

# GERINOTES

SECTION ON GERIATRICS, AMERICAN PHYSICAL THERAPY ASSOCIATION

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## WANTED: ARTICLES FOR GERINOTES

**TOPICS:** Anything related to older adults

**CLINICIANS:** Send me an article or an idea

**STUDENTS AT ANY LEVEL:** Send me papers you wrote for class

**EDUCATORS:** Send me student papers

Everyone loves to publish and it is easy!

Contact carol schunk, gerinotes editor  
carolschunk@earthlink.net



# PRESIDENT'S PERSPECTIVE: FACILITATING LEADERSHIP DEVELOPMENT

John O. Barr, PT, PhD



In October, the Section's Board of Directors completed a 2-session strategic planning process, for the first time ever totally by conference call. With much advance planning under the guidance of Vice President, Alice Bell, PT, GCS and executive staff, Andrea Saevoon and Sharon Kneebone, the Board identified 5 major goals, as follows:

1. Promote and support autonomous physical therapist practice with the aging population.
2. Facilitate use of best practice physical therapy practice for optimal aging.
3. Advocate for the health, wellness, fitness, and physical function needs of the aging adult.
4. Promote physical therapists as practitioners of choice for optimizing physical function with aging adults.
5. Recruit and retain members.

The Board is excited about discussing all of these goals and their related objectives/strategies in detail with you during our annual Members Meeting at the Combined Sections Meeting in San Diego on February 19th. For purposes of this *Perspective*, I want to focus on goal #5, most specifically its objective 5.2 (Facilitate leadership development) and the 3 related strategies to help us attain this objective.

First, if you have never done so, I want to request that you to step forward to assume a leadership role in our Section. This could begin by serving as a member of one of our 17 committees (listed on the inside back cover of this issue), as a contributor to *GeriNotes* or to a Home Study Course, or as a reviewer for the *Journal of Geriatric Physical Therapy*. Areas needing immediate assistance are

noted at "Volunteering with our Section" ([www.geriatricspt.org/vol/index.cfm](http://www.geriatricspt.org/vol/index.cfm)) on our Web site, accompanied by detailed job descriptions. Committee chairs and editors are poised to mentor new volunteers in a manner that furthers their understanding of vital Section operations and contributes to their own professional development. At a more advanced level, we recently conducted elections for the important positions of Treasurer, 2 Directors, and a Nominating Committee member. It was wonderful to have such a broad field of well-qualified candidates, many new to this level of Section involvement, to select from. The Board looks forward to the critical involvement of the 4 individuals newly elected to office and wants to encourage the 4 other "unsuccessful" candidates to remain actively engaged in other Section and APTA leadership roles.

Our Board wants to be vigilant in assuring that the APTA is both sensitive and responsive to aging-related issues. Currently there are over 50 vacancies on APTA appointed groups and standing committees. Although appointments can be made throughout the year on an as needed basis, the majority of vacancies will be filled by the APTA Board at its March meeting. We strongly encourage our members to volunteer to fill some of these vacancies, which can be reviewed at the Committees page on the APTA Web site. This is a self-nomination process. Ideally, individuals interested in serving should submit the biographical and consent forms online no later than January 1, 2010. Further questions can be directed to Angela Boyd via [angelaboyd@apta.org](mailto:angelaboyd@apta.org) or by calling 1-800-999-2782, ext 3252. After you've nominated yourself, please email our executive, Andrea Saevoon ([andreasaevoon@apta.org](mailto:andreasaevoon@apta.org)), informing her of the position you've volunteered for.

Second, our Board and committee chairs each plan to annually identify and mentor an emerging leader for future Section roles. This likely will be done in conjunction with the new "component"

feature of APTA's existing Members Mentoring Members program. According to some experts, career success can require the assistance of people willing to support and encourage another's career development—a mentor. The U.S. Department of Labor has identified the lack of mentoring as an organizational or attitudinal barrier preventing career advancement for working professionals. The Board will determine if this mechanism can be used to further enhance our Section's leadership development process. Finally, as President, I plan to follow-up annually with each person thus identified as an emerging Section leader. In my own experience, across a range of Sections, it's too easy to become isolated in carrying out professional association duties. An important aspect of facilitating the development of our leaders will be to show the important interconnectedness of our activities as we advance the overall mission of the Section on Geriatrics. And, as usual, we do plan to have some fun along the way!

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*Dr. Barr is a Professor in the Physical Therapy Department at St. Ambrose University, Davenport, IA. He also serves on the Editorial Board for the Journal of Geriatric Physical Therapy.*

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## EDITOR'S MESSAGE: WHAT DO YOU THINK?

Carol Schunk, PT, PsyD




As Chair of the Oregon Physical Therapy Association (OPTA) Ethics Committee, I participated in a Board meeting earlier this month. On the agenda was our recent decision (partially for financial reasons) to move the LOG, the OPTA newsletter, from paper to electronic printing. An interesting discussion, as we tried to determine if the members are continuing to read the publication or had we lost some of them in the translation so to speak. This is a topic that comes up in most organizations as budgets get tight, advertising is declining, and means to cut spending are explored. The OPTA discussion tended to split along generational lines. Those of us who are older tended to prefer to hold the newsletter or a book in our hands; the younger Board members were more comfortable and active in

reading on line. I had also considered this means of implementing technology on a personal note by investigating book readers such as Amazon Kindle. I am taking a trip and have a friend who no longer has to lug several books in the suitcase since she simply downloads novels on to her reader. It is tempting but after exploring the purchase, I decided to stay with the hard or soft bound options. The SOG is no exception to this issue as it is budget time again. We have discussed in the past going on line with publications looking at the cost and the time savings. What we do not know is the opinion of the readers. Some APTA components are giving members the option. What do you think?

On the same subject of member input, Mary Langhenry who wrote an article for the July issue of *GeriNotes* has responded at our invitation to a Letter to the Editor which was published in November. I decided to reprint the original letter so you can follow the question and the response. I had another correspondence

from a member which is also printed. I so appreciate hearing from readers in the form of a Letter to the Editor or positive comments or constructive suggestions. The *GeriNotes* Editorial Board is going to meet in February at CSM and we are so orientated to having a great publication which meets your needs but it is hard sometimes without feedback. What do you think?

The two lead articles in this issue are reprinted from another publication. In this case, the Transportation Research Review. It was a fluke that the articles found their way to us through Editorial Board member, Jill Heitzman but they are great topic areas (mobility and transportation in relation to older adults) that we have not recently addressed. We try to limit reprints in *GeriNotes*, and only use them if I think very few members would have read them in the original venue. Sometimes there is information out there that is so pertinent and if we can get permission, it seems appropriate to do reprints. What do you think?



American Physical Therapy Association

### CSM 2010 Preconference Course: Section on Geriatrics

Members of the Section on Geriatrics register at a discount.

**The Therapeutic Use of Yoga to Prevent Falls and Reduce the Risk of Falling in Older Adults**

Wednesday, February 17, 2010, 8:00 am–5:00 pm

7.5 Contact Hours

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**Presenter:** Kathleen K. Zettergren, PT, EdD


Yoga has previously been shown to improve cardio-respiratory function and reduce anxiety, depression, stress, and low back pain. Having optimistic beliefs and positive attitudes enhances the mental health of older adults even in the presence of physical decline. Yoga represents one of the top 10 most commonly used alternative therapies and is often available to community-dwelling older adults. Physical therapists are uniquely qualified to provide therapeutic yoga to older adults in a safe, effective manner. This course will enable the physical therapists to use the literature related to fall prevention, balance, and strengthening in older adults to design yoga programs to target the specific bodily functions in older adults that contribute to falls.

**Note:** Participants will actively participate in yoga moves.

**Upon completion of this course, you will be able to:**

- Define yoga and describe the most popular forms of yoga taught in the United States
- Utilize current research in developing programs in therapeutic yoga
- Define falls and describe current falls statistics
- Identify common musculoskeletal contributions to falls in older adults
- Perform several basic yoga postures and discuss how these postures may prevent and/or reduce common ailments as described in current literature
- Describe and demonstrate modifications of yoga postures for the older adult
- Describe and perform an introductory yoga class designed to target balance, falls, and fall prevention

**Course space is limited—Visit [www.apta.org](http://www.apta.org) and click events to register today!**





## LETTERS TO THE EDITOR

*The following Letter to the Editor was printed in the November issue of GeriNotes. The author of the article, Mary Langhenry has responded. For the readers convenience we have reprinted the original letter and the response below. CS-Editor*

Dear Editor,

In her recent article "Hip and Knee Joint Arthroplasty Updates: What Are the Surgeon's Choices" (Vol 16, No. 4), Mary Langhenry provides an excellent historical and current-status review of the entire field of hip and knee arthroplasty, which--as she points out--is becoming more complex every day. I am writing with a comment and question for the author, as I believe this issue may be of interest to other GeriNote readers.

I recently attended a very interesting 2-hour lecture by a prominent and well-published Chicago orthopaedic surgeon who specializes in a variety of knee arthroplasty procedures. He expressed the following point of view: He stated he is concerned about the increasing frequency of TKA procedures before 60 yrs of age because of the difficulties involved in knee revisions (i.e., the destructive and thus risky nature of the procedure), and the increasing life expectancy of these patients. Compounding his concern is his belief that fewer and fewer orthopaedic surgeons are doing knee revision procedures, precisely because of the significant challenges and risks. Of course if that trend would persist, it could potentially leave recipients of early-age TKAs "up a creek without a paddle" later in life! He implied that the reluctance of surgeons to do knee revisions is a recent trend. I found his opinion fascinating and controversial but I have no way of evaluating it or the premises on which it is based. Ms. Langhenry's article did not really address the issues around the earlier and earlier total joint procedures or the related issue of the destructive challenges of knee revisions, but it is obviously related to her central theme. I would be interested in any comment the author may have on this subject, since, as she stated, we

can expect to see an explosion of such procedures among the emerging baby boomer population! Thank you for your consideration, and many thanks for your efforts in making GeriNotes such an excellent publication and contribution to our profession.

Peter J. McMenamin, PT,MS,OCS  
President and Clinical Director, Physical Therapy Chicago, Ltd.  
President, Illinois Physical Therapy Association (IPTA)  
Fax: 312-855-9208  
Phone: 312-855-1711

Dear Editor--

I want to congratulate Mr. McMenamin for his observation regarding the past article "Hip and Knee Joint Arthroplasty Updates: What are the Surgeon's Choices?" He is absolutely right. The most recent projection data that I have seen supports the theory. "...demand for primary THA and TKA among patients less than 65 years old was projected to exceed 50% of THA and TKA patients of all ages by 2011 and 2016, respectively. Patients less than 65 years old were projected to exceed 50% of the revision TKA patient population by 2011."<sup>1</sup> We, however, as physical therapists cannot control the "appetite" of the baby boomers or of the orthopedic community. We are left with helping to provide a longer survivorship and a happier patient by educating our patients about the need to maintain life-long wellness and well-being. In my career, I have documented the fact that people who are lean and exercise are happier with the outcome of their surgeries about the hip and knee and maintain the index prosthetic implant for years as contrasted to the heavy patient who does not commit themselves to a life-long well-being, self-help environment. There is really nothing that we as physical therapists can do other than to "discourage" our patients from undergoing replacement before exhaust-

ing all non-operative measures including strengthening, physical therapy, weight reduction and a commitment to a life of fitness.

New technology such as hard-bearing surfaces and high-cross linked poly will play a role in survivorship. But, it is also true that a patient at the age of 55 will succumb to a revision in his or her lifetime. Finally, health care reform will undoubtedly have an impact. Potential rationing of health care and revision surgeries are concerns.

Thank you for allowing this discussion. I strongly urge the physical therapy community to be proactive in this environment.

Mary Langhenry, PT, OCS  
Research and Rehabilitation Coordinator  
Neurologic & Orthopedic Hospital of  
Chicago

\* \* \* \* \*

Dear Editor,

I just finished reading Kenneth Miller's article on "Treatment for Bone Health", and I wish to comment. His exercise program for compression injuries is certainly thorough, but his historical report is not correct in stating that extension exercises for these problems were first used in the 80's. When I graduated in 1956 from the Stanford University Physical Therapy program, Williams Flexion Exercises were much in vogue, and they were advocated for different spinal diagnoses with the exception of compression injuries. It was taught that flexion exercises were contraindicated for spinal compression injuries, including those due to osteoporosis, and extension exercises were the prescription of choice.

Wally Boe (P.T. retired)  
370 S.E. Fairview Street  
Prineville, OR 97754

<sup>1</sup> Kurtz SM, Lau E, Ong K, Zhao K, Kelly M, Bozic KJ. Future Young Patient Demand for Primary and Revision Joint Replacement: National Projections from 2010 to 2030. Clin Ortho Rel Research. 2009;467(10):2606-12.

