Be leery of anyone whom you have met over the internet – many of them are not who they say they are!!!!!!!**

*Information compiled from Federal Bureau of Investigation – Fraud Target : Senior Citizens at http//www.fbi.gov/majcases/fraud/seniorsfam.htm

Is Your Glass Half-Empty or Half-Full?

Optimism helps you to…

- Decrease stress
- Breathe easier if you have respiratory problems
- Reduce the risk of coronary artery disease
- Defend against the common cold
- Live longer
- Cope better

With no time and cost, we all can be an optimist. So why don't we start being more positive to receive all the benefits? Do you think it is hard because you have chronic disease, are alone, cannot walk like you used to?

When I hear somebody sigh, "Life is hard," I am always tempted to ask, "Compared to what?" – Sydney Harris, an American journalist.

In fact, we all feel down sometimes. You have to admit that. The most important thing is to learn how to control your thoughts when you face the down times. Learning is easy. Everyone can do it. Now you have been learning so many things in your life, you obviously know how to learn.

What kind of negative self-talk have you heard?

How could you change these negative self-talks to positive self-talks?

10 cognitive exercises for positive self-talk written by Dr. Deborah Barrett, who received a Ph.D. in sociology from Stanford University.

1. Expect Bumps!
Expect and accept down times. Concentrate on ways to shorten these depressed periods rather than self pity. "I was depressed before, and got out of it; this time, too, it will pass."

2. Track the changes.
Put your mood in perspective and keep a log. Count and measure the duration of the bad times as well as the good times.

3. Stockpile fun distractions.
What makes you happy? Make a list of your favorite activities when you feel optimistic. Use the list when you most need them.

4. Shape your perspective.
Is the glass half empty or half full? What kind of expectations do you have for yourself, society, or your friends? What keeps your spirits up and makes you thankful?

5. Create a new self.
Consider all the aspect of yourself that you like, and the things that you most want to do. What are the steps that you need to take? Find the way to integrate the "old self" and the "new self."

6. Don't forget the good stuff.
Focus good parts of your life and become more aware of them. Celebrate whatever you manage to accomplish because life is not easy.

7. "Oh, it could be worse."
Find comparisons that will provide a fuller appreciation for what has befallen us. Many bad things happen in the world. Are you in the worst situation?

8. Keep the hope alive.
There is so much room for hope!!

9. Lean on me.
Create the support network. Help your family and friends and invite them to your place. Seek help outside of your circle such as support groups so you do not drain your closest ones.

10. Indulge whenever you can.
Give yourself lots of time to focus on your thoughts. Relax and give your fantasy full liberty instead of dwelling on your problems.

Medication Management*

Four out of five older adults take at least one prescription medication a day, and most take at least two prescriptions. Age and health conditions however can alter the affect of medications. When medication problems occur it can lead to falls, sleep problems, and anxiety. The following is a list of medication problems that older adults may have that could lead to concerns.

1. Using medication incorrectly
    - Living alone
    - Taking more than three medications per day
    - Having more than one health care provider prescribe medications
    - Memory or vision problems
    - Having difficulty paying for the cost of prescriptions
2. Allergic reactions
3. Interactions with other medications

To avoid these medication problems, there are some basic rules that you can follow to keep yourself safe.

Medication Safety Rules

1. Keep a current dated list of **All** medications with you in your wallet or purse. Include in the list any over the counter medications that you may have.
2. Follow your health care provider's instructions.
3. Be an informed consumer! Read labels and directions.
4. If you take more than one medication daily, create a system and or a routine. Ask your pharmacist for help.

Medication Costs

Many older adults don't have prescription coverage, or what coverage they do have doesn't cover all of the cost of the medication. An inability to afford prescriptions however can often result in increased health care costs.

ALWAYS TALK with your HEALTH CARE PROVIDER or PHARMACIST FIRST - BEFORE making any cost-cutting decisions about your medication!

When You Talk to Your Health Care Provider

1. Provide a complete medical history including all prescriptions and over the counter medications.
2. Tell your health care provider how you usually use your medications. If you are concerned about costs, provide a list of all medications with the cost for each and discuss it.
3. Prepare for your appointments by writing down current problems and concerns.
4. When you receive a new prescription ask what side effects to expect.
5. Take notes!!!!!!!
6. Bring a trusted family member or a friend with you.

