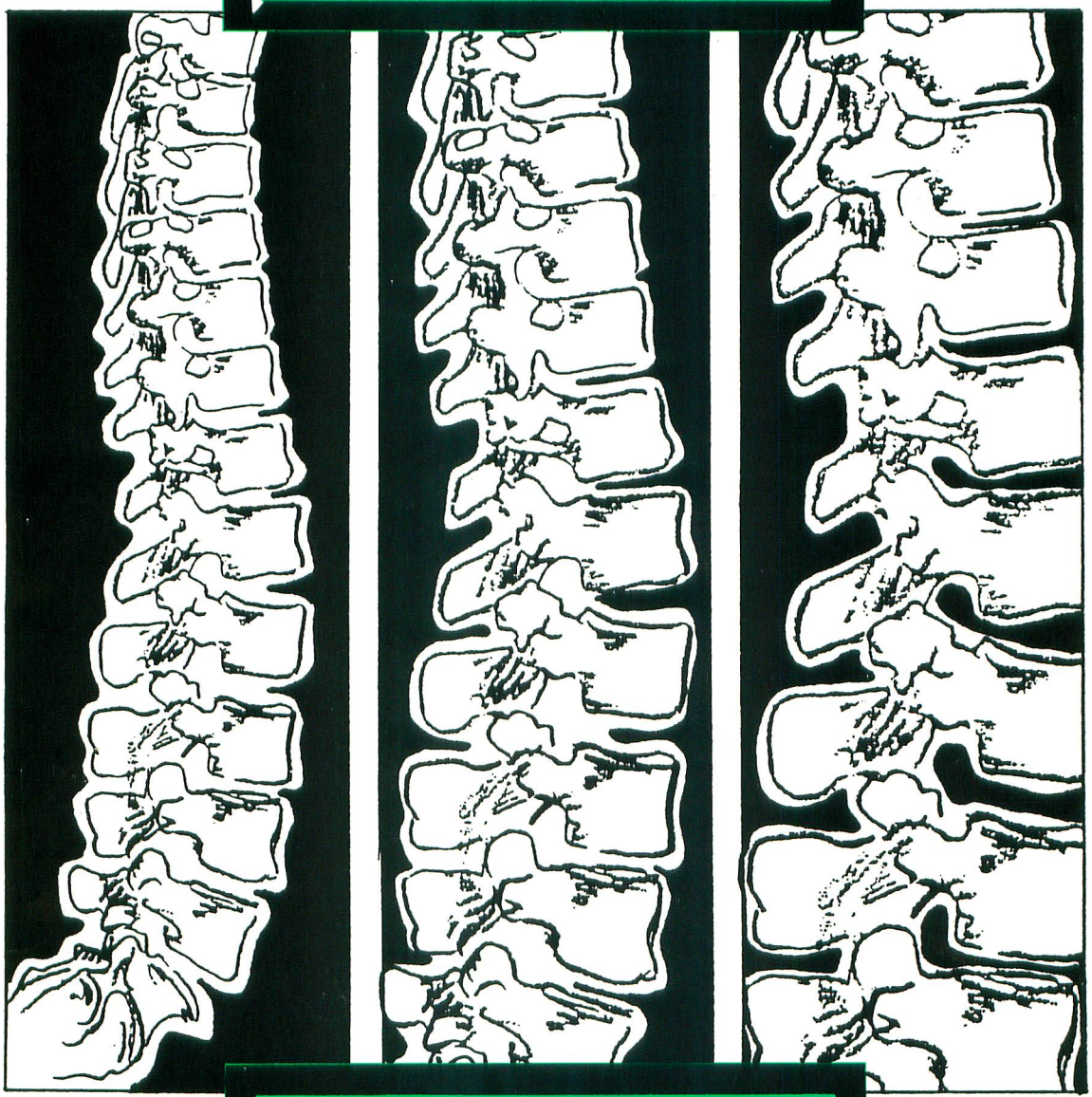
ORTHOPAEDIC Physical Therapy PRACTICE

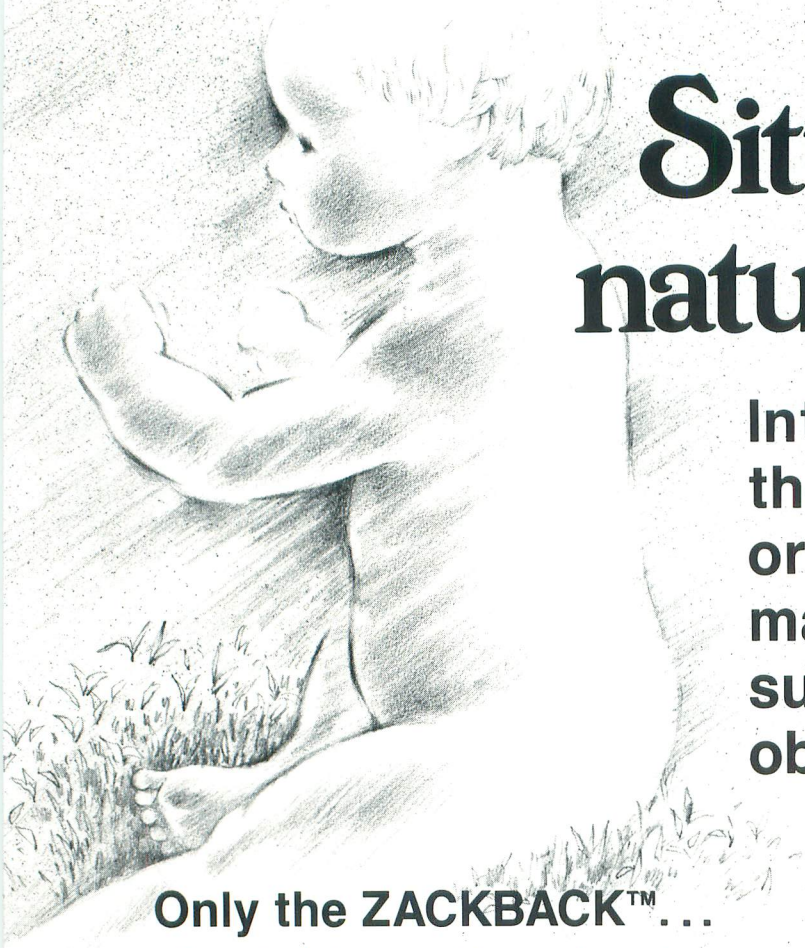
Vol. 2, No. 2, 1990



AN OFFICIAL PUBLICATION OF THE

ORTHOPAEDIC SECTION

AMERICAN PHYSICAL THERAPY ASSOCIATION



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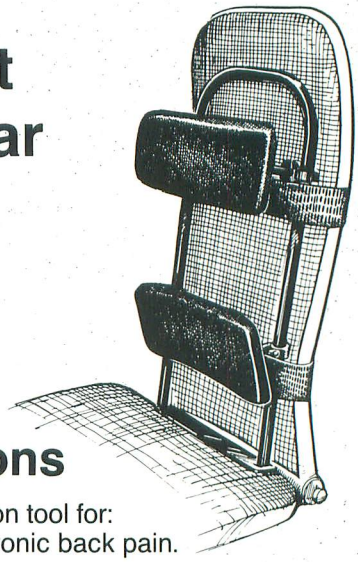

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presents
1990 REVIEW FOR ADVANCED ORTHOPAEDIC COMPETENCIES

AUGUST 5 - 11
STUART, FLORIDA
Indian River Plantation & Resort

MEETING A:
August 5-7

TUITION: $250 - Orthopaedic Section Members $300 - APTA Members $400 - non-APTA members

THE CERVICAL SPINE
Walter J. Personius, P.T., Ph.D.

THE ELBOW
Sandy Burkart, P.T., Ph.D.

THE SHOULDER
Sandy Burkart, P.T., Ph.D.

THE WRIST AND HAND
Carol Waggy, P.T. and David Labosky, M.D.

MEETING B:
August 8-11

TUITION: $300 - Orthopaedic Section Members $350 - APTA Members $450 - non-APTA members

THE LOW-BACK / SI JOINT / HIP
James Porterfield, P.T., M.A.

THE KNEE
Mae Yahara, P.T.

THE FOOT/ANKLE
Dan Riddle, P.T., M.S.

TUITION FOR MEETINGS A and B:

Tuition: $500 - Orthopaedic Section Members $600 - APTA Members $750 - non-APTA Members

INDIAN RIVER PLANTATION

Our meeting site, Indian River Plantation, is located on Hutchinson Island. Separated from the Coast (Stuart, Florida) by the Indian River, this island was once a pineapple plantation. To the east is the Atlantic Ocean and to the west of the island is the Inter-Coastal Waterway. This lovely facility offers a 77 slip marina, 3 pools, a 1,700 foot beachfront, 18 hole golf course, 13 tennis courts, jogging trails, bicycling and much more.

Indian River Plantation is 45 minutes north of Palm Beach, 2 hours north of Miami and 2½ hours south of Orlando. Major airlines provide frequent flights to West Palm Beach Airport. Ground transportation is provided by Indian River Plantation. Reservations are required and can be made by calling the hotel.

For More Information, complete the form below, detach and mail to:

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The purpose of the "Review for Advanced Orthopaedic Competencies" is to provide Orthopaedic Section members and non-members with a process for review. (It is not intended to satisfy examination criteria for the Orthopaedic Physical Therapy Specialty Competency examination, but to serve as a **review process only.)** Cancellations received in writing prior to the course date will be refunded in full minus a 20% administration fee. Absolutely **no** refunds will be given after the start of the course.

REVIEW FOR ADVANCED ORTHOPAEDIC COMPETENCIES

Name _____ Day-Time Phone No. ( ) _____

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City _____ State _____ Zip _____

Check: Please register me for the following course(s): **August 5-11, 1990:** ☐ Meeting A Only ☐ Meeting B Only ☐ Meetings A and B

☐ Enclosed is my registration fee in the amount of: $_____. ☐ Ortho Sec. Mbr ☐ APTA Mbr ☐ Non-Member

☐ Yes, I want to take advantage of the member rate immediately. (Please add $30 to your member rate fee.) ☐ I would like more information.

Make checks payable to the Orthopaedic Section

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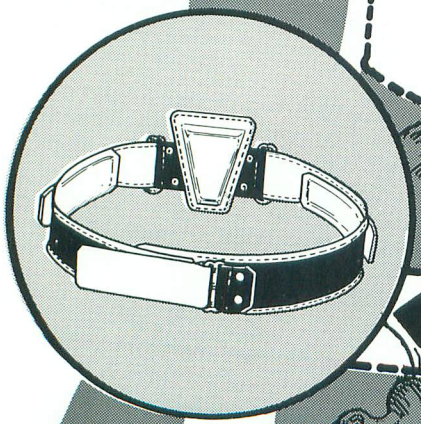

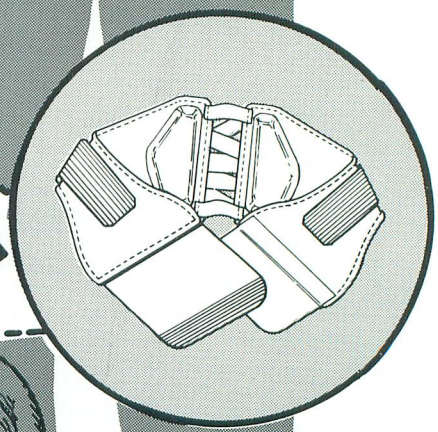

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ABOUT THE COVER

The spine provides support and allows movement for each individual. When the spine becomes stiff problems arise as described in lead article. Illustration by Tracy Jensen.

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FROM THE SECTION OFFICE

Terri Pericak

Spring has almost sprung here in the Midwest which means it's time, once again, for the Section to start gearing up for Annual Conference. But, first let me touch on the many events which have taken place in the first four months of 1990.

Since taking over the administrative services of the Orthopaedic Section office in October, 1989, I have had the opportunity to meet and interact with not only the Orthopaedic Section officers and members but also those of other sections as well as members of the APTA staff.

My first opportunity came during CSM in New Orleans, February 2-5th. We arrived right after the superbowl and right before Mardi Gras. This may have seemed like we were between celebrations but the Orthopaedic Section had plenty of reasons to celebrate. Bourbon Street here we come!

At the opening reception, Wednesday, January 31st, our first Certified Orthopaedic Specialists were recognized. John J. Palazzo, M.S., P.T., ECS, gave the opening address and then each specialty council chair introduced each certified specialist from their Section. There were a total of 53 specialists recognized of which 26 were Certified Orthopaedic Specialists. The Orthopaedic Section congratulates and applauds you in receiving this prestigious certification!

The second Orthopaedic Specialty exam was given on Wednesday also. Those who pass will be recognized at CSM, 1991. The third exam will be given January 30th, 1991, at the Marriott Hotel in Orlando, Florida. The deadline for submitting applications to the ABPTS is August 1, 1990. Remember that the application process is lengthy and you should allow six weeks to complete it.

Any questions regarding the application, exam, and/or costs should be directed to Patti Cox, ABPTS, 1-800-999-APTA. For questions on the minimal criteria and orthopaedic competencies, please contact the Section office or Joe McCulloch, Orthopaedic Specialty Council Chair, at the address and phone listed in the front of this publication.

If you plan on applying to sit for the exam and you do not already have a copy of the Orthopaedic Physical Therapy Competencies, you should seriously consider purchasing one. It is essential to have this document when filling out the application. To order a Competencies please call or write the Orthopaedic Section office.

The Executive Committee met for five and a half hours on Thursday, February 1st. The meeting went well but it was requested that more time be allotted for this meeting at Annual Conference. The Business Meeting was held on Sunday, February 4th. It was well attended and a lot of good discussion was generated. It was suggested that future Business Meetings be held early in the week to allow even better attendance. At Annual Conference the meeting has been set for Sunday, June 24th, in the morning.

The Section display booth was again set up in the registration area this year. We sold promotional items and gave away mints and clips displaying the Orthopaedic Section logo.

The climax to CSM 1990, for many, was the Orthopaedic Section's 15th Anniversary celebration. And what a celebration it was! The evening started off with a wonderful dinner followed by the recognition of the Section's six past presidents. Each gave a brief overview of the highlights and accomplishments of their term of office and were awarded with a medallion and gold pin, containing a semi-precious stone. The first Founder's Award for Distinguished Service was given to the Section's first president, Stanley Paris. A special thanks and congratulations Stanley! To show our continued support to the Foundation for Physical Therapy, Minority Scholarship Fund, Jan Richardson, President of the Orthopaedic Section, presented a $10,000 check to Jim McKillip, President of the Foundation.

The Anniversary celebration was topped off with a very special performance by jazz singer, Nancy Wilson. It was the perfect ending to a very momentous evening.

The second event of 1990 was the "Review for Advanced Orthopaedic Specialty Competencies" course held in beautiful Lake Tahoe, Nevada, March 5-11th.

We had one new speaker for this course, Mae Yahara, P.T., A.T.C., from Reston Sports Medicine in Reston, Virginia. She did an excellent job presenting the knee and we look forward to having her speak again at our August course in Stuart, Florida. As in the past, all the speakers were very well received by the participants. Thank you all for the fine job you are doing!

