Motivating frail older adults to be physically active
To inspire frail older adults to start and continue activity, fitness and wellness professionals need a special commitment, focus and plan

by Barbara Resnick, PhD, CRNP, and Marcia G. Ory, PhD, MPH

Aging adults who engage in regular physical activity increase the likelihood they will extend years of active independent life, reduce disability, and improve quality of life in midlife and beyond. Activities can include things as walking, household or personal care activities, as well as structured exercise classes.

Unfortunately, most older adults are inactive. There is, however, greater awareness in North America of the benefits associated with physical activity in later life. This is demonstrated by the many news reports on the topic, the development of age-specific exercise programs, and the growing number of fitness or wellness centers in such settings as retirement communities.

Moderate physical activity is considered preventive for older adults who want to maintain their health and function. With frail individuals, some exceptions exist to increasing physical activity and implementing exercise programs. Still, those with multiple chronic illnesses are typically neglected when it comes to receiving prescriptions for physical activity—even being seen by some as unable or unsafe to exercise.

Historically, screening guidelines have added to the myth by classifying older adults as at high risk for engaging in exercise, even at a low or moderate level. Most exercise classes, guidelines, or programs include a standard recommendation to “see your healthcare provider prior to starting an exercise program.” This also implies a potential risk to exercise activities.

Fortunately, the American College of Cardiology and the American Heart Association Consensus panel has reexamined its recommendation that asymptomatic individuals without known coronary artery disease undergo routine exercise testing before starting physical activity. The panel now concludes that this recommendation is potentially harmful. The current evidence-based belief accepts a minimal cardiovascular risk to being physically active and a much greater risk to being sedentary. In this vein, current best practices from the American College of Sports Medicine encourage more activity in older adults, and do not mandate medical clearance for those wanting to begin low-intensity exercise.

However, increased physical activity in older adults is associated with potential side effects, which must be acknowledged and weighed against the benefits of activity on a person-by-person basis. The most common side effect is musculoskeletal injury. Examples include pulled muscles, exacerbated lower-back pain, or pain in weight-bearing joints from underlying arthritis. Happily, these types of injuries seldom occur in supervised programs.

Matching recommendations to health status

What the active aging field needs is more individually tailored assessment tools. When directly matched, these tools can help older adults achieve their personal goals and motivate them to start and adhere to a regular exercise program.

The EASY Screening Tool

1. Do you have pains, tightness or pressure in your chest during activity?
2. Do you currently experience dizziness or lightheadedness?
3. Have you ever been told you have high blood pressure?
4. Do you have a bone, joint, or muscle problem such as pain, stiffness or swelling that limits or prevents you from doing what you want or need to do?
5. Do you fall, feel unsteady, or use an assistive device while standing or walking?
6. Is there a health reason not mentioned why you would be concerned about starting an exercise program?

Using the EASY

The purpose of the EASY is to have all older adults increase the amount of physical activity they participate in, and to do so in a safe and effective manner. Each EASY screening question is followed by an algorithm, or a step-by-step process, that guides the individual through a variety of options. The questions within the EASY can be completed by older adults themselves or with their primary healthcare providers, or by an exercise trainer or group exercise leader.

[Ed. Although still in development, the complete EASY screening tool is expected to be released by the end of 2006. For more information, send an email to ahpp@srph.tamhsc.edu.]

Table 1. EASY questions for screening
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program. A new screening tool, referred to as the EASY, is one such instrument.

The EASY assessment changes the focus of screening from establishing who is safe or unsafe to participate in exercise programs, for example, to identifying what physical activity program is appropriate for individuals, given their health status. The EASY addresses 6 simple questions (see Table 1 on page 41). These questions guide older adults and/or their healthcare providers, fitness/wellness leaders, and the like to the right information and exercise recommendations. For instance, someone with a history of heart failure and shortness of breath with exertion will need a slow and progressive exercise program to increase his or her cardiac function along with muscle strength.

Making it happen: motivating frail older adults to exercise

Given the potential benefits, frail older adults in all settings—ambulatory or not—should be encouraged to increase their physical activity. The first step in this process involves helping a person’s formal and informal caregivers believe in the benefits and safety of physical activity, as well as match the appropriate activities to the individual’s underlying health problems. Tools such as the EASY can make that process easier. The next step is to motivate the person to take part in the recommended activities.

