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Fall 1995

# *Orthopaedic Physical Therapy Practice*



AN OFFICIAL PUBLICATION OF THE ORTHOPAEDIC SECTION  
AMERICAN PHYSICAL THERAPY ASSOCIATION



**THE ORTHOPAEDIC SECTION, APTA, INC.**

presents:

1996 Combined Sections Pre-Conference Course

**"Pharmacology, Radiology,  
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for the Physical Therapist"**

Tuesday, February 13 &  
Wednesday, February 14, 1996  
Atlanta, Georgia

This course will provide an introduction of pharmacology, radiology, and laboratory values information for the physical therapist to assist in providing optimum patient care. Educational credit: 11.25 contact hours.

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**SCHEDULE:**

Tuesday, February 13  
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Pharmacology

Wednesday, February 14  
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Radiology  
1:00 p.m.-5:00 p.m.  
Laboratory Values

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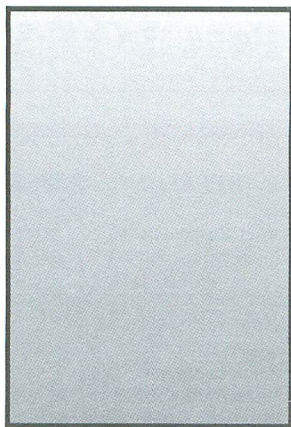
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# Orthopaedic Physical Therapy Practice

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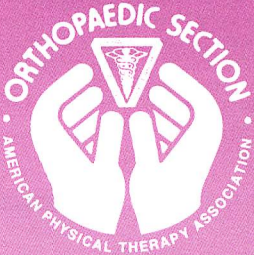
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# EDITOR'S NOTE

Recently, I was asked to serve on a committee charged with generating acceptable "guidelines" for the treatment of low back pain. The Chair, noting that the committee was intended to be multidisciplinary, asked that Occupational Therapy have input—especially with respect to industrial spine care.

That's when an interesting dynamic occurred. One of the physical therapists made a snide comment relating to allowing an occupational therapist to be involved in post rehab spine care. This individual wanted to know if the other physical therapists were just "standing around and doing nothing" while OT's delivered care, clearly intimating that OT's had no business being involved in spine care or industrial medicine. This therapist has all the attributes of a racist, *if* we were to define racist as: *one who believes that one's profession is the primary determinant of the ability to render care and that professional differences produce an inherent superiority of a particular profession* (with apologies to Merriam Webster). I wonder if he's arrogant enough to believe that only physical therapists can deliver care to those with low back pain. How convenient to forget that we "borrowed" much of our knowledge base and many of our clinical techniques from other professions.

In Ohio, there is a great deal of confusion regarding the utilization of the athletic trainer in the physical therapy clinic. This is despite the fact that athletic trainers are licensed by a combined Physical Therapy, Occupational Therapy and Athletic Training Board. The clinic where I am employed also employs athletic trainers and so, I became involved. I offered a proposal to both professions which, in essence, created a statuto-

ry niche for the athletic trainer in the Physical Therapy Practice Act. The response bordered on venomous, and although it seemed to eventually get both groups talking, I heard words like "self-serving" and "power hungry" directed at me. At times I felt like a 1950's Mississippian supporting integration. The athletic trainers eventually decided they wanted to go their own way and are following the national trend in seeking third party reimbursement—I wish them good luck. Although the discussion seemed to end up being positive, it's a shame that I often felt like it was "us against them."

Turf battles place the patient in the middle and can only be destructive. The time for them has long passed. Managed care, and health reform as it exists today, is still a market driven system. Those who think that a managed care organization, or any third party payor, is concerned with *which* professional delivers care should think again. We should not waste our time fighting other professions. Athletic trainers will eventually establish themselves in private practice, just as physical and occupational therapists have. The fight should be in the market. Outcomes data and cost effectiveness will hopefully allow physical therapists to capture the lion's share of the musculoskeletal market.



Jonathan M. Cooperman,  
MS, PT, JD



# President's Report



Our New Home

We are proud to announce that, by the time you read this, the fruition of four years of planning will have been marked by the opening of the new Orthopaedic Section office building in La Crosse, Wisconsin. The familiar King Street address will be replaced by our new listing, 2920 East Avenue South. The move officially took place in October, 1995.

The Section office, as an entity, has a relatively short history. From 1974 to 1985 there was no permanent office. The Section business was dealt with directly through the work offices of the Section officers. Then in 1985, the first permanent office was established in Winter Park, Florida. One year later the Section Board decided to move the office to La Crosse. This move was primarily precipitated by the fact that *JOSPT*, under editors James Gould and

George Davies, was being published in La Crosse. Then in 1992, the Section Board, led by President Jan Richardson, began to allocate monies for the construction of a new, self funded office. This decision was based on the demands of the mushrooming Section membership and office responsibilities which would require expansion of the costly rental office space. On June 12, 1995 ground was broken for the current building; see photo above.

Through astute financial planning and the financial successes the Section has experienced in the past four years, the building and land are completely paid for. This will save the Section considerable money in the long run and allow for the consolidation of the many Section activities. Enhancing future financial stability was the primary objective when the decision was made

to initiate this project. Once financially stable, the Section could presumably better serve the membership regarding future clinical practice, education and research initiatives. Therein lies the challenge for the current and future Board of Directors' to make this building work for us. We are very excited about the new building and the opportunities it will bring to the Section and look forward to setting up shop.

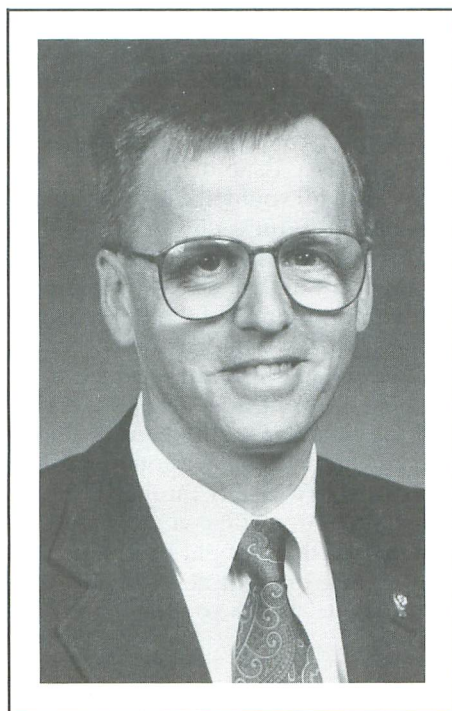


*William Boissonnault,  
MS, PT  
President*

*Congratulations Terri Pericak  
on being elected Vice President  
of the Council of Executive Personnel!*



## In Memory *James A. Gould*



James A. Gould, MS, PT passed away Tuesday, August 29, 1995. Jim was born on July 14, 1946 and reared in Mt. Pleasant, MI. He received a BS in biology from Central Michigan University in 1968, and a BS in physical therapy from the University of Kentucky in 1971. He completed a four-month orthopaedic manipulation residency program in Adelaide, Australia in 1974. He received a MS in education from the University of Kentucky in 1975.

Jim served as associate professor of physical therapy at the University of Wisconsin-La Crosse since 1975. He was a partner in Options Physical Therapy, La Crosse. Jim was a member of the American Physical Therapy Association and the Manipulative Therapy Association of Australia.

He served the Orthopaedic Section as an Editor of the original *Bulletin*, Editor of *Orthopaedic Physical Therapy Practice*, and Editor of the *Journal of Orthopaedic and Sports Physical Therapy*. He was also a member of the Private Practice Section, most recently serving as Editor of *Physical Therapy Today*.

He was awarded the Paris Distinguished Service Award in Orthopaedics in 1992 and will receive the Robert Dicus Award for distinguished service from the Private Practice Section in November of this year.

Jim is survived by his wife, Deborah and his daughter Kimberly. Jim brought energy, wit, creativity, persistence and dedication to excellence to our profession. His passing is a tremendous loss and he will be sadly missed.



# From The Section Office

Terri A. Pericak, Executive Director

The Finance Committee met in La Crosse at the Section office the last weekend in August. Highlights from that meeting include formalizing recommendations to the Board on donating money to The Foundation and a proposed balanced budget for 1996. The Committee also met with the Section investment brokers, the auditor, accountant, insurance agent and building team. One of the highlights of the meeting was for the committee to visit the building site.

As you read this we are still unpacking and settling into our new office space. The move-in date was October 30. A local grand opening is scheduled for mid-November which will include a formal ribbon cutting by the Chamber of Commerce. The PT school from the University of La Crosse as well as the local PT and business community will be invited to attend. A national grand opening is being planned in conjunction with the Section's Fall Board Meeting in late September, 1996.

The office has been investigating the best way to access the Internet. We hope to have that access and be 'surfing the net' by the end of this year. We will also

have an e-mail address at that time. We will keep you updated on our progress.

There has been some planning done on possibly re-structuring the 'Review for Advanced Orthopaedic Competencies' course held in July of each year. The Education Committee in conjunction with Tara Fredrickson at the Section office will have more to report on this in the January issue of *OP*.

In closing I would like to take this opportunity to express my deepest sympathy to the family and many friends of Jim Gould. Jim was a mentor of mine in the first year as director of the Orthopaedic Section. I won't forget how he never faltered when everything seemed to be crashing down all around me. He was my rock of Gibraltar. Nothing ever seemed to really bother him. Without Jim's light and caring personality through even the worst times that first year, I question whether or not I would have survived. I know that Jim will never be far from my thoughts. Thank you Jim for just being you.

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***The Orthopaedic Section, APTA, Inc. would like to congratulate all of the following individuals who have recently become Orthopaedic Certified Specialists:***

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# Letters to the Editor

## Jim Gould

Jim Gould was my friend and I will miss him. Jim Gould was physical therapy's best friend and we will all miss him. For all his achievements, which are too many to list, Jim will be remembered because he was Jim and no one else will ever be like him. His life was about helping people and we are fortunate enough to be part of that life. His work helped to give life to physical therapy when it was floundering for a purpose.

I first met Jim in 1975 at a Stan Paris course in Kentucky. He had just returned from Australia where he had trained with Maitland. Even then, he just wanted to share his knowledge with us. He never stopped sharing. I next ran into him in New Zealand at IFOMT but I really learned to appreciate Jim when I became involved with the Orthopaedic Section. Jim literally carried the Section on his back for several years. He had started *JOSPT* on a wing and a prayer and again shared with us his many talents of design and artistry. He had a vision for physical therapy that was unrelenting. When the Section needed a kick in the pants he was there to do it. When the Section needed a place to have an office he shared his. When the Section needed a guide to keep it going he was there and when it was time for him to move on, he continued to share his vision with students, patients and other sections.

I am honored to have known Jim Gould, his family, his students and his friends. I will never forget Halloween in La Crosse at Jim's house. I will always remember Jim, the "can do" man, when everyone else was tied in knots, he was doing something. I weep for Jim's passing (my friends know me not to be an emotional person) as should all of physical therapy. Jim is gone but he will forever be with us in his writings, his memories and most of all his vision of physical therapy and life.

Bob Burles, PT

## AHCPR

As a clinician interested in patients with back pain, and as a non-voting participant in the Agency for Health Care Policy and Research (AHCPR) Low Back Problems Clinical Guideline Panel, I read with interest the article by Philip Paul

Tygiel and the commentary by Anthony Delitto, in the Summer 1995 edition of *Orthopaedic Physical Therapy Practice*. Mr. Tygiel's article is so full of inaccuracies, misinformation, errors of logic, and statements that are just plain not true that it cannot go unchallenged. In his commentary, with which I wholeheartedly agree, Mr. Delitto chooses to focus on the challenges to the physical therapy profession presented by the AHCPR Guidelines. He hits the nail on



Mr. Tygiel's article is so full of inaccuracies, misinformation, errors of logic, and statements that are just plain not true that it cannot go unchallenged.



the head with his statement: "When the Low Back Guidelines are revisited, what additional research will physical therapists have to contribute to a new effort to change the recommendations?" Since Mr. Delitto chose not to respond to the inaccuracies in Mr. Tygiel's article, a decision I fully understand, it may leave readers of *Orthopaedic Physical Therapy Practice* with the understanding that much of what Mr. Tygiel has stated is correct. This does not well serve either the physical therapy profession nor their patients. I am writing in order to set the record straight.

A systemic response to each of Mr. Tygiel's inaccuracies is beyond the scope of this or any letter of reasonable length, and rather than a point by point discussion I will highlight the most serious of the issues about which readers of *Orthopaedic Physical Therapy Practice* should be aware. **First**, the Low Back Problems Guideline was not created by the Patient Outcome Research Team (PORT), despite repeated statements by Mr. Tygiel to that effect. The Low Back PORT (known as the Backpain Outcomes Assessment Team, or BOAT) and the Guidelines project are separately funded projects with different investigators. The PORT is charged with creating

new knowledge while the Guidelines Panel was charged with codifying existing knowledge. **Secondly**, much of Mr. Tygiel's "critical analysis" consists of disparaging the research studies upon which the conclusions of the Guideline panel were drawn and substituting in their stead his own personal observations about efficacy (statements such as "many people who treat back pain have recognized the value of these modalities..." and "most physical therapists have found that, at least in some patients, it is a beneficial treatment"). Later, Mr. Tygiel summarizes his philosophy of science in his response to Mr. Delitto's commentary, where Mr. Tygiel essentially states that if research supports his personal observations then it is to be believed, and if it does not then it must be flawed and condemned. This error in logic was elegantly outlined by Sir Austin Bradford Hill, the noted British epidemiologist (1):

On the other hand one has to remember that in many respects the reactions of human beings to most diseases are, under any circumstances, extremely variable. They do not all behave uniformly and decisively. They vary, and that is where the trouble begins. 'What the doctor saw' with one, two, or three patients may be both acutely noted and accurately recorded; but what he saw is not necessarily related to what he did. The assumption is that it is so related, with a handful of patients, perhaps mostly recovering, perhaps mostly dying, must, not infrequently, give credit where no credit is due, or condemn when condemnation is unjust.