Talk With Your Pharmacists

1. Always have all of your prescriptions filled at the same pharmacy.
2. Ask your pharmacist
   - What is the name of the medication?
   - What does it do?
   - How and when is it taken?
   - Are their foods, drinks, other medications or activities that I should avoid while taking this medication?
   - Are there side effects?
   - What should I do if there are side effects?
   - Is this new prescription safe with the other prescriptions and over the counter items?
   - Where can I obtain written information about this prescription?
   - What do I do if I miss a dose?
   - How should this medication be stored?

REMEMBER -TALK WITH YOUR HEALTH CARE PROVIDER ABOUT COSTS. Do not assume that they are aware of the cost of the medication. If you don't talk with them, they won't know.

*Information adapted from Stay Active & Independent for Life – An Information Guide for Adults 65+

Hydration and the Older Adult

Water is an essential nutrient for the human body. It is important for regulating body temperature, transporting both nutrients and wastes, moistening membranes and maintaining cell and brain function. Dehydration or not having enough water in the body is a serious condition and is a frequent cause for hospitalization for the older adult. Older adults have a higher risk for developing dehydration and take longer to recover than their younger counterparts. Frail older adults have the highest risk.

Risk Factors for Dehydration

- Age - Fluid regulation decreases as an individual gets older.
- Poor Sense of Thirst – The sense of being thirsty reduces with age
- Loss of Function – Less access to water
- Reduced Appetite – Many foods contain water; less ingestion of food lowers the overall intake of water
- Cognitive Problems – Less access to water and an inability to communicate needs
- Medications – Diuretics (frequently used for High Blood Pressure) and laxatives increase dehydration
- Fear of Incontinence – Many older adults reduce their intake of water to avoid problems
- Fevers and Infections – Illnesses cause loss of water due to sweating, diarrhea, and vomiting

While the majority of older adults, who live on their own, are able to maintain adequate levels of hydration, there are some circumstances when problems are more likely to arise. They include: beginning a new exercise program, hot weather, adding or changing medication, or because of an illness. Instructors should be aware of symptoms that may indicate a lack of hydration in your participants.

Possible Symptoms of Dehydration

Headaches
Dry mouth or eyes
Upper body weakness
Skin folds that hold their shape
Concentrated dark urine (gold vs. yellow)
Fatigue
Loss of appetite
Rapid pulse
Confusion or lightheadedness

How much water is enough?

There is a lot of discussion in the research literature as to how much water is enough. In the past, it was recommended that everyone drink 6-8 (8 oz.) glasses of water daily. This amount may be too much for some individuals because they are small in stature, drink decaffeinated beverages that also count toward daily fluid intake, and because the foods that we eat (cheese, meat and especially fruit and vegetables) contain significant amounts of water. How can you tell if you have enough water? Probably the best method to determine if you are hydrated is to check the color of your urine. A light yellow color is an indication that you are adequately hydrated.

Tips for staying hydrated

- Drink liquids frequently and often, don't wait until you are thirsty.
- Prepare "preferred" drinks: juice, milk and other decaffeinated drinks. These count toward your total fluid intake.
- Take a bottle of water with you when you travel.
- Take water breaks throughout the day.
- Drink water before and after physical activity.

Water

- ⇒ Transports nutrients
- ⇒ Carries away waste
- ⇒ Moistens eyes, mouth & nose
- ⇒ Hydrates skin
- ⇒ Ensures adequate blood volume
- ⇒ Protects against heat exhaustion
- ⇒ Acts as insulation in the cold
- ⇒ Helps carry medicines to the proper places in the body

Developed in consultation with:
Mary Monroe, RD, LD
Joanna Adams, M.S.
Pam Cartwright, CSR
Panhandle Health District
Health Promotion

Public Health

Additional Resources:
Nutrition & Health For Older Americans

Questions: Contact your local Health District Office.

Recipes

Recipes

Warmer Uppers:

- Simmer cranberry juice with cinnamon, cloves, allspice, and orange peel for about 20 minutes. Strain. Stir in fat-free milk, dry powder, and vanilla extract. Heat through.
- Add anise seed, ground cinnamon, and ground cloves to ground decaffeinated coffee. Prepare coffee as usual. Lighten with warm milk.
- Scoop chocolate swirl frozen yogurt into a mug. Pour hot cocoa or decaffeinated coffee over the top. Stir with a cinnamon stick.

