Balance and the Slippery Slope of Aging—
Exercise Guidelines & Winter Exercise
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“We don’t stop playing because we grow old; we grow old because we stop playing”

George Bernard Shaw
“How old would you be if you didn’t know how old you were?”
Attributed to Satchel Paige
So What Are The Benefits of Regular Physical Activity?

- Higher activity levels are associated with lower death rates from heart disease, all cardiovascular disease, & type II diabetes.
- For people with known heart disease, death rates are decreased for people who have higher activity levels.
Benefits of Regular Physical Activity

- More activity with less fatigue
- Reduce risk for breast, colon, bladder, endometrium, esophagus, kidney, stomach, lung cancer
- Decreased risk of osteoporosis
- Decreased anxiety & depression
- Improved feelings of self-worth
- Improved performance of work, recreational and sport activities
- Improved Quality of LIFE !!!
Benefits of Regular Physical Activity

▪ Increase Weight Loss
▪ Long-Term Maintenance of Weight Loss
▪ Increase muscle strength - you need muscle to MOVE!
▪ Increase flexibility
▪ Reduces risk of falls and fractures
▪ Lower risk for developing vascular dementia
Deconditioning/Age RELATED changes in Muscle Mass

• Deconditioning or chronological age??

• What happens to muscle mass, strength, endurance & function w/deconditioning?

• An activity program can reverse the effects of deconditioning and can be started at any age, with any body type or presence of disease.
What Happens With Adoption of a Sedentary Lifestyle/Deconditioning?

• Decreased endurance
• Increased fatigue
• Increased incidence of cardiovascular disease (heart attack, stroke)
• Decreased strength/size of muscle fibers
• Loss of muscle mass—replaced with fat mass
• Decrease in function/activity
• Increased incidence of osteoporosis and arthritis
• Increased reaction time & movement time
• Increased incidence of dementia
Age/Deconditioning Related Changes in Muscle Mass

• DECONDITIONING exacerbates physiological aging process.........

• Moderate strength training--slowing “normal” loss of mass & strength w/aging.

• Older individuals (if trained properly & progressively) CAN INCREASE THEIR MUSCULAR STRENGTH, ENDURANCE & FUNCTION.

• Muscle responds to vigorous training w/rapid improvement into 9th decade.

• Don’t use or accept age as an excuse to be weak.
How Do I Become More Active?

1. What are your current activities.
2. Identify your barriers to activity.
3. Make activity a PRIORITY.
4. Make activity interesting & FUN—what do you enjoy, what would you like to do?
5. Set goals that are specific, realistic & important to you.
6. Make activity part of your regular routine—yard work, household activity, taking the stairs, walking the dog, strength training or stretching during commercials.
What is the Activity Goal?

- **Aerobic Goal:** 150 min/week mod activity or 75 min/week of vigorous activity
- 20-60 minutes/day; 3-7 days per week; intensity of “fairly light to somewhat hard”, “talk test” is moderate intensity.

- **Strength Training Goal:**
  - 2-3 times per week; 8-12 exercises total (upper & lower body & trunk); 2-3 sets per exercise; 8-10 repetitions per exercise; intensity “somewhat hard”. DO NOT HOLD YOUR BREATH with exertion.

- **Flexibility Goal:**
  - 2-3 times per week; 8-10 exercises total; stretch to range of motion tightness and hold for 15-30 seconds without bouncing; 2-4 reps per exercise.

- **Neuromotor Goal:** incorporate balance activities into strength or aerobic activity 2 times per week.
What Types of Aerobic Activities?

- **Traditional Activities**: walking, hiking, swimming, biking, downhill & cross country skiing, tennis, running, canoeing, racquetball, golf, etc.

- **Non-Traditional**: yoga, Pilates, water movement, gardening, yard work, dancing, Tai Chi, shopping, cooking, playing with grandchildren, activities of daily living including household chores.
What Type of Strength Activities?

Strength Equipment is not needed to increase strength. Can use thera-bands/thera-tubes, body weight, wall, sturdy chair. Can be done while standing or sitting.
What Type of Flexibility Activities?

- Can also be done without equipment.
- Can use therabands/thera-tubes, body weight, wall, sturdy chair.
- Can be done while standing or sitting.
Secrets of Exercise Motivation

1. Choose to be Active—Make the Commitment—Try 8 weeks of regular exercise (20-30 min/day) 3-4 times/week —you’ll see the difference 😊

2. Remove or neutralize your barriers to exercise.

3. Keep an exercise log--what you did, how long, time of day, how you felt. Research demonstrates that individuals who record their exercise have greater adherence to exercise than individuals who don’t keep a log.