Rick Deyo has made much the same argument with respect to studies of persons with back pain (2). Mr. Tygiel's uncontrolled observations are no substitute for randomized controlled trials when assessing efficacy.

**Thirdly**, a few comments about some of the specific therapeutics Mr. Tygiel discusses are in order. His assertion that spinal manipulation was recommended more favorably relative to some physical therapy procedures due to "enough vocal proponents" on this guideline panel, which had two members who commonly perform manipulation and was otherwise dominated by medical doctors, is



of course ludicrous. What convinced the medical doctors, who as a profession have a long history of suspicion about spinal manipulation due its association with the practice of chiropractic, along with the other members of the guideline panel was the strength of the evidence, much of which was summarized in a meta-analysis we published (3). A comparison of the guideline statements and the meta-analysis demonstrates the degree to which the panel relied on this meta-analysis when forming their recommendations. In the meta-analysis, we demonstrated that there exists enough data to conclude that a short course of spinal manipulation, in patients with uncomplicated acute low-back pain, is superior in terms of pain relief to the therapies to which it has been compared. Where is the equivalent body of data, systematically analyzed, that supports any of the therapies advocated by Mr. Tygiel?

Mr. Tygiel takes issue with the recommendation against the use of traction, stating that the panel could "not find sufficient evidence of...benefit." He then goes on to state that the studies were all "flawed" and then substitutes his opinion (without supporting data) that most therapists think traction is beneficial. What he does not state is that in 5 of the 6 randomized controlled trials of traction the group receiving traction did no better than, and in some cases worse than, the group that did not

receive traction. Mr. Tygiel wants the guideline panel to disregard this evidence in favor of his personal observation that some patients improve with traction? This amounts to a repudiation of the scientific method. If this line of reasoning is to be followed, then we should also be recommending Laetrile for cancer patients.

*Fourthly*, Mr. Tygiel correctly notes that the great majority of back pain costs are due to a small minority of chronic back pain patients. However, his assertion that there exists treatment proven to prevent the progression from acute to chronic back pain is incorrect. The identification of such treatment amounts to the holy grail of back pain clinicians. Many people are searching for it, no one has yet proved that it exists.

*Lastly*, Mr. Tygiel's assertion that better research tools need to be developed before any clinical practice guidelines can be advanced assumes that the treatment of patients is better without rather than with the benefit of any practice guideline. There is a wealth of evidence to suggest that this is not the case. A practice guideline does not have to be perfect in order to be of benefit, just as a new diagnostic test or treatment does not have to be perfect in order to be useful. In either case, it only needs to be better than the current state of care. It has been documented that the current state of back care is both highly variable (4) and in some cases less than optimal (5),

and therefore it is very reasonable to attempt to improve care through the use of a guideline. Rather than write diatribes full of gross inaccuracies, a much better use of any physical therapist's time would be to get involved or support research studies that test the usefulness or lack thereof, in terms of patient outcomes, of care delivered according to the guideline. In this manner, we can all continually strive to improve the quality of care delivered to back pain patients.

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*Paul Shekelle, MD, PhD*



#### REVIEW COURSE '95

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# Research Consumerism

By Mark R. Wiegand, PhD, PT

This is a quarterly column by the Orthopaedic Section Research Committee.

He has the right to criticize who has the heart to help.

—Abraham Lincoln

In previous *Orthopaedic Physical Therapy Practice* columns by members of the Research Committee for the Orthopedic Section, APTA, issues relating to the need for clinical case studies, difficulties in conducting good clinical research and the process of informed consent in clinical studies were presented. The purpose of the present column is more fundamental. I have observed a reluctance by many of my students and clinical colleagues to read the professional literature. My intent here is to identify some common problems associated with the critical analysis of physical therapy research. I hope to present a way to promote enthusiasm for the review of physical therapy related literature in the classroom and the clinic. I believe that this process must evolve through instruction, mentoring and role-modeling among colleagues and by academic and clinical faculty. As physical therapists, we recognize the necessity of developing effective clinical skills through critical analysis and careful and thoughtful practice. As students, we (usually) enthusiastically spent many hours working to develop our clinical skills. The application of these skills was clear to us. However, it is not always obvious, then and now, that acquiring an appreciation of reported research through critical analysis is developed through practice, hard work and observing role models.

What is “research consumerism?” Merriam Webster’s Collegiate Dictionary defines “consumerism” as “the theory that an increasing consumption of goods is economically desirable.” (1) Research consumerism is then the assumption that the increased consumption of research findings is professionally desirable. Inflexible consumption, however, without differentiation and assessment of goods or research is not economically desirable in one case or professionally desirable

in the other. This is why we are beseeched to be “critical” or “wise” consumers of information and research.

I know from my own experiences and through sharing with my colleagues that critical reading skills is a competence that we cannot assume is possessed by students. We expect that students entering the physical therapy curricula will need instruction, supervision and mentoring in the acquisition of physical therapy skills, but we often assume these students can and will (critically) read! After all, aren’t they the best and brightest? After supervising many student research projects and reading numerous student written research reviews, I have learned that critical reading skills are not an innate ability of all the students we select. As with any of the other skills that we want our students to enter physical therapy practice with, the critical analysis of the literature in physical therapy must be nurtured.



However, it is not always obvious, then and now, that acquiring an appreciation of reported research through critical analysis is developed through practice, hard work and observing role models.



I believe that there are at least two major reasons that reported research is often not critically analyzed by physical therapists and students: (1) clinicians and students are poorly trained in research related skills, including critique; and (2) clinicians and students are fearful of critiquing the printed testimonials of “experts.”

## Lack of Research Related Skills

Our college and university entry-level physical therapy education programs have not developed a widely accepted model of teaching research related skills. (2) While some have individual or group student generated research projects that

must be completed in a constrained amount of time, others may require that students actively participate in faculty research projects. (2, 3) Most have at least one class in research methods and design. Some may focus additionally on critiquing the literature, either as part of a research class or series, or as a component of clinical science courses. In a recent survey published in *Orthopaedic Physical Therapy Practice*, Backstrom reported that a lack of research-related knowledge or experience was a significant factor in why physical therapists did not perform clinical research projects. (4) If Shepard’s assertion that research critiquing skill leads to research creating skill is true, then promoting entry level courses in the critical analysis of research and research methods and techniques would seem indicated. (5) This alone is unlikely to affect great change in entry level practitioners’ perception that they are poorly trained in research related skills.

Recently, I asked students that had returned from summer clinical clerkships how many had experiences in sharing research articles with their clinical supervisors and instructors. Less than a third of the class responded that there was any type of formal or informal journal club or discussion of research in the clinic. Shepard and Jensen have reported that the “implicit curriculum,” or the values, beliefs and expectations . . . passed down from academic and clinical faculty members to . . . students” is a powerful tool in socializing students in the expected behaviors of the profession. (6) What an effective technique this could be for modeling research consumerism to students during clinical rotations! Many clinical education instructors have told me in the past that they like having students in the clinic because students challenge their thinking. A clinical journal club with students presenting recent papers related to clinic strength or patient population would also challenge the clinical instructor’s thinking. Similar reading series could be done in the entry level academic programs. Groups of six to eight students could meet weekly throughout the year with different academic or clinical faculty to review and critique assigned



or student-selected current research papers. This reading series could involve only upper division students, or be a continuing semester-to-semester series that would begin at the start of professional course work and continue throughout the curriculum. I see the latter situation as ideal. Students could explore research topics that address major course subject matter on a weekly basis. Examination of the literature would be timely and would integrate the research course with other courses in the curriculum. In a reading series such as this, the faculty not only directs the students in the critical analysis of a paper, but could also deal with such side issues as statistic phobias, research design questions, reliability and validity concerns and real world realities of clinical research. Students would have the opportunity to directly observe faculty attitudes toward research and could model their own behaviors after those observed. Although this type of seminar would require a great deal of time and energy on the part of both the faculty and the students, I believe that the importance of becoming familiar and comfortable with research warrants such time use, both in the clinic and in school.

#### Fear of Critiquing Experts

Rothstein states that "... we are socialized early in our training as physical therapists to accept the authoritarian mode of learning. Our teachers and texts tell us how it should be, and we accept this information in our eagerness to proceed with patient

Students could explore research topics that address major course subject matter on a weekly basis. Examination of the literature would be timely and would integrate the research course with other courses in the curriculum.

care." (7) I believe that this socialization process also makes us reluctant to critically read and challenge the findings of our "experts." After all, they

must be experts, because they are published. But as Shepard points out, "... in today's rapidly changing technology, . . . theories and findings may well have become out-of-date in the time that it took to submit, process and finally publish (the) work" (5, page 58). We should not consider ourselves disloyal or heretical if we constructively criticize the work of our colleagues. To the contrary, this activity can lead to improved patient care and additional clinical research. Shepard reminds us that critical commentary must be

We should not consider ourselves disloyal or heretical if we constructively criticize the work of our colleagues.

constructive and open, with alternatives proposed for every criticism. (5) To improve our critiquing skills, many guides have been developed to assist us in the critical review of research papers, and there are excellent chapters in physical therapy texts on research consumerism. (2, 5, 8, 9)

#### Summary

Critical research consumerism is a skill that needs to be developed in students and clinicians to promote critical application of the physical therapy literature to clinical practice and to stimulate more clinical research by clinicians. This skill can be facilitated by journal club or research seminar series, and requires instruction in research methods and design and role-modeling by faculty, clinical instructors and peers.

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Mark Wiegand is an Associate Professor at the University of Louisville. He has just completed his term as a member of the Research Committee for the Orthopaedic Section, APTA.

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# OUTSTANDING PT STUDENT AWARD

## Purpose

1. To identify a student physical therapist (first professional degree) with exceptional scholastic ability and potential for contribution to orthopaedic physical therapy.
2. To provide the means for an exceptional student to attend and participate in a national meeting, with the intention that this exposure will encourage future involvement in Orthopaedic Section activities.

## Eligibility

1. The nominee must be currently enrolled in a PT program.
2. The nominee must be a member of the Orthopaedic Section, APTA, Inc.

## Criteria for Selection

1. The student shall excel in academic performance in both the professional and prerequisite phases of their educational program.
2. The student shall demonstrate exceptional nonacademic achievements, representing initiative, leadership, and creativity.
3. The student shall be involved in professional organizations and activities that provide the potential growth and contributions to the profession and orthopaedic physical therapy.

## Procedure for Nomination

1. Any member of the Orthopaedic Section may nominate candidates for this award.
2. One original set and four duplicates of all materials submitted for each nomination must be received by the Executive Director at the Section office by November 1, for consideration for the award in the following year.
3. The materials submitted for each nomination shall include the following:
  - a. A support statement from the nominator, highlighting reasons for the nomination and clarifying the relationship between the nominator and nominee.
  - b. A support statement from two faculty members in the educational program in which the nominee is enrolled.
  - c. Support statements from one faculty member outside of the PT department.
  - d. Support statements from at least two student colleagues.
  - e. A resume and cover letter from the nominee detailing previous health care experiences, honors and awards, evidence of service activities, and participation in professional activities.
4. The nomination materials should document examples of how the nominee fulfills the criteria for this award.

## Procedure for Review and Selection

1. Nomination materials shall be submitted to the Section office. The Section office will retain the original set of materials and will provide the Awards Committee with copies for their review.
2. The Awards Committee will review the nominations and recommend the most qualified candidate to the Executive Committee.
3. The award will be presented only if there are qualified candidates, and one is selected.
4. Nomination materials are considered the property of the Awards Committee, who will maintain their confidentiality.
5. Nomination materials will not be returned. If any individual is not selected for the award in a given year, that individual may be nominated in a subsequent year. New nomination materials must be submitted in subsequent years.

## Notification of Award

1. The Section President will notify the recipient by December 1st and obtain written confirmation of acceptance by December 15.
2. The nominators of individuals not selected will receive a letter thanking them for their participation and informing them of the award recipient.
3. The confidentiality of the Outstanding Student Award will be maintained until the recipient has been notified.

## The Award and Its Presentation

1. The Orthopaedic Section will reimburse the recipient for round trip coach airfare from any site in the United States or Canada to the APTA Combined Sections Meeting, four days per diem, and conference registration.
2. The student will receive a certificate suitable for mounting.



# My Mentorship Experience

By Cecil Sy Ybanez, PT

An article in the 1993 *PT Magazine* featured physical therapy for the performing arts as an emerging specialty. I had recently started taking modern dance classes having been inspired by attending my first modern dance performance.

However, after reading the article, I was unable to locate someone in my area treating performing arts injuries so I contacted Sean Gallagher, a New York physical therapist. I discussed my aspirations for a career in this specialty, and asked to meet with him to learn more about it. Sean told me he was in the Mentorship Program of the Orthopaedic Section of the APTA. He went on to explain what my proposed career entailed: a deep understanding of dance and the performing arts; a willingness to commit time and effort, including observing classes, rehearsals and actual performances; and the ability to mold different treatment approaches for each patient's specific program. He thought the dance classes were an excellent idea and he encouraged me to study jazz and ballet and possibly even tap as well, as each dance style had its unique inherent demands on the body. He emphasized the value of personal insight and a working knowledge of dance terminology. He also endorsed the Pilates Technique, an exercise regimen traditionally used by dancers, and the Feldenkrais method.

In March of 1994, Sean agreed to mentor me. I travelled to New York to spend a week observing Sean. I was fortunate that my employer provided financial support for my trip. It was a week of revelations for me, as I accompanied Sean to different locations, from his Broadway clinic to the backstage areas of several Broadway shows, to the Juilliard School, to the anatomy lab of NYU (where he's an instructor), to new age bookstores to browse through books on massage, acupuncture and alternative therapies, and even to Philadelphia to treat and observe company members of the Pennsylvania Ballet.

At each of these locations, Sean did any combination of consultation, manual treatments, modality treatments, research, and discussed various topics relating to dance, music, physical therapy, and alternative therapies. Sean's in-

teraction with his patients has that ideal balance between the professional and the personal touch that we all constantly strive to achieve and maintain. His rapport with his patients comes from a genuine interest in their welfare and an intimate knowledge of the dance and performance experience. Their sense of trust and appreciation were also very apparent.