The next review course is scheduled for August 5-11th in Stuart, Florida. We are happy to see that registrations for this course are already starting to come in. This is a wonderful opportunity for you to take one last family vacation before school starts and the course is set up to allow you plenty of free time. See the ad in this issue of Orthopaedic Practice for a description of the Indian River Plantation Resort on Hutchinson Island and the exact course times.

In 1991 we will be cutting back our course to only one per year. Right now we are looking at having it nine months before the application deadline to sit for the exam. This would put it in the fall. For 1991 we are considering San Diego as a possible course site.

The APTA Component Leadership Training Seminar will be held at the Old Colony Inn in Alexandria, Virginia, from April 1-3rd. This year they are featuring special sessions for component treasurers and executive personnel as well as a tour of the APTA headquarters. Those attending from the Orthopaedic Section are President, Treasurer, Education Program

Chair, and Administrative Director. We are looking forward to another rewarding seminar.

Coming up May 10-16th in Ottawa, Canada, is the First North American Orthopaedic Physiotherapy Symposium. The Canadians will be our hosts for this first symposium and the Orthopaedic Section will host the second one in the United States in 1994. Rick Adams, Chairman for the Canadian Orthopaedic Physiotherapy group, was in attendance at CSM and shared the Orthopaedic Section booth. He brought along a video tape highlighting areas of interest as well as cultural aspects of Ottawa. This promises to be a very exciting symposium.

Once again it's time for the Section elections. This year all ballot information will appear on the ballot and not in *Orthopaedic Practice* as has been the rule in the past. By putting all of the information on the candidates, as well as any proposed bylaw changes, in the ballot, which we mail out first class, we know our members will receive all the information they need to cast their vote and return it to the Section office by the deadline.

The offices which you will be voting on this year are Treasurer and Nominating Committee member. A call for nominations was conducted at the Section Business Meeting at CSM but no additional nominations were brought forth. The slate which was voted upon and approved at the Business Meeting is as follows: Treasurer—John Wadsworth, running unopposed, and; Nominating Committee Member—Garvice Nicholson and Bill Boissonnault.

Please cast your vote and return the ballot to the Section office by May 15th. The election results will be announced during the Business Meeting at Annual Conference and published in the next issue of *Orthopaedic Practice*.

This year Annual Conference will be held June 21-28, 1990, in Anaheim, California. Please refer to the Master Calendar below for dates of Section meetings and other events.

As always the Section office staff is here to assist you with any questions, problems, and concerns you might have. Please contact Patti Sherry, Membership Secretary, for any concerns regarding your membership and ordering promotional items or labels. Theresa Cieminski, Publications Secretary, can help you with any advertising questions you have as well as general information on *The Journal of Orthopaedic and Sports Physical Therapy* and *Orthopaedic Physical Therapy Practice*. Any other questions or concerns you may have regarding the Orthopaedic Section may be directed to myself. We all look forward to working with you in 1990.

Terri Pericak
Administrative Director

1990 MASTER CALENDAR

ORTHOPAEDIC SECTION APTA

MAY

10-16 The First North American Orthopaedic Symposium, Ottawa, CANADA
- 10-11 Pre-Symposium: Clinical Anatomy of the Cervical and Lumbar Spine
- 12-13 Anatomy and Function: Joint Concepts
- 14-16 Post-Symposium: Assessment and Treatment of the Upper Cervical Spine

15 Election Ballot due back to Section office.
15 Mailing date Orthopaedic Practice—May issue
18 JOSPT Mailing Date—June issue

JUNE

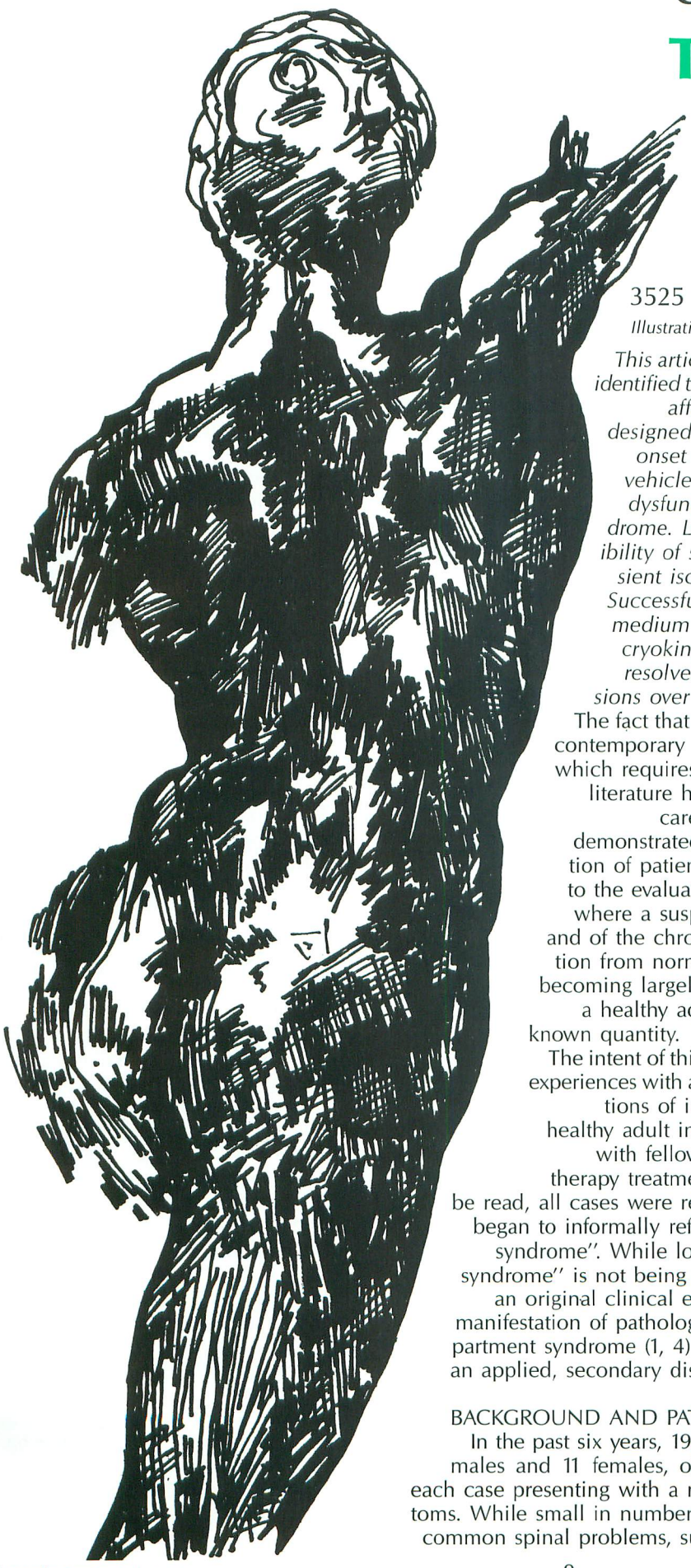
18 JOSPT Mailing Date—July issue
21 Section Chairs Meeting, Annual Conference, Anaheim, CA
23-25 APTA House of Delegates, Anaheim, CA
24-28 Annual Conference, Anaheim, CA
- 23 Orthopaedic PT, Industrial PT Roundtable Meeting, 7:00-8:00 a.m., Orange County Ballroom, Salon 4
- Orthopaedic Section Executive Committee Meeting, 8:00 a.m.-12:00 Noon, Section Suite
- 24 Orthopaedic Section Business Meeting—AM, Mariott Hall N.E.
- 26 Executive Personnel Meeting—9 AM—12 Noon

JULY

4 HOLIDAY—Independence Day
18 JOSPT Mailing Date—August issue

AUGUST

5-11 Review for Advanced Orthopaedic Specialty Competencies Course, Stuart, FL
15 Mailing Date Orthopaedic Practice—August issue
20 JOSPT Mailing Date—September issue



CLINICAL OBSERVATION:

THE "CAR SEAT SYNDROME"

Kent E. Timm, Ph.D., P.T.,
S.C.S., A.T.C., F.A.B.S.
St. Luke's Healthcare Association
St. Luke's Sports Medicine Center
3525 Davenport Avenue, Saginaw, MI 48602

Illustrations by Tracy Jensen

This article details the "car seat syndrome", a spinal disorder identified through clinical experiences and observations, which affects drivers new to automobiles with ergonomic-designed seating. The problem presents with an insidious onset two to four weeks after the acquisition of a new vehicle with symptoms analogous to a McKenzie spinal dysfunction and/or to a paravertebral compartment syndrome. Lower back pain is theorized to result from inflexibility of spinal connective tissue structures and from transient ischemia in the paravertebral fascial compartments. Successful management in the form of joint mobilization, medium frequency electronic neuromuscular stimulation, cryokinetics, and McKenzie extension exercises typically resolves symptoms in an average of eight treatment sessions over seventeen calendar days.

The fact that patients with back pain present a challenge to the contemporary orthopaedic physical therapist is hardly a topic which requires extensive professional debate. Many volumes of literature have been written on the subject of effective back care and many treatment programs exist which have demonstrated appropriate efficacy for the successful remediation of patient symptoms. Most of the work has been devoted to the evaluation and treatment of the acutely injured patient, where a suspected mechanism of injury is frequently known, and of the chronic pain patient, who possesses a definite deviation from normal, functional spinal health. These situations are becoming largely known quantities; insidious lower back pain in a healthy adult who is free of systemic disease is not such a known quantity.

The intent of this article is to detail the author's observations of and experiences with a specific set of circumstances which surround situations of insidious lower back pain presenting in otherwise healthy adult individuals and to share such acquired knowledge with fellow professionals. An effective orthopaedic physical therapy treatment regimen will also be discussed. Since, as will be read, all cases were related to changes in automobile seats, the author began to informally refer to the collection of symptoms as the "car seat syndrome". While loosely useful as a classification tool, the "car seat syndrome" is not being presented as a new form of spinal disorder or as an original clinical etiology. The "syndrome" is, however, the specific manifestation of pathological principles relevant to the paravertebral compartment syndrome (1, 4) and to the McKenzie spinal dysfunction (2). It is an applied, secondary disorder rather than a primary pathological entity.

BACKGROUND AND PATIENT HISTORY

In the past six years, 1984-1989, the author has encountered 42 cases, 31 males and 11 females, of the "car seat syndrome" spinal disorder, each each case presenting with a nearly identical patient history and clinical symptoms. While small in number relative to the typical clinical etiologies of more common spinal problems, such as intervertebral disc herniation, spondylosis,

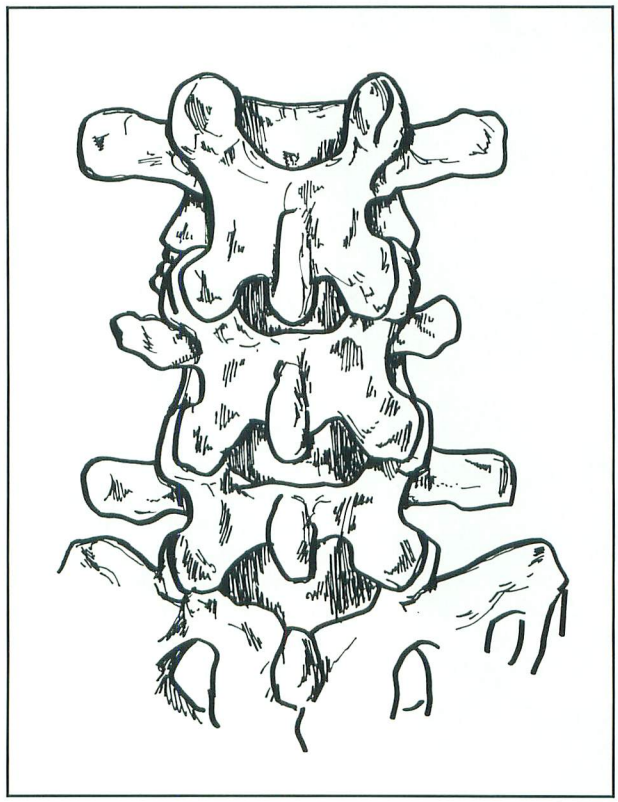
spondylolisthesis, et cetera, the exactness of history and symptom duplication in each patient prompted the author to speculate upon the disorder as a distinct entity rather than a general problem. In all cases, the affected patient was relatively young, mean age 32.6±5.8 yrs, and had no previous history of low-back pain. All patients were physically active in recreational athletics, weight training, flexibility and/or aerobic conditioning exercise activities on at least a three sessions per week basis. The male patients exhibited mean body fat statistics of 12.3 ± 3.7% and the female patients demonstrated body fat measurements of 18.1 ± 4.2%. Physician evaluation prior to referral for orthopaedic physical therapy services revealed an absence of systemic pathology in each patient. Radiographs were negative for osseous abnormalities and for general spinal degenerative changes. In short, all patients appeared to be healthy except for their complaints of lower back pain.

The initial interview portion of the orthopaedic physical therapy examination revealed that all patients were experiencing back pain of insidious origin and four to six weeks duration prior to the onset of treatment. The pain was localized to the lumbar spine and the surrounding paravertebral musculature and did not radiate or peripheralize into the sacroiliac complex, the buttock, hip, or lower extremity. The pain was present nearly constantly but was most intense following a prolonged period of sitting, especially after driving a car, and during movement activities which involved the extreme ranges of spinal flexion and extension. Aspirin and physician prescribed non-steroidal anti-inflammatory medications brought transient relief. All patients reported some form of problem with their normal sleep pattern. The patients also complained of frequent periods of muscle spasm in the lumbar paravertebral regions which delimited their usual recreational activities. The patients' greatest fear was that the situation would deteriorate into a larger spinal problem which would permanently affect their lifestyles.

The subjective examination also revealed several pieces of specific information which were common to each patient. All patients were employed in sales or business and/or technical consulting occupations which required frequent driving of a personal, as opposed to a company, motor vehicle. All patients had been promoted within an interval of six months prior to the onset of the spinal disorder and had purchased a new automobile within two weeks of the beginning of the back pain experience. All patients had previously owned a domestic car with a standard bench seat and had upgraded to a European, particularly Scandinavian, automobile which had articulated ergonomic bucket seats. Each patient commented that initially the new seating arrangement felt very strange, with a stretching sensation imparted to the lumbar region, which eventually became painful.

OBJECTIVE EVALUATION

A posture analysis failed to reveal gross abnormalities but did demonstrate a relatively flat, non-lordotic lumbar spine for each patient. Range of motion testing revealed generally diminished ranges of spinal motion in all planes with the endpoints of flexion and extension being especially painful but accompanied by a capsular endfeel. The McKenzie evaluation sequence of repeated and sustained flexion and extension postures and movements in standing and in supine (2) was largely inconclusive in that positioning at or motion to the extremes of both flexion and extension produced lower back pain. The pain was specific to the lumbar and paravertebral regions, did not peripheralize, and lessened but was not relieved by movement away from the end ranges. Neurological testing revealed normal, symmetrical responses for dermatomal, myotomal, and proprioceptive functions in the T12-S2 segmental distributions of each patient. Unilateral and bilateral Lasegue's tests were negative for discal, nerve root, and dural involvement.