4. Write down your personal reasons for exercising and short and long term realistic goals.
Secrets of Exercise Motivation

• 5. Choose exercise that you enjoy or at least tolerate and make it as comfortable as possible—music, books on tape, TV, comfortable clothing, footwear.

• 6. Reward yourself when you achieve short-term and long-term realistic goals.

• 7. Try to make activity a regular routine (morning, lunch, evening) and choose a time when you are more energized.
Secrets of Exercise Motivation

• 8. Fit in activity whenever possible. You can break your 30 minutes of exercise in five 6 minute sessions. **SOMETHING IS ALWAYS BETTER THAN NOTHING**

• 9. Take one step and one day at a time. Your body will adapt better if you start slowly and you’ll get stronger without increasing your risk of injury.

• 10. Avoid making too many lifestyle changes at once.
Secrets of Exercise Motivation

• 11. Consider an exercise partner—it’s more difficult to cancel on a friend.
• 12. Variety of activity can be the spice of life.
• 13. PAIN IS NO GAIN
• 14. Recognize over fatigue and the need to take a day off. Prevent mental and physical burn-out.
15. **Make exercise CONVENIENT**

- Active at home: outdoor walking, home circuits (walking laps including stairs if possible & able) change speed of walking, outdoor activities. Strength training with bands, tubes, cans, tools, stability balls. Flexibility exercises either standing, sitting in a chair, on the floor.
- Exercise video/YouTube/library for DVD
- Active at work: lunch walk, stairs, indoor laps, fitness facility close to work.
- You do not need equipment to be active!
- County & State Parks, walking trails, Erie canal, Malls
Being Active in the Winter

• 1. Be Active at Home (see previous slide)—laps, stairs. Walls, chairs, therabands/tubes, body weight. Develop circuit—walk slow, walk faster, upper body strength, lower body strength, balance, core strength, repeat.

• 2. If active outside, dress in layers, hat/gloves, consider wind chill, foot ware/socks, footing/snow/ice, daylight hours.

• 3. When coming back inside, keep dry clothes on for 10-15 minutes to allow body to acclimate to indoor temperature.
Being Active in the Winter

4. Drink water—most older adults are dehydrated and activity can worsen dehydration.
5. Use indoor facilities like the mall to walk.
6. Sign up for activities at Healthlink, Senior Centers, free classes offered at YMCA or other fitness facilities.
7. Online activity videos/DVD’s from library.
8. Be careful with shoveling/snow blowing.
Nuts & Bolts of Activity

- Everyone has a different starting point
- INDIVIDUALIZE!!!
- There is no magic or perfect program—every person is unique & requires a unique program, adaptations or modifications!
Nuts & Bolts of Activity

- **START SLOWLY**—especially if you have been inactive.
- Be creative—activity is all around you.
- Be flexible—after all, this is CNY and weather changes quickly. Some activity is always better than no activity!
- Be patient—improvements in fatigue, strength, endurance, and quality of life usually take a minimum of 6-8 weeks.
- **Consistency** is the key to success
- **Believe in yourself**—YES YOU CAN!
General Exercises to Improve Balance/Flexibility/Strength

- Toe/Heel Raises/Circle—Sit/Stand
- Lower Leg Stretch—Stand
- Hamstring Stretch—Sitting
- March in Place—Sit/Stand
- Hip Pendulum—Stand
- Over head Reach—Sit/Stand
- Arm Circles—Sit/Stand
- Draw In (10x10sec) & Butt Squeeze (10x10sec)—Sit/Stand
- Sit to Stand—Sitting
- Wall Squats—Standing
- Wall Push Up—Standing
- Chair Push Up—Sitting
- Seated Sit-ups—Sitting
- Curl Ups—floor/bed
- Front/Side Lunges—Standing
- Head/Neck Flexibility—Sit/Stand
- Upper Body Flexibility—Sit/Stand
One Final Note

- KEEP MOVING--you will feel the physical, emotional and quality of life benefits of being active.
- No More Excuses--whatever your level of ability, you can be active.
- YES YOU CAN!
- https://go4life.nia.nih.gov/exercises/
- Great resource for strength/flexibility/balance/endurance exercises