# CERTIFIED EXERCISE EXPERTS FOR AGING ADULTS

## THE FIRST GRADUATING CLASS

*Danille Parker, MPT, DPT, CEEAA*

The Section on Geriatrics would like to congratulate the first group of Physical Therapists that are now Certified Exercise Experts for Aging Adults (CEEAA)! The Physical Therapy program at Alabama State University in Montgomery, Alabama was the proud host location to the completion of the first full cycle of the three course series. PTs with the CEEAA credential demonstrate expert clinical decision-making skills in designing and applying an effective examination and exercise prescription and measuring the effectiveness and reflecting the current evidence of exercise for all aging adults. We would like to congratulate the following PTs:

Marilyn Moffat, PT, DPT, PhD, FAPTA, CSCS  
 Karen Kemmis, PT, DPT, MS, CDE, CPRP  
 Mark Richards, PT, MS  
 Dolly Susan Rooks Ashburn, PT  
 Denise Nicole Baylor, PT  
 Kimberly L. Bershinsky, PT  
 Richard Jacob Boyce, PT, MS, COMT, CSCS  
 Melanie Francine Broome, PT  
 Nancy Marie Burke, PT  
 Mitchell Calderon, PT  
 Steven Bryce Chesbro, PT, DPT, EdD, GCS  
 Cristina Sue Clark, PT, DPT, GCS  
 Jane F. DeLoach, PT, DPT, GCS  
 Laura L. Denver, PT  
 Leslie Saueressig Duran, PT, GCS  
 Laura Jean Dyson, PT  
 Margaret A. Eigler, PT, MHS  
 Mary Katherine Farrell, PT, DSc, GCS  
 Amie Marie Ramos Flores, PT, DPT  
 John H. Gassler, PT, MS, GCS  
 Debra L. Gray, PT, DPT, MED  
 Jessica Haffey, PT, MS, MMM  
 Carol A. Haines, PT, MS  
 Tonya Lynn Hamm, PT, GCS  
 Jill Heitzman, PT, DPT, GCS, CWS, FACCWS  
 Kathy K. Henderson, PT  
 Martha Loday Henshaw, PT  
 Leigh Ann Hewston, PT, MED  
 Martha Rammel Hinman, PT, EdD  
 Douglas Imig, PT, OCS  
 Ruby Kendrick, PT, MS, GCS  
 Diane Koenig, PT  
 Janina Kojak, PT  
 Kathy Lane, PT  
 Cindy LaPorte, PT, PhD  
 Susan Joy Leach, PT, PhD, NCS  
 Mauri Witten Mizrahi, PT  
 Kathleen Jenkins Morgan, PT  
 Janelle Kay O'Connell, PT, DPT, PhD, ATC, LAT  
 Isaura P. Orozco, PT

Carolyn Blair Padelino, PT, DPT  
 Danille Parker, PT, DPT  
 Yolanda Rainey, PT, DPT  
 Clare Restrepo, PT, MS  
 Glenn Ross, PT  
 Timothy R. Semlow, PT, GCS  
 Anne Kubik Sheehy, PT  
 Amanda Kate Smith, DPT  
 Lisa Marie Strobbe, PT, GCS  
 Ellen Strunk, PT, MS, GCS  
 Tracy Alisha Thomas, PT, PhD  
 Barbara A. Thompson, PT, GCS  
 Kimberly Wood Umstead, PT, GCS  
 Paula Ann Wagner-Walser, PT  
 Melody Monet Washington, PT, DPT  
 Charlina Washington, PT, DPT  
 Sharon Ann Weise, PT  
 Wesley L. Williams, PT, GCS

The process to attain the credential of "Certified Exercise Expert for Aging Adults" is to complete formal didactic education, and to participate in supervised and mentored skills development, home-based reflection, and critical thinking. Three courses of 2 days each will address 3 different and increasingly complex aspects of exercise design and delivery. The 3 courses are designed to build on each other; however, Courses 1 and 2 can be taken out of sequence. We have had sold out crowds for each course held, so don't wait to sign up.

**Upcoming CEEAA courses and locations:**  
 Boston, MA:

Course 2 April 10-11, 2010  
 Course 3 June 19-20, 2010

San Diego, CA:  
 Course 3 CSM Preconference  
 June 16-17, 2010

**Announcing a new CEEAA Course Series:**

Clyde, North Carolina:  
 Course 1 March 20-21, 2010  
 Course 2 May 1-2, 2010  
 Course 3 September 2010 (TBD)

Look for more information regarding the CEEAA series courses coming to **Des Moines, Iowa in 2010** and **Dayton, Ohio in 2011** soon! If you are a facility interested in hosting the CEEAA series, please contact Danille Parker, Co-Chair of the Regional Course Committee at [danille.parker@marquette.edu](mailto:danille.parker@marquette.edu) or at 414-288-3179.

Danille Parker is the Director of Clinical Education and a Clinical Assistant Professor for the Physical Therapy Department at Marquette University in Milwaukee, WI where her primary teaching responsibilities include Patient Management III, Pathophysiology and Aging, and Advanced Geriatrics. She is Co-Chair of the Regional Course Committee for the Section on Geriatrics and also serves the Wisconsin Chapter of the APTA as Chair of the Wisconsin Clinical Education Consortium. Danille also serves as a lab assistant and is 'faculty in training' for the CEEAA course series.



**New CEEAA Graduating Class**

# KEY ISSUES IN TRANSPORTATION AND AGING

## ENSURING SAFE MOBILITY FOR OLDER ADULTS

David Eby

*The TR News, September-October 2009, pp14-23. Copyright, National Academy of Sciences, Washington, DC. Published with permission of the Transportation Research Board. The Transportation Research Board is made up of government agencies, research facilities, universities, and private companies who are all involved in issues related to transportation from pavement, road construction, community planning to social/financial issues. The TRB news is their publication. GeriNotes Editorial Board member, Jill Heitzman's husband is a reviewer for the publication. Jill realized the articles would be of interest to SOG members and received permission to reprint in GeriNotes.*

During the past decade, research and educational efforts have focused on maintaining safe mobility for older adults—a recent book on the topic cites nearly 900 references (1). The attention is appropriate, yet the problems are far from solved. The populations of most Western nations are aging with the aging of the baby boomers, who are expected to bring a culture of “automobility” into older adulthood, holding onto licenses longer and driving more than previous cohorts.

Age-related medical conditions and the medications to treat these conditions, however, can make safe driving difficult for some older adults. Several recent studies have confirmed that as a group, adults 70 years old and older are at a higher risk for a fatal crash, and that crashes involving this age group tend to occur at times and places typically considered safe (2).

Driving cessation, however, has been linked to many negative outcomes, and nondriving mobility options are limited in most areas. Society therefore is facing a serious community mobility problem.

The many issues of aging and mobility have three complementary and interdependent goals (1):

- To understand and manage the effects of medical conditions and

medications on the skills needed for safe driving;

- To help those who are able to drive safely continue to do so; and
- To identify and provide community mobility support to those who are no longer able to drive.

### Medical Conditions and Driving Skills

Concerted research efforts have examined the relationship between older driver crash risk, specific medical conditions, and the medications used to treat them. Excluding vision-related problems, the research has not found strong links between medical conditions and older adult crash risk (1, 3, 4).

Several researchers have pointed out the difficulties of linking crash risk with medical conditions, noting that crash risk is influenced by many factors. Not all medical conditions influence crash risk to the same degree, and individuals with the same condition differ greatly in how they are affected (3, 4).

Individuals also vary in their approaches and resources to compensate for declining functional abilities. In addition, some chronic conditions may involve acute episodes, drastically increasing crash risk and complicating any judgments about fitness to drive.

Many chronic medical conditions are progressive, such as Parkinson's disease. A medical condition in its early stages may not affect driving safety but may compromise it at a later stage. Some older drivers may have comorbid medical conditions—that is, more than one—making it difficult to determine the specific condition that may influence driving performance and crash risk.

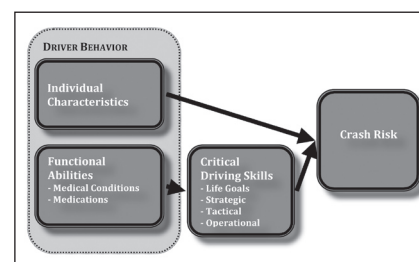
Similar difficulties arise in establishing the relationship between medication use and crash risk. Medications can impair driving for any age group, but medication use may have a greater effect on older drivers. Older people are more likely to use several medications, may not metabolize a medicinal compound

quickly, and may experience adverse changes (5). Their use of medications also may be inappropriate—under- and overutilization of medications are common among older adults.

Older adults also frequently consume over-the-counter medications, herbal supplements, and alcohol along with their prescription medications. The medical conditions and the timing and strength of a dose can complicate the task of relating traffic crashes to medication use.

### Reformulating the Problem

Researchers have begun to reformulate the problem, as shown in Figure 1 (1, 6). According to this model, all driver behavior is influenced by individual characteristics and functional abilities. Individual characteristics encompass a range of factors, including a driver's tolerance for risk, behavioral adaptations, preferences, personality, and driving history. Functional abilities refer to the perceptual, cognitive, and psychomotor abilities needed for everyday activities (7).



**Figure 1. How Medical Conditions and Medication Can Influence Crash Risk [adapted from Eby et al. (1)].**

The interaction between medical conditions and the medications used in treatment—both the therapeutic effects and the side effects—have an impact on a driver's functional abilities. A driver's health conditions, treated or untreated, also influence functional abilities. Properly treated conditions can improve functioning, but untreated or mistreated conditions can have deleterious effects.



The levels of functional abilities affect the skills needed for safe driving. Individual characteristics and the ability to perform critical driving skills influence crash risk. This formulation does not require specific information about medical conditions or medications, but about the levels of functional abilities.

### Continuing Safe Driving

Like most drivers, older people tend to prefer a personal automobile for their mobility needs; few satisfactory nondriving options are available in most locations. Five promising approaches for meeting this goal include driving evaluation, education and rehabilitation, vehicle design and modification, advanced technology, and roadway design.

### Driving Evaluation

To help older adults continue to drive safely, knowing which drivers are at increased risk for a crash is critical. Driving evaluation consists of screening and assessment.

Screening is the first step, identifying potentially high-risk drivers by revealing major functional impairments. Screening also can prompt an in-depth driving assessment but should not be used alone to determine driving fitness. Driver assessment is an in-depth, professional investigation to determine the level and cause of an observed impairment and is necessary to support decisions about whether someone should continue driving and under what conditions.

Screening and assessment contribute to a comprehensive, multidisciplinary approach for identifying older drivers who may be at risk. The driving evaluation can take place in the home or community, in a clinical setting, or at a licensing agency; each setting has unique issues.

### Home and Community

The home and community are an ideal setting for driver screening. Many problems with driving are first identified by a family member, the driver, or a police officer. Self-screening tools are available for use by drivers; educational programs and materials help families screen and talk with their older adult members; and educational materials help police interact with older drivers. Few of these packages, however, have been evaluated, and none has been shown to improve traffic safety.



**By keeping fit and staying active, older drivers may be able to extend their driving lifetimes. (Photo: Dan Burden)**

### Clinical Settings

Physicians and other health professionals can assess driving-related problems as part of general medical treatment and care. Identifying declines in functional abilities early on can facilitate opportunities for treatment and rehabilitation.

If clinical testing indicates that functional abilities have declined to the point of compromising driving safety, many older drivers will stop driving voluntarily at the advice of their physician (8). Many physicians, however, indicate that they are uncomfortable with making fitness-to-drive decisions and with reporting the decisions to licensing agencies. Physicians cite several reasons: without a test battery that predicts crash likelihood, they often lack the information necessary to make informed fitness-to-drive decisions; they do not want to breach physician-patient confidentiality; and they do not want to develop a reputation for reporting drivers, which could lead to a loss in patients; moreover, state laws on physician reporting and immunity are inconsistent.

### Licensing Agencies

Licensing agencies can screen and assess for fitness to drive because older drivers must renew their licenses; the licensing agency has authority to deny or restrict a person's license to drive. Drivers' license renewal policies vary from state to state in terms of the renewal cycle, the requirements for accelerated renewal for older drivers, and other provisions. These policies are not based on empirical evidence, and many questions remain about an optimal policy.

In addition, licensing agencies must weigh practicality and cost, along with the potential benefits of agency screening and assessment. For example, con-

ducting an in-depth assessment of every driver who reaches a certain age—as suggested by some advocates of age-based driver evaluation—would be impractical and expensive.

### Educational Programs

Educational programs are available for older drivers but vary in scope, format, and content. Most programs focus on awareness of functional declines and what they mean for safe driving. Some programs combine educational content with training—whether by computer, simulator, or on the road—to help participants overcome some functional decline. Other programs target an individual's capabilities, to assist the older person in continuing to drive; the CarFit program, for example, helps people fit more comfortably into their personal vehicles.

Despite the range of programs, most have not undergone formal evaluations for improving driver skills, reducing traffic citations, or reducing crashes. The few educational programs that have been evaluated, however, have increased the driver's knowledge and awareness (9, 10); increased self-reported safe driving behaviors (11); and improved on-the-road driving evaluation scores (10); however, they did not help to prevent roadway injuries and crashes (12).

### Rehabilitation

Rehabilitation may slow or reverse some functional declines experienced by older adults. Fitness and cognitive rehabilitation programs, in particular, show promise. Fitness programs that improve range of motion, strength, and stamina may help older drivers extend their driving lifetimes. Proper and intensive cognitive training may improve cognitive functioning (13). Whether these programs can improve the cognitive abilities to have a positive effect on critical driving skills or to reduce older driver crash risk is not known.

### Vehicle Design and Adaptation

Current vehicle designs do not take into account many of the functional declines associated with aging; this may not change for many years because of the beleaguered state of the industry. Nevertheless, little research specifically has addressed designs that optimize vehicles to account for age-related functional declines.



People who are experiencing functional declines, however, can make aftermarket changes to a vehicle to ease operation. Vehicle adaptations can help drivers with disabilities or aging-related concerns to get in and out of the car, fasten and unfasten safety belts, and operate the vehicle more easily. Because adaptive equipment must be customized to meet individual needs, the driver should work with an occupational therapist, who can recommend the correct equipment, and with a professional installer.