In Figure 1 on this page, a Wheel of Motivation names the many factors that influence frail older adults to engage in physical activities. This wheel helps in visualizing the current scientific stance that motivations are multiply determined (i.e., several independent mechanisms are at work), and that one must take a systems or social ecological approach when trying to understand what determines and solves physical inactivity.

Factors influencing motivation

What are the motivation mechanisms through which fitness and wellness professionals can help frail individuals become more physically active? The Wheel of Motivation identifies the 8 factors described below.

Physical and emotional benefits of physical activity. An important aspect of motivation involves ensuring frail older adults know and believe in an activity’s benefit. This is true even for those with cognitive impairment. Relevant benefits are immediate and focused on quality of life, not length of life through disease prevention. Likely motivating benefits include:

• feeling good emotionally and physically
• having fun
• being able to participate in bathing and dressing activities, walk to the bathroom or dining room, or to ambulate without a walker or cane

Repeating these benefits when interacting with individuals with cognitive changes and short-term memory will help them remember and begin to believe in these gains.

Successful performance of exercise.

Recognizing and reinforcing successes related to exercise participation can also motivate older adults. For example, a woman in an assisted living setting who walks to dinner rather than taking a wheelchair should have this success recognized and celebrated. A hug, personal call or visit from a friend, family or staff member, or fitness/wellness leader to acknowledge this resident’s hard work is vital. This will help build her confidence and instill a positive feeling associated with the activity, assuring she participates in the future.

Individualized care.

Getting to know each person and incorporating individual schedules, likes and dislikes, and special needs into an exercise program further supports participation. For instance, a fitness leader may need to keep his speech low, slow and loud for one person to hear his instructions; another participant may need to use a...
Pocket Talker (a device that amplifies a sound when placed near it). Likewise, offering an exercise class in the afternoon is vital to optimize the participation of someone who tends to rise late.

**Social supports.** Ongoing, consistent support and encouragement to exercise from all who interact with an older individual is key. If Mrs. Jones has a goal to walk to the dining room for all meals, for example, her kind and caring friends and family should be prevented from pushing her to the dining room in a wheelchair. Encouraging family members and friends to go for walks with a frail older adult during visits, rather than just sitting and talking, uses social support to motivate the person to exercise.

**Establishing appropriate environments.** Environments that facilitate function are essential in motivating older adults to exercise. Safe, flat, wide and well-lit walking surfaces are optimal. Similarly, age-appropriate exercise equipment is needed. If individuals find the equipment complicated, uncomfortable or unpleasant to use, their motivation to exercise will decrease markedly.

In community settings, professionals should supervise the use of all equipment, so that older adults feel confident using the equipment and accidents are prevented. Also important, activity/exercise rooms or wellness centers should be in centrally located, easy-to-access places, which are close to other routine activities. Some facilities that serve frail older adults now have swimming pools and expensive exercise equipment, but it is possible to design an adequate program at a reasonable cost.

**Identification of goals.** Fitness and wellness professionals must collaborate with older adults to identify physical activity goals. The specific amount of activity needed to achieve the desired benefit varies based on individual capabilities. The American College of Sports Medicine, the Centers for Disease Control and Prevention, and the National Institutes of Health recommend that older adults accumulate 30 minutes of moderate physical activity most days of the week. This activity should incorporate aerobic

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Table 2. Suggested exercise recommendations in the presence of clinical problems

