

## **THE AGE SHIFT: THE TIDAL WAVE OF SENIORS; ITS EFFECT ON PERSONAL TRAINING**

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*"As we age we become more like ourselves"*

*"The older the age group, the wider the extremes in mental and physical abilities"*

*"At ACAC, we have 2 goals: improve members' experiences & personal training"*

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**HOW/WHY did I wind up at ACAC 15 yrs. ago?** [What better way is there for monitoring all aspects of my aging?]

**I. IMPACT OF SENIORS OVER THE NEXT 15+ YEARS:** [Matt Thornhill, CEO, Boomer Project: Richmond,VA]

*GENERATIONAL DIFFERENCES IN GOALS, ATTITUDES AND CULTURE WILL CONTINUE TO BE A MAJOR FORCE IN DEFINING HOW WE DEAL WITH CLIENTS FROM DIFFERENT CULTURAL AGE GROUPS.*

Age distinctions that define these generational groups:

**Silent Gen.:** 65+ (born before 1950), **Baby Boomers:** 50-64, **Gen. X:** 35-49,  
**Millennials:** 21-34, **Gen. Z:** <20

*Silent Generation* (WWII era) commitments were to: country, job, family, before self.

Most *Boomers* are far more focused on their personal goals .... resulting in a healthier 'quality of life' (QOL).

Note difference in the '*Quality/Longevity of Life*' graph (page 4: #1) for both Boomers and their predecessors

**Silent Gen.** attitude: '*passive aging*': last decade of life: **mortality** (death) occurs ~10 yrs. after **morbidity** (when 1st terminal condition might appear, reducing QOL.)

**Boomers'** attitude: '*active aging*': (when **morbidity** and **mortality** occur at the same instant, such as: dropping dead on the tennis court or running a 10K!

**II. BY 2030, HOW BIG WILL THIS TIDAL WAVE BE?** (only 15 yrs. away!):(page 4: graphs #2 & 4)

- U.S. pop. over 65 will grow ~ 63%
- Cville pop. over 65 will grow ~ 44%
- Alb. Co. pop. over 65 will grow ~ 81%

*[How will this growth affect your daily life?--larger signage, driving tests for seniors, new left turn designs (the most dangerous senior driving maneuver), medical care, etc.]*

**III. WHAT ARE COMMON AGING TRAITS EXHIBITED BY SENIORS?**

**Q: for discussion:** How do you distinguish the age of a figure walking in the distance?

[These attributes have been developed over a long period; how many can be changed?]

**Q: for discussion:** When talking to a senior up close, what are the signs this person is a senior?

**Q: What are the most common mental & physical changes with aging?** [pg.4: #3 graph]

- a) longer **muscle execution** times
- b) decrease in **muscle strength** up to 30% with larger decreases after age 80. Physical inactivity contributes to loss of strength in postural muscles.
- c) decrease in **muscle endurance** resulting in earlier onset of fatigue, contributing to falls.
- d) decrease in **muscle power** (1X max.) at rate of roughly 10% per decade; this is a 10% > rate than for the loss of muscle strength. [power = strength ÷ time]
- e) loss of **muscle mass**:
- f) decrease in **cardio-pulmonary capacity**; this is most closely related to real age than all other changes!
- g) **fast-twitch motor unit** loss (and change in neurological pathways) hinders the ability to move quickly.
- h) **flexibility** loss due to age-related structural changes within joints and joint diseases (osteoporosis and arthritis)
- i) **gait & posture** change: shorter steps, looking down (Check out **EGOSCUE**: for re-aligning the body).
- j) **cognitive impairment** has been found in 10% of everyone over 65 and 50% of those over 80.  
We see this when repeatedly working with the same member for 60 days in the PREP environment; this change is often more advanced due to the effect of multiple medications.
- k) **longer periods of sitting** ('couch potato'): [*<4hrs./day recommended*]: The negative health effects of sitting are evident *regardless of the level of physical activity*; however, the risks are less among people with higher levels of activity compared to those with little physical activity.
- l) **vision**: change in prescription- major factor in falls when walking up/down stairs, trails (bi- & trifocals)
- m) **social needs**: isolation & depression are common: due to: death of spouse, living alone, disease, lower QOL. Often temporary improvement when sharing the past with a good listener!
- n) **dependence** on 'caregivers': an 'invisible' group of highly stressed folks who need 'down time' and stress-reducing physical activities such as cardio, water therapy, and resistance training.

#### IV. Q: WHAT CHANGES (ABOVE) CONTRIBUTE TO THE DANGER OF FALLING?

- ~33% of those >65 yrs. of age fall each yr. >80, 50% of all seniors fall annually.
- ~50% of those with hip fractures will fall again within 6 months; 87% of all fractures are due to falls.
- ~87% of all fractures in those >65 are due to falls; 40% of fall victims lose independence; 25% die within 1 yr.