Although custom vehicle adaptations should improve traffic safety, no research has demonstrated the benefits. Research has indicated a lack of awareness of the options for vehicle adaptation not only among many older drivers who could benefit but also among the professionals who work with them.

### Advanced Technology

Several technologies are now available or soon will be to help older drivers extend their safe driving careers. The most promising technologies include route guidance, night vision enhancement systems, collision warning systems, and automatic crash notification.

To be successful for older drivers, these technologies will need to be affordable, easy to use, and enhance safe driving. Poorly designed technologies could increase distractions for older users, leading to a higher risk of crashes. Systems designed for older drivers, however, would likely benefit drivers of all ages.

Research shows that older drivers use advanced technologies differently from younger drivers and that older drivers take much longer to learn how to use the technologies (14, 15). Whether this is an effect of not growing up with computer technologies or of aging per se is not known. Nevertheless, the acceptance of advanced technologies by older drivers will depend on the quality of the training they receive.

### Roadway Design

Another way to enhance the safety of older drivers is to design the roadway environment to accommodate common age-related functional declines—for example, by adding protected left-turn signals and improving roadway channeling, stop signs, and signal timing. Well-maintained roadway markings—such as

painted edge lines and lane control marking—can enhance safety by providing visual cues to help drivers know which lane to use and to stay within the lane.

In addition, design improvements at intersections can benefit older pedestrians who are more likely than younger pedestrians to be killed by automobiles. Where appropriate, roundabout intersection designs show promise. The circular, nonsignalized design of roundabouts allows all traffic to move in the same direction around the center of the intersection. The design may improve safety by alleviating some of the difficulties older drivers experience in negotiating intersections.

### Discussion Threads

Several themes thread discussions of transportation and aging:

1. Mobility is a need for everyone. If mobility needs are not met by driving, then they must be met by other means.
2. Older adults vary in the functional declines they may be experiencing, in their ability to compensate for the declines, in their financial and social resources, and in their personalities. All of these characteristics interact with the factors that influence safe mobility.
3. All people—including older adults—need lifelong education to maintain safe mobility.
4. Research and programs that help older adults stay mobile will also help younger drivers.
5. Meeting the mobility needs of an aging population is complex and will require the expertise and collaboration of several academic and applied disciplines.

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## ELECTION 2010 RESULTS

Thank you to everyone who participated in the first Section on Geriatrics online voting. There was a 25% increase in the voter turnout this year due to your participation! It was a close and exciting election with one race separated by about 60 votes out of more than 600 voters. You, the members, have turned a corner with your contribution to the section through your votes. Let's make election 2010 continue with an increase in our member voting! The Nominating Committee thanks all those who participated in the election process, agreeing to run for office, and consenting to serve. May you continue to seek volunteer participation in the section and pursue involvement through committees, state advocacy, educating others, and encouraging those around us to further the ability of our profession to be advocates for the older adult. We congratulate the newly elected officials.

### Nominating Committee for Section on Geriatrics 2009

Lucy Jones, Chairperson  
Carol Schunk  
Rita Wong

### MEET THE NEWLY ELECTED OFFICIALS



Mary Thompson



Bob Thomas



Anne Coffman  
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# THE SAFETY AND MOBILITY PATTERNS OF OLDER WOMEN IN 2030: DEFINING AND MEETING THE CHALLENGES

Sandra Rosenbloom and Susan Herbel

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Older women are the most likely travelers of any age to die in car or pedestrian crashes. The National Highway Traffic Safety Administration has concluded that unless something is done, these fatality rates will double or triple by 2030 (1). In addition, the driving restrictions that older women adopt are far more likely to have a negative impact on their mobility. Even when they are healthy and continue to be safe drivers, older women are substantially more likely than comparable men to stop driving completely.

More than three-fourths of all older people live in suburban and rural areas—the vast majority of older women therefore are living in places in which a car is a necessity. Older women also are substantially more likely to live alone, to be poor, and to lack retirement income other than Social Security.

Older women today must make a complicated choice—to continue to drive and face an increased risk of serious injury or death or to restrict or cease driving and face the even greater risk of social and emotional isolation. If these trends continue, what can be done so that no one has to face this intolerable dilemma? Examining the many differences in the travel behavior of older women and men can help in developing needed policies.

## Differences in Travel Behavior

At all ages, women today have patterns of licensing, trip-making, and modal choices that differ from those of comparable men. Some of the gender gap is closing among younger generations of travelers but is far from disappearing. Many of the differences seen between older people today may continue into the next two decades.

In 2006, almost 30 million Americans over 65 years of age had a driver's license. Older women, however, were far less likely to be licensed than comparable men; in the over-65 age group, 91 percent of all men but only 71 percent of all women had a license. Many women now over the age of 80 never learned to drive. But the licensing gap between younger cohorts of older people may reflect the greater likelihood that older women will stop driving at younger ages than comparable men.

Many studies have associated increased licensing with substantial increases in all aspects of travel for older and younger travelers alike. Between 1983 and 2001, licensing rates for older women increased by 50 percent, compared with only a 7 percent increase for men. Although men and women traveled substantially more in 2001, the increases were generally greater among women than among men.

Older women and older men drivers make the overwhelming portion of all their trips in a car, either as the driver or as the passenger. Neither group makes more than negligible use of public transit or of other modes of travel.

But riding in a private vehicle and driving the vehicle are two different activities. In 2001, when older women drivers traveled in a private vehicle, they were substantially less likely to be driving than were comparable men. The tendency to be the passenger, not the driver, was highest at the oldest ages. Almost two-thirds of male drivers over the age of 85—but only one-fourth of comparable women drivers—drove the vehicle in which they were riding.

## Self-Regulation and Feelings About Driving

Older people are not risk-takers—they recognize that as they age, they may experience problems in driving, and they change their behavior in response. But older men and women exhibit substantial differences in almost every aspect of self-regulation.

Women and men find different kinds of situations to be problematic. Women are far more likely to find that driving situations have become difficult and to change their travel behavior; they are also far more likely to say that the change in their travel behavior has affected their mobility negatively. The most common form of self-regulation among older women is to cancel a trip when problems arise.

Women drivers are substantially more likely to find driving stressful and to express a lack of confidence in their driving abilities, even if they are objectively good drivers. This leads them to drive less often, which in turn reduces their confidence and increases their levels of stress—to which they respond by driving even less.

Paradoxically, driving less may have a negative impact on driving safety as well as mobility. Crash rates are related to the amount of driving. When crash data are controlled for level of exposure, most researchers find that the age effect in crash rates disappears. Crashes are overrepresented among people who do not drive very much, regardless of age.

This finding reinforces the dangers associated with women reducing their driving significantly. Although baby boomer women may drive more when younger, and therefore be more confident as drivers when older, the Federal Highway Administration has predicted that if 2001 patterns continue, the mileage gap between older women and men will widen over the next four decades (2).

## Response to Safety and Educational Messages

NHTSA found that women younger than 65 responded differently to



messages about driving safety than did comparable men; the study concluded that younger women needed different safety messages from those addressed to middle-aged women (3). Tuokko et al. concluded that educational materials for older drivers had to be targeted differently for women and men, because women were more willing to change their behavior, more consistent in their attitudes toward regulations, and used safer driving practices (4).

Some research has found that older women respond differently from comparable men to older driver training programs. A study of the AARP Driver Safety Program found that women participants were more likely to report that their driving skills had improved (5). Rosenbloom found that 1 year after participating in a variety of safety education programs in Tucson, Arizona, older women were more likely to respond that they did not engage in as much self-regulation as comparable men or as a control group of women who did not participate in the programs (6).

At a minimum, these findings suggest that the safety messages and educational techniques currently in use may have different impacts on women and men. But the findings also may suggest that older driver education programs may give competent women drivers a better idea of the strength of their current skills.

### Driving Cessation

Most research shows that older women give up driving voluntarily at younger ages than comparable men and for less serious reasons. When older women cease to drive, they are much less likely than men to cite medical or health reasons. In a Tucson study, more than 90 percent of men, but only 46 percent of women, who stopped driving during the study reported the causes as serious medical or vision problems. Almost 18 percent of the women who stopped driving said that they "couldn't deal with the stress." None of the men gave that answer.

Married people are more likely to stop driving than those who live alone—but the effect is far more pronounced among women, who constitute the overwhelming number of unmarried older people. This suggests that older women who have a spouse who drives are more

likely to cease driving.

The long-term implications of this decision can be tragic. In several studies, women who had ceased driving but subsequently lost their driving spouse to death or disability expressed regret that they had given up driving. Johnson found that older rural residents who voluntarily stopped driving often had to resume because their social networks were not able to meet their mobility needs (7).

Driving cessation among older women is a response to a complicated set of factors, including a lack of confidence and the stresses of driving. Evidence is growing, however, that older women also are far more responsive to criticism of their driving skills—whether the criticism is valid or not—than are comparable men. Older women may lack confidence in their driving because their spouse directly or indirectly disparages their driving performance; several studies have reported many situations in which older women were discouraged from driving by their partners (3, 8–10).

### Safety Statistics and Trends

Older drivers consistently have lower fatal crash rates per capita than those 21 to 64 years old. When the crash rates are based on exposure, however—that is, on the number of miles traveled—the crash risk increases for older drivers. Those 85 years old and older have the same crash rates per mile driven as those 20 to 24 years old (11). These travel indicators also reveal important differences between older women and men.

On a per capita basis per 100,000 of the population, older women were one-third as likely as older men to be involved in a fatal crash, according to updated 2005 data (12). In 2005, older men were a larger component of fatalities in the age group of 65 and older than in 1995. In contrast, between 1995 and 2005, the absolute number of crash fatalities among older wom-

en fell—often significantly—although the total population of women over age 65 increased by almost 12 percent.

Despite some positive trends in the data, older women and men constituted a larger share of crashes than they did of the U.S. population. In 2006, women over 65 accounted for 13.6 percent of all women but represented 20.8 percent of all female crash fatalities—the highest proportion of fatalities for any population group.

Ferguson and Braitman found that total crash involvement—whatever the outcome—and fatal crash involvement move in opposite directions (13). On a per capita basis, the fatal crash rate increases as people age; however, at all ages, the rate of total crash involvement was lower for women than for men. In 2003, almost 50 fatal crashes per 100,000 drivers involved men who were 85 years old or older, but only 20 involved comparable women.

Controlling for exposure, or miles driven, however, fatal crash involvement for drivers rises sharply after age 70 for men and women, with little difference. By age 85, both men and women drivers had the highest rate of fatal crash involvement among all drivers per 100 million miles traveled. Ferguson and Braitman found that total crash involvement per million miles traveled also rose after age 65, but far faster among men than among women (13). Although older women had fewer crashes per capita than older men, older women were far



**Design improvements at intersections would increase the safety of older pedestrians, who are more likely than younger pedestrians to be killed by automobiles.**

(Photo: Dan Burden)



more likely to die in the crashes in which they were involved.

### Research and Policy Implications

Most experts agree that developing a range of policies and programs to improve the safety and the mobility consequences of an aging society is necessary, by addressing the following:

- **The driving and pedestrian environment**, including a focus on the driver, the vehicle, and the road network;
- **The public transit network**, including initiatives to improve the quality and to increase the quantity; to modify as appropriate the service provided—encompassing new or less traditional service and better travel information, personal security, safety, and accessibility; and to improve the vehicles and the training of drivers;
- **Alternative transportation systems**, including enhancements to the quality and the quantity of service, to the coordination between and among providers, and to dispatching programs, geographic information systems applications, driver training, vehicles, the effective use of volunteers, and expanded use of voucher systems; and
- **Neighborhood design**, including the development of intergenerational and elderly-friendly cities through community design, land use regulations, traffic enforcement, enhancement of personal security, and education, as well as alternative housing options for aging-in-place populations, new communities, and formal and informal active adult retirement communities.

The extent to which these types of improvements would meet either the differential or special safety or mobility needs of older women is unknown. The differences identified between women and men in so many aspects of travel and transportation, however, lead to questions about the applicability of one solution to meet the needs of women and men equally.

### Improving the Driving Environment

Most research on improving the skills of older drivers and pedestrians does not distinguish between females and males. Almost everything that improves safety

and mobility for all older travelers will work for older women. Nonetheless, older women may have safety and mobility needs that are increased or different compared with those of older men. Research and policy analysis therefore need to focus on these differences, as well as on measures that have a positive effect on women and men as they age.

Strategies to improve the driving environment or the vehicle often draw no distinction between the sexes. Older people have trouble with lane markings, signs, and directional messages; whether women and men exhibit important differences in these tasks is not known; if differences are found, programs need to respond and adapt accordingly.

Similarly, information is lacking on how women and men respond to different kinds of safety belts, crash avoidance systems, and other in-car equipment. Older women experience more stress when driving and are more vulnerable in crashes, but studies have yet to determine specific vehicle components that may improve crash protection for women—who tend to be of smaller stature and have different body characteristics—or that may contribute to a less stressful driving experience.

Although some research shows that women and men differ in how they receive and process educational messages about safety and safe driving behavior, more research is needed to investigate ways to target safety programs to older women. Research-based guidance is needed on the most effective ways to prepare training and education programs, media messages, and incentives to encourage women to keep driving safely as long as possible.

### Public Transit and Special Alternatives

A large body of research has outlined the improvements needed in traditional public transit systems and special services for older adults. Since almost 9 out of 10 transit and special transport users over age 65 are women, many of the re-



search or policy suggestions for improving transit and special transportation or paratransit alternatives may address women's specific public transit needs, which range from improved personal security at stops and on board to the restructuring of routes to serve preferred origins and destinations. The extent to which women and men may differ in their responses to specific improvements or services, however, is not known.

