

Functional Fitness

Exercises to Enhance Activities of Daily Living

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Exercise

- ◉ What does it mean to you?



A Holistic Approach

- Exercises for older adults should include each of the 5 following domains:
 - Physical
 - Mental
 - Social
 - Emotional
 - Spiritual

The 5 F's of Fitness

- ◉ Physical: It's Functional
- ◉ Mental: It's Figurative
- ◉ Social: It Fosters relationships with like-minded people
- ◉ Emotional: It's Fun!
- ◉ Spiritual: It Feels good: Connecting mind to body

The Alzheimer Journey

- People with Alzheimer disease or dementia maintain their social and physical skills much longer into their journey than their other skills.
- Exercise can keep individuals engaged, active, and stimulated during a journey which is filled with many loss.

Benefits of Exercise

- ⦿ Increases oxygen flow to muscles and organs.
- ⦿ Helps in the management of blood pressure, sugar (insulin) levels and cholesterol.
- ⦿ Maintains or enhances ROM (range of motion)
- ⦿ Increases confidence and independence.
- ⦿ It is social.
- ⦿ Improves strength, flexibility, balance, and cognitive function.

Name that Exercise

- Physical
- Mental
- Social
- Emotional
- Spiritual

Components of an Exercise Class

- The Welcome: a social opportunity to connect with your group and review the format
- The Warm-up: Large muscles to small
- The Aerobic section: 10-20 minutes DOA
- Strength training: Gross and fine motor skills
- Balance: (Falls Prevention)
- Flexibility/Cool down
- Cognitive function*

Seniors Aerobic Exercise

- ◉ Walking
- ◉ Dancing (line, ballroom, square)
- ◉ Group Exercise Programs
 - Land (seated/standing)
 - Aquatic
 - Tai Chi, Yoga, Qi Gong, etc.

The Welcome

- ◉ Jokes
- ◉ Current Events: Media and Community
- ◉ Trivia
- ◉ New Participants
- ◉ Format for today's program
- ◉ Reminders for self-monitoring: Peer Pressure
- ◉ Rules for participation

Environmental Conditions

- ◉ Consider the following for participant comfort.
 - Light & shade
 - Temperature control
 - Audio levels of music
 - Visual lines to instructor
 - Tone of voice
 - Space between participants
 - Suitability of chair

The Warm Up

- Large muscles to small muscles
- Small range to large range
- 8-12 minutes in length
- Dynamic stretching
- Demonstrate seated and standing options
- Safety reminders

The Aerobic Component

- The Aerobic component should:
 - last 10-20 minutes
 - involve upper, lower, and/or both body areas individually or alternately
 - allow for seated or standing preferences
 - provide options for maintaining minimal movement when participants fatigue.

How to Teach the Aerobic Component

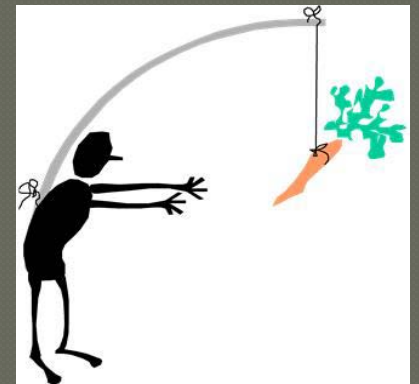
- Use combinations of 3-4 movements maximum
- Teach 3-5 combinations in total
- Use “bridging” patterns to link combinations
- Repeat combinations for entire aerobic component
- Building block style: a, b, ab, c, abc
- Repeat combination 2-3 x's before proceeding
- Consider “interval” training when aerobic capacity is limited.

Changing it Up!

- ◎ Use rhythm changes:
 - S/S, D/D or R/L, R/R, L/R, L/L
- ◎ Use sets of 8,4,2:
 - 8 on L, 8 on R, 4 on L, 4 on R, 2 on L, 2 on R
- ◎ Work all sides
 - Front, back, and sides

Cueing & Motivation

- Transitions can appear seamless when cues are rhythmic, well-timed, and specific.
- Work with an 8-count cue
- Replace 7, 8 with a 2-word cue
 - “Left side” or “Ready, and”
- Replace 8 with a 1 word cue
 - “Right
- Don't forget to praise, or correct with positive reinforcement





Exercise Prescription

- ◉ Consider Activities of Daily Living and exercises that can enhance function.
- ◉ Incorporate these functional exercises into all components of your class.
- ◉ Tell your class what the purpose of each exercise is.
- ◉ Knowledge is Power!



Name that Function!

- ◉ Squats
- ◉ Side-steps
- ◉ External hip rotation
- ◉ Calf raises
- ◉ Touching rear of neck
- ◉ Shoulder press
- ◉ Playing piano with toes
- ◉ Kegel exercises

Safety Cues

- Advise participants that:
 - A Par-Q should be completed
 - If it hurts, don't do it!
 - Modifications are encouraged and will be demonstrated.
 - Feelings of light-headedness, nausea, or thirst need to be addressed
 - Some discomfort is okay for 24 hours.
 - Discomfort in excess of 24 hours needs to be reported to instructor.

Strength Training

- Strength training component should be 5-15 minutes in duration and include both gross & fine motor work, plus upper, lower & core areas.
- Weights, dyna bands, balls, broom handles, golf tubing, your own body weight, etc., can all provide strength training benefits.
- Range of motion is more important than weight load.
- Modifications must be taught.



Constant or Variable Resistance?

- Dyna bands vs. Weights?
- Constant resistance does not vary through the range of athletic movement.
- Variable resistance requires differing degrees of force to be applied to the target muscle to create constant resistance compelling the muscle to work harder to meet the demands of the exercise.

Muscle Contractions

- Eccentric, Concentric or Isometric
- What's the difference?
- Provide examples of:
 - Eccentric contractions
 - Concentric contractions
 - Isometric contractions

Single Joint vs. Multi Joint Exercises

- ◉ Single joint exercises cross over 1 joint (bicep curl) vs. Multi joint exercises which cross over 2 joints. (Arnold press)
- ◉ Movements must be controlled and specific.
- ◉ Multi-joint exercises are effective for time limited programs or interval style/circuit programs.

Balance

- ◉ Balance exercises should be incorporated into each class.
- ◉ Rhythm is important when working on standing balance exercises.
- ◉ Foot positioning/stance is important for stability. (Inside edges)
- ◉ Practise standing on one-leg at a time.
- ◉ Incorporate hand-balance/head balance.

Flexibility

- Muscles stretch best when warm.
- Stretches should be held 10-30 seconds each
- Begin with large muscles-small muscles
- Provide options for seated vs. standing stretches.
- Breathing techniques aid in relaxation and can increase flexibility.

Proprioception

- ① Definition: the perception by an animal of stimuli relating to its own position, posture, equilibrium, or internal condition.
- ① Why is this type of exercise important?

Cognitive Function

- Change it up!
- Exercise with eyes closed, relying on audio cues only.
- Exercise with visual cues, no audio
- Begin with non-dominant side
- Use rhythm changes
- Incorporate reactive exercises

Cautionary Exercises

- Anything with eyes closed or minimal vision
- Spinal rotation
- Hyper flexion of neck
- Hyperextension of neck or spine
- Anything that holds the breath
- Anything that places the head lower than the heart.

Part II

- ◉ Divide into 5 groups
- ◉ Each group has 10 minutes to design:
- ◉ 3 minute warm-up
- ◉ 3 minute cardio
- ◉ 3 minutes of strength (upper & lower body)
- ◉ 2 minutes of balance
- ◉ 2 minutes of flexibility

Questions?

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