Osteopathic vertebral positional testing (3) did not reveal the presence of type I lesions in spinal neutral or the presence of type II lesions in positions of hyperflexion and hyperextension. Vertebral mobility testing revealed restricted segmental extension mobility throughout the lumbar spine of each patient. While not present in all patients, palpation detected "spasm" in the lumbar paravertebral musculature; patients not in "spasm" during the evaluation indicated that they had experienced the sensation previously. Isokinetic testing in the sagittal and in the transverse planes was deemed negative for functional muscle deficiencies since all patients, although somewhat painfully, were able to demonstrate peak torque, average power, and total work parameters which exceeded their body weight across a velocity spectrum. The Waddell panel of tests (5) was not remarkable for possible non-organic contributions to the disorder since each patient scored zero on the five point scale.

ASSESSMENT AND PHYSICAL THERAPY DIAGNOSIS

The orthopaedic evaluation indicated that each patient was free of functional discal, neurological, vertebral, and muscular problems but did possess limitations of normal spinal mobility accompanied by paravertebral muscle guarding and a postural abnormality in the form of a relative lumbar kyphosis. These problems occurred in the specific context of a recent behavioral change, namely the use of an ergonomic bucket seat in a new motor vehicle. The limitation in movement ability, secondary to pain at the extremes of lumbar motion, and in lumbar segmental mobility toward extension, resulting in a flat lumbar spine, presented in analogy to the McKenzie dysfunction syndrome (2). This conclusion was reached based upon the absence of signs which would definitively indicate either the postural or the derangement syndromes (2).

The postural abnormality and pain patterns also pointed toward a paravertebral fascial compartment syndrome (1, 4). The presence of palpable paravertebral rigidity or muscle "spasm" consolidated the conclusion. The fact that both clinical entities presented following the introduction of a new ergonomic seat, and without any other discernable cause, pointed to the car seat as the source of the spinal disorder. We concluded that the patients were affected by a "car seat syndrome" which served as the functional physical therapy diagnosis during treatment.

ORTHOPAEDIC PHYSICAL THERAPY MANAGEMENT

Based upon the evaluative findings and upon the operational conclusion, treatment was directed toward the restoration of normal lumbar mobility in the extension plane, a normal lumbar lordosis, and normal, pain free spinal motion in the absence of paravertebral rigidity. Treatments took place on a three sessions per week basis and consisted of joint mobilization and cryokinetic activities followed by medium frequency electronic muscle stimulation. These procedures were complimented by the McKenzie prone press-up and standing self-correction exercises on a clinical but especially on a non-clinical, home program basis.

Joint mobilization was directed toward the return of segmental extension mobility and employed either the Maitland or the Kaltenborn philosophies based upon each patient's status of restriction and discomfort. This encouraged extensibility of the shortened connective tissues along with the remodeling of any sprained structures partially responsible for prolonged spinal discomfort. Cryokinetics were undertaken as a progressive mobility procedure which also promoted the removal of any inflammatory and/or ischemic tissue byproducts. Cryotherapy was selected to delimit the effects of any further inflammation induced secondary to connective tissue microtrauma from the mobilization activities and to prevent an increase in fascial pressures, as opposed to thermal modalities which are counterproductive with spinal compartment syndromes (1,4). Electronic muscle stimulation, used initially in a four second on and four second off cycle which was progressed to an alternative ten second cycle, facilitated pain relief, muscle relaxation, and fascial fluid dispersion. The McKenzie exercise program was used for self-mobilization and compartmental fluid pumping purposes and for correction of the lumbar kyphotic posture.

RESULTS AND DISCUSSION

All patients responded positively to the orthopaedic treatment program and attained a normal, pain free functional status in a mean of 8.2 $\pm$ 3.4 treatment sessions over a mean interval of 17.6 $\pm$ 6.3 calendar days. All patients were also able to return to their normal driving habits and patterns without discomfort. Specific follow-up evaluations at three and six month intervals after discharge from physical therapy revealed the maintenance of a non-problematic lumbar spine and paravertebral region.

The pattern of treatment response was deemed to be a function of the patient's sound physical health and the period of symptom duration; healthy people tend to respond to treatment more quickly and a problem that is four to six weeks old will respond more slowly relative to a fresh, acute injury. Since all patients continued to work and drive during the period of treatment, although extended road trips were curtailed, the factor of continued use of the ergonomic seats had some unmeasured, variable influence upon the conditions. The fact that all patients were functioning normally up to six months after discharge indicates that the situation had been corrected effectively and that each patient had adapted to his or her ergonomic car seat.

In theory, the "car seat syndrome" was caused by a maladaptive response to the biomechanical demands placed upon the spine by a new ergonomic car seat. Since all patients were physically accustomed to a standard bench seat, without a special lumbar support, and since their jobs involved extended driving, it is logical to assume that their spines had become relatively fixed in a flat-back posture. The introduction of an ergonomic bucket seat with a "biomechanically correct" lumbar support placed excessive external loads upon the lumbar connective tissue structures as they attempted to remodel to the new demands. In the context of prolonged exposure to this situation, relative again to each patient's occupational demands, the tissues could not accommodate quickly enough and micro- or macrotrauma ensued. The symptomatic pattern of nearly constant pain that exacerbates at the extremes of motion, rather than pain which develops over time spent in a particular posture which is then relieved when the posture is changed, points toward the McKenzie dysfunction syndrome as opposed to the postural syndrome.

The physiological inflammatory processes which naturally accompany connective tissue trauma would have produced functional ischemia in the paravertebral muscles along with exudate fluids in their corresponding fascial compartments. This, in turn, would add to the lower back pain and produce the paravertebral rigidity or "muscle spasm" experienced by each patient. Continued insults to the myofascial system, through further driving in the ergonomic seat with resultant insult to the connective tissue structures, would slow the healing process, allow the inflammation to become chronic, and produce additional fluid in the myofascial compartments, thereby prolonging the extent of the spinal problem.

The interesting paradox is that the ergonomic seat, a structure assumed to be biomechanically "correct" and, therefore, desirable for proper spinal health, actually causes the malady. The author's observations that the problem appears to occur only in healthy individuals who are relatively affluent adds to the interest of the phenomenon. The contemporary orthopaedic clinician may find the report of these clinical experiences beneficial in the care of his or her patients and clients, hence the purpose and intent of this article.

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CALL FOR NOMINATIONS

THE ROSE EXCELLENCE IN RESEARCH AWARD

THE BEST RESEARCH ARTICLE OF 1990 DEALING WITH ORTHOPAEDIC PHYSICAL THERAPY

The research Committee of the Orthopaedic Section of the American Physical Therapy Association is soliciting nominations in order to recognize and reward a physical therapist who has made a significant contribution to the literature dealing with the science, theory or practice of orthopaedic physical therapy.

I) ELIGIBILITY FOR THE AWARD

The recipient must:

1) be a physical therapist licensed or eligible for licensure in the United States of America;
2) be a member of the American Physical Therapy Association;
3) be the primary (first) author of the published manuscript.

The article must be published in a reputable, refereed scientific journal between September 1, 1989 and August 31, 1990 to be considered for the 1991 award. Should the journal containing an otherwise eligible article experience a delay in releasing its August, 1990 issue, the article must be available to the general public no later than September 15, 1990 to be considered.

II) SELECTION CRITERIA

The article must have a significant impact (immediate or potential) upon the clinical practice of orthopaedic physical therapy. The article must be a report of research but may deal with basic science, applied science or clinical research. Reports of single clinical case studies or reviews of the literature will not be considered.

III) THE AWARD

The award will consist of a plaque and $500.00 to be presented at the 1991 Combined Sections Meeting.

IV) NOMINATIONS

Written nominations should include the complete title, names of authors and the citation (title of journal, year, volume number, page numbers) of the research article. The name, address and telephone number of the person nominating the research article should also be included.

Nominations (including self-nominations) will be accepted until close of business September 4, 1989 and should be mailed to:

Dan L. Riddle, M.S., P.T.
Research Committee Chairman
Orthopaedic Section, APTA
c/o Department of Physical Therapy
Virginia Commonwealth University
Box 224, MCV Station
Richmond, VA 23298

PARIS FOUNDER'S AWARD

Stanley Paris' Acceptance Speech on receipt of the Paris Founders Award — CSM 1990

How can I possibly express my gratitude on receiving the first Paris Founder's Award, having it named after me and knowing that it will continue year after year. It is almost too much for me to accept. But, I accept.

Many years ago my father said, "If you hang around long enough they'll give almost anything to get rid of you." He said that on the occasion of his becoming an Honorary Life Member of the New Zealand Society of Physiotherapy, a profession he entered in 1920.

I cannot help but reflect that if indeed I am worthy of this award, then it was by good fortune for I happened to come along at the right time. Our profession has been blessed by any number of talented individuals that when tested have shown the establishment, be it within our own ranks, the medical community or the legal system, that we are of substance and we can overcome obstacles placed in our paths. We will not shrink from the challenge. I notice that in addresses such as this, recipients usually speak of their own history and philosophy and so shall I.

In preparing for this address I spoke to a number of my colleagues about the issues before our profession and about the good and wholesome warm things I could say. After all generosity begets generosity. But most of my conferees said remarks such as "stir them up, Stanley," or "Go for it. We are getting too comfortable." Talk about the issues". So I shall try not to disappoint them.

First let me begin with a little of what is expected. Some of my personal history and some Section history.

When speaking of history I am reminded that those who were part of it may be too close to honestly present it. But that did not stop my greatest hero, Sir Winston Churchill for not only writing the history of World War II, but also ensuring that he placed himself in a favorable and especially heroic light.

I came to the United States on a scholarship from the New Zealand Workers Compensation Board in 1961. The previous year had been spent in England and Europe and my second year of study was to be here in the United States. Unfortunately, I found little to study in the area of my scholarship, namely "the management of back pain with a special emphasis on manipulation".

My perception of physical therapy in 1961 is as follows:

Stanley V. Paris, Ph.D., P.T.

1) Virtually all therapists worked in hospitals with few working in alternative settings such as private practice; 2) Those few in private practice were considered by many to be undesirables—the worst thing that could happen to a physical therapist; 3) I saw doctors prescribing what we should do in terms of intensity in milliamps, duration in minutes, exercise in the number of repetitions; 4) In many hospitals physiatrists even changed the doctors' orders and we could not in such circumstances speak to the referring doctor; 5) Few therapists were doing detailed evaluations. The doctor was the only one who could do that, especially when it came to back pain; 6) There was little or no knowledge of manipulation; 7) and finally, we had little influence and no control over what we could teach ourselves in our schools. Clearly, I did not see a profession.

So why five years later would I return to the United States when things had not changed?

I left in New Zealand a successful practice with my father and had been for three years the first therapist to be appointed as a Lecturer in Spinal Treatments at the only school of physiotherapy which included teaching manipulation at the undergraduate and graduate level.

I returned to America, in part because my work in New Zealand was established (and besides, Robin McKenzie had taken one of my classes) and because I saw the opportunities that existed and I felt that I could contribute.

In common with many other American physical therapists I shared the vision of professional physical therapy. This vision encompassed, if not independent practice, then at least practice by referral based on a competent clinical evaluation for dysfunction of the body.

The therapists who were needed to move the profession forward were out there and they included the Maggie Knotts at Rancho Los Amigo, the Marjorie Iontas of Massachusetts General Hospital and the Jack Hofkoshs of New York's Institute of Rehabilitation Medicine. These latter two gave me my start. They encouraged me and that encouragement came at a critical time, for I sorely needed it.

You see, although I came to a faculty appointment at Boston University, the Dean and his all powerful Medical Advisory Board, which controlled the school of physical therapy, upon reading my published literature, which included articles and a book dealing with manipulation, issued a memorandum stating the following:

"Mr. Paris should not be permitted to lecture, give speeches, publish, edit, or in any way further his identification with manipulative therapy. . ." This, I might add, was from the dean of an Academic institution and in 1966 that was how we were treated if we dared step out of line. Not one physical therapist on that faculty could afford to come to my defense. The very next day I gave the Dean a small lecture on the freedoms guaranteed under the Constitution, and the rights of academics but to save the university further embarrassment, I resigned. The University's response was to send their psychologist to see me. Now that's very unsettling. Whenever we are up against emotional distress we naturally spend a few moments at least, questioning our own stability and then to have our stability questioned by those more qualified is decidedly a tough situation. However, I was much encouraged in my resolve when a few minutes later I had managed to turn around the interview process and learn that he was 45, single and kept nine cats!

But this is America. So I of course went ahead. In fact, I became the first male therapist ever to work at Massachusetts General Hosital. The reason I was given for this state of affairs was that there were no dressing rooms for men. So I promised to come dressed!

At Mass General, under the direction of Marjorie Ionta, I was permitted to con-

duct evaluations, and when I felt it appropriate, to perform spinal and extremity joint manipulation.

Consequently in rapid succession:

1) I was investigated by the committee on quackery of the AMA.
2) I found I was unable to advertise my courses through the APTA, for in that day the general policy was that all continuing education should be sponsored through a university and must be approved by doctors.
3) At the APTA Annual Conference I saw APTA Staff members repeatedly remove from the notice board my announcement calling for a meeting on manipulation in my room.

In 1967 we had that meeting in my hotel room and gained 60 signatures for a Manipulation Section but were turned down by the APTA on the grounds that its scope was too narrow.

Also in 1967, the North American Academy of Manipulation Medicine was formed so I formed the North American Academy of Manipulation Therapy and we had official representation from both the APTA and Canadian Physiotherapy Association at our Inaugural Banquet in Boston. I then wrote to our medical counterparts in the North American Academy of Manipulation Medicine asking for cooperation and received the response that no such cooperation would be possible since they considered that manipulation was "a diagnostic and therapeutic tool reserved for physicians only", signed Dr. Janet Travel.

In 1973 with 920 members in our North American Academy of Manipulation Therapy we gained approval to establish a Section in the APTA and true to our loyalty to the APTA, never in serious question, we dissolved the Academy and formed the Section. What a proud moment that was for all of us.

It had been a good struggle—eight years in all. History teaches us that nothing remains in place forever. I have never believed that the talent which was present in our profession could continue to be restricted, held in its place and limited in its scope by the medical profession and those of our own ranks who would mindlessly do its bidding.

There should be only one question in physical therapy when confronted with resistance to change—"what is best for the patient?". And what was best for the patient would be a physical therapy profession unfettered by outside influence, free to breathe and struggle, to make its own mistakes, to overcome and eventually succeed, and that is precisely what we have today—a professional success story—physical therapy.

The Orthopaedic Section has played a key role in the development of the profession. All physical therapy depends on the neuro musculoskeletal system operating to its best efficiency.

Lucas Champoinaire, the father of French orthopaedics wrote that "movement is life" which means to me that a joint or limb that does not move is dead—a profession that does not move is dead—understanding movement, its examination and treatment is the very foundation for clinical orthopaedics and for physical therapy.

Let me share two of my nine philosophical points with you:

Firstly, that the physical therapist's primary role is in the evaluation and treatment of dysfunction, whereas that of the physician is the diagnosis and treatment of disease. These are two separate but complimentary roles in health care.