Many older women and men live far from public transit services, and if available, the services often are designed for commuters. Substantially increasing the quantity and the quality of public transit services and of alternative services is important. Many federal programs fund special services, and every community hosts different kinds of providers—some programs facilitate volunteers providing rides, and some large systems offer special vehicles and paid drivers.

A study for the Institute of Medicine, however, found that even taken together these providers were unlikely to offer an average of more than three trips a year to each older person with disabilities in their community (14). Moreover, many of these providers tended to limit severely the kinds of trips they serve—for example, allowing only medical trips or agency trips—so that eligible older people must find other means for social, recreational, or grocery trips.

### Neighborhood Design

Many different kinds of land use and planning changes could create communities that facilitate walking or using public transit instead of relying on the car, thus enhancing older people's health, as well as their mobility. Some research, however, suggests that these land use changes also may make communities busier and more active in ways that can

be detrimental to older people, and particularly to older women; moreover, that women and men perceive many design components of the environment differently and therefore modify their travel patterns differently in response.

For example, women tend to perceive situations as more dangerous than do comparable men and do not react in the same way to design changes—such as lighting improvements—that are intended to increase personal security. Good information is lacking on the extent to which any of the land use, community design, and housing options suggested to create more livable communities actually improve the mobility and safety of older women.

### A Threefold Strategy

Society's challenge is to identify and develop a repertoire of mobility and safety options that allow older people, particularly women, to maintain their independence and access in safety. Meeting the dual challenges of keeping older women both safe and mobile requires a threefold strategy in the coming decades:

1. Alter the automobile-based system to facilitate the task of driving, with a focus on resolving the specific problems of older women;
2. Develop a range of appropriate transportation alternatives to meet the special mobility needs of older women, and
3. Redevelop, redesign, and retrofit the communities in which older people are aging.

This threefold strategy requires additional research and policy development, as well as substantial funding. Not enough is known about differences in the way older women and men react to various elements of the highway system or about the vehicle characteristics that will keep women safer and make driving less stressful. Not enough is known about how older women react to different educational and driver training programs, so that the programs can be redesigned to be more effective.

Research has shown how to make public transit and alternative transportation options more useful for older women—the most important changes are to increase the level and quality of services by many orders of magnitude. Although creating the kinds of commu-

nities in which older women and men can rely far less on the private car is an exciting idea, the challenge is to focus on the automobile-dependent neighborhoods in which the vast majority of older people are aging.

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# DIFFERENTIAL DIAGNOSIS OF DIZZINESS UNDERSTANDING DIZZINESS, LIGHTHEADEDNESS, AND VERTIGO

*Kenneth L. Miller, PT, DPT*

## INTRODUCTION

Dizziness is an imprecise descriptor commonly used to describe a variety of closely related subjective symptoms. Dizziness may be described more clearly by use of the following clarifying terms: vertigo, disequilibrium, imbalance, lightheadedness, presyncope, sense of floating or swimming among other terms.<sup>1</sup> In order to effectively examine, evaluate, and treat a person's complaint of dizziness, it is important to have a clear definition of the patient's symptoms beyond the term dizziness.<sup>1,2</sup> A clinician must understand the precise type of dizziness the patient is experiencing including any precipitating factors, alleviating factors, duration, and frequency of symptoms. The type of dizziness described often can assist the clinician to narrow down the etiology of the patient's complaint.<sup>1,2</sup> Taking a clear and concise history, clinical (physical) examination and follow up are the essential tools for the practicing clinician.<sup>3</sup>

## TYPES

### Vertigo

The tell tale characteristic symptom of vertigo is a false sense of spinning or rotation. There are 2 types of true vertigo: peripheral and central. Peripheral type vertigo results from abnormalities in the vestibular end organs (semicircular canals and the utricle), the vestibular nerve, and the vestibular nuclei. The most common cause of peripheral vertigo is benign paroxysmal positional vertigo (BPPV) which occurs when debris (otoconia) from the utricle within the endolymphatic system causes positional irritation to the cupula in the semicircular canals stimulating vertigo and nystagmus. Canalith repositioning maneuvers, such as the Epley and Semont maneuvers have been used to treat BPPV to redirect the otoconia back to the utricle.<sup>4</sup> Peripheral vertigo can also be caused by otitis media, labyrinthitis, vestibular neuritis, and acoustic neuromas.<sup>4</sup> Any pathology that affects the sensory organs of the peripheral vestibular ap-

paratus and/or the vestibular nerve may cause unequal sensory input resulting in nystagmus and peripheral vertigo.

Central type vertigo presents with marked vertigo, vertical nystagmus, and nausea. The neurologic symptoms such as gait ataxia and headache may be present.<sup>4</sup> The structures involved with central type vertigo include the cerebellum, brainstem, medulla, and pons. Cerebellar hemorrhage, brainstem ischemia, vertebrobasilar insufficiency, transient ischemic attacks are possible causes of central type vertigo. Central type vertigo is present when there is central nervous system pathology and dysfunction.

### Feeling Faint or Lightheaded

Dizziness that is more clearly defined as feeling faint or lightheaded may be related to diffuse cerebral ischemia which is present with orthostatic hypotension, vasovagal episode, cardiac arrhythmia, or hyperventilation.<sup>4,5</sup> These patients sometimes may have nausea, diaphoresis and a sense of warmth accompanying their feeling of faintness. Patients with a history of unexplained fainting or recurring presyncope need to be evaluated for cardiac causes of their symptoms.<sup>4</sup>

### Disequilibrium

Disequilibrium of this type is characterized by a feeling of imbalance or unsteadiness while standing or walking.<sup>1,5</sup> Possible etiology for the feeling of imbalance are cerebellar atrophy, stroke, peripheral neuropathy, and ototoxicity.<sup>5</sup>

### Sense of floating or swimming

People that have dizziness that is described as floating or swimming may have psychogenic dizziness caused by anxiety, depression phobias, panic attacks, and somatoform disorders.<sup>1,5</sup>

## ASSESSMENT

### History

The first and most critical step in proper management of dizziness is tak-

ing a good history. Chawla and Olshaker have reported that the term "dizzy" is used by patients for a variety of experiences and must clarify the actual complaint.<sup>4</sup> A clear history can elicit true vertigo (sensation of movement or spinning) from "dizziness," presyncope, and lightheadedness and whether an episode of true vertigo is of central or peripheral cause.<sup>4</sup> Delineating whether the vertigo experienced is of a central or peripheral origin is important because of potentially life threatening and permanently debilitating diseases noted more with central causes of vertigo as opposed to peripheral vertigo which are mostly benign and readily treatable.<sup>4</sup>

The typical characteristics between peripheral and central vertigo seem to be opposite from each other. Peripheral vertigo generally has a sudden onset with severe symptoms whereas central vertigo has a gradual onset with mild symptoms. The associated nystagmus with peripheral vertigo is in the horizontal direction and is fatigable whereas the nystagmus seen with central vertigo is vertically oriented and remains persistent. The associated symptoms are also different between central vertigo and peripheral vertigo. With central vertigo, there are associated neurologic and or visual symptoms. Peripheral vertigo has auditory symptoms such as tinnitus, hearing loss, or a fullness in the ear.<sup>4</sup>

With an understanding of the defining characteristics of vertigo (central vs. peripheral) and nonvestibular dizziness (disequilibrium, imbalance, lightheadedness, presyncope, and psychogenic dizziness), the evaluating clinician can elicit a clear history by asking specific questions. These specific questions can assist the patient to describe their complaints more accurately and present a clear history of symptoms to the clinician.<sup>4,5</sup>

Baloh reported that it is critical for the examining clinician to take a careful history to determine the type of dizzi-



ness before proceeding with diagnostic studies because the evaluation and treatment differ markedly depending on the category of dizziness.<sup>5</sup> The clarifying terms for dizziness such as “light-headed,” “floating,” “giddy,” or “swimming” are typical of nonvestibular (non vertigo) dizziness.<sup>5</sup> In order to properly differentially diagnose true vertigo from other forms of dizziness, the clinician must have an array of clearer terms to help the patient more clearly describe the symptoms the patient is experiencing. See Table 1 for classifying type, symptom terminology, and common causes of dizziness. Interestingly, it has been reported by Labuguen that a thorough history alone can diagnose up to 75% of the patients with dizziness.<sup>7</sup>

A screening dizziness questionnaire has been developed by Kentala and Rauch that was able to classify 60% of the subjects in a prospective blinded study, who had a common otogenic cause of vertigo.<sup>6</sup> The questionnaire consisted of 5 short yes/no questions. Question 1 asked if the person had hearing loss in order to differentiate central versus peripheral vertigo. Question 2 asked if the person has true vertigo defining true vertigo as feeling a false sense of motion, floating, bobbing, swaying, rocking, tilting, or swimming in order to categorize the dizziness as vertigo or of nonvestibular origin. If question 2 is answered yes, then question 3 asks about the duration of the vertigo symptoms. If question 2 is answered no then question

4 asks the person to describe their dizziness symptoms more clearly. Question 5 asks the person to describe the duration of the dizziness symptoms. The positive results of this brief questionnaire along with the history of symptoms, medication history and social history help to categorize the type of dizziness the patient is experiencing.<sup>1,4,6</sup>

Labuguen suggests for the clinician to ask the patient, “When you have your dizzy spells, do you feel light-headed or do you see the world spin around you?” and receive a yes answer to the latter part of the question, this has been shown to accurately detect patients with true vertigo. Next it is important to determine if the vertigo is central or peripheral. Continue the history taking by asking

**Table 1. Classifying Type, Symptom Terminology, and Common Causes of Dizziness<sup>4-7</sup>**

Type of Dizziness/Etiology	Clarifying symptoms/pt complaints	Common Causes*	Associated Symptoms*
True Vertigo:			
Central type	Sensation of movement or spinning (person or environment).  Feeling of imbalance or tilting to one side.	Vertebrobasilar insufficiency neuro labyrinthitis Cerebellar hemorrhage Brainstem ischemia Multiple sclerosis Migraine	Neurologic symptoms Headache (migraine) Visual changes Seizures Ataxia Other gait disturbances Nystagmus Aura Headache
Peripheral type	Same as for Central	Benign positional vertigo Meniere's syndrome Labyrinthitis Otitis Media Vestibular neuritis	Vertigo with position change Hearing loss Aural fullness Tinnitus Nausea and vomiting with severe episodes Nystagmus
Nonvestibular Dizziness:			
Presyncopal/Syncopal	Light-headedness Faint	Postural Hypotension vasovagal episode cardiac arrhythmia hyperventilation	No nystagmus Irregular heart beat Bradycardia Orthostatic Hypotension (drop of 20 mm Hg or more upon standing)
Disequilibrium	Imbalance	Ototoxicity peripheral neuropathy stroke cerebellar atrophy	Loss of vestibulospinal, proprioceptive or cerebellar function
Metabolic	Light-headedness	Hypoglycemia Thyroid dysfunction Pregnancy Menstruation	No nystagmus Low blood sugar Hormonal changes
Medication	Light-headedness, wooziness	Ototoxic meds Antipsychotics Antidepressives Anxiolytics Mood stabilizers Anticonvulsants	Other medication side effects/reactions
Psychogenic dizziness	Spacey or disconnected feeling Vague complaints which are out of proportion to physical findings	Anxiety panic attacks phobias	No nystagmus
This is not an exhaustive list.			