#### V. Q: WHAT SIGNS OF MENTAL IMPAIRMENT HAVE YOU EXPERIENCED WITH CLIENTS? How did you handle these issues?

#### VI. Q: WHAT ARE SOME OF THE HURDLES THAT SENIORS MUST OVERCOME?

[Bad habits stimulate brain's pleasure sensors; how to develop good habits?] (p.4: REF. #1)

#### VII. A TRAINER'S APPROACH WILL OFTEN DETERMINE A CLIENT'S SUCCESS:

[These guidelines come from ACAC Physical Therapists and Personal Trainers]

- (a) Develop trust; show an interest in the life and times of the senior.
- (b) Set up client on an exercise that the client does not believe he/she can do, but you know better! [i.e.: certain TRX moves; Kinesis exercises]
- (c) Always have regressive and progressive alternate exercises in mind so a quick transition can be made if a senior is unable to perform a particular exercise.
- (d) Don't talk down seniors or treat them as children; be careful with the words you choose to use to compliment a senior for a successful completion of an exercise.
- e) Don't use the words: "awesome!", "fabulous", "wow", "incredible".  
[seniors don't like over-the-top talk! The younger the trainer, the more frequently over-the-top compliments are used!]
- (f) Be a good listener; elderly folks are constantly being told what to do; let them talk.

- (g) Focus 100% of your time on your client; danger is always just around the corner, especially for seniors with hidden bone spurs, damaged tendons, joint replacements, rotator cuff damage.
- (h) Watch form and technique; seniors forget easily & may not repeat the same exercise correctly a few minutes later!
- (i) Vary the exercises from one session to the next.
- (j) Change tempo/rhythm of movements to achieve both (a) strength and (b) endurance:
  - (a)- slow, full ROM, pause at top and bottom of each repetition.
  - (b)- steady, continuous movement for 60 seconds; stop if necessary, then resume to complete the 60 seconds.
- (k) Be aware of the inside and outside body lines for arm and leg positioning:
  - i.e.: **tricep press:** keep elbows behind hands;
  - push-ups:** keep elbows in line with shoulders;
  - leg press /sled:** keep knees in line with hips; press with glutes also.

**VIII. (1) TECHNIQUES TO IMPROVE MEMBERS' OUTCOMES & GAIN CLIENTS FOR PTs:**

*[Especially effective when focused on members who:*  
*a) are relatively new to exercise, or....*  
*b) have restricted their workouts to 'TechnoGym' or 'Life Fitness'- type machines, or .....*  
*c) have been doing the exact same workout month after month with no change]*

My four - part discussion with these above members:

- 1) Understanding the intensity required in **resistance & cardio** exercises to achieve goals.
- 2) Incorporating more **body-supported exercises** to achieve functional goals.  
 [I put them on a cable machine to demo the difference: more muscle groups at work]
- 3) Varying **the types of exercises** from one session to the next.
- 4) Using **Personal Training** for a few sessions as the safest and most effective way to develop new workouts tailored to your personal needs; .....  
 .....then check back with a trainer every few months.

**(2) 'MANTRAS' TO ANSWER 'THE' 2 BASIC QUESTIONS ALL MEMBERS HAVE:**

**Resistance training:** "How do I know when I am working at a high enough resistance to "gain strength"?"

***My answer:*** "The last few reps should be hard enough for you to say to yourself: 'I want to go home now, but I know I can finish!' "

**Cardio training:** "How can I tell when I am working hard enough to get "a benefit" (i.e.- more endurance)?"

***My answer: (a)*** "When you are slightly out of breath (puffing) for much of this workout" [assuming member was cleared for this level of cardio intensity]

***(b)*** Then, I introduce them to the benefits of HIIT (....Interval Training):  
 "Periodically throughout your workout, increase the resistance and the intensity for ~ **1 minute**, then drop back."

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- 4) Rose, D.J. 2010, 2nd Ed., "*FALL PROOF*"....the gold standard for developing balance programs and screening for mobility and sensory abilities; discusses wide range of physical and mental abilities among the senior population; includes a DVD.
- 5) Video of 71 yr. old Stephen Jepson using his functional, homemade 'playground' of fitness exercises in his backyard. <http://neverleavetheplayground.com> ---11:55 min. video & other DVDs he has produced.  
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[PC: "*genetics maybe only 30% of factors*"]  
[http://www.healthafter50.com/alerts/memory/The-90-Study\\_7239-1.html?s=EMH\\_150126\\_00T&st=email](http://www.healthafter50.com/alerts/memory/The-90-Study_7239-1.html?s=EMH_150126_00T&st=email)

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[The following graphs are referenced within the previous text material]

