

# OUT WITH THE OLD: AND IN WITH THE OLDER!

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Mission: "wellness without walls™"

## I. INTRODUCTIONS

1. Nāmas-te! ("My inner peace meets, greets, and salutes your inner light")
2. Gratitude
3. Introducing Bernadette O'Brien
4. This program is really about making COLs: C\_\_\_\_\_ of L\_\_\_\_\_.
5. Instead of "seniors" let's call this population the: C\_\_\_\_\_ E\_\_\_\_\_.
6. The "old school" method of training "seniors" involved.....
7. 2013: Daily \_\_\_\_\_ people turn age 65 in North America and the largest growing population segment is \_\_\_\_\_.
8. Baby Boomers (46-64) and Generation X (64-81), and Generation Y (1978)
9. Heterogeneous Group: There are no rules, only recommendations. *"The heterogeneous nature of older adults requires that we train this population according to capability rather than age. If we set stringent exercise guidelines based on age alone, we limit opportunity & the efficacy of their success."*  
Cammy Dennis, Senescence Expert
10. Terms:
  - a. Senescence
  - b. Neuroplasticity: combine \_\_\_\_\_ and \_\_\_\_\_
  - c. Self-Efficacy

## II. THEORY & RESEARCH

INTRODUCTION: A Look at Age: SENESCENCE as a HETEROGENOUS GROUP

1. Chronological Age: 365-day cycles since birth, "0"
2. Functional Age: for executing Activities of Daily Life (ADLs) check out <http://wiifit.com/body-test> Takeaway: Pelvic Floor-TVA-Tongue Control, Memory games
3. Biological Age-physical functions at cellular level (e.g. antioxidants). check out [realage.com](http://realage.com); "People who exercise regularly with task-dependent exercises have lower biological ages than people of the same chronological age who do not exercise." Shephard, R.J. (1997). Aging, Physical Activity and Health. Champaign, Ill: Human Kinetics. Takeaway: Intermittent games with no immediate balancing
4. Psychological Age: cognitive and self-efficacy age. "Aerobic and strength exercise improve cognitive functioning when combined." Kramer, A. F. et. al. (2002). Effects of aerobic fitness training on human cortical functioning. Journal of Molecular Neuroscience, 19, 227-231. Takeaway: combination training, reaction games, training neuroplasticity
5. Social Age: what is expected and accepted of a particular group. Takeaway: group dynamics, teams, walking around the area, and pets. Suggestions for Pairing: Games from 5-4-3-2. Suggestions for naming: A/1 Suggestions for Time: under 5 minutes.

"Faith doesn't make things EASY, it makes things POSSIBLE!"

NEW RESEARCH:

1. Colors:
  - A. Traditional
  - B. Active Aging
2. Body Parts:
  - A. anterior tibialis
  - B. quadratus lumborum
3. Music Volume:
  - A. bpms
  - B. decibels
4. External Factors to Class:
  - A. Hydration
  - B. Sleep
5. Planar Approaches:
  - A. Sagittal
  - B. Frontal
  - C. Transverse
6. Terminology:
  - A. “ladies and gentlemen”
  - B. “talk test”

Functional Movements & Patterns  
 THEME: Stability & Mobility with Pelvic Floor Awareness

WARM-UP: Establish MENTAL & VISUAL TASKS/GAMES

1. Slow Sagittal Heel & Toe Taps W/Arms
2. Slow Frontal Heel & Toe Taps
3. Marching In A Circle Clockwise & Counter-Clockwise, Looking ↓ & →
4. Marching “Out And In” With Figure 8 Arms And Hip Rocks
5. “Rocking Horse Elevators”: Sagittal
6. Marching W/Visual Tracking Arms With Different Fingers (V.A.)
7. Finger/Wrist/Shoulder Warmups Unilateral & Bilateral “Backstrokes”
8. 3 Spinal Rhythmic Limbering Stretches:
  - a. Back Rhythmic Sagittal Movements
  - b. Back Rhythmic Frontal Movements
  - c. Back Rhythmic Transverse Movements

CLASS: (Emphasize Pelvic Floor Recruitment throughout)

1. Getting Down And Up
  - a. Lunging (Stepping Forward) With Hands On Forward Thigh
 Progressions:
  - B. Without Arms
  - C. With Rotation
2. Muscular Strength & Endurance:
  - A. Anterior Tibialis:
    - a. Without Equipment: Standing Toe Raises
  - B. Quadratus Lumborum:
    - a. Standing Hip Hikes
    - b. Standing Lateral Flexion
    - c. A + B
    - d. Standing Hip Rocks From Warmup
    - e. [From Floor: Side-Lying Plank Variations]

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- 3. Gait & Fall Prevention With Labile Training (Shod Or Barefoot):
  - A. Weight Transference In Sagittal Plane With Pauses
    - a. Arms out, step inline with space between feet
    - b. Arms out, step inline with heel to toes
    - c. Without arms, step inline w/ space between feet
    - d. Without arms, step inline with heel to toes
    - e. “catch yourself” drills w/ and w/o arms
  - B. WEIGHT TRANSFERENCE IN FRONTAL PLANE
    - a. Arms out, step to side, return
    - b. Without arms, step to side, return
    - c. “catch yourself” drills in frontal plane

Circle Gait Training Sagittal Plane Heel-Toe Walking Figure 8  
(Bosu Balance Trainer: “Bosu Mobility & Stability For Active Aging”)