Cool Quenchers:

- In a blender, puree melon chunks or peach slices with buttermilk, crushed ice, and a touch of ginger or cinnamon.
- Combine one 6-ounce can of grapefruit juice concentrate with two 12-ounce cans of chilled club soda or sparkling water. Serve with a sprig of fresh mint.
- In a blender, puree berries, pineapple chunks, and frozen limeade concentrate. Add some fresh mint, if desired.

Fit and Fall Proof

Hydration Information

Did you know?

Dehydration is one of the 10 most frequent diagnoses for admission to the hospital for patients aged 65 and older.

In older adults, the water content of the body decreases from about 60% of total body weight to roughly 45%. Maintenance of fluid balance is essential to good health and recovery from surgery, illness, or injury.

Fluid losses of 10% or more can cause changes in cognitive status. Early signs of dehydration include the following: headaches, fatigue, loss of appetite, heat intolerance, lightheadedness, dry eyes and mouth, dark urine with a strong odor and constipation.

You actually lose significant fluid just sitting in an air-conditioned car or office. Frequent drinks of water during a long car trip will reduce road fatigue.

As we age, our body loses some of its ability to regulate fluid levels. Our sense of thirst is often reduced, so older people tend to drink less. Some conditions also reduce our ability to recognize that we are thirsty and need more fluid. It is common to need more fluid than usual during fever or infection, as well as when taking diuretic or laxative medications.

Don't wait....

until you are thirsty to decide to drink. Fluid replacement should be part of your daily physical activity plan.

Water, Water Everywhere!

If you need some help adding water to your daily routine, try these tips:

- Take "water breaks" throughout the day.
- Have a glass of water, decaffeinated tea or juice with your meals. Start off with a cup of soup.
- Never pass by a water fountain without taking a sip!
- Drink water before, during, and after physical activity.
- Take a bottle of water with you in the car, on the train, or on the plane.
- Remember that only *decaffeinated* coffee counts toward meeting your daily fluid intake goal of **48** to **64** ounces.

Mitochondria Madness

What are they?

Mitochondria are the body's furnaces and are responsible for converting food into energy. They have their own DNA structure and most cells in the body contain as many as 500 – 2000 mitochondria.

What happens to the mitochondria as we get older?

In the process of converting food to energy, oxygen molecules (also called free radicals), are released. These molecules are thought to damage the membranes and DNA of the mitochondria. Many scientists believe that overtime the damage to the mitochondria accumulates and slows them down. Some researchers think this process may even be the cause of aging.

What can be done? Is there a fountain of youth?

Yes. While is has been known for some time that aerobic exercise can increase the number of mitochondria in the cell, new research has found that resistance training improves mitochondrial activity in the older adult. They have found that old muscles, when strength trained, take on characteristics of new muscles at the cellular level!
To get these types of improvements *muscles need to be overloaded* and do more work than they are used to doing.

How do you overload a muscle?

Gradually increase the number of repetitions of an exercise until the muscle is tired. If you normally do 10 squats try 11. When 11 squats are easy go to 12, etc. Remember all of the exercises should be completed with good form and no pain.

Benefits for improving your mitochondria health through resistance training include:

-Less fatigue
-Lower perceived exertion (exercises seem easier)
-More endurance
-Greater burning of fat for energy
-"Younger muscles"
-Lower risk of type 2 diabetes
-Greater insulin sensitivity
-Less likelihood of Parkinson's disease

Try this simple squat and lift sequence at home to improve your strength and improve your mitochondria activity!

Squat, Touch, and Lift Sequence

Stand with your right side to a chair back

Squat (both legs)
Return to standing position
Lift right knee up to the front
Repeat the above 5 times

Squat down on the left leg and touch the right toe back
Stand and touch the right toe by the left
Lift right knee up to the front
Repeat the above 5 times

Squat on the left leg and extend the right toe back
Stand up on the left leg while you lift the right knee to the front
Repeat the above 5 times

Repeat the entire sequence for the left leg

Face the chair

Squat down on the left and touch the right leg to the side
Stand and lift the right knee up to the side
Repeat 5 times

Repeat the above switching legs

Simple Strategies for Eating Less

(Regardless of your age, sex, body size and preferences for food and activity)

1. Make more dietary selections from a minimally processed plant-based diet with quality, lean sources of protein.
2. Pay attention to portion size.