Sean's clinic is simply designed, with half of it devoted to a PT clinic-type set up and the other half being



I was unable to locate someone in my area treating performing arts injuries so I contacted Sean . . .



occupied by the Pilates gym. The PT section was very basic, with plinths, hydromassagers for hot and cold packs, ES and US machines, a BAPS board, a Fitter, some ankle weights, Feldenkrais rolls, and so on. He also had a section of wooden flooring with a dance barre and a full length mirror. I observed Sean utilize manual therapy, Feldenkrais techniques, and Physioball exercises on his patients along with the pain modalities and acupuncture.

I also had the opportunity to participate in Pilates mat exercise class and a Pilates machine session. I was astounded at the diversity of exercises, their simplicity, and the amount of concentration needed to perform them. Each exercise had components of flexibility, strength, endurance, proprioception, proper breathing patterns and symmetry of movement, all blended together. I came away from both sessions with a very deep respect for the Pilates method, and am actually currently working on getting Pilates training.

I returned to Florida with a clearer sense of what was needed. I keep in touch with Sean, who continues to be my mentor and role model as well as a new friend. With his guidance, I organized a Performing Arts Program at my

hospital. I am currently working with a group of dance clients, most notably the Demetrius Klein Dance Company in Lake Worth, Florida; Southern Dance Theater in Boynton Beach, Florida; and Boca Ballet Theatre in Boca Raton, Florida. I teach my "regular" patients exercises I learn in dance classes and teach my dance patients alternative exercises to their usual dance routines. As I continue to expand our Performing Arts Physical Therapy program, I am thankful that the Orthopaedic Section has created a mentoring program.

*Cecil Sy Ybanez is employed by The Therapy Center of Boca Raton Community Hospital.*

## Sponsors Needed for Adopt-A-Student Program

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If you would like to participate in the Adopt-A-Student program, please send your name, address, phone number, and the name of the section for which you are willing to sponsor a student to: Adopt-a-Student Program, attn: Agatha Davis Johnson, APTA, 1111 N Fairfax St, Alexandria, VA 22314-1488; 800/999-2782, ext. 3233.



# Abstracts and Book Review

## ABSTRACTS

**Degenerative Joint Disease in Female Ballet Dancers.** Dijk van CN, Lim LSL, Poortman A, Strubbe EH, Marti RK (Departments of Orthopaedic Surgery and Radiology, Academic Medical Centre, Amsterdam, the Netherlands), *The American Journal of Sports Medicine*. 1995; vol. 23:295-300.

This study was performed to determine the relationship between long-term ballet dancers and eventual arthrosis of the hip, ankle, subtalar and first metatarsophalangeal joint.

Nineteen former professional female dancers were compared with pair-matched controls by age, height, and body weight. Exclusion criteria for the control group were long term sports participation, physically demanding profession, the presence of microtrauma, black race, chronic disease, and long term inactivity. The mean length of the ballets' dancers careers professional careers was 37 years (range, 13 to 54) and all had danced on "pointe."

All 38 women were examined in a standard manner by the same examiner including medical history, range of motion measurements, and roentgenography.

The researchers reported a statistically significant increase in radiographically demonstrated arthrosis of the ankle, subtalar, and first metatarsophalangeal joints in the ballet group compared with the control group. There was no significant difference regarding degenerative changes in the hip joint. However, those subjects with degenerative changes did not complain of pain or stiffness. The dancers also had statistically significantly more hip flexion, external rotation, and abduction of the hip joint, dorsal flexion of the first metatarsophalangeal, inversion and eversion of the subtalar joint, and hallux valgus deformity. The control group had statistically significantly increased plantarflexion of the first metatarsophalangeal joint.

Repetitive trauma was identified by the examiners as the cause of the increase of the arthrosis of the ankle and **MTP as the right MTP was involved** more frequently than the left presumably because the right lower extremity was the dominant side in the majority of the

dancers. On take off and landing from a jump, the dominant side is probably taxed more severely by the dancers according to the researchers.

*Elise A. Trumble, MS, PT*

**Vascular Density of the Myotendinous Junction of the Rat Gastrocnemius Muscle After Immobilization and Remobilization.** Kvist M, Hurme T, Kannus P, et al (University of Turku, Sports Medical Research Unit, Turku, Finland; University of Turku, Departments of Paediatric Surgery and Pathology, Turku, Finland; The UKK-Institute, Accident and Trauma Research Center, Tampere, Finland), *Am J Sports Med*. 1995;23:359-364.

The primary purpose of this study was to ascertain the effects of three remobilization programs on the vascular density of the myotendinous junction of the rat gastrocnemius muscle following immobilization. The secondary purpose was to study the vascular architecture of the myotendinous junction. Fifty rats were divided into 5 groups of 10 each. The control group (Group A) was allowed normal cage activity for 11 weeks. One hind limb of each animal in the experimental group was immobilized for 3 weeks. One experimental group (Group B) was sacrificed and studied after 3 weeks of immobilization. The second experimental group (Group C) was allowed normal cage activity for 8 weeks. After 1 week of normal cage activity, the remaining 2 experimental groups (Group D and E) participated in running programs; Group D participated in a low-intensity program and Group E in a high-intensity program. Bilateral samples of the gastrocnemius myotendinous junction of all animals were prepared for study.

Results of the study demonstrated a significant decrease in the vascular density of the myotendinous junction following 3 weeks of immobilization and a return to normal vascular density with 8 weeks of normal cage activity. The vascular density of all remobilized groups was statistically significantly higher than that of the control group. While the mean vascular density was higher in Group D and Group E than in Group C, the difference was not statistically significant.

Results also demonstrated a portal (capillary-arteriole-capillary) system of vascular organizations similar to that of the liver that the authors speculate increases the resistance of the vascular system of the myotendinous junction to injury or immobilization. The authors also reported loss of capillaries but preservation of arterioles at the myotendinous junction following the immobilization and a return of the capillaries following remobilization.

The authors conclude that physical activity may be beneficial in the revascularization process and may also prevent immobilized or injured muscle tendon units from reinjury.

*Marie A. Johanson, MS, PT, OCS*

**The Effects of a Work Hardening Program on Cardiovascular Fitness and Muscular Strength.** Robert JJ, Blide RW, McWhorter K, Coursey C (Texas Tech University and Rehabilitation Center, Lubbock, Texas) *Spine*. 1995;20:1187-1193.

The objective of this study was to assess improvements in cardiovascular fitness and muscular strength after a six week work hardening program, and to compare the fitness levels between those who returned to work and those who did not return to work immediately after the program.

Thirty subjects (twenty-seven men and three women) who completed the work hardening program at Rehabilitation were chosen for this study. Admission criteria into this study was an absence of cardiovascular disease or medication which would alter heart rate and a diagnosis of some type of low back dysfunction. Testing of cardiovascular fitness pre and post program utilized the YMCA submaximal ergometer protocol. Strength was assessed by the ARCON static strength testing device which tested pushing, pulling and lifting.

Patients exercised five days per week, 7.5 hours a day for six weeks. They performed stretching, cardiovascular conditioning, weight training and work simulation activities. Cardiovascular conditioning utilized a combination of the treadmill, fast walk, stationary bicycle, stair climber and upper extremity ergometer. The patients were able to choose a combination of the above



exercises and they all chose to perform at least part of their cardiovascular training program on the bicycle. Strength training was performed with Cybex Eagle equipment and lifting at various heights.

The results of this study showed a significant improvement in cardiovascular fitness and strength testing for all patients. Cardiovascular fitness improved by 28%, static arm lift improved by 76%, static pull improved by 57%, and static push by 89%. Student's t-test was utilized and significant at  $p < 0.001$  level. Next the authors compared fitness and strength levels of participants who did and did not return to work. There was no significant difference between these two groups. The authors also looked at predictors for improvement in cardiovascular fitness with regression equations. The three highest predictors, Waddell's sign, age and the subject's estimated  $VO_2$  at the beginning of the program could account for only eight percent of the subject's improvement in max  $VO_2$ . The authors thought their small sample size could account for this lack of identifying predictors.

The return to work rate was fifty percent for the subjects in this study. The only difference between those who did and did not return to work was the length of time off work prior to initiating the program. Those who returned to work were off work 5.47 months compared to 13.13 months for those who did not return to work.

The authors concluded that six weeks of a work hardening program were sufficient to attain the goals of improved cardiovascular fitness and strength outcomes. However, this improved fitness level did not directly effect return to work rates. When determining return to work rates other social and psychological factors must be considered.

*Marty Kaput Frame, MS, PT, OCS*

## BOOK REVIEW

### **Treatment of Pressure Ulcers: Clinical Practice Guideline Number 15.**

Bergstrom N, Bennett MA, Carlson CE, et al., Rockville, MD, US Department of Health and Human Services, Public Health Service, Agency for Health Care Policy and Research (AHCPR), AHCPR Publication Number 95-0652, December 1994, 154 pp, softcover illus, \$6.00.

This clinical practice guideline was developed by a 20 member panel of experts that included professionals from

nursing, occupational therapy, medicine, surgery, consumer advocacy, health education, nutrition, biomedical engineering, and applied research. The purpose of this manual was to provide a comprehensive guideline for treatment of adults with pressure ulcers. Recommendations made by the panel were intended for clinicians practicing in all health care settings. A useful summary of all important information is contained in two supplemental publications (single copies available free): *Quick Reference Guide for Clinicians*, and *Consumer Guide*.

There are seven chapters in the complete guideline including an introduction, five chapters on ulcer management, and a final chapter on education and quality improvement. In addition, there is a glossary, and four clinically-useful appendices for assessment and treatment of pressure ulcers. The manual is well referenced but sparsely illustrated because the intent of the panel was to provide a concise, factual guideline. All materials are in the public domain and may be reproduced without permission.

An introductory chapter provides operational definitions for a pressure ulcer and wound stages, and a description of the methodology used to develop the guideline. Ulcer stages I-IV are those recommended in 1989 by the National Pressure Ulcer Advisory Panel (NPUAP). Recently (1995), the NPUAP has eliminated stage IV but this change does not diminish the usefulness of the guideline. The methodology included expert opinion, review of scientific evidence, an open forum, and an extensive multidisciplinary peer review. Final recommendations were based on practicality, common sense, and strength of supporting evidence ratings.

Ulcer management is discussed in the next five chapters on wound assessment, managing tissue loads, ulcer care, managing bacterial colonization and infection, and operative repair of pressure ulcers. Management of stage I ulcers (closed lesions) and plantar pressure ulcers were excluded from this guideline. The material on ulcer management is well-integrated through the use of a comprehensive series of branching-logic flow diagrams. A low-tech, common sense approach to wound care is advocated, whenever possible, so that the guideline can be broadly applied. All recommendations are explicit while allowing enough flexibility to accommodate expert judgement and patient preferences in specific cases. I found the strength of supporting evidence ratings to be a unique, insightful approach to

documenting a clinical management guideline. This credible approach should be adopted by physical therapy. The accompanying *Consumer Guide* provides an easy to understand overview of ulcer management and practical tips for patients or home care givers.

The final chapter emphasizes the importance of prevention, validity and reliability of measurements, and coordination between health care providers. Prevention and treatment were acknowledged to be a continuum but there is no information of management of stage I lesions that are generally considered to be reversible. Lack of guidelines for management of plantar pressure ulcers is inconsistent with the recommendation for coordination between services. The addition of these two topics would make any future editions more complete.

Overall, this clinical practice guideline is a real bargain that should be part of every physical therapist's library, especially those treating a large number of wounds. Also, I would strongly recommend this manual and its supplements as required reading for all physical therapy students.

*David S. Sims Jr., MA, PT*



## ORTHOPAEDIC PHYSICAL THERAPY HOME STUDY COURSE 96-1

# Topic: The Cervical Spine

Course Length: 6 Sessions January - June 1996

### PROPOSED AUTHORS AND TOPICS

- ✗ Neal Pratt, PhD, PT  
Anatomy of the Cervical Spine
- ✗ Susan Mercer, MS, PT  
Biomechanics of the Cervical Spine
- ✗ Demetra John, MS, PT  
Painful Disorders of the Cervical Spine
- ✗ Robert Reif, MS, PT, OCS  
Evaluation and Differential Diagnosis
- ✗ Richard Bowling, MS, PT  
Treatment of the Painful Cervical Spine Using Exercise
- ✗ Richard Erhard, DC, PT  
Treatment of the Painful Cervical Spine Using Manual Techniques

Contained within this course is information relating to:

Basic Science                      Issues of Clinical Decision Making  
Pathology                            Case Studies

### THE EDITOR

Paul Beattie, PhD, PT, OCS  
Ithaca College, University of Rochester  
300 E. River Road, Suite 1-102, Rochester, NY 14625  
(716) 292-5060

### REGISTRATION FEES

By December 1, 1995

Limited supply available after this date

**\$150 Orthopaedic Section Members**

**\$225 APTA Members    \$300 Non-APTA Members**

Special discounted rates are available for institutions with multiple registrants. Please call the Section office for complete information.

\*If notification of cancellation is received in writing prior to the course, the registration fee will be refunded, less a 20% administrative fee. Absolutely no refunds will be given after the start of the course.

### EDUCATIONAL CREDIT

30 contact hours

A certificate of completion will be awarded to participants after successfully completing the final test. Only the registrant named will obtain the CEUs. No exceptions will be made. ATC approved.

### ADDITIONAL QUESTIONS

Orthopaedic Section, APTA, 1-800-444-3982

## REGISTRATION FORM

### Orthopaedic Physical Therapy Home Study Course 96-1

Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Daytime Telephone No. (\_\_\_\_\_) \_\_\_\_\_ APTA # \_\_\_\_\_

For clarity, please enclose a business card. Please make check payable to: **Orthopaedic Section, APTA**

Please check:

- Orthopaedic Section Member
- APTA Member
- Non-APTA Member

(Wisconsin Residents add 5.5% Sales Tax)

- I wish to become an Orthopaedic Section Member (\$50) and take advantage of the member rate.