In this regard, I question the liberal use of the term diagnosis by physical therapists. It is at worst misleading, at best unnecessary. And a second philosophical point, that with our help, it is the patient's responsibility to restore, maintain and enhance their health. In this context the role of the physical therapist is to serve as an educator, to be an example to the patient and to reinforce a healthy and productive life style.

Now, I should like to outline three issues I see facing physical therapy and to suggest solutions:

1) We are too few in numbers with growing competition.

2) We have insufficient research for the basis of our clinical practice.

3) The name physical therapy is rapidly becoming a generic term.

Let me deal with these as a group for they are related.

We have not in my view helped our numbers nor our research base by the 1990 resolution which in effect encouraged entry level at either MPT or MSPT.

This delays entry into the field, raises the cost of the therapist in the market place, taxes our precious faculty resources and does little for our research base since these therapists do not have the experience to research the clinical needs.

Those who enter with a Masters see that for some the incentive to going back for advanced education has been removed since they already have a Masters.

There is a solution to this, a solution that will bring back those students, provide them with an opportunity to enhance their skills and contribute to research and that is the clinical doctorate, the DPT—its time has come. This professional doctorate must be only at the graduate level, beyond the Advanced Masters. It must never become entry level. We need a clinical doctorate that will stimulate our clinicians to reach a goal that will enable them to be called "doctor" for that doctorate will have the knowledge base, the clinical skills that will ensure the respect of their colleagues and that of medicine.

The biggest mistake we could possibly make would be to have a DPT at entry level. It would not have our respect. Worse still it would remove an effective degree from where it should be—at advanced competencies.

While most health professions such as podiatry enter with a doctorate, their territory is just the foot, narrowly defined. Ours is the whole body and not just orthopaedics, but all the other areas now represented by specialty councils. While we cannot prohibit any state from offering an entry level DPT we can at least use our moral persuasion to effect such reality. And we must.

I ask the members of this association, especially those responsible for our education, to give this concept the urgency it demands and to preserve the DPT for qualification beyond the Masters.

As to our numbers being too few, we can help on two fronts. Encourage more entry level baccalaureate programs and liaison with OT and ATC with all the cards on the table, including upgrading education and merger. Its been done in other countries.

My third and final concern to address, is the almost generic use of the term physical therapy. It is not possible for us, nor is it in the best interest of the patient, to try and prevent other groups from using massage, exercises, ultrasound and so forth. But it is proper for us to stop them from calling it physical therapy. This is a battle we can and must win through our legislatures. When I practice manipulation I do not confuse it with nor call it chiropractic, nor do I confuse the taking of an aspirin with the practice of medicine.

Thus we must not allow those who practice modalities similar or identical to us, to call it physical therapy for physical therapy it is not. Physical therapy is not just therapeutic modalities. It is a whole host of knowledge embodied in our recognized clinical specialties.

We must challenge each occurrence. Let us sit down and negotiate and be prepared to fight in our state Houses with vigor to preserve our good name, a name we have worked so hard to build.

Let me conclude by congratulating all of us for having come so far and by thanking all of you for allowing me to be part of it.

Highlights of the Orthopaedic Section Celebration Dinner

President, Jan Richardson, with Stanley V. Paris and his wife Katharyn Patla.

Jan Richardson, President, and Bob Deusinger, immediate past president of the Orthopaedic Section with his wife, Susie Deusinger.

Sandy Burkart, Jan Richardson and Dan Jones enjoying the celebration of the Section's Anniversary.

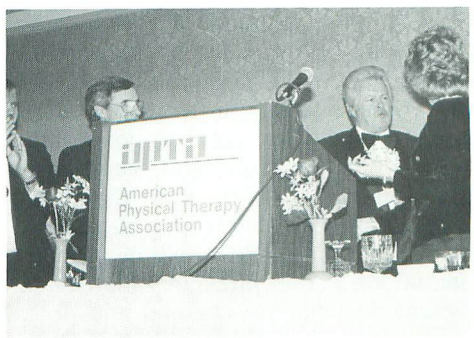
APTA President, Jane Mathews, talks with Chuck Hall and Margaret Walker.

Right to left, H. Duane Saunders talks to Carolyn Wadsworth as Bob Deusinger and Jim McKillip look to the podium.

Stanely V. Paris, first recipient of the Paris Founder's Award.

Bill Coughlin, Executive Director APTA, Ernie Burch, President of the Private Practice Section, and Dorothy Santi, member of the Orthopaedic Section Finance Committee.

Jan Richardson and Annette Iglarsh meet with jazz singer Nancy Wilson after the concert at the Orthopaedic Section Celebration Dinner.



Left to right, Sandy Burkart and Stanley Paris watch as Jim McKillip receives a check from Jan Richardson for $10,000.00 to fund minority scholarships.

TWENTY YEARS OF GROWTH IN PHYSICAL THERAPY:

CYBEX Improves Tools to Enhance the Quality of Care and Quality of Patients' Lives

Twenty years ago the American Physical Therapy Association was a third of the size it is today. Sports medicine meant patching up an injured body instead of preventing injury and conditioning athletes. Pre-screening programs were not a consideration. Then again, personal computers did not exist and neither did isokinetic testing and exercise.

When CYBEX acquired the license rights to James Perrine's isokinetic patent in 1970, the company made a decision to grow symbiotically with the physical therapy profession. According to Charles Murcott, founder and then President of Lumex, Inc. "We believed that the potential for this relatively untried device to produce accurate performance measurements was going to prove valuable in orthopaedic and neurologic physical therapy. At the time, the physical therapy profession had more of a hands-on rather than a technical orientation. We had to prove that the device would do what we claimed and do it consistently. Over time isokinetic testing was accepted, but it was a risk that most companies would not have taken. We invested in this product for many years before it became profitable. We took a chance because we had faith that there was a significant need in the medical community and in the marketplace for this tool."

Charles Murcott, the founder of Lumex, Inc., had great vision for his company when he acquired the license rights to James Perrine's isokinetic patent.

An increasing amount of independent research was conducted and published physical therapists began to understand the advantages of the new technology. "At the beginning when the research was just underway," says CYBEX President David Hillery, "it was crucial for the professionals to network and talk about how the equipment was being utilized. They didn't yet have the benefit of published testing and rehabilitation protocols, normative data, measurement correlations and other information that have since been documented in hundreds of independent studies. We sponsored seminars to accelerate research and education and to provide a forum for discussions. The seminars gave the innovators who were experimenting with the device the opportunity to present their clinical research on empirical results."

In 1978, CYBEX hosted its first four seminars, providing clinicians with a much needed forum for discussions on research and applications of isokinetic testing and rehabilitation. Numerous similar events were hosted over the following years across the country, each drawing hundreds of participants. The company and its guests turned an entire Club Med village into "Club CYBEX" in 1982 and again in 1987, which created a casual environment for education and networking among the professionals who participated.

Says Executive Vice President Andrew Glass, who was one of the original two members of CYBEX, "Club CYBEX was a perfect blend of business and pleasure. Whether the participants snorkeled in the morning or danced all night long, they could also focus their attention on the speakers who came to share the latest advances in orthopaedics, physical therapy and sports medicine. The discussions generated were sometimes heated, sometimes humorous, but always enlightening."

Fun-filled excursions to exotic locations are not the only way to attract attention. The largest number of participants ever to attend one of the company's meetings was the one-day Back Symposium in 1984 at which CYBEX unveiled its Back Systems. Five years on clinical research had been integrated into the development of the new products. Their formal introduction was held prior to the Challenge of the Lumbar Spine and was conducted by a professional team of sales representatives, product managers, engineers and the clinicians that had contributed to development of

Not only was Club CYBEX a tremendous networking success for discussions on research findings and product applications, but the participants demonstrated they knew how to have a good time!

the Systems.

The application of isokinetic testing and rehabilitation to the muscles in the back was a tremendous step towards objective evaluation and treatment for the 12 million Americans who suffer from back pain each year. To insure optimally safe and effective use of the new technology, CYBEX started a Clinical Education department staffed with full-time physical therapists with extensive spine care experience. Their charter was to provide on-site inservices and continuing support to their colleagues in the medical profession using CYBEX Back Systems.

"Six years after the first clinical educators joined CYBEX, their number has tripled and their responsibilities have increased dramatically." Says Peter Oppedisano, Vice President of Marketing and Sales/Medical, "Our physical therapists now conduct inservices on our computerized Extremity Systems as well as the Back Systems, coordinate seminars and local workshops, and train international distributors and customers. They were instrumental in developing user groups and continue to support them. Their input on product specifications and testing of new products is extremely valuable."

Discussions on product applications and research findings was a critical component of CYBEX seminars.

Third-party insurance groups and attorneys were other groups CYBEX wanted to educate. "Estelle Baum came on board at the same time as our clinical educators to reach the influential medicolegal and industrial communities," says Oppedisano. "She attends the insurance and worker's compensation carriers' trade shows and seminars. She maintains correspondence with the participants regarding our customers' facilities, the court cases and depositions involving isokinetic testing, as well as legislative changes in physical therapy."

Baum, a registered nurse and certified insurance reimbursement specialist with many years of experience in the insurance industry, also conducts surveys of CYBEX Back System's users to review the current trends they see in reimbursement, then provides the results to the users to encourage networking among them. Her staff also addresses CYBEX users' reimbursement problems at bill review and insurance companies.

Between 1973 and 1974, CYBEX spent $125,000 for research and development (R&D). As efforts intensified over the next decade, the staff more than doubled and by 1983 the annual R&D budget had grown to almost one million dollars. Today CYBEX commits more than twice that amount to future development.

As the applications of CYBEX product offerings expanded, CYBEX diversified and deepened the team of people involved in R&D. They now include individuals with such diverse training and education as mechanical, electrical and software engineering; biology; psychology; physical therapy; exercise physiology and professional athletics. Notes Oppedisano, "People from these different backgrounds give CYBEX a greater knowledge base with expanded creativity and wider sensitivity to technology and its practical applications."

"Our product managers are an important link between our R & D effort and our customers," he adds. "They have the responsibility to help develop products, introduce them and provide sales and after-sales support for specific systems. They have to be in touch with the marketplace."

Feedback from physical therapists has always played an important role in product development. According to Glass, "The evaluation and fine-tuning of our concepts by our customers brings the product closer to the needs of the marketplace. For example, the development process on our Back Systems required detailed feedback from physical therapists and orthopedists at five evaluation sites. They tested nearly 10,000 subjects to determine the indications and contraindications, positioning and stabilization requirements, and protocols for safe, effective isokinetic testing and rehabilitation."

For the past ten years, CYBEX has supplied the equipment and personnel for the combined pre-draft testing for all 28 NFL teams. Over 300 top college athletes are tested in three days.

According to Glass, "The need for computerization in physical therapy became apparent to us in the late 1970's for increased efficiency in data reporting, documentation and facility management." Today computers are an integral part of modern physical therapy practice and are necessary tools in all phases of CYBEX's operations. Ray Giannelli, Vice President of Engineering, points out that, "The computer-aided design (CAD) systems we use offer our staff an efficient and accurate means of producing plans for future products, while local area networks (similar to those we offer our customers) create effective communication lines among different engineering and product management groups. At any given point, a staff member can retrieve updated information on a project. In fact, our internal benefits from the Local Area Network (LAN) convinced us to develop a LAN product for our customers' businesses that would connect the clinic's computers to the ones in the front office."

Manufacturing Resource Planning (MRP) is another computer-based component that has helped the company modernize its operations. Arthur Perlman, Director of Manufacturing in the Ronkonkoma facility and a Lumex employee since 1969, explains, "The sophisticated programs aid our tracking and maintaining of an inventory of over 10,000 parts in the Ronkonkoma plant alone. MRP is a very efficient method for keeping manufacturing costs down, quality up and keeping us competitive."

Modern production methods are a must for CYBEX. Unlike companies that subcontract manufacturing, the demands on CYBEX's physical plant grew as the product offerings were expanded. According to Glass, "CYBEX started in a room less than 1,000 square feet and now encompasses space equivalent to

The plant in Ronkonkoma, New York, was built in 1980 and the square footage doubled the following year.

eight football fields. Our first facility expansion occurred in 1980, when we moved into a separate 40,000 square foot facility from our parent company Lumex, Inc.; two years later we more than doubled the size of that facility."

As interest in fitness grew in the early 80's, the dramatic growth of the company paralleled the course of the APTA's expanded influence in this area, and clearly illustrated the convergence of their paths. Fitness clinics were held by APTA state chapters at shopping malls and schools while CYBEX acquired a line of variable resistance equipment called Eagle Performance Systems. "Exercise inextricably links rehabilitation and fitness services. We were determined to fulfill the vision that our original logo described as rehabilitation, performance testing and fitness. We built a 100,000 square foot building in Owatonna, Minnesota, to manufacture fitness equipment and four years later doubled that space," says Glass.

From two employees in 1970 CYBEX grew to encompass 100 by 1980 and now employs almost 700. In addition to the engineers, product managers, clinical education and insurance specialists, the CYBEX talent pool includes medical and fitness sales professionals, media specialists, production planners, internationalists, graphic artists, computer scientists and accountants.

Direct field service representatives were added in 1982. The representation was expanded over the next three years to 26 territories. In 1988, the customer relations department was established and Allen Rogers was named its director. Rogers says, "CYBEX was determined to continue providing quality service within the response time necessary even as our customer list approached 10,000 facilities in all 50 states. We needed to find a major nationwide service organization as concerned about its reputation as CYBEX is to help us more than triple our field representation and guarantee 48-hour service in urban areas. General Electric Computer Service is that organization."

Meeting the needs of the medical profession also meant expanding to clinics overseas. In 1980 the company centralized its international efforts and hired specialists to direct its global marketing program. In 1982, CYBEX participated in its first international conference and held its first European sales and training meeting. In 1984 CYBEX won the New York State Governor's Award for Achievement in Export and in 1985 was one of only 45 companies in the country to win the President's "E" award. This year the company has been nominated for the prestigious President's "E" Star Award.

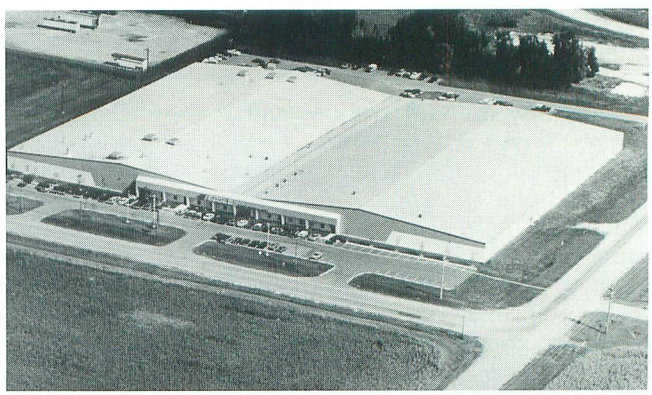
Sandy London, Director of International Operations, explains, "CYBEX made a commitment to export responsibly so we've built a strong distributor network in key countries and we support it with coordinators who are multilingual, have lived overseas and hold master's degrees in international business. Collectively our staff represents nine nationalities and speaks seven major business languages. CYBEX clinical education specialists and service technicians provide them with research and technical information. We also hold seminars abroad to continue the education and networking of professionals in other parts of the world. In fact, we sponsor many U.S. therapists as speakers at foreign venues. They are an important part of the CYBEX International Network."