   -3 oz. portion of meat, poultry or fish is the size of your palm or a deck of cards
   -1 t. butter=standard size postage stamp
   -1 cup of cereal, berries or popcorn=size of a baseball
3. Drink a glass of water before each meal to feel fuller and eat less. It reduces your consumption by 75-100 calories a day, according to some experts.
4. Plump up your protein sources with yogurt (without corn syrup if possible), beans, tuna, lean meats, or nuts. Protein keeps you fuller longer. (ie…choose the egg over the bagel at breakfast.)
5. Cut back liquid calories from soda or other sugared drinks and drink water instead. Jazz up the taste of water by adding, lemon, orange slices, lime or mint.
6. Downsize plates--smaller portions will appear proportionately larger.

7. Dine out without pigging out.
   -Get salad dressing on the side
   -Share an entrée or take home a doggie bag for warming up later.
8. Get plenty of sleep—too little may increase hormones that influence hunger signals and weight gain.
9. Keep fresh produce on hand to supplement snacks or compliment meals. New dietary guidelines recommend that half your plate could be covered by fruits and veggies for a meal.
10. Make meals pleasurable occasions and share them with friends and families regularly.
11. Eat more slowly and mindfully. It takes 20 minutes for the brain to register fullness.
12. Don't skip meals, especially breakfast.
13. Set goals and rewards for yourself. Write them down and keep a daily progress record. Make **SMART** goals:

    Specific **M**easurable **A**chievable **R**ewarding **T**imely

    Example: *Walk 2 miles in 36 minutes at 8 am., Monday, Wednesday, Friday and Saturday in my neighborhood.*
14. Remember the 80-20 Rule. Eat well 80 % of the time, play with the other 20 % for celebrations, special treats and occasional lapses in making healthy choices. If you want a cheeseburger, have one and adjust what else you eat that day. Don't let a little lapse turn into a relapse in your commitment to healthy eating.

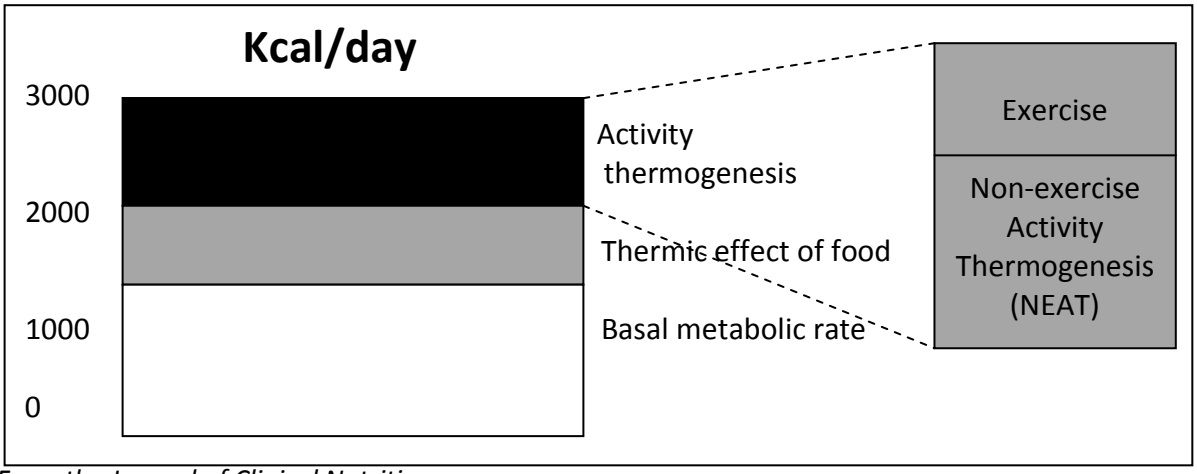
Simple Strategies for Moving a Little More

(Sitting can be hazardous to your health)

<u>Getting a daily workout is invaluable but it doesn't erase the damage done by hours of sitting.</u>

The average American spends 4-5 hours a day doing screen time (TV, computer, video games, etc) during leisure. Hours of sitting creates increased risks for a larger waistline, including higher blood pressure and higher blood sugars, even for people who work out regularly at moderate levels (2 and a half hours per week.) If you increase your spontaneous physical activity or NEAT (Non-Exercise Activity Thermogenisis), you create opportunities for extra calorie-burning. SIMPLY SIT LESS! If you sit to watch TV, you will burn only 5 calories above your resting metabolic rate (the amount of calories you burn while you rest) per hour.