Fax registration & Visa or MasterCard number to:  
**608-788-3965**

Visa/MC (circle one) # \_\_\_\_\_ Exp. \_\_\_\_\_

Signature \_\_\_\_\_

Mail check and registration to: **Orthopaedic Section, APTA, 2920 East Avenue South, La Crosse, WI 54601**



# Women & Investing

*(Men can read this article, too!)*

By Fred Fletcher

As a 45 year old white male this is a dangerous topic to write on in our politically correct times. My grandmother has invested her whole life and at age 92 knows more about the stocks she owns than I do. On the other hand, my sister pays little attention to her investments, while my mother is active in financial decisions, but fearful of risk. These attitudes in my family cover the spectrum and probably reflect the general population.

I'm writing about this because of my experiences as an investment advisor over the past twelve years and my concern for the financial future of women. Over the past several decades women have increased their earning power and financial independence, but when it comes to taking control of their finances often there's still a long way to go. Women must act now to plan for their financial future because, next to your health, it's the single most important factor influencing your future happiness.

Today women are 45% of the work force and more than 40% of all wealthy Americans are women, yet 75% of our elderly poor are women. Despite many advances, women remain less prepared to provide for their future financial security than men; they not only start saving later, but save less. More women are remaining single, get married later, or divorce—estimates show that women, on average, will outlive their spouses by about seven years—most will have to be responsible for their own finances at some point in their lives. Although most women understand this, they often put off getting involved with saving and investing.

Often women first take control of their finances in the wake of a crisis: divorce, illness, unemployment, or death of a spouse. It's a lousy time to be confronting financial questions for the first time. It is important to be prepared. We all have a fear of the unknown and a common reaction is to invest too conservatively by putting all of one's assets into "safe" C.D.'s. This can put a family's future at risk by not having enough growth to stay ahead of the eroding effects of inflation on one's buying power. What cost \$1.00 in 1970 now cost \$4.00. Have I mentioned taxes? Understanding investment risks as well as rewards goes a long way toward reducing one's fears.

It's rarely too late to get started. Talk to friends

and relatives, people you know and trust, for recommendations on finding a financial advisor. Ask questions about what the advisor offers for services, his or her investment style of philosophy, and how they are compensated for their services. You need to find someone you're comfortable with and can trust for a successful relationship. It is hard to find the time to get one's financial house in order, but somehow it has to be made a priority. Half the battle is getting started... and the sooner the better.

Learn about retirement plans at your place of employment. If you're self-employed ask your advisor for suggestions on setting up you own plan. Ask about ways to save for a child's or grandchild's education.

My goal with my first article is to convince you of one thing—that you must act now to plan for your future. Make it a priority, get going, seek help, and don't worry because it's a lot easier than you think.



*Fred Fletcher is an Investment Executive who provides investment advice to the Orthopaedic Section, APTA.*

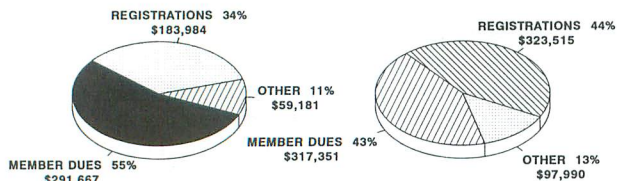
*If you would like additional information, please contact Fred through the Orthopaedic Section office.*



# Section News

## FINANCIAL REPORT

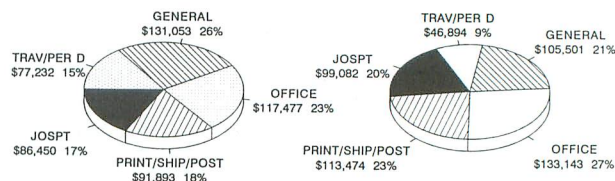
### 1995 BUDGET TO ACTUAL INCOME: BREAKDOWN - July 31, 1995 (+38.2% over our expected budget)



BUDGETED: \$534,832.06

ACTUAL: \$738,856.74

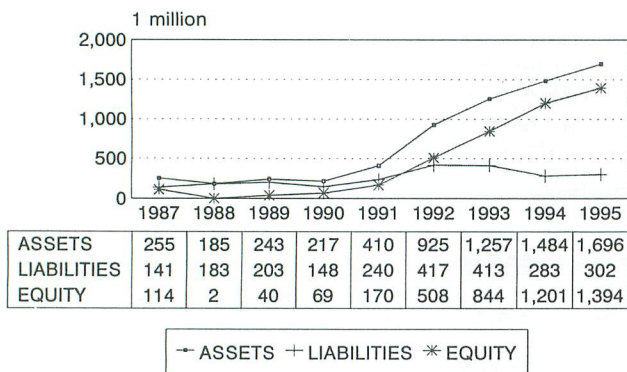
### 1995 YTD BUDGET TO ACTUAL EXPENSE: BREAKDOWN - July 31, 1995 (-1.2% under our expected budget)



BUDGETED: \$504,105.56

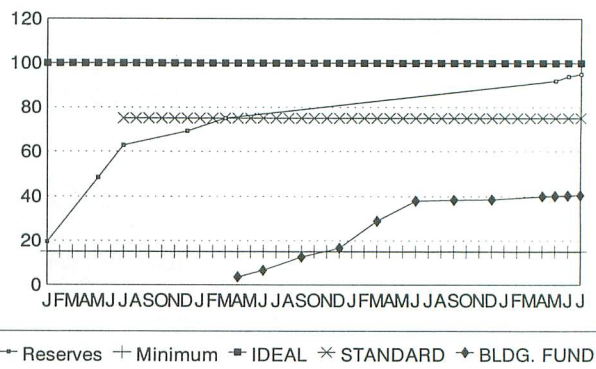
ACTUAL: \$498,094.50

### YEAR END FISCAL TRENDS 1987-1995 (1995 data is as of July 31, 1995)



To nearest thousand

### RESERVE FUND January 1, 1992 to July 31, 1995



## Special Interest Group Registration Form

In order to keep track of the members of the various Orthopaedic Section Special Interest Groups, we are asking any members of the Orthopaedic Section who: are already a member of a Special Interest Group, or who would like to become a member of a Special Interest Group, to fill out the following information shown below and either send or fax it to the Section office on or before December 31, 1995.

Name: \_\_\_\_\_ APTA ID #: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Daytime Phone: \_\_\_\_\_

Please check off the SIG(s) you are currently a member of, or would like to be a member of:

- Occupational Health Physical Therapy SIG       Performing Arts SIG  
 Foot and Ankle SIG       Pain Management SIG

Mail or fax to:

Orthopaedic Section, APTA, Inc., 2920 East Avenue South, La Crosse, WI 54601, 800-444-3982, 608-788-3965 (fax)



# 1996 CSM PROGRAM

## TUESDAY, FEBRUARY 13

Pre-Conference Course  
12:30—4:30 PM  
Pharmacology, Radiology and Laboratory Values for the Physical Therapist  
Speakers:  
Richard Brown, Pharm D  
Donald H. Rosenbaum, DO  
Michael B. Koopmeiners, MD

5:30—7:30 PM  
Program Chairs Meeting

## WEDNESDAY, FEBRUARY 14

8:00 AM—4:30 PM  
Pre-Conference Course (Continued)

7:00 PM  
CSM Opening Ceremonies

## THURSDAY, FEBRUARY 15

8:00 AM—Noon  
Fitness for the 90's (MULTI-SECTION PROGRAM)  
Speaker:  
Kenneth Cooper, MD

1:00—4:30 PM  
Differential Diagnosis in Orthopaedics  
Speaker:  
Michael B. Koopmeiners, MD

Interfacing clinical research and practice: Low Back Assessment  
Speakers:  
Paul Beattie, PhD, PT, OCS  
Anthony Delitto, PhD, PT  
Jill Binkley, MClSc, PT, COMP

2:00—4:00 PM  
Research Platform Presentations (Concurrent Sessions)

4:30—6:30 PM  
EXHIBIT HALL BREAK

## FRIDAY, FEBRUARY 16

8:00 AM—Noon  
Orthopaedic Section Board of Directors Meeting

8:00—10:00 AM  
Functional Orthopaedic Approach to Lumbosacral Dysfunction  
Speakers:  
Vicky Johnson, PT  
Greg Johnson, PT  
Cheryl Wardlaw, MS, PT

Research Focus on Repetitive Use and Static Postures  
(see Hand Section)

8:00—10:00 AM  
Research Platform Presentations (Concurrent Sessions)

8:00—10:00 AM  
Pain Management and Lumbar Dysfunction  
Speaker:  
Doug Kelsey, PT

10:00—11:00 AM  
EXHIBIT HALL BREAK

11:00 AM—Noon  
Functional Orthopaedics (Continued)

Research Focus on Repetitive Use & Static Postures (Continued)

Management of Bone Tumors in Children—Benign & Malignant  
(see Pediatrics)

Pain Management Business Meeting

Research Platform Presentations (Concurrent Sessions)

11:00 AM—12:30 PM  
Occupational Health SIG Program  
Industrial On-site Physical Therapy and Ergonomics  
Speakers:  
Roberta Kayser, PT  
Suzanne Patenaude, MA, PT

12:30—2:30 PM  
JOSPT Advisory Council Meeting

12:30—2:30 PM  
Research Issues Forum (Outcomes)  
(see Research Section)

1:00—2:00 PM  
Laser Therapy in Pain Treatment  
Speaker:  
Tom Watson, MEd, PT, FAAPM

1:00—2:30 PM  
Functional Orthopaedic (Continued)

2:30—3:30 PM  
EXHIBIT HALL BREAK

3:30—5:30 PM  
Performing Arts SIG Programming

Treatment of the Dancer  
3:30—4:00 PM  
Alternative Functional Passive Range of Motion Technique for the Lower Extremity  
Speaker:  
Mimi Zlatkowski, PT

4:00—4:30 PM  
Spine Stabilization of the Dancer  
Speaker:  
Andrea DiStefano, PT, BFA

4:30—5:00 PM  
Functional Rotation Training For Dancers  
Speaker:  
Marika Molnar, PT

5:00—5:30 PM  
Panel Discussion

3:00—5:00 PM  
Orthopaedic Section Board of Directors Meeting (Continued)

3:30—5:00 PM  
Functional Orthopaedics (Continued)

## SATURDAY, FEBRUARY 17

8:00—10:00 AM  
Orthopaedic Section Business Meeting

9:00 AM—5:00 PM  
Focus on Wrist Pathology - Part 1

10:00—11:00 AM  
EXHIBIT HALL BREAK

11:00 AM—Noon  
Manual Therapy Business Meeting

11:00 AM—12:30 PM  
OHSIG Business Meeting

9:00 AM—5:00 PM  
Focus on the Wrist

12:30—1:30 PM  
Foot and Ankle SIG Business Meeting

1:00—2:30 PM  
Manual Therapy Programming  
Manual Therapy... and Beyond!  
Speakers:  
Ann Porter-Hoke, PT, OCS, COMP, FAAOMPT  
Paul Feuerborn, PT  
Patricia King Baker, MA, PT  
Tim McGonigle, PT

1:30—5:30 PM  
Foot and Ankle Programming

1:30—2:30  
The Inverted Orthotic Technique  
Speaker:  
Stephen Baitch, PT

3:30—4:30  
Tibialis Posterior as a Culprit of Heel Pain  
Speaker:  
Catherine Patla, MMSc, MTC, PT, OCS

4:30—5:30  
Biomechanical Constraints of the Foot and Ankle Contributing to Abnormal Patterns of Movement  
Speaker:  
Beth Fisher, MS, PT, NCS

1:30—2:30 PM  
Performing Arts Business Meeting

Research Platform Presentations (Concurrent Sessions)

2:30—3:30 PM  
EXHIBIT HALL BREAK

3:30—5:30 PM  
Performing Arts SIG Programming  
Treatment of the Musician

3:30—4:00 PM  
Factors Causing a Musician to Become Strung Out  
Speaker:  
Sharon Leilich, MPT

4:00—4:30 PM  
Physical Therapy Management of the Musician  
Speaker:  
Jeffrey T. Stenback, PT, OCS

4:30—5:00 PM  
Neuromuscular Retraining of Upper Extremity Function in Musicians  
Speaker:  
Lynn Medoff, MPT, MA

5:00—5:30 PM  
Panel Discussion

3:30—4:30 PM  
Manual Therapy Programming (Continued)

3:30—5:30 PM  
Research Platform Presentations (Concurrent Sessions)

7:00—10:00 PM  
Black Tie and Roses

## SUNDAY, FEBRUARY 18

7:00—8:00 AM  
Program Chair Meeting

8:00 AM—Noon  
Physical Therapy Education for Health Action  
(see Education Section)

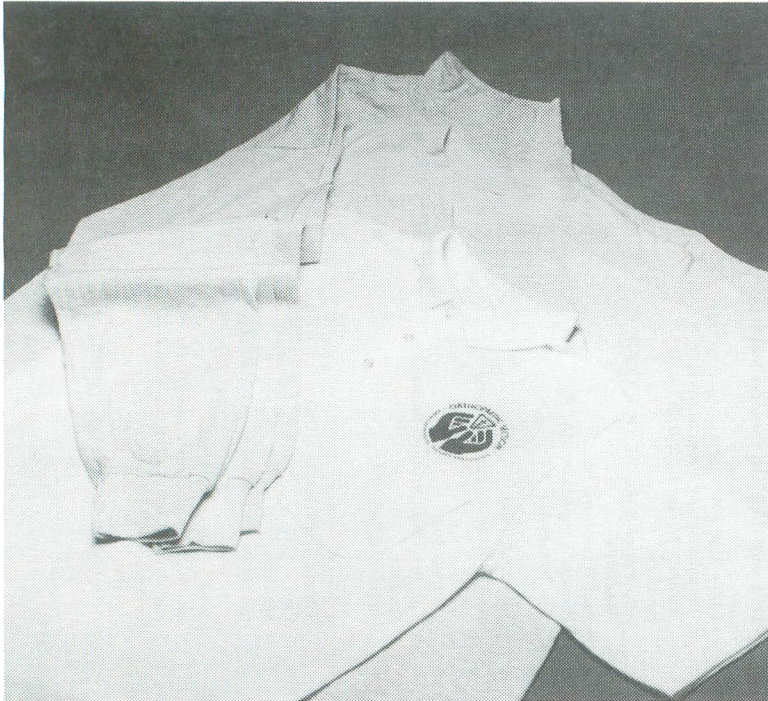
Management of the Child with Congenital & Acquired Limb Deficiencies  
(see Pediatric Section)

Beyond conventional exercise: Integrated Feldenkrais Approach to Orthopaedics  
Speaker:  
Ilana Parker, PT, CFP

Focus on the Wrist  
(Continued)



# ORTHOPAEDIC SECTION LOGO T-SHIRTS



Please indicate style, size and color.  
Available in medium, large and extra-large.