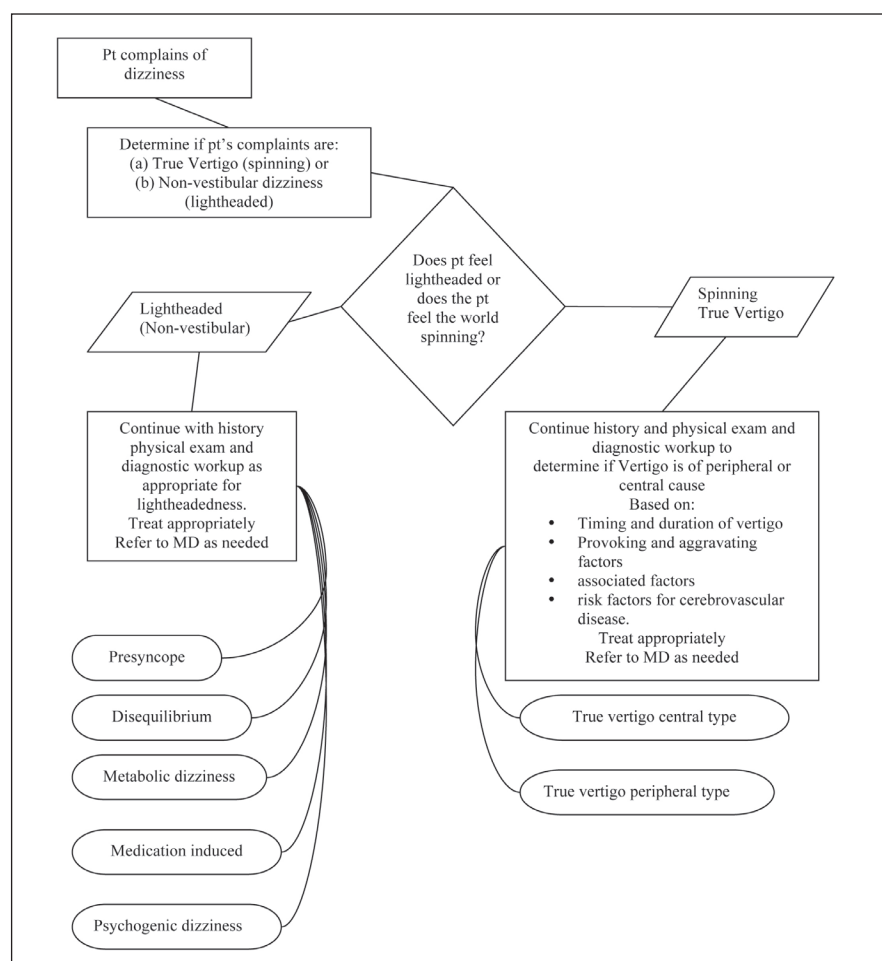
about the timing and duration of the vertigo; what provokes or aggravates it; and whether any associated symptoms exist, especially neurologic symptoms and hearing loss.<sup>7</sup>

Going back to the former part of the above question, if the complaints are of nonvestibular origin then the etiology needs to be further clarified through the history determining if the dizziness is due to metabolic disease (ie, hypoglycemia), or presyncope (ie, orthostatic hypotension), medication induced dizziness, psychogenic dizziness, or disequilibrium.<sup>7</sup> Figure 1 contains a history taking decision tree for complaints of dizziness which assists the clinician in performing a thorough history interview.

oculomotor system for smooth pursuit, saccadic eye movements, nystagmus and the vestibulo-ocular reflex.<sup>1,4,5</sup> According to the history and the type of dizziness being described, a more thorough cardiovascular exam is indicated for the complaints of lightheadedness. A person with diabetes mellitus and nonvestibular dizziness should have hypoglycemia ruled in or out by being evaluated for blood glucose levels. A person with true vertigo requires a thorough neurologic examination and a check of gait and standing balance.<sup>1,4,5</sup> See Table 2 for routine physical examination specific for dizziness. The physical examination provides the clinician with further evidence when differentially diagnosing a

**Table 2. Routine Physical Examination Specific for Dizziness<sup>1,4,5</sup>**

Routine physical examination specific for dizziness.
Check smooth pursuit and saccadic eye movements.
Check for spontaneous nystagmus in the light when the patient is fixating a target and also with fixation blocked.
Check the vestibulo-ocular reflex by doing a head thrust test.
Positional testing; do the Hallpike-Dix test to check for benign paroxysmal vertigo and central positional vertigo, if history and oculo-motor exam indicate peripheral vertigo etiology.
Check standing balance: Romberg, sharpened Romberg, tandem gait (eyes open and eyes closed); check gait looking for ataxia, wide base, irregularity of steps, tremor of the trunk and lurching from side to side.
Check pupillary reactivity.
Cardiovascular examination: check vital signs—paying particular attention for positional hypotension, arrhythmia, auscultation (carotid bruit, heart murmur)
Check blood glucose levels, if history of diabetes mellitus is present.
Neurologic examination: Check cranial nerves, cerebellar function (finger to nose, rapid alternating movements).



**Figure 1. History taking decision tree for complaints of dizziness.**

## Physical Examination

Although a thorough history alone has been reported in the literature to diagnose from 60% to 75% of patients with dizziness, it is important to perform specific examination tools on all patients.<sup>1,6,7</sup> The routine physical examination for a person with dizziness must include assessment of the

patient with dizziness. After taking a history and performing the physical examination, sometimes it is necessary to perform laboratory tests, imaging studies or other more specific testing such as electronystagmography to rule in or rule out a specific disease. For the purpose of this article, laboratory tests, imaging and radiological examinations, and specific

specialized testing procedures including specific vestibular testing are outside of the scope of this article and will not be discussed here.

## CONCLUSION

Dizziness is a common symptom that affects more than 50% of the elderly population and is the most common reason for visiting a physician after the age of 75.<sup>1</sup> The term dizziness is a nonspecific complaint that has a broad differential diagnosis.<sup>2</sup> It is crucial to remember that the source of the dizziness complaint could be neurological, cardiovascular, psychiatric, medication related, or from a metabolic pathology.<sup>2</sup> Taking a thorough history and performing a physical examination as described here, a clinician has a clear process by which to establish a diagnosis. The importance of being able to determine the etiology is more incumbent on the practicing physical therapist in today's health care environment with direct access expanding across the United States. The differential diagnosis will allow for more effective treatment, when warranted as well as guide the physical therapist

as to when to refer a patient for medical attention.

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## ITINERARY PLANNER FOR CSM

*Jill Heitzman*

For the first time in APTA conference history we'll be offering an Itinerary Planner for attendees to create online schedules before arriving to conference. This will be on the APTA Web site for CSM.

### What does this mean to you as an attendee?

We should have the Itinerary Planner available for use by the middle of December. This planner allows attendees to browse through programming sorted by day, then by Section. People will be able to view the list of speakers on the presentation, the description, and the cosponsors. They also will be able to add any session of their choosing to a personal schedule. They have unlimited access to this Planner. Once a person has created an Itinerary they can add and remove programming at any time and ultimately print out their schedule with or without the full list of speakers and descriptions.

### Is there access to abstracts?

Absolutely! We will have all of the posters organized by day and listed out numerically by Section. Attendees have the option of selecting poster presentations to include in their Itinerary and can print out original abstracts directly from the site. Platform abstracts have not been published through our Web site in the past. We are working to change this! The expectation is that all platform abstracts will also be available for selection and printing.

### Questions?

If you have any questions, do not hesitate to get in touch with the Section on Geriatrics Program Chair, Jill Heitzman at [jheitzpt@aol.com](mailto:jheitzpt@aol.com).

## SIG Update:

### Proposed Changes to the SIG Standing Rules

At CMS 2010, members will be voting on a proposed set of standing rules. The rules for the Balance & Falls SIG, the Health Promotion & Wellness SIG, and the Bone Health SIG have each been changed to allow for: (1) staggered terms of SIG chairs and (2) online elections for all SIG officers that will coincide with the Section of Geriatrics' Board Of Directors elections in the fall every year. More specifically the new standing rules will alter the elections of SIG chairs as follows:

New SIG Chairs will hold a 3 year term and be elected in the follow year:

Balance and Falls: Beginning in 2010, each chair will serve a 3 year term, and all positions will be elected every three years (e.g. 2010, 2013, 2016, etc.).

Bone Health: Beginning in 2011, each chair will serve a 3 year term, and all positions will be elected every three years (e.g. 2011, 2014, 2017, 2020, etc.).

Health Promotion and Wellness: Beginning in 2012 all positions will be elected every three years (e.g. 2012, 2015, 2018, etc.).

The proposed version of the SIG Standing Rules can be found online at the Section on Geriatrics Web site: <http://www.geriatricspt.org/>

# CANCER: THE PERSONAL EXPERIENCE

## SEGMENT THREE—SURVIVORSHIP: LIFE AFTER CANCER

*Helen Z. Cornely, PT, EdD*

Cancer—it is a dreaded diagnosis despite all the recent improvements in treatment and cure. This year, about 565,650 Americans are expected to die of cancer, more than 1,500 people a day. Cancer is the second most common cause of death in the US, exceeded only by heart disease. In the United States, cancer accounts for 1 of every 4 deaths.<sup>1</sup>

No one ever thinks cancer will happen to them or to their family. Unfortunately, this is not true. Three out of every four American families will have at least one family member diagnosed with cancer. There are more than 10 million people in the US today who are cancer survivors.<sup>2</sup> My husband is one of them.

As a physical therapist and professor, I have treated and I have taught students how to treat individuals with cancer diagnosis. I had all the evidence-based practice information on how to best intervene for my patients with cancer. I had all the right words to say. I had coached many students in empathetic responses in working with individuals undergoing the travails of cancer management with chemotherapy, radiation, surgery, and then dealing with the sequelae and rehabilitation following. I had everything, (at least I thought I did) but the personal experience.

I am writing the third and final in a series of articles to share with other therapists my journey as a physical therapist professor who finds herself a caretaker of a person with cancer. It is not all about references and resources. It is about reflection on how physical therapy can impact patients with cancer. The first article focused on diagnosis,<sup>3</sup> the second focused on treatment intervention, and this article the third and final will contemplate survivorship and life after cancer.

In this journey, I re-examined my focus as a health professional and gained new perspectives on the health care system. This journey into the forays of cancer is life altering for all involved. As I became immersed in the health care system from the receiving not giving end,

I relearned what qualities are essential in caring for our health. It is this reawakening and perspective I want to share with my fellow therapists. Perhaps many of you have gone through this journey and my words will be affirmation of what you went through. Or perhaps my words will bring new insight into how we approach each individual as they prepare for or have gone through the fight of their lives, the fight to beat cancer. I will share with you my lessons learned.

In the first article, I shared the impact of hearing, “You have cancer” and how that affects your psyche and how we as physical therapists can intervene with pretreatment exercise, stress reduction, relaxation techniques, and referral to nutritionists. In the second article, I shared the amazing blur of the interventions of chemo, radiation, and surgery and how the medical systems engulf your life. But now the intervention is over. Somehow, there is a feeling that all should be finished and the cancer should disappear. The cruel irony is that although the biological traces of cancer may be gone, the effects of the treatment linger. These lasting effects play havoc on the psyche that questions if the cancer is gone, and questions why don’t I feel better. This phase, or survivorship phase, is the topic of the third and final article in this series. So continue along with me on my journey....

We were done. I say we because it truly was a team to get through the chemo, radiation, and surgical procedures to ensure the neck cancer was truly eradicated. Lesson learned here is that every patient needs an advocate, who can guide, listen, help, intervene with medical personnel, and help with the basics of transportation and food. Unfortunately, not everyone has such an advocate. But could we not as medical professionals, each perform a portion of that advocacy? Simple questions, “Are you eating ok?”, “Do you need help getting to the appointments?” could prompt referrals to dietetics and social work. We are helping

professionals, and I hope we never stray from that basic concept.

Well now what? No more daily radiation trips or chemo hospital stays. Surgery is over. We are DONE! Or are we? Truly another journey awaited us. One that I was not as prepared for. It is assumed when you finish your interventions, you should feel better. In truth you will feel better but over time, slowly improving, slowly shedding the side effects of the chemo, radiation, and surgery. You are still in fear. Fear that the cancer is not really gone. You question, “Will I ever get back to normal again?” The truth is “normal” for any cancer survivor changes definition. Lesson learned. Change is the one constant in life. Embrace it and learn from it.

However for my husband, it was the difficulty of titrating the potent pharmaceuticals that proved the most difficult post cancer intervention. My husband had been taking Roxicet (Oxycodone Hydrochloride and Acetaminophen oral solution) along with Fentanyl transdermal patches for pain associated with the chemo and radiation treatments. These are powerful narcotics. Although the physician did continue to decrease the dosages, my husband would try and decrease the dosages even more by himself, thinking of course he was trying to help with the process of getting off the drugs. However what happened was a rebound phenomenon. When he reduced the medication, his pain, headaches, fatigue, abdominal distress all returned with increased intensity and then of course he increased the medicine again. This was all well intended on his part, but he had no idea of the potency of the medications he was taking. Roxicet and fentanyl are highly addictive substances. We were given carafate for his gastrointestinal issues, but it only masked the problem of the narcotics. When we addressed the problem of the medications, we were finally referred to a pain specialist who better focused on the issue of titration. Lesson learned here. Never assume patients understand

as much as you know. Make sure you explain all aspects of the procedures and why they need to follow the instructions completely. Be careful with medications; they are powerful.

The long term effects of chemo and radiation are well documented. What is not well understood is which of these long term effects may arise in each individual. For head and neck cancer, long term effects of radiation can be decreased salivation, dental decay, nutritional problems, and premature vascular disease. Cytotoxic chemotherapeutics are associated with diarrhea, mucositis, skin changes, and persistent gastrointestinal effects.<sup>4</sup>

In general, the most common problems reported by cancer survivors are fatigue, memory and concentration changes, pain, nervous system changes (neuropathy), lymphedema or swelling, mouth or teeth problems, changes in weight and eating habits, trouble swallowing, bladder and bowel problems, and depression.<sup>2</sup> These are pervasive sequelae and physical therapy should certainly play a role in the interdisciplinary team in ameliorating these sequelae. Lesson learned. This is another golden opportunity for physical therapists to demonstrate the power of our profession. In the list of common problems of cancer survivors, physical therapists can impact fatigue, pain, lymphedema, bladder and bowel problems, and depression. If we just made sure every cancer survivor was referred for an exercise program we could help with fatigue, depression, and possibly pain control.

Physical therapy needs to be part of the survivorship plan or prescription for living. There are multiple online resources about life after cancer treatment. One of the most patient friendly I found was Facing Forward: Life After Cancer Treatment from the National Cancer Institute.<sup>2</sup> This comprehensive online resource is clearly written with practical information on all aspects of survivorship. Unfortunately, I found this on my own searching. The concept of a survivorship plan was not introduced through our medical interventions. I urge you as physical therapists to engage your patients in a survivorship plan. The literature is out there, but it is not being translated into practice with consistency. Two decades of advocacy work by the National Coalition for Cancer Survivorship (NCCS), the Office of Cancer Survivorship (OCS), the National

Cancer Institute (NCI), and the Lance Armstrong Foundation have provided much of the impetus toward identifying, addressing, and acknowledging the many needs of cancer survivors. But not nearly enough is being done, according to survivors.<sup>5-7</sup> With cancer survivors numbering more than 10 million in the United States,<sup>2</sup> from a direct result of advances in diagnosis and treatment, what are we as health professionals doing to help these survivors as they face the long term sequelae or late effects of cancer? Perhaps physical therapists can lead in survivorship advocacy?