How to Burn Calories



From the Journal of Clinical Nutrition

Shift the ultimate passive activity-watching TV—into a calorie gobbler that's fun, effortless and effective with some of these strategies:

1. Cut your TV habit by half. A Stanford study found adults who reduced their viewing from 5 hours to 2 ½ hours per day burned 120 more calories a day - enough energy to support walking a brisk mile, or 12 pounds lost over a year's time.
2. Or, watch TV from an exercise bike or a treadmill.
3. Make "must see" TV more useful by doing something besides sitting during the 18-20 minutes of commercials per hour—lift a dumbbell, balance on one foot, do a few mini squats from the chair, walk in place.
4. Avoid snacking or eating meals in front of the TV. Mindless eating means more calories consumed.
5. Skip late night shows if you have trouble sleeping. The TV screen light interferes with the natural sleep/wake cycles and puts the body's ability to burn calories on "pause."

Find other ways to move gently throughout your day and

Emphasize E-tips to Extend a Healthy Life

(Compiled by Colin Milner, International active aging expert)

Emphasize the positive and don't let your age, or anyone else, deter you. It's never too late to start.

1. **E**xpectations: If you've been following a healthy lifestyle up 'til now, simply keep going; if you need to make changes, anticipate succeeding, not failing-and don't let age be a barrier. Research has shown that thinking positively about getting older can extend your life by as much as 7.5 years.
2. **E**nthusiasm: Few people are thrilled with every aspect of their lives, but many have at least one area-family, friends, work, avocation-they feel good about. Identify an activity or connection that sparks your enthusiasm and make it your lifeline; try to extend that enthusiasm to other areas of your life.
3. **E**nergy: Having the energy and motivation you need to age well are hallmarks of healthy living. If you're fatigued all the time, don't let apathy and lethargy drag you down; get a checkup to try to determine the cause-and the solution.
4. **E**ating: Eating a balanced diet and attaining/maintaining a normal weight are keys to physical and mental health. If you need to lose weight or make changes in your diet, keep your expectations high- you can do it.
5. **E**xercise: Staying physically active fuels the body and mind. If you're already exercising regularly, keep it up; if you're getting started, know your skill level, set goals, progress at your own pace, and be consistent.
6. **E**ngagement: Volunteers have higher levels of well-being and life satisfaction than those who don't volunteer; volunteering and other forms of civic and social engagement can play an important role in maintaining good health in later life. Get involved in something worthwhile.
7. **E**motions: Everyone feels down at times, but full-blown depression is a major cause of disability. If you're feeling out of sorts for two weeks or more, talk with your doctor or take an online screening test at www.mentalhealthscreening.org/. In many instances, simply exercising and eating right can change your mood.
8. **E**ducation: Life-long learning is important to living an independent and fulfilling life. Start now to learn a new area of knowledge or physical activity. It's good for the brain.
9. **E**ffort: Changing expectations and embarking on new behaviors take energy and effort, but the results are well worth it.
10. **E**njoyment: A healthy life generally is a joyous one. Savor the process of being or becoming active, engaged, and truly alive.

Top Websites for Nutrition Guidance

(Simple to understand¢ 9vidence-based)

www.choosemyplate.gov/
The U.S. Department of Agriculture's MyPlate offers personalized eating plans, tips, and interactive tools to help you plan or assess your food choices, based on the 2010 Dietary Guidelines for Americans.

www.eatright.org/
Powered by the American Dietetic Association (ADA), this resource is for ADA members, the public, the media, students and health professionals.

www.tcolincampbell.org/courses-resources/home/
The T. Colin Campbell Foundation is a nonprofit organization that offers scientific and health information to the public, without influence from industry or commercial interests.

www.consumerlab.com/
This site provides independent test results and information to help consumers and healthcare professionals evaluate health, wellness and nutrition products. It is subscription-fee based. The site's work in consumer advocacy regarding dietary supplements is one of its hallmarks.

An additional website you might find helpful in these tight economic times was recently redesigned and relaunched by the University of Iowa Extension and focuses on "3 Easy Steps to Healthy Meals: Plan Smart, Shop Smart, Eat Smart." The site includes useful tips related to the three steps, an excellent database of practical, economical recipes and a SpendSmart blog: www.extension.iastate.edu/foodsavings/

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