- \_\_\_\_\_ **Fruit of the Loom Sweatshirts** (grey with blue imprint, white with blue imprint) cotton/polyester (**\$20 Section Members, \$25 non-Section Members**)
- \_\_\_\_\_ **Mock Turtle-Neck/Long Sleeves** (white with blue imprint, grey with blue imprint, black with gold imprint) 100% cotton, preshrunk (**\$16 Section Members, \$21 non-Section Members**)
- \_\_\_\_\_ **Golf Shirts with Pockets and Fashion Collar** (white with blue imprint, light blue with blue imprint) cotton/polyester (**\$18 Section Members, \$23 non-Section members**)

*Please add \$3.00 per order for postage and handling.  
Wisconsin residents add 5½% sales tax.*

*Please make your check payable to the:  
Orthopaedic Section, APTA, Inc.  
2920 East Avenue South  
La Crosse, WI 54601  
608/788-3982, FAX 608/788-3965, 800-444-3982*

**Conclusion:**

3. The McKenzie spinal assessment appears to be a dynamic, non-invasive functional evaluation of symptomatic disc pathology.

**Centralisation**

A change in the perceived location of pain from a distal or peripheral location to a more proximal or central position

*Grande Terrace, Dinwiddie*

Robin McKenzie's live overview of his conceptual model, as well as Dr. Charles Aprill's dramatic discography findings that substantiate the McKenzie method, are presented in two new videos from OTP.

## Overview and Validation of the McKenzie method.

*Overview and Validation of the McKenzie Conceptual Model*, offers a comprehensive history of the McKenzie method and the compelling new evidence that supports this concept. Approx. 45 min. (#744V).....\$79.95 USD  
Shipping and handling extra.

A short, highlighted version of the program is available in *Introduction to the McKenzie Method: Its Use and Effectiveness*. Ideal for presentation to referring physicians, reimbursement specialists or anyone who wishes a concise understanding of McKenzie fundamentals. 15 min. (#745V).....\$24.95 USD  
Shipping and handling extra.



### OTP

*The Conservative Care Specialists*  
P.O. Box 47009, Minneapolis, MN 55447-0009 (612) 553-0452

**1-800-367-7393**

©1995, OTP



# Call for Nominations APTA Special Awards

**Mary McMillan Scholarship:** Honors outstanding physical therapy students.

**Dorothy E. Baethke-Eleanor J. Carlin Award for Teaching Excellence:** Acknowledges dedication and excellence in teaching in physical therapy.

**Signe Brummstrom:** Acknowledges individuals who have made significant contributions to physical therapy.

**Award for Excellence in Clinical Teaching:** Acknowledges individuals who have made significant contributions to physical therapy clinical education through excellence in clinical teaching.

**Catherine Worthingham Fellows of the APTA:** Recognizes those persons whose work has resulted in lasting and significant advances in the science, education, and practice of the profession of physical therapy.

**Henry O. Kendall and Florence P. Kendall Award for Outstanding Achievement in Clinical Practice:** Acknowledges contributions to physical therapy in general (must have engaged in extensive clinical practice at least fifteen years).

**Marion Williams Award for Research in Physical Therapy:** Given for sustained and outstanding basic, clinical, or educational research.

**Lucy Blair Service Award:** Acknowledges members whose contributions to the Association have been of exceptional value.

**Mary McMillan Lecture Award:** Honors a member of the Association who has made a distinguished contribution to the profession; through a lecture presented at Annual Conference.

**Minority Achievement Award:** Recognizes continuous achievement by an entry-level accredited physical therapy program in the recruitment, admission, retention, and graduation of minority students.

**Minority Initiatives Award:** Recognizes the efforts of a physical therapy program in the initiation and/or improvement of recruitment, admission, retention and graduation of minority students.

**Chapter Award for Minority Enhancement:** Acknowledges exceptionally valuable contributions to an APTA chapter to the profession relative to minority representation and participation.

**Margaret L. Moore Award for Outstanding New Academic Faculty Member:** To acknowledge an outstanding new faculty member who is pursuing a career as an academician and has demonstrated excellence in research and teaching.

**Helen J. Hislop Award for Outstanding Contributions to Professional Literature:** To acknowledge individual physical therapists who have made significant contributions to the literature in physical therapy or in other health care disciplines.

**Jack Walker Award:** In honor of the contributions made to physical therapy by Jack Walker, former President of Chattanooga Pharmaceutical Company (now the Chattanooga Corp), this corporation has funded an annual award of \$1,000 for the best article on clinical practice published in *Physical Therapy*.

**Golden Pen Award:** Gives recognition to members who have made significant contributions to the advancement of *Physical Therapy*.

**Eugene Michels New Investigator Award:** This is a \$1,000 incentive award to encourage continued research efforts in physical therapy.

**Chattanooga Research Award:** In order to encourage the publication of outstanding physical therapy clinical research reports, the Chattanooga Corporation has funded an annual award of \$1,000 for the best article on clinical research published in *Physical Therapy*.

**Dorothy Briggs Memorial Scientific Inquiry Award:** To give public recognition to physical therapist members of the APTA for outstanding reports of research in physical therapy, undertaken while they were students and published in the official journal of the APTA.

Space limitations do not permit a complete description of awards and scholarships, or the complete criteria. If you desire additional information, please contact me through the Section office.

**Send your recommendations/nomination by December 1, 1995 to:**  
Orthopaedic Section, APTA, Inc.  
2920 East Avenue South  
La Crosse, WI 54601  
(800) 444-3982

Space limitations do not allow us to print the following lists:

Study Groups  
Clinical Research  
Consultants  
Residency Programs  
Mentor list

If you are interested in obtaining any of the above information, please contact us at 800/444-3982 and we will gladly mail or FAX the list to you.



# Programs Offering Advanced Academic Degrees in Orthopaedic and Musculoskeletal Physical Therapy

## Alabama

University of Alabama (MS)  
Division of Physical Therapy  
1714 Ninth Ave S, B-41  
Birmingham, AL 35294  
205/934-2566

## Arizona

Northern Arizona University (MA)  
Department of Physical Therapy  
NAU Box 15105  
Flagstaff, AZ 86011  
602/523-4092

## California

University of South California (MS, PhD)  
Department of Physical Therapy  
2025 Zonal Avenue  
Los Angeles, CA 90033  
213/342-2900

## Loma Linda University

Department of Physical Therapy  
School of Allied Professions  
Loma Linda, CA 92350  
800/422-4558

## Ola Grimsby Institute, Inc. (MOMT)

4420 Hotel Circle Court, Ste 210  
San Diego, CA 92108  
619/298-4116

## Connecticut

Quinnipiac College (MS)  
Mount Carmel Avenue  
Hamden, CT 06518  
203/281-8684

## Florida

University of Florida (MS, PhD)  
Department of Health Related  
Professions  
Box 100154, HSC  
Gainesville, FL 32601  
904/395-0085

Florida International University (MS)  
Department of Physical Therapy  
College of Health  
Miami, FL 33199  
305/348-2266

Institute of Graduate Physical Therapy  
(MS, DPT)  
201 Health Park Blvd., Ste 215  
St. Augustine, FL 32086  
800/241-1027

University of Miami (MS)  
School of Medicine  
Division of Physical Therapy  
5915 Ponce de Leon Blvd.  
5th Floor Plumer Building  
Coral Gables, FL 33146  
305/284-2535

## Georgia

Emory School of Medicine (MMSc)  
Division of Physical Therapy  
1441 Clifton Road, NE  
Atlanta, GA 30322  
404/727-6138

## Illinois

University of Illinois at Chicago  
Department of Physical Therapy  
1919 W Taylor Street  
Chicago, IL 60612  
312/996-1502

Northwestern University (MS)  
Programs in Physical Therapy  
345 E Superior Street  
Room 1323  
Chicago, IL 60611  
312/908-8160

University of Health Sciences (MS)  
Chicago Medical School  
Department of Physical Therapy  
3333 Green Bay Road  
N Chicago, IL 60064  
708/578-3307

## Indiana

Indiana University (MS)  
Department of Physical Therapy  
250 N University Blvd  
Indianapolis, IN 46202  
317/274-3432

University of Indianapolis (MS, MHS)  
Krannert School of Physical Therapy  
1400 E Hanna Avenue  
Indianapolis, IN 46227  
800/232-8634

## Iowa

University of Iowa (MA, PhD)  
Physical Therapy Graduate Program  
2600 Steindler Bldg  
Iowa City, IA 52242  
319/335-9791

## Kentucky

University of Kentucky (MS)  
Department of Physical Therapy  
Annex 1  
Lexington, KY 40536  
606/233-5830

## Massachusetts

Boston University (MS)  
635 Commonwealth Ave, Rm 519  
Boston, MA 02215  
617/353-2720

MGH Institute of Health Professions (MS)  
101 Merrimac Street  
Boston, MA 02114  
617/726-8009

## Missouri

Washington University (MHS/PhD)  
School of Medicine  
Program in Physical Therapy  
660 S Euclid, Box 8083  
St. Louis, MO 63110

## New York

Daemen College (MS)  
4380 Main Street  
Amherst, NY 14226  
716/839-8554

Long Island University (MS)  
Division of Physical Therapy  
1 University Plaza  
Brooklyn, NY 11201  
718/488-1063

Touro College (MS)  
135 Carman Rd, Bldg #10  
Dix Hills, NY 11746-5652  
516/673-3200

## Ohio

Ohio State University (MS)  
School of Allied Medical Professions  
1583 Perry Street  
Columbus, OH 43201  
614/292-5921

## Oklahoma

University of Oklahoma (MS)  
Department of Physical Therapy  
Health Sciences Center  
PO Box 26901  
Oklahoma City, OK 73190  
405/271-2131



### Pennsylvania

Hahnemann University (MS/PhD)  
 Program in Orthopaedic Physical  
 Therapy  
 MS 502 Broad & Vine Street  
 Philadelphia, PA 19102  
 215/762-1758

Philadelphia College of Pharmacy and  
 Science (MS)  
 600 South 43rd Street  
 Philadelphia, PA 19104  
 215/596-8849

Temple University (MS)  
 Department of Physical Therapy  
 3307 N Broad Street  
 Philadelphia, PA 19140

University of Pittsburgh (MS)  
 School of Health and Rehabilitation  
 Sciences  
 104 Pennsylvania Hall  
 Pittsburgh, PA 15261  
 412/624-8990

### Tennessee

University of Tennessee at Memphis (MS)  
 Program in Physical Therapy  
 800 Madison Avenue  
 Memphis, TN 38163  
 901/528-5888

### Texas

Texas Woman's University at Dallas (MS)  
 School of Physical Therapy  
 8194 Walnut Hill Lane  
 Dallas, TX 75231  
 214/706-2300

Texas Woman's University—Houston  
 (MS/PhD)  
 School of Physical Therapy  
 1130 MD Anderson Blvd  
 Houston, TX 77030  
 713/794-2070

### Virginia

Medical College of Virginia (MS)  
 Virginia Commonwealth University  
 Department of Physical Therapy  
 Box 224, MCV Station  
 Richmond, VA 23298  
 804/786-0234

Old Dominion University (MS)  
 School of Physical Therapy  
 Old Dominion University  
 Norfolk, VA 23529-0288  
 804/683-4519

The following is a suggested list of questions to ask the program graduate advisor.

1. Is the program full or part-time?
2. How many students are in the program?
3. What is the number of full and part time faculty and what are their degrees or specialty certifications?
4. What courses are required for the post-entry level orthopaedic or musculoskeletal degree?
5. What other courses are offered?
6. How many of the required courses were conducted in the past two years?
7. Is the program accredited?

The APTA offers a publication entitled **Guide to Post Entry-Level Programs in Physical Therapy**. It contains a description of post entry-level master's and doctoral degree programs, their areas of study, admission requirements, degree requirements, tuition, faculty credentials and faculty research, names of those recently awarded degrees, and the number of degrees awarded during the last two years. For ordering information call 800-999-2782, ext 3114. Cost: APTA Members \$19.95/ Nonmembers \$27.95

## Request for Recommendations for Orthopaedic Section Offices

The Orthopaedic Section of the APTA needs your input for qualified candidates to run for the offices listed below. To serve is exciting and an honor! If you would like the opportunity to serve the Section or know of qualified members who would serve, please fill in the requested information. Return this completed form to the Chair of the Nominating Committee as soon as possible before January 1, 1996. The Nominating Committee will solicit the consent to run and biographical information from the person you recommend.

\_\_\_\_\_  
 (print full name of recommended nominee)

\_\_\_\_\_  
 Address

\_\_\_\_\_  
 City, State, Zip

\_\_\_\_\_  
 (Area code) Home Phone Number

\_\_\_\_\_  
 (Area Code) Office Phone Number

is recommended as a nominee for election to the position of:

CHECK THE APPROPRIATE POSITION:

- TREASURER (3 years):**  
 Should have good working knowledge of accrual accounting, annual and long range budgeting, reserve funds and investment strategies. Nominees shall have served on the Finance Committee for no less than one year from the time they would assume the office of Treasurer.
- DIRECTOR (3 years)**
- NOMINATING COMMITTEE MEMBER (3 years):**  
 Should have broad exposure to membership to assist in formation of the slate of officers.