By 1988, CYBEX was represented in 40 countries and the department of international operations saw an increase of seventy percent in their efforts from the previous year. Export sales have nearly quadrupled since 1986. "The same trends in sports medicine and fitness that the United States has experienced over the past decade we are now seeing in

Choosing a distributor for Japan was a crucial decision. Sakai has made Japan CYBEX's number one overseas market. David Hillery is pictured on the right.

countries overseas and we anticipate they will continue to grow," says Hillery.

Physical therapists and CYBEX are affected by the increasing crossover between the medical and fitness marketplaces. As wellness and strength training programs are brought into rehabilitation facilities, therapists can confidently discharge patients to medically-supervised fitness environments. Charles Murcott was right. Objective performance assessment has indeed proved to be a valuable tool. And as he foresaw, CYBEX has grown and matured right along with the profession of physical therapy. The two are certain to continue to parallel each other in the next century.



CYBEX built a 100,000 square foot facility in Owatonna, Minnesota, and subsequently doubled its size for the manufacturing of fitness and strength systems.

section news

CSM 1990 MAY HAVE PRECEDED MARDI GRAS BUT... THE ORTHOPAEDIC SECTION CERTAINLY HAD REASON TO CELEBRATE!

The meeting began on Thursday, February 1, with a new Section concept, Round Tables. The Industrial Physical Therapy and Foot and Ankle Physical Therapy Roundtables, led by Susan Isernhagen, P.T., and Dan Riddle, M.S., P.T., were well attended and provided a forum for exciting discussion. Susan's session organized into sub-groups to collect, compile and disseminate data on industrial physical therapy. Look for this information in future issues of Orthopaedic Physical Therapy Practice. Dan's session discussed the role of sub-specialization and future educational directions of foot and ankle physical therapy. Based on the success of the roundtables, additional sub-specialty roundtables may be added next year.

On Friday, February 2nd, the Section co-sponsored a comprehensive course on whiplash with the Clinical Electrophysiology and Hand Rehabilitation Sections. Topics included anatomical and biomechanical analysis of the injuries; evaluation and electromyographical procedures and studies; proposed treatment approaches; assessing outcome and; legal ramifications of the injury. This course was well attended and provided the audience with an up to date analysis of the complex traumatic injury.

The Section was kept busy from morning 'till night on Saturday, February 3rd. The day began with a "standing room only" group who participated in a discussion with Stanley Paris, P.T., Ph.D. and Ken Davis, P.T. on the status of mobilization/manipulation. Several members of the Orthopaedic Section and Licensure and Regulation Section, the two sponsoring groups, all very knowledgeable and experienced in this area, were in the audience. The discussion gave several of the course attendees ideas on how to preserve our right to perform these valuable clinical skills and inspired other attendees to participate actively in lobbying efforts.

The rest of Saturday's programming was devoted to research. Our thanks to Joseph Threlkeld, P.T., Ph.D. and his committee members for selecting so many valuable research projects to highlight in the platform and poster presentations.

Saturday came to a jubilant end with the Section's 15th Anniversary Celebration. The evening's proceeds were donated to the Minority Scholarship Fund of the Foundation for Physical Therapy. A check for $10,000 was presented to Jim McKillip, President of the Foundation. The six Past Presidents (Stanley V. Paris, P.T., Ph.D., 1974-1977; Sandy Burkart, P.T., Ph.D., 1977-1979; Daniel Jones, P.T., 1979-1981; H. Duane Saunders, P.T., M.S., 1981-1983; Carolyn Wadsworth, P.T., M.S., 1983-1985 and; Robert H. Deusinger, P.T., Ph.D., 1985-1987) were also present to describe the Section's accomplishments and growth over the last 15 years. Stanley Paris, P.T., Ph.D., who was the Section's Founder as well as its first President, was given the first Paris Founder's Award for Distinguished Service. Stanley was recognized for his efforts in establishing the Section 15 years ago and his contributions to our profession over the past 24 years.

The grand finale of the evening was the performance by jazz singer Nancy Wilson. Ms. Wilson enthralled the audience with her theatrical interpretation of old and new tunes alike. Her performance was received with a standing ovation.

The Combined Sections Meeting of 1990 came to a close on Sunday, February 4th, with a well attended dynamic Section business meeting. Members in attendance gave the Executive Committee input regarding future direction of the Section (see meeting minutes on page 22). I hope this meeting represented the potential for a greater active Section member involvement in the future.

As the Chair of the Education Program Committee, I would like to take this opportunity to sincerely thank the Orthopaedic Section staff: Terri, Theresa and Patti for their hard work and efforts in organizing this CSM 1990. The 15th Anniversary began as an idea to show the Section in its shining hour, in a professional light! It did all of that and more but it took countless hours of detailed planning, creative brainstorming, and just plain hard work to put on "the event" of the conference.

In closing, let me highlight the Section events planned for 1990:

- ★ First North American Orthopaedic Symposium, Ottawa, CANADA May 10-16, 1990
- ★ Annual Conference 1990, Anaheim, California June 21-28, 1990
- ★ 1990 Review for Advanced Orthopaedic Competencies, Stuart, Florida August 5-7, 1990

Z. Annette Iglarsh

HIGHLIGHTS FROM CSM PANEL DISCUSSIONS

At the recent Combined Sections Meeting in New Orleans, the Orthopaedic Section and the Section for Licensure and Regulation co-sponsored a program concerning mobilization and manipulation in state physical therapy practice acts.

Ken Davis, Director of APTA Department of Practice, began the program with a general discussion of licensure laws and the legislative process. Ken made the following key points:

1. Licensure laws are to protect the public.
2. Licensure laws define a scope of practice but are not intended to be mutually exclusive (i.e. the laws often allow for overlap among various disciplines).
3. Licensing boards' functions must be consistent with state statutes.
4. Attorney General's opinions are just that, (opinions) and can be overturned by a court decision.
5. All state laws are played out against a political background.
6. Politics is not a rational decision making process.
7. Each law has some elasticity built into it.
8. Legislators are both "deal-makers"

and "deal-breakers".

9. One who wishes for favorable legislative outcomes must be an active participant, not a spectator.

With regard to physical therapy's relationship with chiropractic, Mr. Davis warned that chiropractors are not a force to ignore and that they are extremely well organized at the state level. Preemptive work with open lines of communication is preferable to "turf battles". The term "physical therapy" generally means modalities to chiropractors. Also, physical therapy's definition of "active range of motion" is exactly opposite to that of chiropractic (i.e. a chiropractor refers to the practitioner rather than the patient in defining the terms).

Following Ken Davis, was Stanley Paris, Ph.D., P.T., who presented an outstanding discussion of the history of manipulation relative to physical therapy.

Dr. Paris began by sharing many of his experiences in introducing manipulation when he arrived in the U.S. in the 1960s. Some of these experiences were admittedly unpleasant interactions with academicians and physicians. He further has endured legal threats from chiropractors, state board of chiropractic or medicine concerning his right to teach manipulation.

What follows is a synopsis of the majors points of the presentation. On the history of manipulations, records clearly state that manipulation as a form of treatment has existed from the time of Hypocrites up through 1870. This time frame is emphasized as osteopathy and chiropractic had not yet been conceived. Prominent medical practitioners of manipulation such as James Mennell, John Mennell and Cyriax recognized physical therapists' capabilities in effectively administering manipulation and have long advocated physical therapists learning the necessary skills. "Physical therapy's roots are decidedly within medicine and we should be mindful of this unique and special relationship as we seek to "spread our wings"."

It is worth noting the differences in the rationale for manipulation between physical therapy and chiropractic. Chiropractic advocates restoration of alignment of a vertebrae that is subluxed or out of position, often claiming that this serves as an adequate treatment of disease entities. Physical therapists conversely manipulate based on abnormal motion findings obtained from a clarifying examination. The physical therapist's emphasis is on restoring normal motion for the purposes of improving function, relieving pain, increasing tolerance to insult, enhancing nutrition and repair. Thus, physical therapy and chiropractic philosophies are considerably different. Historically, in America, manipulation among physical therapists has gained a lot in the past 25 years. Reasons for its relatively late progression include the antagonism between chiropractic and allopathic medicine. The hostile relationship tended to influence physicians' attitudes toward manipulation (i.e. as being synonymous with chiropractic) This attitude combined with the relatively subservient role of physical therapists to physicians until the 1960's, inhibited the development of manipulation among physical therapists.

In 1967, the North American Academy of Manipulation Medicine and the North American Academy of Manipulation Therapy (NAAMT) were formed. Initially, there was little cooperation between the two organizations. By 1973, NAAMT had 960 Canadian and American members. Initially, in the NAAMT constitution, was a clause that would dissolve the organization should the APTA and CPA provide a means of meeting their members' special needs. And, eight years later in 1974 the Orthopaedic Section, APTA was founded with Stanley Paris as its first chairman and Sandy Burkart as Vice Chairman. Jim Gould and George Davies soon took over the newsletter and transformed it into a full peer-reviewed journal as the Section grew to exceed 10,000 members.

Chiropractic has not been silent during physical therapy's development. Indeed much legislative activity has been attempted at the state level on this in a more subtle and less expensive means of "battling" than in the public arena. It is ironic that chiropractic who challenged medicine and won on the basis of anti-trust and restraint of trade, would try to do the same thing to physical therapy that they themselves were the victims of.

Regarding terminology and definitions, manipulation is defined by Dr. Paris' Institute as the "skilled passive movement to a joint". There is no distinction between the terms manipulation and mobilization.

In response to some of chiropractic's arguments against physical therapists manipulating:

1) To the argument that physical therapists are not trained in manipulation during their entry level education: This may be true in some cases. In physical therapy joint manipulation is considered a specialty and while there is certainly an introduction to it at entry level, we, like medicine, consider that specialization comes after graduation. We allow those therapists who wish to study manipulation to do so but we do not require it.
2) To the argument that physical therapists do not know how to diagnose so how can responsible decisions be made: In physical therapy we do diagnosis but it is for the examination and treatment of dysfunction not disease. We do not believe manipulation to be a primary treatment for disease as do some schools of chiropractic.
3) To the argument that physical therapists learn manipulation during short weekend courses: Physical therapists learn their profession in universities over four or more years of study. After this physical therapists may specialize via formal graduate study, residency programs or continuing education combined with clinical practice. Most of our advanced clinical skills occur in one of these methods because during entry level clinical education there is only time for achieving basic competencies.

The final point Dr. Paris made was a positive one. He encouraged us to adopt a more diplomatic attitude toward chiropractic and attempt to negotiate with them. Perhaps it is ok for chiropractors to use modalities (as they already are) but to avoid using the term "physical therapy". Ten years from now, chiropractors will have improved their educational programs and their practitioners will be better informed with enhanced technological skills. Physical therapists and chiropractors may be moving down similar paths and perhaps the patient could be better served by a cooperative effort rather than a confrontational one.

Among the audience participants during the panel discussion were Richard Erhard, P.T., D.C. Dr. Erhard reinforced that chiropractic's use of the term physical therapy is limited to modalities and does not infer the physical therapy profession with its general and specialized body of knowledge.

Peter Edgelow, P.T., from California, advised us to choose carefully the words we use. He prefers to use the term passive exercise rather than manipulation in his documentation and avoid potential conflicts with other professions.

Clancy Hultgren, P.T., from California, spoke a lot about the litigation currently going on in California between chiropractors and physical therapists.

Dottie Nelson, P.T., from the state of Washington, discussed her state's legislative activities toward direct access and that some difficulties had arisen because of the stipulation limiting a physical therapist from manipulating. This is a dangerous "trade-off" that may be occurring in several states to decrease chiropractic's opposition to direct access for physical therapy.

Garvice Nicholson, MS, PT

RESEARCH COMMITTEE OF THE ORTHOPAEDIC SECTION, APTA, INC

CALL FOR PARTICIPANTS

RESEARCH PLATFORM AND POSTER PRESENTATIONS APTA COMBINED SECTIONS MEETING

ORLANDO, FLORIDA, JANUARY 31 - FEBRUARY 3, 1991

Persons wishing to make platform or poster presentations of research dealing with topics related to Orthopaedics (basic science, applied sciences and clinical sciences) are invited to submit abstracts for consideration.

LIMITATIONS:

Presenter must be a current member in good standing of the Orthopaedic Section of the APTA, Inc. or must be sponsored by a current member in good standing of the Orthopaedic Section.

Each prospective presenter may submit no more than two abstracts. These abstracts must contain original material and may not have been presented at any national meeting or published prior to the 1991 CSM.

SUBMISSION REQUIREMENTS:

Deadline for Receipt of Abstract: Abstracts must be received at the address below by September 1, 1990. Address abstracts to:

Dan L. Riddle, M.S., P.T.
Research Committee Chairman
Orthopaedic Section, APTA, Inc.
c/o Department of Physical Therapy
Virginia Commonwealth University
Box 224, MCV Station
Richmond, VA 23298

Format for Abstracts: The abstract must be typed double-spaced on one side of a single 8½″×11″ sheet of paper. The type must be 10 point or larger and produced on an electric typewriter, letter quality printer (impact or laser) or a high quality dot matrix printer with near-letter-quality type. The abstract must use standard abbreviations and should not contain subheadings, figures, tables of data or information that would identify the authors or the institution. Margins for the BODY of the text must be 1″ on all sides.

The identifying information must be single spaced in the 1″ top margin and include 1) the title in capitalized letters; 2) the name(s) of the author(s) with the presenter's name underlined; 3) the place where the work was done; 4) the address of the presenter enclosed in parentheses; 5) acknowledgement of any financial support for the work being presented.

In the lower left margin, type single-spaced 1) the APTA membership number of the presenter (or name and membership number of APTA member/sponsor if the presenter is not an Orthopaedic Section member); 2) the telephone number and area code of the presenter.

In the lower right margin, indicate the preferred mode of presentation (Platform or Poster).

Copies: Include one original and one copy of the complete abstract with all the identifying information as outlined above.

Include 10 copies of the abstract with only the title and the body of the text (eliminate all identifying information except the title).

CONTENT:

All abstracts must be reports of RESEARCH and must include in order 1) purpose of study; 2) hypothesis if appropriate; 3) number and type of subjects; 4) materials and methods; 5) type(s) of data analysis used; 6) numerical results of statistical test(s) where appropriate; 7) conclusion; 8) clinical relevance.

EVALUATION AND SELECTION:

All abstracts are reviewed by members of the research committee without knowledge of the identity of the authors. Abstracts are selected on the basis of compliance with the content requirements, logical arrangement, intelligibility and the degree to which the information would be of benefit to the members of the Orthopaedic Section. All selections are final.

MEETING MINUTES

**BUSINESS MEETING,
FEBRUARY 1-4, 1990
NEW ORLEANS HILTON RIVERSIDE
AGENDA**

CALL TO ORDER AND WELCOME—10:00 AM

The Business Meeting was called to order at 10:00 AM by President, Jan Richardson.