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<th><strong>Known clinical problem and/or symptoms</strong></th>
<th><strong>Exercise options</strong></th>
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| Known cardiovascular disease such as high blood pressure, congestive heart failure | Progressive activity as tolerated:  
• Walking at a comfortable pace for increasing distances  
• Resistance training at a comfortable level, increasing as tolerated  
• Balance and flexibility exercises |
| Vertigo or balance problems from strength or musculoskeletal changes | Progressive activity as tolerated:  
• Start with stepping while seated  
• Progress to walking at a comfortable pace for increasing distances  
• Weightlifting at a comfortable level, increasing as tolerated  
• Balance and flexibility exercises  
• Try to have another person present during exercise activity  
• Emphasize balance and lower-body strength exercises |
| Degenerative joint disease, spinal stenosis or spinal compression | • Avoid exercise programs that are specifically geared toward walking on a hard surface  
• Avoid resistance exercise activities (lifting weights or using stretchy bands) that increase pain  
• Pool exercise programs, or using appropriate exercise equipment to strengthen muscles around sore joints  
• Balance and flexibility exercises |
| Chronic obstructive pulmonary disease | • Walking at a comfortable pace for increasing distances  
• Weight lifting at a comfortable level, increasing as tolerated  
• Balance and flexibility exercises |
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activity (such as walking, dancing, swimming, biking), resistance training, balance and flexibility. (The sidebar on page 46 lists some suggested resources for appropriate activities.)

Frail older adults may not initially tolerate moderate activity and/or may not be able to be active for 30 minutes per day. This is particularly true for those who have been inactive for a long period of time. Boosting participation in functional activities such as bathing or dressing or rolling oneself to the dining room may prove the best way to increase physical activity for some frail individuals. Specific adjustments for medical problems such as arthritis and cardiovascular disease should likewise be incorporated (see some exercise recommendations in Table 2 on page 43).

After developing a tailored physical activity program for a frail individual, the professional should write goals on daily goal forms and/or calendars, stating exactly what the person should do on any given day (see figures 2 and 3 on this page). These tools become daily reminders for both the older adult and caregiver. Moreover, the goals reinforce to the older person that the healthcare provider and caregiver(s) believe he or she can perform the activity.

Goals should also incorporate the start low and go slow philosophy, while encouraging individuals to increase the amount and type of physical activity. In addition, long-term goals should be specified. These can include such things as being able to go up and down a curve or stairs to enter a restaurant or a child’s home, or being able to walk independently to the dining room.

Addressing unpleasant physical sensations. A major barrier to exercise for frail older adults is the associated pain, fear, or shortness of breath they experience. Anticipating and acknowledging these sensations and taking steps to eliminate them prior to starting exercise activities are critical.

Figure 3. Daily calendar for goals

Table 3 on page 45 suggests some things professionals can do.

Making exercise fun and different. Older adults report being motivated by exposure to new and different activities. This is particularly relevant for those who are cognitively intact. Given the many options available, fitness and wellness professionals can easily alter an exercise program with a variety of activities.

For older adults with cognitive impairment, it is more important to assure consistency and routine, to help them remember what to do and how to do it. A balance between routine and new and fun exercise activities is useful for these men and women. To achieve this balance, individuals could do aerobic exercise at the same time each day, but vary the activity, for example.
Planning for success
Motivating frail older adults to begin and adhere to physical activity requires a special commitment, focus and plan by fitness and wellness professionals.

The first step in the process involves educating the healthcare providers, caregivers, family members and friends who interact with frail individuals. Education should include the benefits of physical activity, information about safe and appropriate activity, and basic motivational techniques. The second step should focus on evaluating the motivational challenges for the older individual and implementing interventions to help overcome these challenges. In so doing, frail older adults with multiple illnesses will have the opportunity to optimize their function, health, and most importantly their overall sense of well-being and quality of life through physical activity.