It has been 2 years now since my husband's diagnosis. It is only recently that he easily says to people, "I had neck cancer." Socially, we still stigmatize cancer. He is now back to work as an attorney and we are not obsessed with his health issues. However, I do notice occasional memory lapses. Is this from the cancer treatment or just aging? I don't know nor can anyone, but if you have gone through cancer intervention your mind immediately assumes it is from the interventions. He still experiences headaches and occasional gastrointestinal problems which I am sure are cancer sequelae. He continues with acupuncture to help with the headaches. We both go to Yoga weekly. He exercises regularly by walking, bicycling, and doing lawn work. We are more careful about our diet, focusing on fruits, vegetables, and less red meat. In general, we are settling into our new "normal." The medical checkups and MRI is now reduced to every 6 months from every 3 months. However, the anxiousness returns after every MRI until the results are returned with a clean scan. The same anxiousness returns with every visit to the hospital as memories of intervention flood back. Lesson learned. You can survive and your life will change, but that's ok. Life is a journey and journeys are about facing and enjoying the changes that come your way.

I hope that my thoughts and the sharing of my journey will make you stop, think about yourself, your patients, your friends, your family, and other health professions and how you can make a difference in their lives by being who you are—a physical therapist and a human being.

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# THE POWERFUL PRESENCE OF PEDOMETERS: ENHANCING PARTICIPATION THROUGH COUNTING

*Lisa Rothman, PT, DPT; Tricia Anastasio, SPT; Elizabeth Anastasio, SPT;  
Timothy Bambrick, SPT; Timothy Harris, SPT; Igor Tserlyuk, SPT*

*The following article was written by students of SOG member Lisa Rothman, PT, MS, DPT who is an adjunct professor at the Department of Physical Therapy at CUNY/Graduate Center, College of Staten Island. They wrote it as part of an assignment for physical therapy month. Although geared for a general adult population, it has implications for our patients/clients as we continue to encourage activity among aging adults.*

Ten-thousand steps is the average number of steps an average adult takes daily. How far off this mark are you or your patients? Health professionals have long stressed the importance of walking as a means to lose weight and stay in shape. Advances in technology have significantly subverted this endeavor by enhancing our capacity to survive, and even prosper, without much physical effort. Today, walking is on the decline. But it is an activity that spans the generations and is the main exercise activity of older adults. "How far is 10,000 steps anyway? The average person's stride length is approximately 2.5 feet long. That means it takes just over 2,000 steps to walk one mile, and 10,000 steps is close to 5 miles."<sup>1</sup>

A fitness advertisement following a drop of sweat as it rolls down the sinuous crevasse of a tight midsection may not be fooling anyone into purchasing the product it boasts but the collective bombardment of like advertisements does take its toll. It perpetuates a fallacy, by shaping our notion of exercise, by insinuating an image of what it means to exercise, it idealizes a lifestyle out-of-reach to most, one that embraces fanaticism as the only means to better health. This is a dangerous concept because it lends itself to the all-or-none. It instills a determination to abandon oneself to daily bouts of heavy lifting and aerobics. Commitments of this caliber, though not unachievable, require strong will. The willfulness to change is latent in all of us but always on the cusp

of a new day. A plan to get in shape will commence tomorrow we, halfheartedly, convince ourselves but plans and commitments are not always realized. It does not have to be such a challenge.

The 10,000 step program, which sets 10,000 steps daily as a goal to improve health has been shown to lower blood pressure, increase exercise capacity, and improve glucose tolerance.<sup>2</sup> If that weren't enough, it has been shown to help participants lose or maintain weight! While the goal of 10,000 steps may be more than achievable for older adults, a lower goal will still contribute to optimal health.

Keeping track of steps can be done by using inexpensive step counters called "pedometers." But, watch out; really inexpensive pedometers often produce inaccurate counting and count activities like sitting or bending as a step. In a recent study 6 out of 10 electronic pedometers were accurate at speeds of 80 meters per minute with some overestimating distance traveled at slower speeds and underestimating distance traveled at higher speeds.<sup>3</sup> Although not endorsed by the researchers, the following pedometers demonstrated the best results in the study:

**Yamax Digiwalker SW-701** (\$30), considered the gold standard used by many experts to evaluate other pedometers.

**New-Lifestyles NL-2000** (\$70), which is ideal for overweight walkers since it can be worn below the waist.

**Kenz Lifecorder** (\$295), which tracks intensity and calories, and come with software to store data.

The accuracy level of a pedometer can be checked at <http://www.pedometers.com/reviews.asp>, which has reviewed a number of the more popular pedometers in great detail. For pedometers that don't appear on the list, the easiest method to self-test the devices is to walk a certain amount of steps and check the pedometer intermittently to see if the numbers match. Also check the pedometer when

sitting, standing, and bending to see if it accidentally registers steps.

During the 1960s, the 10,000 steps a day philosophy, called Manpo-kei, was established in Japan to encourage physical activity and provide a targeted step goal. The 10,000 Steps® program which was initiated in 1994 by HealthPartners, a health plan, in Minneapolis MN, is now widely spread and acknowledged as an actual means to improve health and decrease weight. The biggest challenge has become finding ways to get people to walk more. In order to investigate whether merely wearing a pedometer has any significant effect on the number of steps taken daily, Brevata et al performed a meta-analysis of 26 prior studies of pedometers usage. The studies compiled for the meta-analysis used a total of nearly 2,800 adult outpatient subjects. The average age of subjects was 49 and 85% of those involved were women. Results showed that the pedometer-wearing groups, on average, increased their daily steps by 2,183, a 27% boost in activity compared to control groups which did not wear the pedometer. Additionally, when participants using the pedometer set a specific daily step goal, activity increased at an even greater rate. The specific health benefits for pedometer-wearers noted in the study were both a lowering of body mass index (BMI) and a drop in systolic blood pressure that averaged 4mm/Hg. Reductions in systolic blood pressure of only 2mm/Hg have been shown to cut stroke mortality risk by 10% and risk of death by vascular causes by 7%.<sup>4</sup>

## CONCLUSION

Our responsibility to clients and patients in the achievement of optimal health is to encourage increased activity. Evidently, one of the most direct routes to walking more steps is acquiring and wearing a pedometer. The motivational and influential effects of clipping the small device on a waistband or pocket present themselves here, with the pedometer-wearing class being more conscious

of their step count, and therefore more driven to succeed in increasing daily steps. The evidence reported here has pointed in the direction that pedometer use would be of significant use in helping people achieve a goal longer distance walking. The introduction of a pedometer as a motivational and tracking tool in ambulation is a step in what should be many steps in the right direction.

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Lisa Rothman is a physical therapist with 33 years of experience in the areas of pediatrics, home care, and private practice (All-care Physical Therapy, Brooklyn New York

for which she was the founder). She received degrees from University of Michigan (BS), Long Island University (MS), Long Island University (DPT) and has been an adjunct at the CUNY Graduate Center, College of Staten Island, Department of Physical Therapy since 1998. She can be reached at [lisa.rothman@csi.cuny.edu](mailto:lisa.rothman@csi.cuny.edu).



Student Authors--top row left to right: Igor Tserlyuk, Liz Anastasio; bottom row left to right: Trish Anastasio, Tim Harris. Not pictured: Tim Bambrick.

## Are We Sleeping?

The following biographical information and photographs were unintentionally omitted from the November issue of *GeriNotes*. Certo and San Lorenzo are the authors of the article *Are We Sleeping*.



Vincenette has 19 years of administrative experience working in the health care industry. Currently, in her position as Director of the M.O.G. Group, she implements policy and procedures that coordinate the practice of physical therapy and fitness programming into an integrated health promotion company. She also is a consultant assisting Physical Therapists in the strategic transition of implementing medical fitness programming into their existing practices. Vincenette graduated from the State University College at Buffalo with a BS in Business and Marketing and special studies in Distributive Education.



Russell is a 1982 graduate of Quinnipiac University. He has worked in various medical centers, including the University of North Carolina Medical Center and Duke University Hospital. In 1988 he opened his own outpatient Physical Therapy Clinic, Grand Island Physical Therapy PC and in 2005 added the Medically Oriented Gym (M.O.G.) to his existing practice. The M.O.G. Model has been incorporated into private Physical Therapy Clinics in Maine, Connecticut, Minnesota, and California.

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# AN INVITATION TO SHIFT PARADIGMS IN THE TREATMENT OF PATIENTS WHO HAVE UNDERGONE OPEN HEART SURGERY

Yvonne Harrison, PT, GCS

## INTRODUCTION

The purpose of this article is to invite you to consider patients who have undergone surgery for coronary artery bypass graft (CABG) and or mitral or atrial valve replacement (AVR/MRV) in a different way. Typically, patients who have had a sternotomy receive physical therapy postsurgically that is focused on teaching sternal precautions, bed mobility, and progressing ambulation. Perhaps when treating in the acute care setting we should consider what may become of these patients long after they have recovered from surgery.

## BACKGROUND

Common areas for persistent pain, 2 or more months after cardiac surgery are shoulders, 17.4%; back, 15.9%; and neck, 5.8%. The intensity of pain was reported as mild with only 7% reporting interference with daily living.<sup>1</sup> How often do you receive a physical therapy referral to treat someone who has had a CABG and or AVR/MVR for one of these painful patterns? If the literature is any clue, it is rarely. This may be because this pain is considered typical after sternotomy. It also may be due to the numbers. In 2003, 152,000 Medicare patients underwent CABG.<sup>2</sup> If 17.4% experienced mild shoulder pain, that would only be 26,448 people. How many would seek treatment by physical therapists? My guess is probably not very many. Conversely, those that might seek treatment are the 7% or 10,640 who have pain that interferes with daily living. Since this pain could be back, neck, or shoulder and the cardiac surgery remote, the relationship of the pain or functional limitation to sternotomy could easily be missed.

In the 1997 study by Stiller et al, approximately 30% of the patients developed musculoskeletal problems which interfered with their level of function 8 to 10 weeks postoperatively. Moreover, an exercise regimen instructed during hospitalization and to be carried out by the patient upon discharge aimed at

shoulder girdle and upper back range of motion was unsuccessful in preventing complications. The exercises performed were: shoulder elevation through flexion with elbow straight; shoulder elevation through abduction with elbow straight; scapula elevation; scapulae protraction and retraction; upper body rotation and upper body lateral flexion.<sup>3</sup>

## OPPORTUNITY

It is my opinion that as physical therapists we are uniquely qualified to assess this complex musculoskeletal dysfunction. We seek to understand how muscles/joints/bones/organs work in relationship with each other. We can appreciate that as the sternum is incised 15-25 cm, remaining retracted for the duration of surgery and then wired back together, that the anterior chest muscles, clavicle, and ribs are affected. We can easily visualize that the scapula and thoracic spine are stressed. And depending upon the co-morbidities of the patient, the cervical as well as lumbar spine could easily be impacted.

When treating the patient in the acute care environment after sternotomy, I have begun to incorporate scapular PNF diagonals with deep breathing exercise to complement the more typical approach. One of my goals is to minimize the use of accessory muscles for breathing while facilitating the support of the scapulae and thoracic spine. In addition to encouraging proper posture and decreasing pain, it provides needed stability and strength for transfers, bed mobility, and ambulation. And perhaps, even more importantly it teaches the patient that they can move in a way that does not increase their pain. Having the patient perform gentle diaphragmatic breathing through his nose, stimulates the autonomic nervous system and facilitates relaxation, a great tool to assist in reducing anxiety. Education is key in helping the patient understand the importance of maintaining or improving anterior chest muscle length. I remind them to gradually move out of the position of comfort of: head for-

“Education is key in helping the patient understand the importance of maintaining or improving anterior chest muscle length.”

ward, shoulders rounded, and increased thoracic kyphosis. The patient is encouraged to gradually return to lying flat with minimal use of pillows, to increase the time spent in sitting, standing, and walking with the spine erect, chest upright, and scapulae depressed and retracted.

In the outpatient arena, the patient's surgical history as well as postural evaluation offer clues to a potential problem. Examination of the anterior chest and thoracic spine as well as the upper quarter may include mobilization techniques as well as scar massage. Observation and assessment of the patient's breathing includes depth, excursion, pattern, as well as rate. Habitual positions of rest are reviewed to determine the extent of flexion bias. Often, exercise programs incorporate stretching of the anterior chest and neck musculature as well as strengthening the scapular depressors and retractors. Use of PNF at the scapula has been particularly helpful in restoring coordination and integrating function. Posture improves with awareness training using visual and kinesthetic techniques as well as endurance training. Finally, ongoing education about all these components is integrated and given meaning by relating it to the patient's specific functional goals.

## RESEARCH QUESTIONS

There are so many questions...Here are a few of mine. What happens at the AC joint during sternal retraction? What forces are acting on the thoracic spine during CABG, AVR/MVR? What exercises are most beneficial? What, if any, premorbid conditions predispose the patient to developing postsurgical muscular skeletal dysfunction? Does the duration of surgery make a difference?



## CONCLUSION

Certainly you can see that there are more questions than answers in this article. Hopefully you will look at the musculoskeletal complaints of the patient who has undergone CABG and/or AVR/MVR in a new way. Let me encourage you to do your own Google search, check out YouTube for videos of open heart surgeries. Finally, if you work with this unique population it would be wonderful to hear what interventions have been helpful and if you have found any particular pattern of musculoskeletal dysfunction.