Nominator: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

PLEASE RETURN BY JANUARY 1, 1996 TO:

Carol Jo Tichenor, PT, Orthopaedic Section, APTA, 2920 East Avenue South, La Crosse, WI 54601



# ORTHOPAEDIC PHYSICAL THERAPY HOME STUDY COURSES

**COURSE LENGTH: 90 DAYS FROM DATE OF REGISTRATION**

**1**

## HSC 94-1 TOPIC: LUMBAR SPINE

- Lumbopelvic Anatomy & Mechanics and their Relationship to Low Back Pain
- McKenzie Approach to the Lumbar Spine
- Thoracolumbar Spine: Postsurgical Rehabilitation of the Orthopaedic Patient
- Radiology of the Lumbar Spine
- Industrial Medicine and the Lumbar Spine
- Cyriax Approach to the Lumbar Spine

**2**

## HSC 94-2 TOPIC: LUMBAR SPINE

- Anatomy of the Lumbar Spine
- The Aging Lumbar Spine
- Lumbar Traction
- Evaluation and Treatment of the Lumbar Spine and Pelvis in the OB/GYN Population
- Differential Diagnosis for the Patient with Low Back Pain
- Evaluation and Treatment of the Lumbar Spine: An Overview of the Maitland Concept

**3**

## HSC 95-1 TOPIC: THE FOOT AND ANKLE

- Anatomy of the Foot and Ankle
- Management of Foot Problems Resulting from Complications of Diabetes or Arthritic Conditions
- Overuse Symptoms of the Foot and Ankle
- Biomechanics of the Foot and Ankle
- Traumatic Disorders of the Foot and Ankle
- Treatment Approaches to Foot and Ankle Disorders using Exercise and Orthotic Devices

**4**

## HSC 95-2 TOPIC: THE WRIST AND HAND

- Anatomy and Mechanics of the Wrist and Hand
- Burns and Open Wounds of the Hand
- Cumulative Trauma Disorders of the Wrist and Hand
- Degenerative and Inflammatory Conditions of the Wrist and Hand
- Fractures and Ligament Injuries of the Wrist and Hand
- Tendon and Nerve Injuries of the Wrist and Hand

### Each manuscript will include:

- Basic Science
- Pathology
- Issues of Clinical Decision Making
- Case Studies

### Registration Fees— Per Course:

\$150.00 Orthopaedic Section Members  
\$225.00 APTA Members  
\$300.00 Non-APTA Members

*Special discounted rates are available for institutions with multiple registrants. Please call the Section office for complete information.*

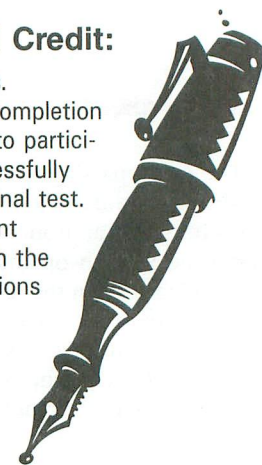
\* Absolutely no refunds will be given after the start of the course!

Please make check payable to:  
**Orthopaedic Section, APTA**

Mail check and registration to:  
**Orthopaedic Section, APTA**  
2920 East Avenue South  
La Crosse, WI 54601  
1-800-444-3982 or 608-788-3982  
FAX 608-788-3965

### Educational Credit:

30 contact hours.  
A certificate of completion will be awarded to participants after successfully completing the final test. Only the registrant named will obtain the CEUs. No exceptions will be made.



REGISTRATION FORM

## ORTHOPAEDIC PHYSICAL THERAPY HOME STUDY COURSE

(COURSE NO.)

Please check:

- Orthopaedic Section Member  
 APTA Member  
 Non-APTA Member

Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Daytime Telephone Number (\_\_\_\_\_) \_\_\_\_\_

APTA # \_\_\_\_\_ (Wisconsin Residents add 5.5% Sales Tax)

JOIN THE SECTION AND TAKE  
ADVANTAGE OF THE DISCOUNTED  
REGISTRATION RATE IMMEDIATELY!

- I wish to become an Orthopaedic  
Section Member (\$50) and take ad-  
vantage of the member rate.



# AWARD FOR EXCELLENCE IN TEACHING OF ORTHOPAEDIC PHYSICAL THERAPY

## PURPOSE

To recognize and support excellence in instructing OPT principles and techniques through the acknowledgment of an individual with exemplary teaching skills.

## ELIGIBILITY

1. The nominee must be a member in good standing of the Orthopaedic Section of the APTA. The nominee must have taught or presently be teaching either physical therapy or physical therapy assistant students the principles and clinical applications of Orthopaedic Physical Therapy for five years or more.
2. The nominee may be either a faculty member (full-time or adjunct) or a clinical instructor of an accredited physical therapy or physical therapy assistant program.
3. Members of the Section Awards Committee are excluded from eligibility during their term of office.

## CRITERIA FOR SELECTION

The Awards Committee will consider the following as guidelines in the selection process:

1. The instructor devotes the majority of his professional career to student education.
2. The instructor teaches from a sound, comprehensive, and current knowledge base, integrating basic science with the principles of orthopaedic physical therapy.
3. The instructor demonstrates excellence in instructional methods, presentation techniques, planning and organizational skills, and the ability to motivate students.
4. The instructor serves as a mentor and role model with evidence of strong student rapport.
5. Teaching materials are innovative and well-designed.
6. Instructional techniques are intellectually challenging and promote retention or necessary knowledge and skills.
7. The instructor demonstrates an ability to relate academic knowledge to clinical practice.
8. The instructor displays objectivity in the evaluation and presentation of ideas, hypotheses, and concepts.
9. The instructor is receptive to student and peer feedback.

## PROCEDURE FOR NOMINATION

1. Any member of the Orthopaedic Section may nominate candidates for the award.
2. One original typewritten set and four duplicates of all materials submitted for each nomination must be received by the Administrative Director at Section office by December 1 for consideration for the award in the following year.
3. The materials to be completed and submitted for each nomination shall include the following:
  - a. A support statement from the nominator, highlighting reasons for the nomination and clarifying the relationship between the nominator and nominee.
  - b. A support statement from at least one faculty member from all physical therapy or physical therapy assistant educational programs with which the nominee is affiliated.
  - c. Support statements from at least two professional colleagues.
  - d. Support statements from at least two current and/or former students. If the nominee is a clinical instructor, the clinical education experience must be full-time for a minimum of six weeks.
  - e. The nominee's curriculum vitae.
4. The nomination materials should document examples of how the nominee fulfills the criteria for this award.

## PROCEDURES FOR REVIEW AND SELECTION

1. Nomination materials shall be submitted to the Section office. The Section office will retain the original set of materials and will provide the Awards Committee with copies for review.
2. The Awards Committee will review the nominations and recommend a recipient to the Executive Committee.
3. Any members of the Awards Committee who are closely associated with the nominee will abstain from participating in the review and selection process.
4. The award will be presented only if there are qualified candidates, and one is selected.
5. Nomination materials are considered the property of the Awards Committee, who will maintain their confidentiality.
6. Nomination materials will not be returned. If any individual is not selected for the award in a given year, that individual may be nominated in a subsequent year. New nomination materials must be submitted in subsequent years.

## NOTIFICATION OF AWARD

1. The recipient of the award will be notified by the Section president.
2. Those nominees not selected will be so informed in writing.
3. The nominators of individuals not selected will receive a letter thanking them for their participation and informing them of the award recipient.
4. The confidentiality of the Excellence in OPT Teaching Award will be maintained until the recipient has been notified.

## THE AWARD AND ITS PRESENTATION

1. The Orthopaedic Section will reimburse the round trip coach airfare from any site in the United States or Canada to the APTA Annual Conference Meeting site, two day per diem, consistent with the Section's current reimbursement rates and one day's conference registration.
2. The award will consist of an appropriate plaque and a \$250.00 honorarium.
3. The award will be presented at the APTA Annual Meeting (CSM) by the Chair of the Awards Committee.



# OUTSTANDING PTA STUDENT AWARD

## Purpose

1. To identify a student physical therapist (first professional degree) with exceptional scholastic ability and potential for contribution to orthopaedic physical therapy.
2. To provide the means for an exceptional student to attend and participate in a national meeting, with the intention that this exposure will encourage future involvement in Orthopaedic Section activities.

## Eligibility

1. The nominee must be currently enrolled in a PTA program.
2. The nominee must be a member of the Orthopaedic Section, APTA, Inc.

## Criteria for Selection

1. The student shall excel in academic performance in both the professional and prerequisite phases of their educational program.
2. The student shall demonstrate exceptional nonacademic achievements, representing initiative, leadership, and creativity.
3. The student shall be involved in professional organizations and activities that provide the potential growth and contributions to the profession and orthopaedic physical therapy.

## Procedure for Nomination

1. Any member of the Orthopaedic Section may nominate candidates for this award.
2. One original set and four duplicates of all materials submitted for each nomination must be received by the Executive Director at the Section office by November 1, for consideration for the award in the following year.
3. The materials submitted for each nomination shall include the following:
  - a. A support statement from the nominator, highlighting reasons for the nomination and clarifying the relationship between the nominator and nominee.
  - b. A support statement from two faculty members in the educational program in which the nominee is enrolled.
  - c. Support statements from one faculty member outside of the PTA department.
  - d. Support statements from at least two student colleagues.
  - e. A resume and cover letter from the nominee detailing previous health care experiences, honors and awards, evidence of service activities, and participation in professional activities.
4. The nomination materials should document examples of how the nominee fulfills the criteria for this award.

## Procedure for Review and Selection

1. Nomination materials shall be submitted to the Section office. The Section office will retain the original set of materials and will provide the Awards Committee with copies for their review.
2. The Awards Committee will review the nominations and recommend the most qualified candidate to the Executive Committee.
3. The award will be presented only if there are qualified candidates, and one is selected.
4. Nomination materials are considered the property of the Awards Committee, who will maintain their confidentiality.
5. Nomination materials will not be returned. If any individual is not selected for the award in a given year, that individual may be nominated in a subsequent year. New nomination materials must be submitted in subsequent years.

## Notification of Award

1. The Section President will notify the recipient by December 1st and obtain written confirmation of acceptance by December 15.
2. The nominators of individuals not selected will receive a letter thanking them for their participation and informing them of the award recipient.
3. The confidentiality of the Outstanding Student Award will be maintained until the recipient has been notified.

## The Award and Its Presentation

1. The Orthopaedic Section will reimburse the recipient for round trip coach airfare from any site in the United States or Canada to the APTA Combined Sections Meeting, four days per diem, and conference registration.
2. The student will receive a certificate suitable for mounting.



# Occupational Health Physical Therapists Special Interest Group Orthopaedic Section, APTA, Inc.



## Newsletter

FALL 1995

VOLUME 2, NUMBER 4

### SETTING A GOOD EXAMPLE IN OCCUPATIONAL HEALTH AND SAFETY

By Sandra Painter, OTR and Anne Moore, PT, MS

"Setting a Good Example." "Actions Speak Louder than Words." "Practice what You Preach." These sayings have recently been used to promote one of Covenant Rehabilitation Services—St. Joseph's Hospital's work-related educational programs. Our Occupational Medicine program provides individualized back education for industry and healthcare service facilities. In the initial program phase, the decision was made to make our parent hospital a model of success in back education/injury prevention through the development and marketing of a successful model.

Covenant Rehabilitation recognizes the strengths in interdepartmental committees with a multidisciplinary task force. Members include an employee health nurse, an occupational therapist, a physical therapist and a nurse educator. The group's function is to review hospital employee incident reports to identify the major causes of back injuries. Back injuries comprised 32% of the hospital's OSHA recordable injuries in 1993 and accounted for 36% of the Worker's Compensation costs for 1993. Of the total back injuries, 77% of these involved the lumbar spine and were largely the result of patient or material handling situations. With this information, members agreed that occasional, one-time education and training programs provide little carry-over and that overall, participants do not change their work techniques or behavior. With this in mind, "a train the trainer" concept was used to meet the back education needs of our hospital facility.

In the train-the-trainer method, each hospital department manager or nursing unit supervisor identified two em-

ployee trainers. These individuals received extensive training in back injury prevention. They then returned to their individual work areas to implement a structured, ongoing back injury prevention program.

Trainers underwent four-hour training sessions consisting of a basic review of back anatomy/health, stretching exercises, body mechanics principles along with two-hour practical training with demonstration of proper techniques and performance competency checks. This practical includes two modules, one of which was developed for patient handling employees with an emphasis on patient transfers and the other, which was customized for material handlers. Material handling demonstrations included lifting of boxes, housekeeping tasks and pushing heavy equipment throughout the hospital with demonstrated performance of proper techniques required. A written pre- and post-test was also administered with an average of 23% improvement in post-test scores.

Participants were provided with training tools to take back to their individual units/departments to facilitate ongoing back safety awareness. These tools included: a video on stretching in the work place, handouts on proper techniques, a formal check list for demonstration in patient transfer or material handling techniques, and specific suggestions for each department. Following the formal training session, periodic newsletters containing tips on back care are routed to the trainers to help maintain program enthusiasm and follow-through. Refresher courses are offered annually for the trainers.

The Covenant Rehabilitation back injury prevention program is an excellent example of "setting a good example" in the area of occupational health and safety. While other factors and variables may contribute to a reduction in back injury and expense, St. Joseph's Hospital largely attributes a 56% decrease in back injury costs and a 27% decrease in restricted work days from 1993 to 1994 to this proactive and ongoing educational effort.

#### PUBLICATION CORRECTION FOR SUMMER, 1995 NEWSLETTER IN OPTP VOL. 2, # 2

The LEGAL BEAGLE article was written and submitted by Kathy Lewis, JD, MAPT. We apologize for not crediting her for this article in the newsletter.

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#### DISCLAIMER

The summaries of articles and the opinions expressed by authors are provided for information only and do not necessarily reflect the views of the authors, OHPTSIG or the Orthopaedic Section of the APTA.