<table>
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<th>Barrier</th>
<th>Intervention</th>
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| Pain    | 1. Have participant take pain medication one half-hour prior to exercise.  
2. Implement use of ice/heat for 10 minutes prior to exercise.  
3. Educate/encourage the participant that exercise will help reduce pain, by repeatedly providing examples of case reports, research findings, and personal experiences of how this occurs.  
4. Working with the primary care provider, alter the participant’s current medication regime (as appropriate) until pain is relieved.  
5. Implement use of ice/heat as appropriate outside of exercise.  
6. Implement relaxation techniques as appropriate, such as deep breathing.  
7. Implement guided imagery as appropriate, by focusing on positive outcomes. |
| Fear    | 1. Educate/encourage the participant that exercise will prevent future falls, by repeatedly reviewing the research findings supporting this and reviewing how strengthening certain muscles will improve balance.  
2. Educate/encourage that the participant will not be asked to do exercise he/she is not capable of performing safely.  
3. Encourage verbalization of fears by asking the individual to talk about what he/she is afraid of and demonstrating how exercise can help prevent his/her greatest fear from occurring.  
4. Implement relaxation techniques as appropriate (as noted above, with deep breathing or focusing on positive outcomes to decrease anxiety).  
5. Implement guided imagery as appropriate, by focusing on positive outcomes and imagining successfully completing the activity of interest.  
6. Implement distraction techniques, such as using a mantra (repeatedly stating, “I will not fall”) during a frightening activity. |
| Fatigue | 1. Stress the importance of exercise to combat fatigue and improve sleep, and make this a goal of the exercise program. Keep altering the exercises until the proper balance is achieved and the exercise increases activity sufficiently to help facilitate sleep.  
2. Encourage one half-hour rest period prior to exercise activity.  
3. Working with the primary care provider, evaluate the participant for other causes of fatigue, including anemia, electrolyte imbalance, drug side effects, infection, dehydration or altered nutritional status.  
4. Establish appropriate rest/activity schedule.  
5. Educate the participant regarding sleep patterns for older adults and ways to naturally facilitate sleep. Sleep hygiene interventions can include such things as not using the bed for anything except to sleep, avoiding activity prior to going to bed, and setting a regular pattern or sleep ritual. |

Table 3. Interventions to decrease unpleasant sensations associated with exercise

Acknowledgement
The authors acknowledge the contributions of the Screening Roundtable Participants for their development of the EASY Screening Tool and their dedication to increasing physical activity among all older adults.

University System, College Station, Texas. For more information about Active for Life, visit www.activeforlifeinfo.org.

See related sidebar on applying exercise for frail older adults on pages 47 and 50.

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References


Resources

Appropriate exercise activities for older adults

Geriatrics and Aging
Canadian Centre for Activity and Aging’s Home Support Exercise Program www.geriatricsandaging.ca/PDF/PDFJuly2003/0607homesupport.pdf

First Step to Active Health
Your First Step www.firststeptoactivehealth.com/youcan/index.htm

National Blueprint: Increasing Physical Activity Among Adults Age 50 and Older Public Information/Active Aging Tips www.agingblueprint.org/tips.cfm

National Institute on Aging

President’s Council on Physical Fitness and Sports
Pep Up Your Life: A Fitness Book for Mid-Life and Older Persons www.fitness.gov/peopup.htm

Physical activities for nonambulatory older adults

Boston University Health & Disability Research Institute
Strong for Life www.bu.edu/hdr/products/stronglife

Center for Neurologic Study
Exercises For The Parkinson Patient www.cnsonline.org/www/archive/parkins/park-03.html

Fitness and Freebies
Sit to be Fit. The Sitting Exercise Training Manual www.fitnessandfreebies.com/sit2befit.html

Video Press: University of Maryland School of Medicine
www.videopress.org
• Improving Function–Improving Life
• The Nursing Assistant’s Role as Cheerleader and “Personal Trainer”
• Function–A Quality Indicator: The GNA’s Role
• Restorative Care: It’s Mandated
• Exercise Prescription: Staff Information
• Exercise for Fitness of Ambulatory Elders
• Exercise for Fitness of Non-ambulatory Elders

West Dorset General Hospital
Audiology: Balance Exercises www.dch.org.uk/atoz/audiology/audiologybalance.htm

Women’s Heart Foundation
Stretching Exercises for Women www.womensheartfoundation.org/content/Exercise/stretching_exercise.asp
Frail older adults: exercise and motivation in practice

by Mark Richards, PT, MS

Overseeing 190 machine-based strength-building programs in skilled nursing facilities (called Freedom Through Functionality, or FTF for short), I am often asked during program training sessions if frail older adults will really want to exercise on resistance machines. Unhesitatingly, the answer is yes.