## REFERENCES

1. Ho S, Royse CF, Royse AG, Penberthy A, McRae R. Persistent pain after cardiac surgery: An audit of high thoracic epidural and primary opioid analgesia therapies. *Anesth Analg*. 2002;95:820-823.
2. Wilson CT, Fisher ES, Welch HG, Siewers AE, Lucas FL. US Trends in CABG hospital volume: the effect of adding cardiac surgery programs. *Health Aff (Millwood)*. 2007;26(1):162-168.
3. Stiler K, McInees M, Huff N, Hall B. Do exercises prevent musculoskeletal complications after cardiac surgery? *Physiother Theory Pract*. 1997;13:117-126.

Yvonne Harrison, PT, GCS is a 1980 graduate of St. Louis University and currently a post professional DPT student at Northern Arizona University. She works at Mayo Clinic Hospital in Arizona in both inpatient and outpatient therapies. Her special interests include rehabilitation of patients undergoing mechanical circulatory assistive devices (MCAD) as well as heart replacement.



PHYSICAL THERAPY  
UNIVERSITY OF MINNESOTA

## Clinical Residency in Geriatric Physical Therapy

The University of Minnesota Program in Physical Therapy is seeking applications for a new Geriatric Clinical Residency beginning September 2010. This 12 month program will provide residents extensive didactic education, clinical practice, and individual mentoring in the area of geriatric physical therapy and issues related to aging. Clinical Faculty are geriatric experts in a number of disciplines. New graduates and experienced clinicians are encouraged to apply. Resident graduates will be prepared to sit for the GCS exam. Residents will earn a salary with benefits, and pay minimal tuition. For an application or further information, please contact Residency Director, Becky Olson-Kellogg, PT, DPT, GCS at 612-624-6591 or [olso0184@umn.edu](mailto:olso0184@umn.edu)  
**Applications due March 31, 2010.**

## CALL FOR VOLUNTEERS

*Why do We  
Want Volunteers?*

Browse the website. Read the Journal. Look through our course offerings or newsletter. Everything produced by the SoG has been created by volunteers. You ARE the Section on Geriatrics. We welcome your interest in getting involved, and invite you to read about available positions.



Visit [www.geriatricspt.org](http://www.geriatricspt.org), and click "About Us" for Volunteer Opportunities.



The Section on Geriatrics would like to invite all:

**Newly Certified GCS,  
Recertified GCS and  
First Time Attendee  
to the Annual GSC  
Breakfast!**

The GCS Breakfast will be on  
Thursday, February 18, 2010  
from 7am-8am!

All members are welcome to celebrate and welcome these new GCS and first time attendees to CSM.





# RESIDENCY/FELLOWSHIP EDUCATION: WHAT EVERY CLINICIAN AND CLINICAL SITE NEEDS TO KNOW

Greg Hartley, PT, MSPT, GCS

Residency and fellowship education is a focus of postprofessional development for the APTA and the Section on Geriatrics. Increasing the availability of residency and fellowship education is an objective of both entities. Postprofessional residency education continues to gain popularity and new programs are developing across the country. At the time this article was written, there were 24 APTA credentialed residencies in orthopedics, 11 in sports, 6 in neurology, 3 in pediatrics, 2 in women's health, and 4 in geriatrics. The four geriatric residencies are located primarily in the eastern 1/3 of the country, with 3 of the four located on the east coast (Figure 1).

their area and just a few positions available in geriatrics nationwide.

**What is a residency? What is a fellowship? What's the difference?** A residency is a planned program of postprofessional clinical and didactic education that is designed to advance significantly the physical therapist's preparation as a provider of patient care services in a *defined area of clinical practice*. Defined areas of clinical practice most often means in an area that has been described with a validated practice analysis, such as the description of specialty practice (DSP). Therefore, residency education is most often in the areas of recognized Board

cally lasts 12 months, although it can be in a little as 9 months and as many as 36 months. Fellowships are usually shorter than residencies, and must be at least 6 months in length.

**Why should I consider starting a residency or fellowship program?** New graduates and clinicians starting out their careers are interested in structured mentorship programs that are designed to train them in a specific area of practice, like geriatrics. These individuals want to learn from expert mentors in a structured environment. By virtue of the fact that a resident completes a credentialed program in geriatrics, they are automatically eligible to sit for the GCS exam, an added bonus for those who complete credentialed programs. For clinical or academic institutions interested in having a residency or fellowship program, benefits include: elevating clinical practice in your facility, career ladder programs for staff, retention of staff, recruitment of staff, cost saving for salary (residents are typically paid less during the program), marketing benefits (physicians understand residency education and will refer to places where clinical excellence is taught and expected), and many more. Besides the direct benefits a clinical or academic site might expect from housing a residency/fellowship program, facilities or institutions with residency/fellowship programs have reported that their entire clinical staffs' skill level, as well as the professional autonomy and evidence-based practice that goes along with specialist's practice, permeates through the entire setting and elevates practice throughout, not just with the resident/mentor(s).

**What are the barriers to starting a program?** Creating a residency program might seem like a daunting task. However, since the inception of the credentialing process, the Section on Geriatrics and the APTA have developed numerous resources to assist facilities and institutions in this process. Barriers essentially



**Figure 1. Location of current APTA credentialed residency programs in geriatrics (as of 10/2009).**

Source: <http://www.apta.org/AM/Template.cfm?Section=Residency&CONTENTID=64911&TEMPLATE=/CM/ContentDisplay.cfm>

As residency education becomes an attractive option for new graduates who want to pursue Board certification through the American Board of Physical Therapy Specialties (ABPTS), more programs must develop and become credentialed across the entire nation. Each year, there are numerous recent graduates who are interested in residency education, and would like to participate in it; however, their choices are limited at present due to lack of availability in

specialty areas, including geriatrics. A fellowship is a postprofessional, planned learning experience in a *focused* area of physical therapist clinical practice, education, or research (not infrequently postdoctoral, postresidency prepared, or Board-certified physical therapists). Fellowships are therefore focused training in a subspecialty (a focused area of a broader specialty). For example, geriatric orthopedics could be a subspecialty of geriatrics. Residency education typi-

fall into 3 categories: financial resources, didactic resources (curriculum and faculty), and clinical resources. Financial resources may include administrative costs or FTE budgets. Didactic resources may include curricular content and/or faculty availability. Clinical resources might include access to patient populations and/or types of settings. Despite the barriers seemingly present, many facilities and academic institutions have the resources to develop and host residency/fellowship programs if they use available resources and take advantage of assistance provided by both the Section on Geriatrics and the APTA.

**What resources are available to assist in creating a new program?** Both the APTA and the Section on Geriatrics have resources to assist developing programs. Specifically, the Section on Geriatrics offers grants for new programs to assist in payment for the credentialing process. Two (2) grants are awarded each year for \$1,500 each for programs that are ready to apply for credentialing with the APTA. Grants are awarded on a first-come, first-serve basis and are provided to programs that will apply for credentialing with the APTA within 45 days of receipt of the grant award. The Section has also developed a list of resources for curricular content. However, if you are considering developing a new program, remember, there are many ways to satisfy the didactic requirements (75 hours in a residency program). Be creative! There is no need to re-create the wheel. You can use the Section's Home Study Series (particularly the FOCUS Issue) since it covers all the practice patterns, as a portion of the requirements. (<http://www.geriaticsppt.org/members/homestudy.cfm>). In addition, the Section's new Certified Exercise Expert for the Aging Adult (CEEAA) regional courses could satisfy many of the curricular requirements for residency education. (<http://www.geriaticsppt.org/members/regional.cfm>). The APTA also offers online education in the Learning Center (<http://learningcenter.apta.org/>) that is focused on geriatrics and could be used to satisfy some of the requirements in a curriculum. (Eventually, all of the Home Study Courses offered by the Section will be available on the APTA's Learning Center). The APTA webpage for Residency/Fellowship Education offers many help-

ful insights for developing programs. A free resource manual is downloadable at: <http://www.apta.org/AM/Template.cfm?Section=Residency&Template=/TaggedPage/TaggedPageDisplaycfm&TPLID=118&ContentID=15371>. The manual provides clear examples of how credentialed programs have satisfied the requirements for credentialing. In addition, there are examples of program models (partnerships), curricular content, and much more. Clinical sites should consider partnering with local academic institutions who can assist with didactic content. Likewise, academic institutions should partner with clinical sites to offer the diversity of client population the DSP requires. Creative partnerships have been a hallmark of most residency and fellowship programs. For more information on the Section's resources, please visit <http://www.geriaticsppt.org/geriatric-residencies-fellowships.cfm>.

**What's coming in the future?** The Advanced Clinical Practice (ACP) Committee of the Section on Geriatrics is working with the Home Study Course Editor to develop a format for determining content of future home study courses. A primary goal of the ACP Committee is to create home study content that will benefit all members, but content that could also potentially be used to satisfy the requirements for a geriatric residency curriculum. Potential residency sites could then tap into the resources offered by the Section's home study course series as their link to didactic content required for credentialing a residency program. We have already begun this process, and the future holds many possibilities in this area. *The ACP welcomes your suggestions and participation in this exciting endeavor. Additional members of the ACP Committee are needed now! Please contact Section Executive Director, Andrea Saevoon if you are interested in applying for membership on the ACP Committee ([andreasaevoon@apta.org](mailto:andreasaevoon@apta.org)).*

Please consider offering a residency or fellowship program in your area! Many, many more residency programs are needed to supply the demand of trained geriatric specialists that will be required to care for this growing segment of the population. Current APTA Credentialed Residency Programs in Geriatrics are:

#### **APTA Credentialed Residency Programs in Geriatrics**

Freedom Home Health and Ohio State University Geriatric Residency  
5930 Wilcox Place, Suite D  
Dublin, OH 43016  
Contact: Kimberly Payne, PT  
Phone: 614/336-8870  
Fax: 614/336-8879  
E-mail: [Kimberly@FreedomHome-Health.com](mailto:Kimberly@FreedomHome-Health.com)

NHC Geriatric Clinical Residency Program  
420 North University  
Murfreesboro, TN 37130  
Contact: Linda Bloodworth  
Phone: 615/893-2602  
Fax: 615/893-9477  
E-Mail: [lindab-nhcrehab@clearwire.net](mailto:lindab-nhcrehab@clearwire.net)

St. Catherine's Rehabilitation Hospital and Villa Maria Nursing Center  
Postprofessional Residency in Geriatric Physical Therapy  
1050 NE 125th St  
North Miami, FL 33161  
Contact: Greg Hartley, PT, MSPT, GCS  
Phone: 305/891-8850  
Fax: 305/357-9372  
E-Mail: [ghartley@chsfla.com](mailto:ghartley@chsfla.com)

The Jewish Home for the Elderly Clinical Residency in Geriatrics  
175 Jefferson St  
Fairfield, CT 06285  
Contact: Sheila Watts, PT, MS, GCS  
Phone: 203/365-6443  
Fax: 203/396-1046  
E-mail: [wattss12@sacredheart.edu](mailto:wattss12@sacredheart.edu)

University of Delaware Geriatric Physical Therapy Residency  
053 McKinly Lab  
East Delaware Ave  
Newark, DE 19716  
Contact: Cathy Ciolek, PT, DPT, GCS  
Phone: 302/831-8893  
Fax: 302/831-4468  
E-mail: [ciolek@udel.edu](mailto:ciolek@udel.edu)

For direct links to these programs, please visit <http://www.apta.org/AM/Template.cfm?Section=Residency&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=66471#geriatric>.

# BONE AND JOINT DECADE CONFERENCE NOTES

*Tim Kauffman, PT, PhD*

The United States Organizing Committee for the Bone & Joint Decade (BJD) convened an international conference in Washington, D.C. 10/21/09 through 10/24/09. The American Physical Therapy Association was one of the supporting organizations and many physical therapists participated in the meeting in a variety of ways. As the representative of the Section on Geriatrics Bone Health Special Interest Group, I attended as one of the APTA delegates. The purpose of the Bone & Joint Decade and this conference was to raise awareness regarding the enormity of musculoskeletal disease, to advocate for better patient care through research, as well as through the creation of a network of a variety of professional organizations whose members care for persons with musculoskeletal disease.

Held in Washington, DC, the conference was charged with the responsibility to review and to expand the strategic plans noted in the preceding paragraph. Conference delegates included physical therapists Dina Jones on the arthritis group, Greg Hicks on the spinal disorders and low back pain group, Kristen Archer on the trauma and injury group, and me on the bone and health osteoporosis group. Additionally, Carol Oatis spoke as an expert in arthritis. The American Physical Therapy Association was further represented by John Barnes, Chief Executive Officer, Anita Bemis-Dougherty, Associate Director of Practice, and APTA President, Scott Ward. Anita was very involved in the preconference planning and the strategic planning groups during the meeting. Nate Thomas of the APTA Office of Government Affairs was involved in the preconference planning and advocacy on Capitol Hill.

The conference was represented by 56 different countries including nearly 300 attendees. The host committee included 87 members of Congress and 23 embassies. The BJD is a World Health Organization (WHO) initiative started in the year 2000 and will conclude at the end of 2009. The United States Bone & Joint Decade started 2 years after the WHO and will conclude in 2011. The second international BJD meeting will be launched at an upcoming meeting at the University of Lund, Sweden September 10-11, 2010.