PRESIDENT'S REPORT

A. Approve Membership Meeting Minutes (June, 1989, Nashville, TN)

=MOTION= To approve the Business Meeting minutes as printed=PASSED=

B. Review and Accept Agenda.

=MOTION= The agenda was reviewed and accepted as printed=PASSED=

C. Review of Meeting Procedures
- Format of the Meeting
- Motion Forms

D. APTA Component Association Professional Liability Insurance

Two or three years ago the Orthopaedic Section bought into a policy for Director's insurance being offered by APTA. This year that same policy is being offered at no charge.

E. Recognition of the Paris Founder's Award For Distinguished Service

Stanley V. Paris, P.T., Ph.D.

Stanley Paris was recognized for receiving the Paris Founder's Award for Distinguished Service. The award was presented at the Section's 15th Anniversary dinner.

F. Introduction of Orthopaedic Division of the Canadian Physiotherapy Association—Rick Adams, President

Unfortunately, Rick was unable to attend this meeting due to his early flight back to Canada. Rick did spend some time at the Section booth promoting the First North American Orthopaedic Physiotherapy Symposium in Ottawa, Canada, to held May 11-14th.

EXECUTIVE COMMITTEE REPORTS

Vice-President—Duane Williams

Duane assisted in revising the Policy and Procedures Manual, reviewed our Strategic Planning process and helped update the Section Bylaws. He has also been looking into the possibility of producing a home study course on conflict resolutions in the clinical setting. Of the current programs looked at Fred Pryor Seminars seems the most favorable. Duane is working with them on a proposal which would include a video tape and resource book.

Treasurer—Bob Burles

A graph representing the growth of the Section appeared in the last *Orthopaedic Physical Therapy Practice*. The top showed membership growth and the bottom income and expense. The Section and the Finance Committee believe in trying to develop products for its members instead of putting extra revenue we generate into the bank. We do, however, need more revenue to fall back on. Currently, the Section's total assets are $119,000, which is down from $210,000 in 1987. To bring our revenues up the membership will vote on a dues increase, from $30 per year to $50 per year, in the May ballot. If the dues increase is achieved, we will be able to do a lot more for our members. If the dues increase is not achieved, we will have to cut back our programs.

On the graph for projected income in 1990, 46.3% of our income comes from *The Journal* in the form of royalties, editorial allowance, Sports Section contributions and advertising. This represents total income from sources directly related to *The Journal*. We are anticipating dues income to be 34%. Registration and Exhibits are up 12%, two years ago they were 1-2% of total revenues. We can thank Annette for putting together the 'Review for Advanced Orthopaedic Competencies' course which brought in 35% of our total income for 1989.

On the graph for projected expenses in 1990, 60% comes from publications. In 1989 this was 65%. Education expense is at 12%. We want to spend more money developing education programs, so we are building that into our expenses for 1990. Governance expenses represents 6% of the total. This includes expenses incurred in bringing people to meetings and enabling the Executive Committee to operate.

ORTHOPEDIC SECTION - APTA — FINANCE

COMPARATIVE BALANCE SHEET

Assets	Dec 31, 1989	Dec 31, 1988	Dec 31, 1987	Dec 31, 1986	DEC 31, 1985
Current assets:					
Cash	13,499	8,909	$ 29,288	$ 21,138	$ 10,178
Marketable Securities	11,769	29,313	2,028	98,241	48,659
Prepaid Expenses	0	0	0	0	43
Total Current Assets	25,268	38,222	$ 31,316	$ 119,379	$ 58,880
Other Assets					
Investments	94,124	114,124	177,762	80,000	$ 75,001
Total Other Assets	94,124	114,124	$ 177,762	$ 80,000	$ 75,001
Total Assets	119,392	152,346	$ 209,078	$ 199,379	$ 133,881

COMPARATIVE INCOME STATEMENT	Year Ended Dec 31, 1989	Year Ended Dec 31, 1988	Year Ended Dec 31, 1987	Year Ended Dec 31, 1986	Year Ended Dec 31, 1985
Revenue			$	$	$
Member dues	280,825	274,355	257,541	248,465	130,325
Registrations & Exhibits	95,564	10,253	11,195	10,990	11,440
Interest & Dividends	15,999	18,723	12,458	13,179	14,526
Other	400,766	338,605	136,390	74,868	35,308
Total Revenue	793,154	641,936	$ 417,584	$ 347,502	$ 191,599
Expenses:					
Operational Expenses	782,740	735,514	377,739	274,089	159,027
Annual Conference	14,829	16,684	13,470	6,023	6,547
Combined Sections Meeting	22,950	16,132	16,668	15,520	12,393
Total Expenses	820,519	768,330	$ 407,877	$ 295,632	$ 177,968
Total Income	793,154	641,936	$ 417,584	$ 347,502	$ 191,599
Net Income	-27,365	-126,394	$ 9,707	$ 51,870	$ 13,631

Member-at-Large—Bill Fromherz

Bill Fromherz was not able to be here due to his chemotherapy treatment schedule. He is doing very well and hopes to attend the meeting at Annual Conference.

Education Program Chair—Annette Iglarsh

To date ten manuscripts have been distributed to participants by Forum Medicum. We have two remaining manuscripts to publish in order to complete the course. Negotiations for resolving the contract dispute with Forum Medicum is pending. As soon as a resolution is reached the Section will investigate pursuing its own home study course to begin in 1991.

The Competency Course held in Chicago August 5-11th had 34 attendees. Of these 34, ten were new members.

These courses have proven to be a membership drive as well as an educational experience. Now that we have recognized our first group of Orthopaedic Specialists we will be utilizing them to modify the course content to better streamline the information towards the exam.

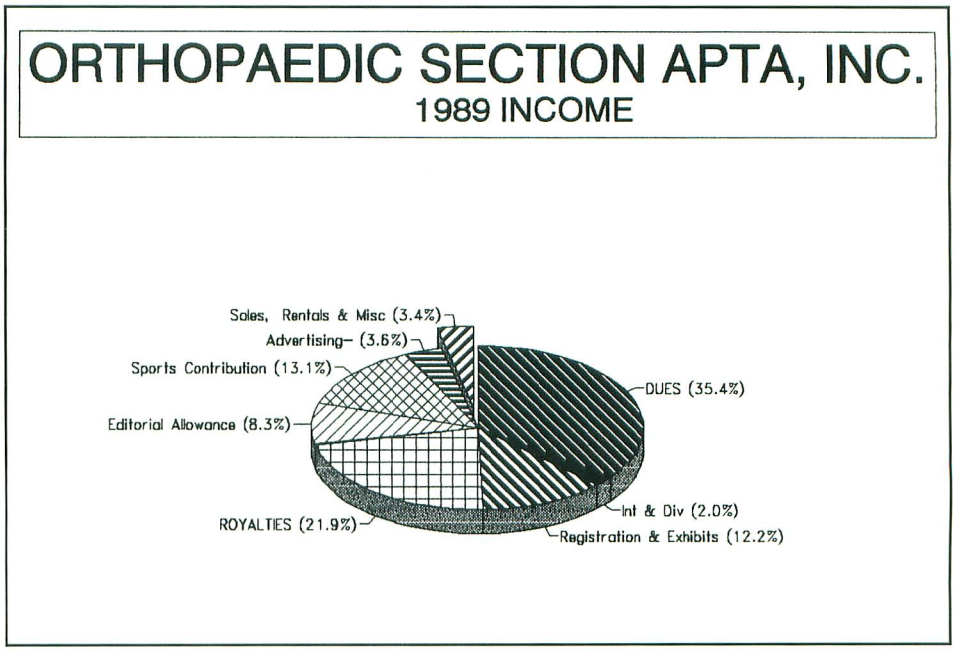
CSM 1990 is about to come to a close. We had an extremely successful program. The Section participated in some degree to the the combined multi-section programming, but because it was an entire day, we did have some programming conflicts. The Section co-sponsored a course on whiplash with the Clinical Electrophysiology and Hand Sections which was well attended. We also participated, along with licensure and examination, in a very informative and exciting program with Stanley Paris and Ken Davis discussing mobilization and its current status from a litigation, legislative, and historical perspective.

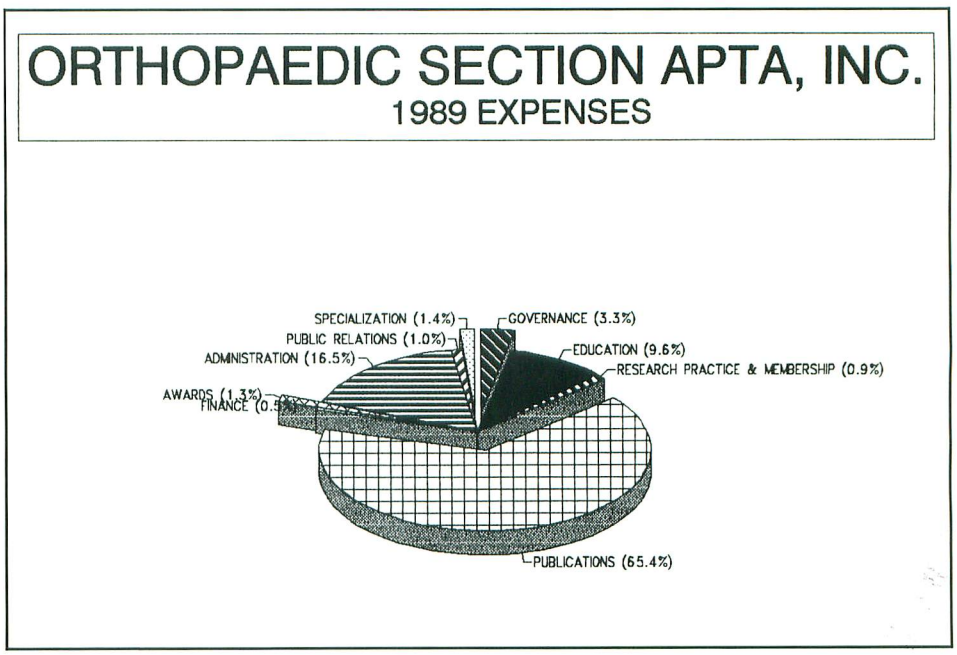
Bill Boissonnault reported on a survey which was conducted in cooperation with the Education Committee to identify how mobilization is taught in schools in the United States today in order to identify what assistance we can offer faculty of these schools in the future. The survey was sent to all PT programs in the country and 54 responses were received. It was obvious that those who responded spent a lot of time completing the survey. A lot of good ideas were suggested. Results of the survey will be available to PT programs. A reference list will be developed by the Orthopaedic Section by Annual Conference. Anyone interested in specifics regarding the results of the survey can contact Bill Boissonnault.

Stanley Paris commented that he is finding that students coming out of physical therapy programs have tremendous variability in their level of knowledge in manual therapy. He feels the survey shows that. Some graduates have learned manipulation of the spine, others have not. Some have done a full extremity course and others only a few minutes. He feels we need to give the schools some guidance. The Section needs a strong statement on this. Annette announced that a position statement would be addressed at the Annual Conference Business Meeting and will be voted on at that time.

The Orthopaedic Round Tables, Foot and Ankle Physical Therapy and Industrial Physical Therapy, will be brought up under New Business, but as far as a programming session they were very successful. The Industrial Physical Therapy group requested meeting time at Annual Conference in 1990 rather than waiting until CSM 1991.

Annette was formally thanked for a job well done in recognizing the Section's 15th Anniversary.





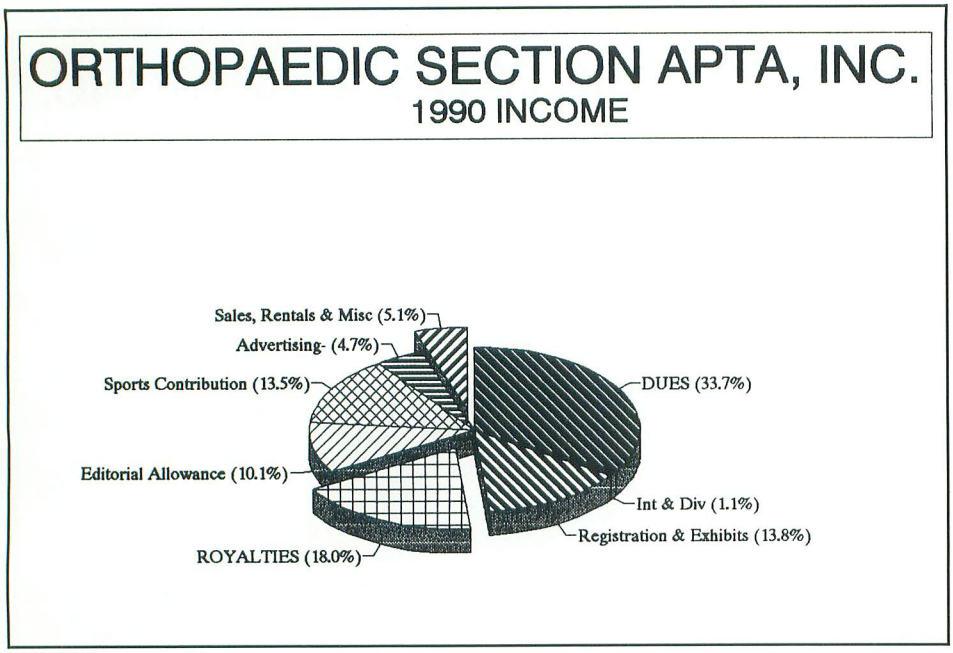
Administrative Director—Terri Pericak

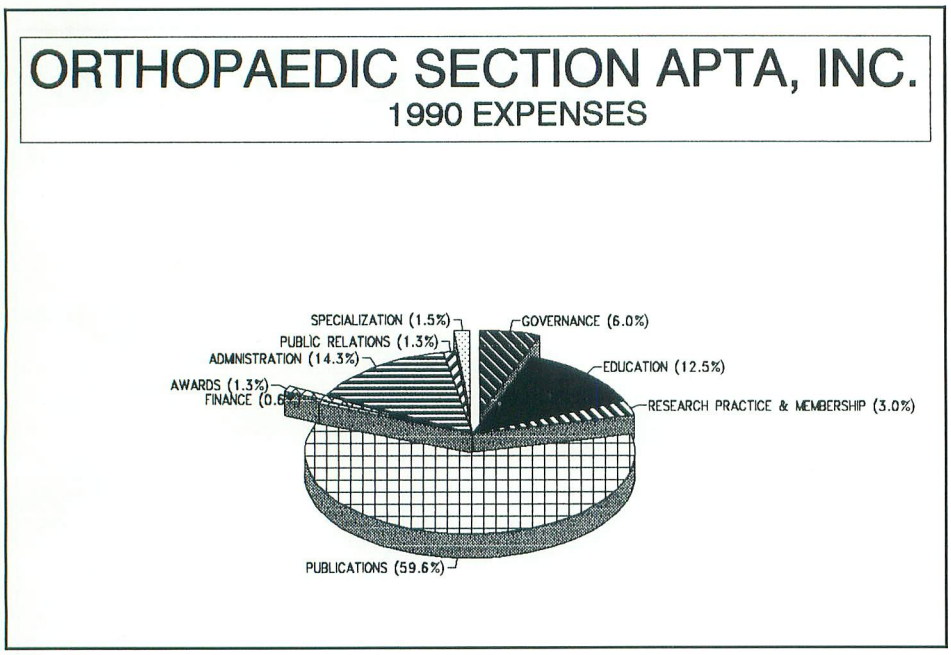
Terri took over as administrator of the Section office in October, 1989. She has gained a lot of experience in a short period of time but the transition has been a smooth one. The Section office staff is here to help you with any membership and publication concerns you might have as well as any general comments or suggestions on the Section.