- 4. T'ai Chi/Chi Gong
  - A. Sagittal:
    - a. Paint The Wall + Bow
    - a. Rooster Lifts One Heel Or Leg
    - b. A + B
  - B. Frontal Plane
    - a. Gather The Chi/Flying Bird
    - b. Rooster Lifts Both Heels
    - c. A + B
    - d. Open And Close The Door (Eyes Closed)
  - C. Transverse
    - a. Wise Owl Gazes Backwards
- 5. PARTNER PLAY:
  - 1. Walkie-Talkie (*hold hands and walk & talk*)
  - 2. Red/Green Light (*hands on shoulders facing same direction*)
  - 3. Leaning Tower (*standing back to back and experimenting*)
  - 4. Mirror-Mirror (*making up movement for the other to follow*)
  - 5. Can-Can (*standing in a line w/hip & shoulder movements*)
  - 6. Lentils (*for the head*)
- 6. “BETTY’S FAB 4”: PROGRESSIONS OF STABILITY/MOBILITY COMBINATIONS
  - a. Bilateral & Unilateral Bridges (Gait Improvement)
  - b. Planks With Unilateral Hip Flexions (Weight & Gait)
  - c. Reciprocal Dead Bugs (Reaction W/Verbal And Tactile Cues)
  - d. Side-Lying Hip Lifts With Rotation (Thread The Needle) “Lift, Thread the Needle, Untwist, Lower” (quadratus lumborum)

**COMMON ISSUES**

- A. Musculoskeletal: osteoarthritis (inflammation of joints due to wear and tear), osteoporosis (bone loss), gout, loss of muscle mass, fractures & falls. Takeaway: longer warm-up relative to total timeframe of class, up to 25% of total time; balance training, encourage hydration because this population fears drinking and is often dehydrated 24/7. Dehydration and decreased balance performance can be directly related (<http://www.medscape.org/viewarticle/502825>).
- B. Hormonal: Diabetes (impaired control of blood glucose), menopause, thyroid dysfunction, high blood cholesterol, slower overall metabolism;. Takeaway: cardiovascular and strength exercise, awareness of barefoot suggestions
- C. Neurologic: dementia (Alzheimer or other types), Parkinson's disease, strokes, poor vision, hearing impairment, balance problems, and sleep issues. Benzodiazepines. Takeaway: memory games like phone numbers, grocery lists, muscle lists, up to 7 items and restate every 5-7 minutes during class. Appropriately intense workouts

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have been shown to increase sleep quality in this population, which in turn promotes greater balance and hormone generation

(<http://www.medscape.org/viewarticle/502825>) 2 Muscular Strength & Resistance Areas: 1. anterior tibialis and 2. quadratus lumborum

- D. Visual: macular degeneration, glaucoma, cataracts, diabetes and hypertension related eye disease. **Takeaway:** include visual & vestibular tracking exercises during entire routine; keep head above the heart; bright colors for teachers. FONT.
- E. Cardiovascular disease: heart attacks, congestive heart failure, irregular heart rhythm (atrial fibrillation), high blood pressure (hypertension), atherosclerosis (hardening and narrowing of blood vessels) and peripheral vascular disease or peripheral artery disease (poor blood flow as a result of narrow blood vessels) **Takeaway:** cardiovascular and strength exercise as well as appropriate time allotment during position changes like floor to standing for blood pressure to readjust; decreasing visceral/abdominal fat can reverse Type 2 diabetes

**MOVEMENT:** Functional movement to increase biological and psychological age.

"Exercise is optional but movement is essential."

a. NEAT: Non Exercise Activity Thermogenesis: examples: walking on escalator, parking farther from the front door of grocery store, getting up every 20-30 minutes of sitting or during all commercials.

b. pedometers as motivators, like Nike Fuel Band at [www.nike.com](http://www.nike.com)

d. Caffeine: where appropriate based on medical history, up to 6 mg/kg of body weight. (Majumdar, A. & Kravitz, L. (2008). Caffeine: Women's weight loss breakthrough or bust? *IDEA Fitness Journal*, 5(1), 21-23.)

**MEALS:** Consider motivating this population to document meals via:

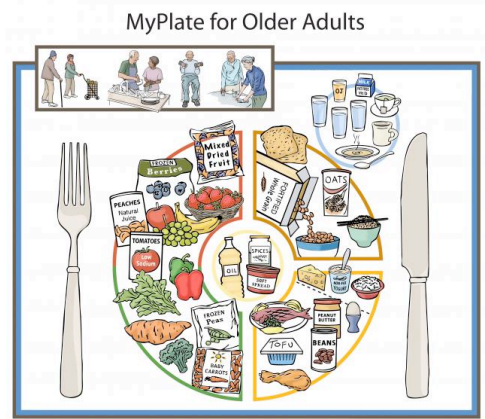
- a. free sites such as [fitday.com](http://fitday.com), [fitbit.com](http://fitbit.com), [myfitnesspal.com](http://myfitnesspal.com), and [my-calorie-counter.com](http://my-calorie-counter.com)
- b. motivate with open-ended questions such as:
  1. What is my need to eat now?
  2. How can I plan for tomorrow's meals?
  3. What are my best choices?

### III. PRACTICAL

#### 1. WITHOUT THEM:

##### A. FACTORS AFFECTING BALANCE:

- a. ENCOURAGE HYDRATION
- b. ENCOURAGE SLEEP



Summary:	
Homework:	foot fitness, gait training, neuroplasticity, <del>senior,</del>
Resources:	<a href="http://icaa.cc">icaa.cc</a> , <a href="http://scwfit.com">scwfit.com</a> : Active Aging
Take-Home Message:	