While the International Steering Committee for the Bone & Joint Decade recognized that awareness has been raised and care has improved during the first 10 years of its existence, the Committee also recognized that their work is not complete and that this effort must extend beyond the first decade. Thus, the United States BJD Corporation has now amended its bylaws to include **Bone & Joint Decades**. The Bone & Joint Decade(s) has 5 focus areas including arthritis, bone health and osteoporosis, pediatric musculoskeletal conditions, research, and spinal disorders and low back pain. Notably, as a result of improved data collection pinpointing causes for musculoskeletal conditions, the area of trauma and injury has been added to the list of targeted concerns. In the overall planning and discussion of trauma, the issue of fragility fractures was included. Worldwide trauma accounts for 1.27 million deaths per year. To put this problem into perspective, it was compared to single episodes such as a tsunami, earthquake, or Hurricane Katrina, all of which received immense medical and policy attention.

One theme that was pervasive throughout the conference was how to address the burden of musculoskeletal disease. A contributing factor for the increasing burden of musculoskeletal disease is associated with the increasing worldwide aging dynamic. Data presented at the conference suggested that the issue is significantly broader than this single contributing factor. The statistics shared were profound enough to reframe the paradigm for osteoarthritis of joints.

In 2004, expenditures in health care as well as indirect expenditures in lost wages amounted to \$849 billion in the United States; this represents 7.7% of the gross domestic product. In 2002, there were 600,000 joint replacements that were called 'joint deaths' at this meeting. In the same year, there were 451,000 myocardial infarctions. Interestingly, there was an effort to bring the enormity of osteoarthritis into focus, vis-à-vis, myocardial infarctions. Also, in the United States, it was reported that osteoarthritis is the highest cause of work loss accounting for \$22 billion yearly.

In the bone health and osteoporosis strategic planning specialty group, partici-

pants represented the international community, a broad range of health care systems and a variety of health care and related disciplines. The composition of the group resulted in a broad range of cultural and professional biases that influenced the discussion. The group wrestled with many critical issues related to bone health across the lifespan for people throughout the world. Nonetheless, there was consensus about the necessity of preventing a second fracture. As a result, a new strategic objective for preventing the second fracture was created. Recognizing that many fractures occur in persons who have osteopenia, we, as a planning group, wanted to focus on continued care and prevention but, more importantly, marking a fracture as a sentinel event which hopefully can initiate certain proactive responses to prevent the next fracture.

Another component of this conference was to break out into the various regions of the world to establish concerns for the next Bone & Joint Decade. In the North American region, we determined that the principle concern was research followed by osteoporosis and osteoarthritis. In contrast, the South American and the African regions chose trauma as their principle areas of concern. This 2009 U.S. Bone & Joint Decade conference has established a working strategic plan for the upcoming 2010 meeting at the University of Lund for the World Health Organization.

Prior to the conference, participants, including me, were given the opportunity to review the BJD strategic plan goals and objectives concerning the topic of bone health and osteoporosis. As a result of preconference input on aging and explanation of the work from the Balance and Bone Health SIGS special interest groups from the Section on Geriatrics, these SIGS were identified as possible organizations to advance the conference/BJDs objectives in the future. It was indeed a great honor and privilege to represent the American Physical Therapy Association, the Section on Geriatrics, and the Bone Health Special Interest Group at this conference. Please feel free to communicate with me if you want further information. In addition to my meeting notes, there are links at the Section on Geriatric Web site to the Bone & Joint Decade and to the strategic plan.





**Positions:** Two Assistant Professor positions; full- or half-time, 12 months, tenure track faculty

**Qualifications:** The ideal candidate for these positions will be a physical therapist with, or completing (ABD), a terminal degree (PhD, EdD, DSc) that has teaching experience and evidence of scholarly activity. The Program will consider physical therapists that hold a Master's degree or DPT, as well as an ABPTS or equivalent certification, who are willing to pursue a terminal degree. The program is seeking individuals with experience in pediatrics, acute care, geriatrics, wound care, biomechanics and/or research design. For physical therapist applicants, current physical therapy licensure, or eligibility for licensure, in Michigan is required. Individuals without a physical therapy license are encouraged to apply if they possess teaching experience in PT-related areas, doctoral level preparation in motion analysis, and/or biomechanics, and abilities as a scientific investigator. Evidence of external grant-acquisition capability, collaborative research, and a record of mentoring graduate student research strengthens the application.

**Responsibilities:** Teaching graduate level physical therapy courses in areas of expertise, scholarship, student research mentoring, and service within the university/community/profession.

**Salary:** Commensurate with experience and degree.

**Department/Division:** The Physical Therapy Program at Grand Valley State University is experiencing unprecedented growth and development opportunities in the rapidly expanding health care corridor of Grand Rapids, Michigan. We offer a three-year Doctor of Physical Therapy degree within the College of Health Professions. The Program is housed in a state of the art facility with access to research lab space with motion analysis, balance, ergonomics, biomechanics, and motor performance instrumentation. Opportunities exist for collaboration with faculty from other programs within the university, as well as health professionals from community institutions, including the VanAndel Research Institute, Mary Free Bed Rehabilitation Hospital's Motion Analysis Laboratory, and the newly relocated Michigan State University College of Human Medicine.

**How to Apply:** The positions are available August, 2010. Apply online at [www.gvsujobs.org](http://www.gvsujobs.org). Include a cover letter, current vita and contact information for three references. References will be checked prior to offering formal interviews. For more information contact Dan Vaughn, PT, PhD, Search Chair, at (616) 331-2678 or [vaughnd@gvsu.edu](mailto:vaughnd@gvsu.edu).

**Deadline for Filing Applications:** Consideration of applications begins immediately and continues until the positions are filled.

Allendale, Michigan 49401

For more information about Grand Valley, see our website at [www.gvsu.edu](http://www.gvsu.edu)

Grand Valley State University is an affirmative action, equal opportunity institution.

TDD Callers: Call Michigan Relay Center at 1-800-649-3777

## CSM 2010 SCHEDULE AT A GLANCE

### PRECONFERENCES:

#### Tuesday:

Clinical Residency 101: Getting Started and Doing it Well  
Certified Exercise Expert for the Aging Adult Course 3

#### Wednesday:

Residency/Fellowship Mentoring: Advancing the Resident and Developing the Faculty  
The Therapeutic Use of Yoga to Prevent falls and Reduce the Risk of Falling in Aging Adults  
Certified Exercise Expert for the Aging Adult Course 3

CSM Opens with the ABPTS Opening Ceremonies at 7PM

#### Thursday:

##### 7:00 AM GCS/Newcomer breakfast

8:00 AM Multisection opening session on Managing Concussion Through the Lifespan  
10:30-1:30 Providing Effective PT for Older Pts w/ Delirium, Dementia or Depression: Moving Beyond "Tx Held, Pt Confused" By W Healey, N Francis, G Huber  
12:30-2:30 Get Well/Stay Well: A Look at what the SIGs are Doing within the SOG and Internationally, Presentation and Round table Discussions  
2:30-4:30 Health Literacy and the Older Adult: Implications for Practice by T Pearce, D Clark

Exhibit Hall opens 4:30-6:30

7:00 PM BPPV by J Helminski  
7:00 Board of Directors Meeting #1

Cosponsor events:

10:30-12:30 Expanding Our Universe: Health Promotion Opportunities in PT-HPA Section lead  
2:30-4:30 Balance at a High Level; Vestibular Training for Patients w/ Amputation-Fed Affairs lead

#### Friday:

8:00-11:00 LBP in Older Adults: Special Considerations and Understanding Can Lead to Improve Function by T Manal, G Hicks, M Sions, T Velasco  
8:00-11:00 Platform Sessions

11:00-1:00 Exhibit Hall

1:00-3:30 Student Forum: A Case Study Look through the Various Practice Settings

3:30-5:00 Bringing Power to Resistance Training for Older Adults by M Puthoff

1:00-4:30 Aging In Place: Building for the Future by P Antony, J Wooten, S Gross, J Heitzman

Cosponsor events:

8:00-11:00

1)Pt/Client Centered Assessment to Improve Clinical Outcomes-HPA lead

2)Potential Effects of Diabetes Mellitus on the UE—Hand lead

3)New Graduate Mentoring & Making Geriatric House Calls—Education lead

### 5:00-9:00 Members Meeting and Awards Celebration

#### Saturday:

8:00-11:00 Quitters are Winners: Implications for PT Practice by P Ohtake, D Frownfelter

8:00-11:00 Platform Session #2

11:00-1:00 Exhibit hall

1:00-5:00 Assessing Walking Speed in Everyday Clinical Practice: A 'Vital Sign' for Function By P Duncan, M Lusardi, S Fritz, K chui, J Stevens, K Wing, E Hillegass, J Purser

Cosponsor events

8:00-11:00 Functional E stim for Persons with Neurological Gait Dysfunction: Neuro lead

1:00-5:00

1) PT in HH Wound Care Team-HH lead

2) How do Foot Orthotics and Bracing Really Work?— Research lead

3) Acute Care: PT Role in Pressure Ulcer Prevention: Acute Care lead

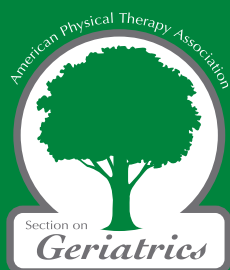
5:00-6:00 Eugene Michels Forum

7:00-9:00 Board of Directors Meeting #2



# Exercise and Physical Activity in Aging Conference:

Blending Research and Practice



APTA's Section on Geriatrics presents

## Exercise and Physical Activity in Aging Conference (ExPAAC)

Date: July 29-31, 2010

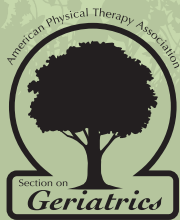
University of Indianapolis  
Indianapolis, Indiana

If you can attend only one conference in 2010, make it ExPAAC.

ExPAAC will be THE gathering of physical therapy professionals who want to be on the cutting edge of geriatric physical therapy research, education, and clinical practice. Join us for 3 dynamic days of presentations by and discussions with national and international experts. **Visit our Web site, [www.expaac.org](http://www.expaac.org), for all the details.**

Electronic submissions for poster presentations will be open December 1, 2009 through January 22, 2010 (with notification by March 1, 2010).

A 1-day preconference geriatric review course will be held July 28, 2010. See [www.expaac.org](http://www.expaac.org) for more details.



American Physical Therapy Association

## CSM 2010 Preconference Courses: Section on Geriatrics

Register for either course, or register for both and receive a discount.

*Course space is limited—Visit [www.apta.org](http://www.apta.org) and click events to register today!*

### Clinical Residency 101:

#### Getting Started and Doing It Well

Tuesday, February 16, 2010, 8:00 am–5:00 pm

7.5 Contact Hours

**Presenters:** Greg W. Hartley, PT, MS, GCS, Teresa L. Schuermann, PT, DPT SCS, ATC, CSCS, Kim Nixon-Cave, PT, PhD, PCS

This workshop is ideal for individuals and organizations interested in developing a credentialed clinical residency. Learn about the process from individuals who have guided their clinical residency through a successful credentialing outcome and from representatives of APTA's Committee on Residency Credentialing. Innovative ways to address the credentialing criteria will be explored to make a clinical residency fit your unique situation.

#### *Upon completion of this course, you will be able to:*

- Justify the rationale for a clinical residency that includes a discussion of the benefits and challenges
- Assemble the necessary resources for the development of a clinical residency, including the development of unique partnerships
- Market a clinical residency to administration and to potential residents
- Formulate a budget and establish cost effectiveness of a clinical residency
- Prepare an application for the credentialing process

### Mentoring the Clinician Towards Advanced Practice: Skills, Knowledge, and Behaviors for Successful Residency and Fellowship Mentoring

Wednesday, February 17, 2010, 8:00 am–5:00 pm

7.5 Contact Hours

**Presenters:** Carol Jo Tichenor, PT, Ivan Matsui, PT, FAAOMP, Gail M. Jensen, PT, PhD, Cathy H. Ciolek, PT, DPT, GCS

Professional competence goes well beyond technical skills. Competence builds on a foundation of basic clinical skills, scientific and clinical knowledge, clinical and practical-reasoning skills, and moral development. Mentorship is a critical element in the “formation” of a professional. This course will provide the participants with in-depth instruction in the educational structure

and skill development necessary for residency and fellowship clinical mentoring. The session will include opportunities for application and discussion of these skills through authentic, interactive problem-solving situations.

This 8-hour course is directed toward academic and clinical educators who are currently teaching or considering developing residency and/or fellowship programs. The course is designed to guide individuals in how to design, implement, and evaluate mentoring experiences in postgraduate residencies and fellowships. Topics will include: characteristics of a good mentor and how mentoring differs from traditional teaching, how to structure productive mentoring sessions to facilitate clinical reasoning and decision making, strategies for mentoring the challenging resident, planning remediation sessions, methods for facilitating communication between faculty members and between faculty and residents, and assessment of the effectiveness of the mentoring experiences. Participants will also learn strategies and be introduced to tools that are part of the professional development learning continuum for physical therapists as they progress towards advance practice through residency, clinical specialization, and beyond.

#### *Upon completion of this course, you will be able to:*

- Compare and contrast the characteristics of a good mentor and relate to personal clinical teaching experience
- Structure and analyze mentoring experiences that build on the core components of reflective thinking and sound clinical reasoning principles
- Develop strategies for addressing common mentoring challenges in the residency and fellowship program learning environment
- Guide the resident in a critical self-reflective process that includes identifying targeted learning strategies for improving performance
- Design activities for developing and evaluating a mentoring program for new faculty members



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is to pay as little attention as possible.

- Judith Regan

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