PROGRAM REPORTS

Nominating Committee—Anne Campbell

The two new Nominating Committee members were introduced, Helen Price and Scott Hasson. Anne Campbell asked for a call for nominations from the floor. There were none. =MOTION= That the nomination slate as presented—Treasurer; John Wadsworth, Nominating Committee; Garvice Nicholson and Bill Boissonnault, be accepted by the membership.=PASSED= The Section thanked Anne for serving as Chair of the Nominating Committeee over the past year.





Education Program 05—Annette Iglarsh

We currently have 25 pre-conference, 56 conference, and 26 post-conference registrants for the First North American Orthopaedic Physiotherapy Symposium in Ottawa, Canada. The program will be a combination of American and Canadian Physical Therapists. It should prove to be an excellent conference.

Publications 06—Jim Gould

Over the past year we have been developing *Orthopaedic Physical Therapy Practice*. Responses from the survey we conducted on our publications came back with requests for more clinically oriented articles. As a result we are trying to put together a magazine type format where the articles will be clinically oriented.

We are presently under contract with the Geriatrics Section to publish *Geritopics*. This is a quarterly publication. We have put out one issue so far and will be working on a second in March. The contract is for one year, expiring January, 1991.

The Section formally thanked Jim Gould, Chris Saudek, and Jonathan Cooperman for their work on the 15th Year Anniversary issue of *Orthopaedic Practice*.

Research 07—Joe Threlkeld

There were 21 abstracts chosen for presentation, eight platforms and eleven posters. The Rose Excellence in Research Award was presented for the second time. The 1990 winner is Richard Smith of Missoula, Montana.

Dan Riddle is now the new Research Chair. =MOTION= The Research Committee Chair become a voting member of the Executive Committee by Annual Conference 1990 and no later than CSM 1991. The motion was changed to allow for the Chair of the Research Committee to serve on the Executive Committee as a non-voting member. =PASSED=

It was explained that the Executive Committee is made up of the four elected offices; President, Vice-President, Treasurer, and Member-at-Large (these offices are elected by the entire membership through a mail ballot), and two non-voting members, Journal editor and Education Program Committee Chair.

Joe Threlkeld was presented with a plaque representing his time, energy, and efforts from 1985 to the present.

Finance 09—Bob Burles

The Finance Committee is made up of John Wadsworth, Jeff Taeger, Dan Riddle, and Bob Burles. The committee met in September and November to discuss the budget and other financial issues affecting the Section.

Dan Riddle will be going off the Finance Committee to Chair the Research Committee. Dorothy Santi will replace Dan as the third member of the Finance Committee. Dorothy was once Treasurer of the Orthopaedic Section so she will have a lot to contribute.

The Section realized in September that the cost of producing our publications is $53.00 per member per year. Currently our membership dues are $30 per year. We also have approximately 400 student members that pay only $15.00 in membership fees per year. This means we are subsidizing these students very heavily, but the Finance Committee feels it is worth it. This is why the Section is not getting ahead and will be asking for a dues increase on the ballot this year from $30 to $50. If approved, this increase will go into effect January, 1992.

Practice Affairs 10—Garvice Nicholson

The Practice Affairs Committee has been working with the APTA Government Affairs Department. Donald Hiltz did a survey and the results recently appeared in the *Orthopaedic Physical Therapy Practice*.

Public Relations 13—Jonathan Cooperman

Jonathan attended the Professional Issues Workshop in Savannah, Georgia and worked with Karen Peigorsch on interviewing the Past Presidents for the article on the Section's 15th Anniversary which appeared in *Orthopaedic Practice*. Jonathan thanked Karen for her efforts in conducting the interviews.

Awards 14—Carolyn Wadsworth

Criteria for three new awards were brought forth, "Excellence in Teaching Orthopaedic Physical Therapy Award", "Distinguished Service Award", and "Charitable Award".

=MOTION= That the Awards Committee submit the criteria to the Executive Committee to take a look at and revise and send back or bring forth to this membership at the Annual Business Meeting in June. =FORWARDED TO POST EXECUTIVE COMMITTEE MEETING=

=MOTION=The criteria for these three awards be reviewed by the Executive Committee and brought forth to the Business Meeting at Annual Conference.=PASSED=

OLD BUSINESS

Update on Competency Examination—Joe McCulloch

Jan Richardson reported for Joe McCulloch who was unable to attend. The OSC worked deligently to complete the first examination for Board certification which was given in Nashville at Annual Conference last year. The first group of Board certified physical therapists in orthopaedics were recognized at the beginning of this week. Those present who passed the exam were asked to stand so they could receive a round of applause. The second exam was given at this CSM. All future exams will be given annually at CSM.

Update on Competency Course, Lake Tahoe, NV, March 5-11, 1990—Annette Iglarsh

The second review course for 1990 will again be given in Stuart, Florida. In the future we anticipate having this review course once annually due to the fact that we have gone to administrating the examination annually. It was suggested that the course be given 6 to 8 months prior to the exam so people would still have enough time to complete their applications. Some speaker changes have been made due to speaker evaluations from the attendees and speaker requests because of scheduling conflicts.

Update on Editor Vacancy—Jan Richardson

Jan Richardson announced the resignation of Jim Gould as editor of *The Journal of Orthopaedic and Sports Physical Therapy*. A task force was formed during a meeting between the Orthopaedic Section and Sports Section Executive Committees to search for a new editor. Based on a membership split of ⅔—⅓, the Orthopaedic Section appointed four members to the task force and the Sports Section appointed three. The Force members are Bob Mangine, Jan Richardson, Dan Riddle, Bill Bandy, Annette Iglarsh, and Kent Timm. The responsibility of the Task Force is to review and select qualified candidates based on their curriculum vitaes. The interviews will be conducted using outside experts where necessary. The membership will be kept up-to-date on the editor vacancy position.

=MOTION= Jim Gould be formally recognized for his time and energy spent on the development and growth of *The Journal of Orthopaedic and Sports Physical Therapy*.=PASSED UNANIMOUSLY=

Update on Membership Services (Dennis Gyllenhaal)—Bob Burles and Jim Gould

Dennis Gyllenhaal is developing a computerized system which will allow the dissemination of information so that groups such as the Orthopaedic Section Executive Committee could converse with each other electronically. He has already put most of the *JOSPT* abstracts on a system which would allow you to retrieve abstracts.

Dennis is also trying to develop a method of getting on line and taking practice test questions to help in preparing for the competency examination. He is currently doing this without any help from the Orthopaedic Section and feels he can make it a self funding system. It is a user friendly system which Dennis has programmed himself.

NEW BUSINESS

Scholarship Funds—Brian Tovin

Brian Tovin was unable to attend the Business Meeting and requested that Jan Richardson read his letter regarding scholarship funds.

After much discussion, the following motion was made: =MOTION= The Executive Committee be charged with looking into the feasibility of establishing scholarship monies through the PT Foundation in the area of advanced master's in Orthopaedics. =PASSED=

Development of a Fall Membership Meeting—Jim Gould

The Membership was asked for a show of hands of those people interested in attending a third meeting of the Orthopaedic Section. This would be separate from any APTA activities and would include some form of a business meeting but predominantly focus on educational courses. This meeting would be similar to what the Private Practice Section currently has as their Fall Meeting in November.

At CSM we really can't provide the number of hours or types of programs that our members are interested in due to the time and space constraints. We also reach very few of our members at CSM and Annual Conference like those members who attend the Advanced Competency Course. This is definitely a group who does not feel that the Section is meeting their needs at these conferences.

Roundtable Discussion of Subspecial Interest Group Formation—Annette Iglarsh

Two Round Tables were conducted, one on Industrial Physical Therapy and the other on Foot and Ankle Physical Therapy.

=MOTION= That the Executive Committee develop subspecialities within the Orthopaedic Section: To establish guidelines for development; to propose bylaw changes to provide for subspecialization; to establish a Foot and Ankle PT subspeciality; to establish an Industrial PT subspeciality, and; to present these proposals at Annual Conference in 1990.=PASSED=

=MOTION= That the Section Executive Committee and OSC consider the establishment of a registry of members who under the standards of IFOMT could qualify to be members of a body that would be recognized by IFOMT.=PASSED=

Committee Chair Appointments for 1990—Jan Richardson

New appointments for 1990: Education Program Chair is Annette Iglarsh, Research Chair is Dan Riddle, Practice Affairs Chair is Garvice Nicholson, Public Relations Chair is Jonathan Cooperman, and the Awards Chair is Carolyn Wadsworth. If there is anyone interested in serving on any of these committees, please contact the appropriate committee chairs and voice your interest. We are always looking for new Section members who have not yet been involved at a national level.

The business meeting was adjourned at 12:45 PM.

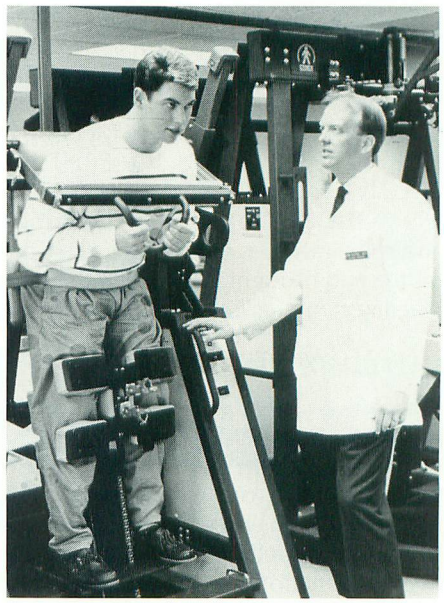
ORTHOPAEDIC CLINICS

by Paul Niemuth, PT, ATC

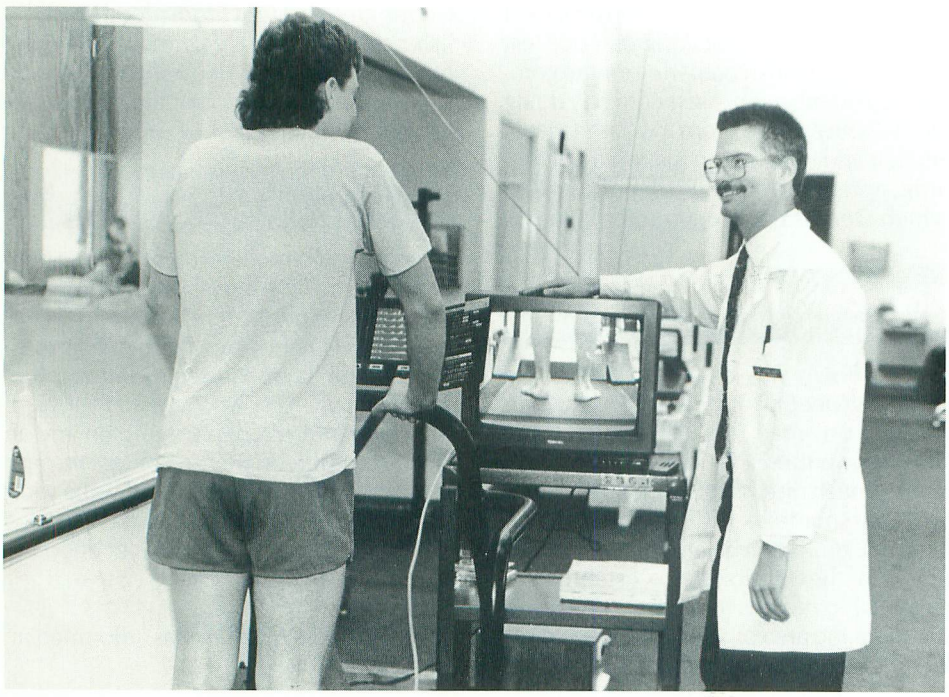
ORTHOPAEDIC SPORTS, INC.

Orthopaedic Sports, Inc. (OSI) is a private physical therapy clinic, serving the health care and rehabilitation needs of eastern St. Paul and suburban areas of Minnesota, as well as Western Wisconsin. The clinic started in 1978 with one location in Stillwater, and has expanded to two additional locations in Maplewood and Woodbury, Minnesota. This growth has been accompanied by professional staff, starting with one physical therapist, and increasing to thirteen physical therapists and three occupational therapists, including two PT's with athletic trainer certification. In addition, there is an ancillary support staff of twenty-five.

The Stillwater location is a 7,800 square foot facility which includes an open gym area, locker rooms, spa, private treatment rooms, and an area designed for hand rehabilitation. The gym area houses Cybex and Polaris equipment and also a treadmill with a video camera for gait analysis. The Maplewood clinic (2,200 square feet) has a complete Back Cybex system, located in the open gym area, along with private treatment rooms and an area for hand rehabilitation. The Woodbury office (2,200 square feet) is the newest location of OSI, and has a complete open gym area, hand rehabilitation area, private treatment rooms, and also serves as the main center for Functional Capacities Assessments. Orthopaedic Sports, Inc. receives referrals from orthopaedic and neurology clinics, as well as family practitioners, dentists, and self-referred patients. OSI also works with an out-patient chronic pain clinic, which has complete behavioral modification, pain rehabilitation and biofeedback programs.



Jim Hoyme performs Cybex TEF Test.



Jim January analyzes a runner's gait pattern on the video treadmill.

Orthopaedic Sports, Inc. has a high case load of sports medicine patients, including high-school and collegiate athletes, as well as recreational athletes. Each spring a high school athletic screening is conducted. Athletes are put through a series of strength, flexibility and stability tests. Any deficiencies are reported, giving the athlete the summer to correct these problems, prior to the start of the fall sport season. OSI also has an outreach sports medicine program, in which some of the staff therapists with a special interest in sports medicine attend high school football, soccer, hockey, and gymnastics events. They also visit various high schools on a weekly basis for the purpose of injury screening and recommendations.

The rehabilitation of spine related injuries receives a great deal of attention at OSI. There is a heavy focus on functional rehabilitation involving both

passive mobilization, as well as active specific strengthening, modality, and posturing exercises, as well as back education. Back education plays an important role in recovering from various injuries. In addition, OSI uses a complete Back Cybex isokinetic rehabilitation system for the purpose of obtaining objective data on patients as well as use as a rehabilitation tool. With patients involved in industrial injuries, especially back injuries, the goal is to get the patient to return to work as quickly and safely as possible. OSI has programs in industrial rehabilitation involving Functional Capacities Assessments and job site analysis. In addition, each location has a complete work hardening center.

At Orthopaedic Sports, Inc., each individual therapist is provided with funds for continuing medical education. Each therapist is also required to attend a minimum of 20 hours per year and the course work must be related to the scope of the practice of the clinic. In addition, monthly staff meetings are held to exchange new information on patient care as well as new techniques in the field. With knowledge gained from on-going continuing medical education, protocols and procedures for different rehabilitative areas, such as patellofemoral joint, anterior cruciate ligament tears, TMJ, rotator cuff pathology, and other areas are constantly being reformed and rewritten. This assures that the patients receive the most current physical therapy available. Some therapists also participate in subspecialty interest groups such as orthopaedic or hand study groups.