## SECRETARY'S CORNER

Now that autumn is here and the weather is likely cooler for all of you, you may focus your attention on things of a more temporal nature than water skiing, golf, tennis, and cookouts! Although all have very interesting summer vacation stories to share, your OHPTSIG Executive Board has been very busy during the summer months. Through conference call meetings, telephone calls, FAX messages, and memo reminders of strategic plan related actions and deadlines, the Board has diligently continued it's many efforts toward increasing physical therapist visibility and viability in the occupational health-care delivery and consultation arenas. A major accomplishment has been the development of the Advisory Group on Ergonomics with Mark Anderson, PT as the chairperson. The consultation portion of our practices was identified by the Board as an important reason to form such a group. This advisory group will facilitate physical therapists' involvement in current ergonomic issues in a timely, pro-active "strike-force" manner to address occupational health related issues as they arise. Members serve as watchdogs for ergonomics issues and may bring ideas to the group, then to the OHPTSIG Executive Board, and finally, to the SIG membership as appropriate. The group is also charged to explore the Health Ergonomist certification process. Ergonomics Advisory Group members include Mark Anderson, Dennis Hart, Karen Piegorsch, Susan Isernhagen, Scott Minor, Mike Burke, Barbara Merrill, Joannette Alpert, and Bob Wirmsa.

Thanks to all who have volunteered to serve on the Publications Committee. I will be calling upon you soon for newsletter submission ideas, so be prepared with timely and interesting occupational health, safety, and rehabilitation articles. I'd like to start a question and answer section for occupational health PT issues in the next newsletter. If you have a question(s), please submit it in writing by 12-1-95 to:

Roberta Kayser, PT  
OHPTSIG Secretary  
c/o ERGOPLEX  
by Physiotherapy Associates  
4425 Kiln Court  
Louisville, KY 40218  
ph: (502) 451-0400  
FAX: (502) 451-0818

## INTERESTED IN SUBMITTING AN ARTICLE FOR THE OHPTSIG NEWSLETTER?

If you have the time, talent, and/or desire to write articles related to the subjects of occupational health and physical therapy, abstract "news briefs," provide informational material to colleagues, or assist with editing submissions for this newsletter, the Occupational Health Physical Therapy Special Interest Group invites you to become involved in its Publications Committee. Contact Roberta Kayser, PT, OHPTSIG Secretary at ERGOPLEX by Physiotherapy Associates 4425 Kiln Court Louisville, KY 40218, (502) 451-0400.

## GUIDELINES FOR SUBMISSION OF MATERIALS FOR PUBLICATION OHPTSIG NEWSLETTER IN OPTP

1. Topics should be of interest and/or assistance to occupational health physical therapists, other occupa-

tional medical service providers, consumers of occupational health services, and those interested in the area of occupational health.

- OHPTSIG will publish articles, news updates, interviews, practice profiles, announcements, abstracts and briefs related to occupational health and physical therapy. Results of research are not appropriate for OHPTSIG.
2. Submissions should be double spaced with a one inch margin on each side. Send two original copies OR one diskette with the document saved as Word for Windows Document or ASCII file by the appropriate deadline to the OHPTSIG Newsletter Secretary at the address above.
3. Average length 1 to 2 pages.
4. Quotations and references should be properly identified.
5. The OHPTSIG Newsletter Secretary has the final SIG responsibility for decisions regarding publication or any submitted item. The OPTP Editor has all final authority regarding publication.

Membership in the Occupational Health SIG is open to any member of the Orthopaedic Section. To join, simply contact Tara Fredrickson at the Section office, 1-800-444-3982.

### President:

Dennis Isernhagen, PT  
ph: 218/722-1399  
FAX: 218/722-1395

### Vice President:

Karen Piegorsch, PT, OCS, MSIE  
ph: 803/732-0086  
FAX: 803/781-8107

### Secretary:

Roberta Kayser, PT  
ph: 502/451-0400  
FAX: 502/451-0818

### Treasurer:

Mike Burke, PT  
ph: 708/726-1138  
FAX: 708/438-6016

### By-laws Committee Chair:

Kathy Lewis, PT, JD  
ph: 806/354-5595  
FAX: 806/354-5591

### Education Committee Chair:

Gwen Parrott, PT  
ph: 502/493-0031  
FAX: 502/493-8182

### Practice & Reimbursement Committee Chair:

David Clifton, PT  
ph: 610/604-0450, x: 233  
FAX: 610/604-0461

### Research Committee Chair:

Scott Minor, PT, PhD  
ph: 314/286-1432  
FAX: 314/286-1410

### Nominating Committee Chair:

Barbara Merrill, PT  
ph: 408/253-5971

### Advisory Group on Ergonomics:

Mark Anderson, PT  
ph: 612/368-9214  
FAX: 612/368-9249



## INTERNET INFORMATION

Since clinical practice guidelines have become an issue affecting all areas of clinical practice including occupational health physical therapy, timely access to information is critical. Physical therapists need to know how to access this information to critique guidelines for physicians that may impact our practice.

Notice: Internet access to Clinical Practice Guidelines which were developed under sponsorship of Agency for Health Care Policy and Research of the U.S. Department of Health and Human Services. The guidelines are available from Health Services/Technology Assessment Text (HSTAT) of the National Library of Medicine's Full-Text Retrieval System. Documents are available for viewing OR can be transferred.

Gopher address: <gopher.nlm.nih.gov>

FTP address: <nlmpubs.nlm.nih.gov>

Telnet to <text.nlm.nih.gov>

type "hstat" at login telnet prompt

## ERGONOMICS IN CYBERSPACE & ON THE INTERNET

The following sites may help you to improve your understanding of ongoing developments in rehabilitation and injury prevention. Most of these are a wealth of information and worth the investment in time and equipment.

This short list is far from complete and there are new sites emerging daily.

### USENET

<Clari.biz.industry.health>

<sci.med.Occupational>

<Misc.handicap>

<Comp.human-factors>

<comp.Robotics>

<clari.tw.health>

<sci.med.orthopedics>

### FTP SITES

<ftp.csua.berkeley.edu:/pub/typing-injury>

### WORLD WIDE WEB

<http://www.wanda.pond.com/mall/ctdnews>

<http://www.neosoft.com/internet/paml/groups.H/handicap/htm>

<http://weber.u.washington.edu/doit>

<http://cosmos.ot.buffalo.edu>

<http://www.cis.ohio-state.edu/hypertext/faq/usenet/typing>

### OTHER BULLETIN BOARDS

U.S. Dept of Labor (Includes up to minute info on OSHA) Direct Dial 202/219-4784 (Not accessible through the Internet)

### ERGONET 1-313-998-1303

Contact Pat Terrell at the Center for Ergonomics

IOE Building

1205 Beal Avenue

University of Michigan

Ann Arbor, Michigan 48109 2117

<http://www.wanda.pond.com/mall/ctdnews>

For more information, contact Mike Burke, PT via email:

[ErgoOgre@ix.netcom.com](mailto:ErgoOgre@ix.netcom.com)

## OHPTSIG GOES WORLD WIDE WEB

Scott Minor has recently set up a home page on the internet world wide computer web dedicated to the OHPTSIG. To submit occupational health PT related materials to post on this SIG home page, mail the information on disk to:

Scott Minor, PT, PhD

Washington University PT Program  
Box 8083

St. Louis, MO 63110

ph: (314) 286-1432

FAX: (314) 286-1410

To access the web file, use the following:  
<http://walden.mo.net/~minors>

## NEWS BRIEFS

### OSHA REFORM PLAN PROPOSES REPLACEMENT OF COMPLIANCE OFFICERS WITH CONSULTANTS

Certified private individuals would be able to conduct workplace safety and health reviews under a program recently proposed in Rep. Cass Ballenger's (R-N.C.) OSHA Reform Bill, 1995, HR 1834. Once under way, this program would allow employers with no reportable accidents or employee complaints to be essentially free of OSHA inspections. This bill requires OSHA to establish a certification process for consultants. OSHA's training institute and regional training centers have been discussed as possible centers for certification. Using consultants will enable businesses to rely on personnel with a broader health and safety experience, thus reducing the role of government. Without the direct threat of penalties, the use of consultants would promote a non-adversarial approach intended by HR 1834. Minimum qualifications for consultant certification eligibility must be established. The American Board of Industrial Hygiene (AIHA) may be the credential review body, as reported to the Subcommittee on Workforce Protections in July, 1995. AIHA suggests that OSHA:

- Recognize any certifying entity that has been in existence for at least 5 years
- Require certified individuals to attend a one-day refresher course on standards, recordkeeping, and auditing
- Establish specific criteria for minimum certification
- Require state-plan states to recognize individuals already certified in occupational health and safety



## CONSULTATION BOOKLET UPDATED

An updated booklet explaining the steps a consultant takes to help employers implement an effective health and safety program is now available from OSHA. "Consultation Services for the Employer" (OSHA 3047) is primarily intended for small businesses in high-hazard industries or with especially hazardous operations. A single, free copy of the booklet may be obtained simply by sending a self-addressed label to the OSHA Publications Office, Room N-3101, 200 Constitution Avenue, NW., Washington, D.C. 20210, (202) 219-4667, FAX (202) 219-9266.

Workplace Ergonomics, July/August, 1995

## AIHA PUBLICATIONS AVAILABLE

Several occupational health and safety-related publications are available from the American Industrial Hygiene Association. Among these publications is an **ERGONOMICS GUIDE SERIES** with guides on Cumulative Trauma Disorders, Low Back Performance, and VDT stations. For more information, or a copy of the 1995 AIHA Publications and Information Catalog, call (703) 849-8888.

## ERGONOMICS CENTER OPENS DOORS

The first university-government center in the US. to examine how humans interact in their environment opened in Raleigh, NC, May 11, 1995. The North Carolina Ergonomics Resource Center will allow ergonomists to determine how these interactions affect physical health and cumulative trauma in the workplace. The North Carolina State University has combined efforts with the state's Department of Labor to create the center.

Stevens OSHA Reporter Washington D.C. News Bureau, May 22, 1995 Vol. 6, # 21.

## WHO TO CONTACT ON CAPITOL HILL WITH QUESTIONS ABOUT OSHA

Would you like to know the current status the latest OSHA reform bill or testify at an upcoming hearing? Although the chairmen and/or ranking officials may not be able to respond to each inquiry personally, several key congressional staffers can best answer questions regarding safety and health issues and related legislation:

- Gary Visscher, Randel Johnson (R) share oversight responsibilities of OSHA on the House Committee of Economic and Educational Opportunities.
- Peter Rutledge, Brian Kennedy (D) monitor labor bills.
- Bob Kinsley (D), Mike Stephens (R) are lead contacts for (2) EEOC subcommittees have jurisdiction over worker safety and health issues: Workforce Protections, the starting point for OSHA reform legislation, and Oversight Investigations, which conducts hearings into OSHA operations.
- Steve Sola (R), Sara Fox (D) may be contacted regarding Senate oversight of OSHA through the Labor and Human Resources Committee.
- Jim Sourwine (R), Marcia Simon (D) serve members of the Senate Appropriations subcommittee on Labor. Stevens OSHA Reporter Washington D.C. News Bureau, April 24, 1995, Vol. 6, #17

## WORKERS' COMPENSATION LOSSES DOWN

Losses in workers' compensation insurance residual market in 1993 were at their lowest since 1985, according to a study released February 22, 1995 by the Alliance of American Insurers. Losses dropped 53 percent, from \$1.9 billion in 1992 to \$.8 billion in 1993. The Alliance, an association of 220 property and casualty insurance companies, attributed the decrease to changes in residual market pricing programs, anti-fraud efforts, rate increases, and loss control initiatives. The study, *Residual Markets: Workers' Compensation in 1993* can be obtained by calling (708)330-8530. Stevens OSHA Reporter, Washington D.C. News Bureau, February 27, 1995, Vol.6, #9

## RSI'S AMONG TOP HEALTH LOSSES

Six in 10 corporate safety executives report that their largest health related losses are directly related to ergonomic injuries and illnesses. According to a survey released in July, 1995 by Liberty International in Boston, one hundred safety executives of Fortune 500 companies were surveyed on safety programs and trends. Liberty International is the risk services division of the Liberty Mutual Group, one of the country's leading insurance carriers. For a copy of the survey, contact Chet Lassell, Liberty Mutual Group, 175 Berkeley St., Boston, MA 02117, (617) 574-5948.

Steven's OSHA Reporter, Washington D.C. News Bureau, July 17, 1995, Vol. 6, #28

## TYPING FORCE LINKED TO DISORDERS

Computer operators with symptoms of upper-extremity musculoskeletal disorders key stroke with four to five times the necessary force, according to a recent study by the Office of Ergonomics Research Committee. This committee is a coalition of companies funding several current studies focused on determining the association between office work and upper-extremity MSD's (also known as RSI's, CTD's). Those workers with the most severe symptoms appeared, in the study, to be the employees who's keystrokes were harder than those with minimal symptoms. This information suggests an association, but does not prove conclusively that excessive keystroke force is always a cause of MSD's in the office work environment. Further studies are needed to assess the relationship between on-the-job discomfort and ergonomic, personal, and psychosocial factors. For more information, contact R.F. Bettendorf., Executive Secretary, Office Ergonomics Research Committee, (802) 362-4071.

## NEW KEYBOARD IN DEMAND

Microsoft Corporation's new Natural Keyboard, designed to help maintain a relaxed wrist posture while keying, has proven popular in many business settings. The item currently sells at a 250,000 per month rate, which is the amount originally projected for annual sales. Since it was designed by Microsoft and the Joyce Institute and entered the market in September, 1994, an additional manufacturer was commissioned to help produce them.

Excerpted from Workplace Ergonomics, July/August, 1995



# ANNOUNCEMENT

The Research Committee of the Foot and Ankle Special Interest Group is developing a database of those interested or involved in foot and ankle research. The purpose of this database is to provide enhanced networking among these people. It is hoped that this will facilitate communications and collaborations between those with common interests. This will also serve as a resource for information regarding possible research internships. If you are interested in being included in this database, please complete the following form and return it to:

Irene McClay, PhD, PT  
FASIG Research Committee  
305 McKinly Laboratory  
University of Delaware  
Newark, DE 19716

phone: (302) 831-4263  
FAX: (302) 831-4234  
email: mcclay@strauss.udel.edu

---

## FASIG Research Database

Name _____	Title _____
Position _____	Degrees _____
	Board Certification _____
Address _____	Phone _____
_____	FAX _____
_____	Email _____

Research Interests (check all that apply)

- |                                       |                                     |   |
|---------------------------------------|-------------------------------------|---|
| <input type="checkbox"/> Orthopaedics | <input type="checkbox"/> Pediatrics | <input type="checkbox"/> Motor Control    |
| <input type="checkbox"/> Neurology    | <input type="checkbox"/> Geriatrics | <input type="checkbox"/> Other (describe) |

Describe specific interests and activities

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Would you be interested in hosting a research intern \_\_\_\_\_ ?