First, the muscles of the frail elderly are generally quite atrophied and begging for a stimulus. With meaningful, optimal resistance exercise, these individuals not only make rapid strength gains (which alone can provide motivation), but most also feel better in terms of decreased aches and pains, greater ease with movement, and elevated mood. Frail older adults are often profoundly sedentary and the resistance exercise energizes their systems. As I like to say, “You’ve got to put energy into any system to get energy out.” Second, the exercise protocols used in FTF are such that, in many cases, exercising on the machines is less stressful than what these individuals normally experience when performing activities of daily living. If a patient requires moderate or maximal assist from another to get out of a chair, it is likely she is working at nearly 100% of her maximal capability. In other words, she is performing a 1-rep. max. Simulating that movement on a leg press, and using 80% of a 1-rep. max., she can perform at least 8 repetitions, slowly, through her full range of motion, with good form and good technique. Which is less stressful for her: the sit to stand transfer or the leg press? And, if we progress her resistance levels, in time she will get substantially stronger and better able to get out of a chair with less effort. Now, that’s motivational!

What about older adults who need more persuasion to exercise? We really need to relate why it’s important to them, how they’re going to benefit, in their terms. I think of a training I did at a facility last year. A clinician was trying to talk a patient with severe respiratory issues into getting on a compound row machine to strengthen his scapular retractors, and he wasn’t buying. I sat down next to him, at his level, and looked him in the eye. I said, “Jim, you’ve got trouble breathing. You’re sitting in your wheelchair, and do you see and feel how your chest is collapsed? If you exercise on this machine, and we strengthen the muscles in your upper back, you’ll be better able to pull your shoulders back, sit up tall, and it’ll make it much easier to breathe. You want to try it?” He said, “Absolutely,” and got right on and began to exercise with the therapist.

Finally, relatively speaking, older adults are no different than people of a younger age when it comes to exercise: They appreciate the value of a good quality exercise program. If the program is good, people are more likely to want to participate, and to continue to participate.

Mark Richards, PT, MS, is the national director of clinical services for Aegis Therapies, a leading contract rehabilitation therapy organization with operations in 36 states across the United States and nearly 6,000 employees.
Group exercise for frail older adults

by Edie Stanford, LPTA

Living proof is always more compelling than written studies and theory. Case in point: Exercise is beneficial for everyone in general and older adults in particular. I have seen firsthand the benefits of exercise in older adults at Leisure Park, a continuing care community in suburban New Jersey where I am employed by SunDance Rehabilitation as a physical therapist’s assistant.

SunDance has set up wellness groups for the residents of Leisure Park. Once a week, women from the community’s Assisted Living Facility (ALF) and Independent Living Facility (ILF) join me for strengthening, balance and coordination exercises. The program is held separately with residents of each facility, and each group is tailored to the participants’ abilities and needs.

The program begins with a warm-up of shoulder shrugs, and shoulder rolls with neck rolls. Participants do 3 sets of 9 repetitions of these warm-up exercises. Next, using wooden dowels, the group proceeds to an upper-body strengthening regimen. These exercises include 3 sets of 12 repetitions to work the shoulder, elbow and hand. Pursed lip breathing between each set of repetitions helps to fully oxygenate the muscles used in each exercise.

After a brief break and breathing exercise, the group moves on to the lower body. Participants do these exercises, both upper and lower body, in the seated position. Leg exercises include ankle pumps, which help to eliminate swelling of the ankles, followed by terminal knee extension (leg kicks), hip flexion (seated marching), and finally, hip adduction, and hip abduction (kicking legs out to the side). Individuals then repeat the warm-up exercises as a cooldown. Group sessions last about a half-hour.

Because many of the ALF residents use wheelchairs, this smaller group performs all exercises in the seated position. Otherwise, the exercises done by both groups are largely the same. The ALF participants take longer rest periods and need more assistance with performing the exercises; but, in general, working with these frailer older adults is similar to working with the more independent ILF residents. Each activity is simply modified to the individual abilities of participants.

The one area where the group sessions differ is standing balance work, which only the ILF participants perform. Every week the ILF group varies the standing balance exercise, which includes bowling, baseball catch, standing exercise resistive-band stretches, and 4-lb. medicine-ball toss. These exercises help to challenge each resident’s balance and coordination.

After running these group sessions for several months now, I have had participants tell me about the positive outcomes they’ve experienced from regular exercise. But seeing is believing, and I am pleased to report I have observed these results firsthand.

Edie Stanford is a licensed physical therapist assistant with SunDance Rehabilitation, Inc. SunDance provides contract therapy services to skilled nursing facilities, assisted living communities, continuing care retirement communities, hospitals, and outpatient rehabilitation settings.