



**Dow/UCC Retiree Group
The President's Challenge**



Design Your Own Exercise Program

Phone-In Health Education Session
Tuesday, July 22, 2008
1-2 pm Eastern / Noon-1 p.m. Central

Call-In Number: 1-866-803-2146
Participant PassCode: 9327626#



Objectives

- Define “Exercise” vs. “Physical Activity”
- Discuss exercise guidelines for older adults as set forth by the ACSM/AHA
- Define the integral components of a Fitness Program
- Discuss General Training Principles
- Discuss the F.I.T. principles
- Put it all together

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Exercise VS. Physical Activity

- **Physical Activity** is anything that gets your body moving; can include functional, recreational, or fitness activities.
- **Exercise** is one category of physical activity; exercise increases cardiorespiratory and muscular fitness by challenging your body to do more than it has to do – making your daily activities easier!

Exercise should be the hardest thing you do all day!

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American College of Sports Medicine
& American Heart Association



Exercise Guidelines for Older Adults

Perform moderate-intensity aerobic activity for **a total** of 30 minutes per day, five days per week.

-or-

Perform vigorously intense aerobic activity **continuously** for 20 minutes per day, three days per week.

-And-

Perform 8 to 10 strength training exercises with 10 to 15 repetitions per exercise, twice per week.

-And-

Perform stretching and balance exercises **at least** twice per week (preferably daily).

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Components of an Effective Fitness Program

- Warm Up and Cool Down
- Cardiorespiratory / Aerobic Training
- Muscular Strength / Endurance
- Flexibility
- Balance

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Warm Up and Cool Down

Easiest, but often the most overlooked

Warm up

- At the beginning of exercise session
- 5-10 minutes of low intensity aerobic-type activity
- Raises heart rate, blood pressure
- Loosens muscles

Cool down

- At the end of exercise session
- 5-10 minutes of low intensity aerobic-type activity
- Brings heart to resting level

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Cardiorespiratory/ Aerobic Training



Aerobic fitness – the ability of your heart and lungs to deliver oxygen needed for large muscle, dynamic, moderate-to-high intensity exercise for prolonged periods.

How do I measure intensity?

- Moderate intensity exercise is enough to raise your heart rate and break a sweat, yet still able to carry on a conversation.
- On a 10-point scale, where sitting is 0 and all-out effort is 10, moderate-intensity activity is a 5 or 6 and produces noticeable increases in heart rate and breathing.
- On the same scale, vigorous-intensity activity is a 7 or 8 and produces large increases in heart rate and breathing. Conversation will be difficult.

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Benefits of Aerobic Training

- Improves heart health/lower risk of heart disease
 - Improve cardiac capacity
 - Reduce total cholesterol
 - Increase HDL “good” cholesterol
- Burns body fat/ maintain weight
- Increases lung capacity
- Decreases blood pressure
- Lowers risk for / helps manage Type II Diabetes
- Increases metabolism
- Strengthens immune system
- Helps manage stress

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Muscular Strength/ Endurance



Muscular strength – the maximal force that can be generated by a specific muscle or muscle group.

Muscular endurance – The ability to execute repeated contractions over a period of time, or maintain a specific percentage of the maximum voluntary contraction for a prolonged period of time.

Muscular Strength Exercises include:

- Free weight exercise with dumbbells or plated weights
- Selectorized (machines with a weight stack) or free weight machine exercises
- Body weight exercises such as push ups, curl ups or squats/lunges

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Benefits of Muscular Strength/Endurance Training

- Improves metabolism
- Lowers risk of heart disease
- Helps with weight management
 - Muscle burns more calories, even at rest
- Helps prevent muscle and nerve degeneration
- Prevents or reduces the progression of osteoporosis
- Reduces the chance of falling
- Promotes independent living
- Improves self-confidence, sense of well-being

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Flexibility Training



Flexibility – The ability to move a joint through its complete range of motion.

Keys to effective stretching include:

- Proper body alignment
 - Keep limb in line with torso
 - Keep spine in neutral position – DO NOT arch or round your back!
- Static stretching – Gently stretch, then hold the muscle in the stretched position 10-30 seconds. Repeat 3-5 times.
- Use stretching aids and/or alternate positions if needed
 - Towel or belt can be looped under the foot
 - Lie on bench or floor to support lower back
 - Brace arm against doorframe or wall

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Benefits of Flexibility Training

- Helps balance muscle groups
- Improves physical performance and decreases risk of injury
- Reduces muscle soreness and improves posture
- Reduces risk of lower back pain
- Improves muscle coordination
- Enhances enjoyment of physical activities

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Balance Exercises

- Lower-body strengthening exercises that are performed standing are also balance exercises.
- To challenge your balance, perform these strength exercises holding on with only one hand, then no hands.
- Tai Chi, dancing, and other rhythmic movements improve balance as well.
- Exercises specifically for balance include heel-to-toe walking, toe taps, marching in place, and standing on one leg.

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Benefits of Balance Training

- Strengthens the intrinsic muscles of the lower legs that are used for balance
- Improves reaction time
- Increases self-confidence
- Promotes independent living
- Decreases fear of falling

Did you know that fear of falling is actually a risk factor for falls?

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General Training Principles



Specificity – Do the appropriate exercise for the specific desired result. For example, if you want to increase muscular strength in the abdomen, then you need to do a strength training exercise for the abdomen. If you want to burn belly fat, you need to do aerobic, fat-burning activity.

Overload – Work your body, or a particular group of muscles, harder than they are accustomed to. If we want to see progress, we must make the body adapt to a higher level of activity.

Progression – Steadily increase your workload, as your body adapts to your exercise program. This allows you continuous results without hitting plateaus in your exercise program.

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F.I.T. Principles



F – Frequency

- Aerobic Activity: 3-5 days per week
- Strength Training: Minimum 2 times per week
- Stretching: 3-7 days per week

I – Intensity

- Aerobic Activity: Moderate to Vigorous
- Strength Training: 10-15 repetitions to reach muscular fatigue
- Stretching: Stretch and hold to the point of tension, not pain

T – Time (Duration)

- Aerobic: At least 30 minutes (moderate) or 20 minutes (vigorous)
- Strength: 20-30 minutes
- Flexibility: 5-10 minutes

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Put it All Together

A comprehensive exercise program will contain the following:

- Proper Warm Up
- Proper Stretching
- Cardiorespiratory/Aerobic Training
- Muscular Training – Either for strength or endurance
- Proper Cool Down
- Proper Stretching

Keeping all of these components consistent will assist you in having a well rounded exercise program and see results sooner!

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Put It All Together

The following would be an example of a comprehensive exercise program:

**Mon., Wed., Fri.,
Sat., Sun.:**

10 min. Warm Up
30 min. Moderate Intensity Aerobic Work
5-10 min. Cool Down
10 min. Stretching

Tues., Thurs.:

10 min. Warm Up
5 min. Stretching
8-10 Strength Training Exercises, perform
10 to 15 repetitions per exercise
5-10 min. Cool Down
10 min. Stretching

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Resources

- www.acsm.org
- www.mayoclinic.com
- www.cdc.gov
- <http://nihseniorhealth.gov>

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