Would you be interested in a research internship \_\_\_\_\_ ?

Would you be interested in serving as a resource for others with research questions \_\_\_\_\_ ?

---



PLACE  
STAMP  
HERE

**IRENE McCLAY, PhD PT  
FASIG RESEARCH COMMITTEE  
305 MCKINLY LABORATORY  
UNIVERSITY OF DELAWARE  
NEWARK, DE 19716**



# Foot and Ankle Special Interest Group

## Orthopaedic Section, APTA, Inc.

### CHAIR'S REPORT

Since our first formal meeting in Reno, myself, Steve Reischl (Vice-Chair), and Mark Cornwall (Secretary/Treasurer) have been busy with the organization of the upcoming FASIG educational meeting for CSM in Atlanta, publicizing the FASIG to health professional organizations outside of the physical therapy profession, as well as getting the three standing committees of the FASIG operational. All three of us are quite happy with how things have progressed to date.

At the business meeting in Reno, the members in attendance voted for the formation of the following three standing committees; Programming, Practice, and Research. As stated in our bylaws, the FASIG Vice-Chair, Steve Reischl, is the chair of the six member Programming Committee. Upon returning from Reno, I asked Irene McClay and Joe Tomaro, to chair the Research and Practice Committees, respectively. Although they both have extremely busy schedules, they agreed to serve as committee chairs. At the present time, the Research committee has eight (8) members and the Practice committee has seven (7) members. Although only in existence for a short time, all three of the committees have been extremely busy addressing issues that have developed in the past several months. I cannot thank Steve, Irene, Joe, and their committee members enough for all the work they have done in getting their respective committees off the ground. The various activities of each committee is summarized below and as can be seen, they have been extremely active.

As part of my duties as Chair, I felt it was important to publicize the formation and objectives of the FASIG to health care professionals involved with the care of the foot and ankle outside of the physical therapy profession. In May, I sent letters to the Presidents of the following four foot and ankle health care organizations: American Orthopaedic Foot and Ankle Society, American Podiatric Medical Association, Prescription Footwear Association, and the American College of Foot and Ankle Orthopaedics and Medicine. In addition, I also have communicated with Dr. Gerald Webber, who is the Editor of *The Lower Extremity*, which is the journal of the podiatric specialists. Part of my report at the FASIG business meeting at CSM in Atlanta will discuss the responses I have received from these letters.

Also at our business meeting at CSM in Atlanta, we will be electing a Vice-Chair as well as two Nominating Committee members. If you are interested in running for these positions, please contact Irene McClay (302-831-8910), Michael Mueller (314-286-1400) or myself

(520-523-1499) by December 15, 1995.

In closing, I want to invite you to join and participate in the FASIG. Please join us for both the business and educational meeting that will occur at CSM in Atlanta. As you will read, Steve and his committee have put together an excellent program that will no doubt prove stimulating and informative. If you have any questions or suggestions regarding the FASIG, please do not hesitate to contact me by either phone (520-523-1499) or FAX (520-523-9289). I look forward to seeing you in Atlanta!!

Tom McPoil  
Chair, FASIG

### OFFICERS/COMMITTEES FASIG

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**Secretary/Treasurer:**

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**Research Committee:**

Irene McClay phone (302) 831-8910

**Practice Committee:**

Joe Tomaro phone (412) 321-2151

**Programming Committee:**

Steve Reischl phone (310) 427-2225



## PROGRAMMING COMMITTEE REPORT FASIG PROGRAM at CSM, ATLANTA

The business meeting for the FASIG will be held on Saturday, February 17, 1996 from 12:30 to 1:30 p.m. The educational session which will take place immediately following the business meeting and ends at 5:30 p.m. Steve Reischl will serve as the Moderator for the afternoon session. The format for the educational session will be a 30 minute formal presentation by each speaker followed by a 30 minute discussion period. The speakers and topics for this years program include:

1:30-2:30 p.m.—

The Inverted Orthotic Technique

**Presenter:** Stephen Baitch, PT

3:30- 4:30 p.m.—

Tibialis Posterior as a Culprit of Heel Pain

**Presenter:** Catherine Patla, MMSc, MTC, PT, OCS

4:30-5:30 p.m.—

Biomechanical Constraints of Foot and Ankle  
Contributing to Abnormal Patterns of Movement

**Presenter:** Beth Fisher, MS, PT, NCS

## FUTURE PROGRAMS

The FASIG is planning to co-host a one day workshop with the Department of Kinesiology, University of Minnesota and Novel Electronics, Inc., on Saturday, June 16, 1996, in Minneapolis, MN. This is the day before the start of the 1996 APTA National Meeting in Minneapolis. The workshop will be titled, "The Use of Plantar Pressure Assessment in Physical Therapy Practice and Research," and will consist of both panel discussions and "hands-on" labs using pressure assessment instrumentation. While the workshop is still in the planning stage, final information and registration forms will be provided in the next issue of *Orthopaedic Practice*. Please plan on attending this workshop, especially if you will be attending the APTA National Meeting in Minneapolis.

Finally, the FASIG Programming Committee is planning on holding a preconference workshop prior to the 1997 CSM in Dallas. The title of the workshop will be:

"THE USE OF FOOT ORTHOSES IN TREATMENT  
OF PATELLOFEMORAL PROBLEMS"

The programming committee has been working closely with Lola Rosenbaum, Education Program Chair of the Orthopaedic Section, and has already contacted several speakers with tremendous clinical and research expertise in this topic area. While the planning is still in the preliminary stages, this promises to be an excellent program. Further information will be provided in future *Orthopaedic Practice* issues, regarding this exciting workshop.

## RESEARCH COMMITTEE REPORT

The research committee is attempting to put together a database of those members interested or involved in foot and ankle research. The purpose of this database is to provide enhanced networking among members of the FASIG and the Orthopaedic Section. To help get the database off the ground, Irene and her committee have developed a "short" survey which is attached. The survey form is pre-addressed, so all that is required is for you to fold and seal the survey form with tape, then mail. Please help Irene and her committee establish this data-base by taking a few minutes to fill out and return the survey.

## PRACTICE COMMITTEE REPORT

In April, I asked the Practice Committee to review a Terminology Standards document which was developed by the Terminology and Measurement Committee of the American Orthopaedic Foot and Ankle Society as well as the Pediatric Orthopaedic Society of North America. The Terminology Standards document had been obtained by Jonathan Cooperman from Dr. Ian Alexander, who was a member of the committee. Dr. Alexander had asked Jonathan to comment on the document. Upon receiving the document from Jonathan, I sent it to Joe Tomaro, so he and his committee could read and comment on the proposed foot and ankle terminology being proposed by our orthopaedic surgeon colleagues. Joe has composed an excellent summary of the original terminology document as well as feedback provided by committee members and himself regarding the proposed terminology. Joe's summary is included in this issue. I strongly believe that Joe's summary is important for all of us to read, since we should be familiar with the terminology that may be used by the orthopaedic surgeon who is referring a patient to the physical therapist!





## FOOT AND ANKLE TERMINOLOGY

By Joe Tomaro, MS, PT, ATC  
Chair, Practice Committee, FASIG

Overuse injuries of the lower extremity can be caused by multiple factors including abnormal foot and ankle biomechanics. Evaluation and treatment of foot and ankle biomechanics are performed by many professionals including physicians, podiatrists, physical therapists, and athletic trainers. One of the difficulties of communication among medical professionals is the lack of standard nomenclature when discussing foot and ankle biomechanics. Root et al. defines triplane motion about the subtalar joint as pronation and supination. Kapandji defines the same triplane movement about the subtalar joint as eversion and inversion. This is just one example where differences in nomenclature can affect communication between professionals treating the foot and ankle complex.

Recently the Terminology and Measurement Committee of the Orthopaedic Foot and Ankle Society developed definitions for clinical conditions and motion of the foot and ankle with the goal of creating standards to facilitate communication among foot and ankle surgeons. It is important that we as physical therapists understand these definitions and how they may differ from terminology that we typically use. Listed below are the definitions as set forth by the Terminology and Measurement Committee of the Orthopaedic Foot and Ankle Society.

### CLINICAL CONDITIONS

**HINDFOOT-** The portion of the foot proximal to the transverse tarsal (talonavicular and calcaneocuboid) joints.

**MIDFOOT-** The portion of the foot between the transverse tarsal (talonavicular and calcaneocuboid) joints and the tarsometatarsal joints.

**FOREFOOT-** That portion of the foot distal to the tarsometatarsal joints.

**HINDFOOT VARUS-** From the posterior view, frontal (coronal) plane angulation of the central heel line to a line\* inwards with respect to the midline of the lower leg.

**HINDFOOT VALGUS-** From the posterior view, frontal (coronal) plane angulation of the central heel line\* outwards with respect to the midline of the lower leg.

**FOREFOOT VARUS-** Frontal plane rotation of the plantar aspect of the forefoot towards the midline of the body such that the medial forefoot is elevated relative to the lateral forefoot.

**FOREFOOT VALGUS-** Frontal plane rotation of the plantar aspect of the forefoot away from the midline of the body such that the lateral forefoot is elevated relative to the medial forefoot.

**MIDFOOT ADDUCTUS-** Medial deviation (towards the midline of the body) of the midfoot relative to the hindfoot in the transverse plane.

**MIDFOOT ABDUCTUS-** Lateral deviation (away from the midline of the body) of the midfoot relative to the hindfoot in the transverse plane.

**FOREFOOT ADDUCTUS-** Medial deviation (towards the midline of the body) of the forefoot relative to the midfoot in the transverse plane.

**FOREFOOT ABDUCTUS-** Lateral deviation (away from the midline of the body) of the forefoot relative to the midfoot in the transverse plane.

**HAMMER TOE-** Deformity of the toe with MTP in extension or neutral, PIP flexion and DIP extension or neutral.

**CLAW TOE-** Deformity of toe with MTP in extension or neutral and both PIP and DIP flexion.

**MALLET TOE-** Deformity of toe with MTP neutral, PIP neutral and DIP flexion.

\*The central heel line is a proximally to distally directed line that bisects the posterior aspect of the calcaneus.

### MOTIONS OF THE FOOT AND ANKLE

#### SAGITTAL PLANE

**Dorsiflexion—**Upward motion of the distal bony part relative to the proximal bony part in the sagittal plane.

**Plantar flexion—**Downward motion of the distal bony part relative to the proximal bony part in the sagittal plane.



## FRONTAL (CORONAL) PLANE

Inversion—Inward tilting motion of the plantar aspect of the part toward the midline.

Eversion—Outward tilting motion of the plantar aspect of the part away from the midline.

## TRANSVERSE PLANE

### Forefoot/Midfoot

Adduction—Medial deviation of the forefoot/midfoot in the transverse plane towards the midline.

Abduction—Lateral deviation of the forefoot/midfoot in the transverse plane away from the midline.

### Ankle/hindfoot

Internal rotation—Inward rotation of the talus or calcaneus in the transverse plane relative to the proximal bony part.

External rotation—Outward rotation of the talus or calcaneus in the transverse plane relative to the proximal bony part.

## TRIPLANE MOTIONS

Supination—A combination of adduction, inversion and plantar flexion.

Pronation—A combination of abduction, eversion and dorsiflexion.

There are several definitions which lack clarity or differ from terminology that is typically used by physical therapists. Hindfoot varus, hindfoot valgus, forefoot varus and forefoot valgus have accurate descriptions but do not make mention of these being osseous malalignments. There is also a lack of a reference position in which to define these alignments. A reference position is important in order to allow for consistent definition. For example, hindfoot varus and hindfoot valgus are determined with the subtalar joint in a neutral position. Forefoot varus and forefoot valgus are usually defined as the relationship of the central three rays to the perpendicular of the bisection of the calcaneus with the subtalar joint in neutral and the midfoot fully loaded.

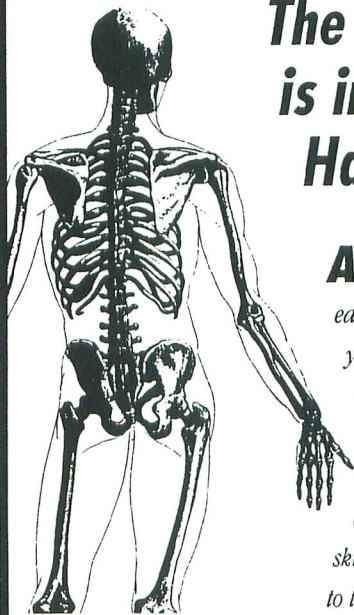
Some confusion may also exist as to the use of the terms hindfoot varus and hindfoot valgus. Commonly the terms calcaneal varus and calcaneal valgus are used to define the relationship of the bisection of the calcaneus to the bisection of the lower leg.

When defining the motions about the foot and ankle, sagittal plane movement is typically referred to as dorsiflexion and plantar flexion while frontal plane movement is defined as inversion and eversion. It seems confusing that the Terminology and Measurement Committee of the Orthopaedic Foot and Ankle Society defines transverse plane movement about the forefoot/midfoot as adduction and abduction but transverse plane movement at the ankle and hindfoot as internal rotation and external rotation. Typically, the transverse plane movement at all segments of the foot and ankle complex are referred to as adduction and abduction in the physical therapy literature. It is also important that some form of terminology be developed to better define the position of the foot and ankle in the closed chain.

We should continue our efforts to consistently define the motion about the foot and ankle complex. Gaining an understanding of the terminology that is used by other professionals will help to foster improved communication among individuals treating foot and ankle dysfunction.



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*Watch for further information.*