Rich Boeckmann demonstrates proper lifting technique on Cybex Liftask.

The three owners of the clinic, Paul E. Niemuth, PT, ATC; Michael A. Ripley, PT, ATC; and James A. Hoyme, PT participate in various types of administrative educational programs. Administrative policies are made on the basis of a decision-making body consisting of the three clinic owners, as well as clinic supervisors, office administrators, bookkeepers, and other personnel. Inter-office meetings are held on a weekly basis for purposes of day-to-day decision making as well as strategic planning in the areas of new projects, marketing, peer review, financial management, and employee management. In addition, OSI also participates in various business roundtables at which owners and administrators from other physical therapy clinics meet for the purpose of exchanging information on budget, finances, employee management, insurance concerns, and other business-related matters.

The St. Croix Institute for Orthopaedic Research was founded as a non-profit organization in February of 1989, by Orthopaedic Sports, Inc. and a private orthopaedic clinic, consisting of 7 orthopaedists. The function is to advance the knowledge of orthopaedic medicine through scientific and clinical research. Christa Lane-Larsen functions as the director of clinical research, and also serves as the administrator for the Institute. Presently, Orthopaedic Sports, Inc. is heading a research project on off-season weight gain for high school football players through nutrition intervention. A second study is being conducted to correlate isokinetic Cybex back testing to free weight lifting. Another study underway involves follow-up Cybex testing on augmented vs. unaugmented anterior cruciate ligament reconstructions.

Orthopaedic Sports, Inc. is committed to providing the highest level of care to its patients. This is accomplished only through the efforts of a dedicated and hard-working team, made up of office personnel, PT aides, and therapists, with a common goal of providing excellence in patient care.

Strategy

Application of Knee Research to Facet Joint Reflex Inhibition

Pam Meyer

When a joint is traumatized, chemical substances are released by the injured tissue such as serotonin, histamine and bradykinin. These chemicals produce vasomotor changes causing effusion at the injury site.(3) This effusion can be detrimental to the muscle activity about the joint. For instance, from studies involving the knee, it has been discovered that effusion in the knee joint can cause *quadriceps inhibition*.(1,2,5,11) This inhibition then leads to muscle atrophy. The purpose of this article is to illustrate the possibility of reflex inhibition occurring at the facet joint. Because most studies concerning reflex inhibition involve the knee, this paper is based on the expansion of these research findings to include the facet joint.

DeAndrade began the research concerning knee joint effusion and reflex inhibition with his study in 1965.(6) DeAndrade took 14 patients with knee effusions, aspirated the fluid from within the knee joint capsule and measured the amount aspirated. He then began to replace this fluid in the knee joint with human plasma. As the plasma was injected into the patient, the intra-articular pressure was measured while the knee was at rest (10 degrees of knee flexion) and terminally extended. The results showed that the intra-articular pressure at extension (close packed position) increased significantly faster than that at rest. The results, also, showed that as knee capsule distension increased there was an associated weakening of the quadriceps contraction until finally the patient could no longer terminally extend his knee. DeAndrade concluded that this inability to produce a quadriceps contraction was due to reflex inhibition.

A second study performed by Fahrer in 1988 supported DeAndrade's research findings.(2) Fahrer took 13 arthritic patients and tested them to determine if joint effusion caused by arthritis could inhibit quadricep strength and if the effusion was removed would quadricep strength increase. Fahrer's results did support the idea of reflex muscle inhibition and increased quadricep strength after aspiration. Fahrer, also, discovered that along with an increase in muscle strength after aspiration there was an increase in EMG voltage. Hence, he concluded that this supported neurogenic inhibition rather than mechanical joint inhibition. Consequently, reflex inhibition of the quadriceps muscle involved the inhibition of the reflex arc innervating the muscle.

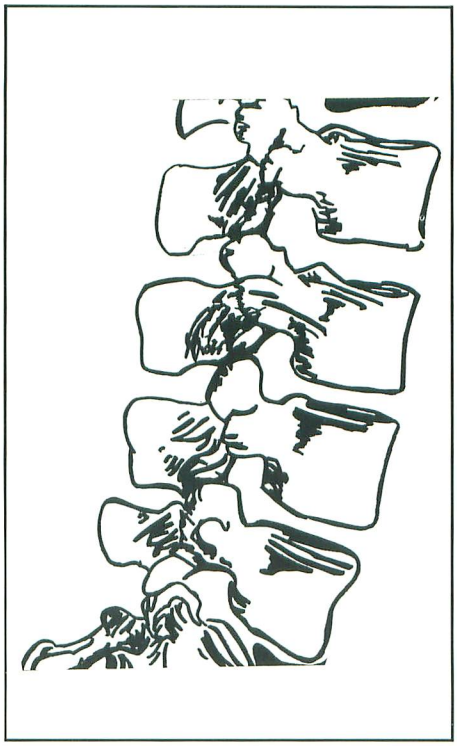
Fahrer then confirmed another finding of DeAndrade's research, whereby, intra-articular pressure was greatest at joint extension and least at about 20 degrees of joint flexion. From this finding, Fahrer concluded that if intra-articular pressure within the knee joint was affected by the position of the knee, then it followed that the knee joint underwent various amounts of pressure throughout a day.(2) This is important when planning a patient's rehabilitation program because if isometric exercises are performed at certain angles that produce increased intra-articular pressure and reflex inhibition then it's obvious that the training effects from the exercise will be decreased.

It was common knowledge that reflex inhibition could be caused by other factors such as pain, capsular compression, ligament stretching and joint movement.(5) However, Spencer's study in 1984 further emphasized the fact that joint effusion could cause reflex inhibition of the quadriceps muscle. Spencer tested 35 subjects by injecting increments of a 10ml saline solution intra-articularly into the knee. The Hoffmann (H) reflex was then evoked at each injection to provide an index of the extent of inhibition of the motoneuron pool. The intra-articular pressure was also measured at each injection. Spencer found not only did joint distension cause quadricep contraction inhibition, but that small volumes of effusion could produce this inhibition. For example, 20-30 ml could produce vastus medialis inhibition.(1)

It is known, therefore, that joint disease or joint trauma causing joint effusion can cause reflex muscle inhibition. But what in the joint is actually stimulated to cause this inhibition? DeAndrade speculated that the Ruffini receptors in the joint capsule were stimulated by joint effusion, "it is likely that joint distension stimulates the type I corpuscles and produces afferent impulses which lead to quadricep inhibition.(5) Ruffini receptors are slowly adapting receptors with a low threshold for activation. They are stimulated by capsular distension and changes in intra-articular pressure. When Ruffini receptors are stimulated by joint effusion, they send afferent impulses to the spinal cord which converge with inhibitory motoneurons. Consequently, the alpha motoneurons which stimulate the contraction of the extrafusal fibers of a muscle are inhibited.(4,6) The end result is a loss of muscle contraction.

When comparing the knee joint to the facet joint of the back, both are synovial joints. Hence, the physiological and anatomical make-up should be similar. If one accepts this assumption, then reflex inhibition of certain back muscles can occur at the facet joint. For example, a patient flexes forward to lift a heavy box of tools and strains the paraspinal muscles of his back. An inflammatory reaction develops in the area of the injury which leads to joint effusion. The Ruffini receptors in the facet joints detect the capsular distension and increase their rate of impulses to the CNS. Here inhibitory interneurons are stimulated to inhibit the alpha motoneurons which stimulate the extrafusals of the erector spinae. The patient then demonstrates decreased trunk extension and rotation.

Further support of the concept may be supplied by Miller's study of EMG activity in the paraspinal musculature of patients with and without chronic low back pain. A common cause of chronic low back pain is thought to be muscle spasms. If this is true, Miller's study should have found increased EMG activity in the paraspinal musculature of patients with chronic low back pain. However, the study showed no significant difference in the EMG activity between the two subject groups.(10) A possible explanation of chronic low back pain may be reflex inhibition. If a patient has had past back injuries that were not rehabilitated correctly or if certain back musculature was reflexively inhibited then the back musculature would not be sufficiently strengthened. This would lead to compensations of other back musculature which could cause chronic



low back pain in the future.

The clinical ramifications ascertained from this research are as follows. First, if chronic low back pain is indeed caused by reflex inhibition then the usual physical therapy modalities (i.e. heat, ultrasound, massage) provide only temporary relief of this pain. It may be necessary to change our treatment to include relaxation techniques and back exercises completed at joint positions where intra-articular pressure is decreased.(7,8,9) The research on the knee discovered that when a joint is slightly flexed the intra-articular pressure is decreased. This concept may be applied to the facet joint as in the body's adaption of a position of maximum volume when injured. In that case, it is possible that back extension exercises could facilitate reflex inhibition and be causing more harm than good unless applied slowly and time is allowed for decrease of inhibition after the exercise. Second, it is very important to realize that effusion does occur within the facet joint just as it does in the knee joint. Therefore, with any acute back injury, diminution of joint effusion should be a priority so as to prevent reflex inhibition. Therefore, cryotherapy rather than heating modalities should be considered.(3) Third, it is now known that throughout a day, within a joint the intra-articular pressure varies with the position of the joint.(5) This means that when the facet joints are in extension, without adequate length of the capsule, reflex inhibition may be inhibiting the back musculature thereby promoting muscle weakness and atrophy. It is obvious that more research must be completed concerning reflex inhibition at the facet joint. However, from the research presented about the knee joint reflex inhibition should be considered when planning physical intervention and could be a definite hindrance to physical therapy back rehabilitation.

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Please mail your response, by June 1, 1990, to:

Duane A. Williams, M.A., P.T.
Vice President
Orthopaedic Section, APTA
505 King Street, Suite 103
La Crosse, WI 54601

ERRATUM

In the last issue of *Orthopaedic Practice,* there were errors in two of the research abstracts. The first abstract, entitled "LOWER EXTREMITY EMG OF ELITE COLLEGE BASKETBALL PLAYERS DURING THE RUNNING JUMP SHOT" was presented at CSM. The sentence reading "The component musculoskeletal stresses incurred and the motor strategies that are employed to meet these demands rehabilitation programs." should have read: "The component musculoskeletal stresses incurred and the motor strategies that are employed to meet these demands must be detailed in order to scientifically and specifically guide injury prevention and rehabilitation programs."

The second abstract was entitled "RELIABILITY OF CONCENTRIC AND ECCENTRIC MEASUREMENTS OF QUADRICEPS PERFORMANCE USING THE KIN-COM DYNAMOMETER: THE EFFECT OF TESTING ORDER FOR THREE DIFFERENT SPEEDS". The sentence reading "For example, ICC's for PT ant AT at 180 degrees/sec range from .14 to .68 for those subjects who experienced that speed as the second or third speed within each trial." should have read: "For example, ICC's for PT and AT at 180 degrees/sec ranged from .14 to .68 for those subjects who experienced that speed first whereas ICC's ranged from .89 to .99 for those subjects who experienced that speed as the second or third speed within each trial."

SHORT TERM COURSES

INSTRUCTIONS FOR SHORT-TERM COURSE ADVERTISEMENTS

Advertisers are requested to include all necessary information for prospective course participants. *Orthopaedic Physical Therapy Practice* is published 4 times per year-January, May, August, November. Ad deadlines are the first day of the preceding month. Rates are $5.00 per line. Lines may be estimated on a 45 character per line basis (this includes letters, punctuation marks and spaces). The right to reject an ad or change wording is retained by the editor(s). Ads must be accompanied by payment. Send copy to: *Orthopaedic Physical Therapy Practice,* 505 King Street, Suite 103, La Crosse, WI 54601.

MANUAL THERAPY FOR SPORTS MEDICINE: THE LOWER QUADRANT, November 29-30, 1990, Burlington, MA. Jay Kain, Sharon Weiselfish. For more information: Education Resources, Inc. 16 Park Street, Suite 2, Medfield, MA 02052.

CYRIAX APPROACH TO ORTHOPEDIC EVALUATION AND TREATMENT, 1990 COURSE SERIES, PRESENTED BY ORTHOPEDIC MEDICINE INTERNATIONAL. PART I: Low Back and Lower Extremity, July 6-10; Nov. 26-30. PART II: Cervical and Upper Extremity, Dec. 1-5. PART III: Sacroiliac, Hip and Buttock, July 11-15 (Must have taken Parts I and II with OMI). Instructors: Robert DeConnick, Robert Pacham. Sponsored by Physical Therapists of MD, PAC. Location: University of Maryland at Baltimore. For information write or call: OMI, 2300 Garrison Boulevard, Suite 190, Baltimore, MD 21216; Susan Neufeld (301) 566-2501 (day); Lee Miller (301) 363-4456 (eve).

THE ART AND SCIENCE OF SPORTS MEDICINE, June 20-23. Contact: Dr. Joe Gieck, University of Virginia, P.O. Box 3785, Charlottesville, VA 22903, (804) 924-3873. (Three hours graduate credit available).

ERRATUM

In the anniversary issue of *Orthopaedic Practice,* the featured Orthopaedic Clinic was written by James Porterfield. His name was inadvertantly placed on the letter which appeared from Sharon Meehan and we apologize for the error.

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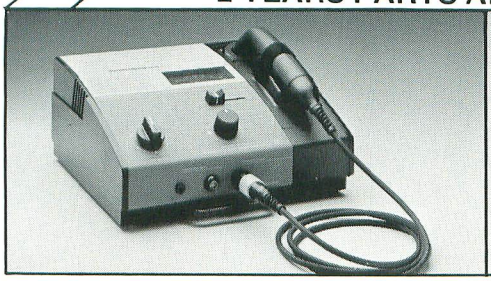

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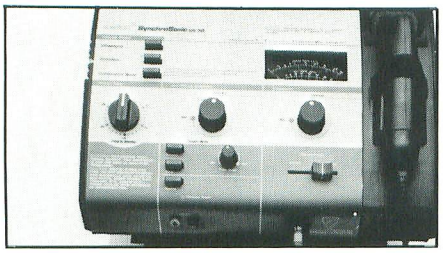

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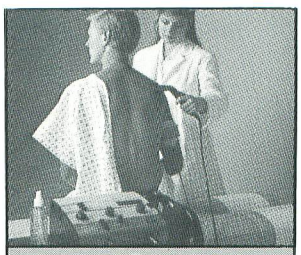

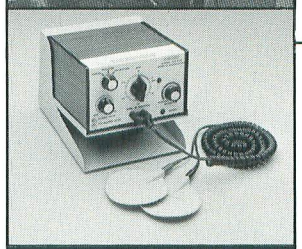

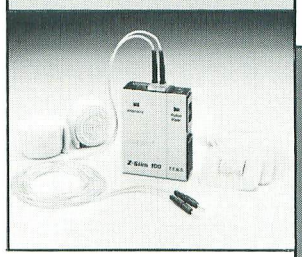

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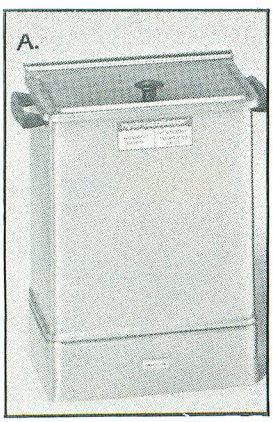

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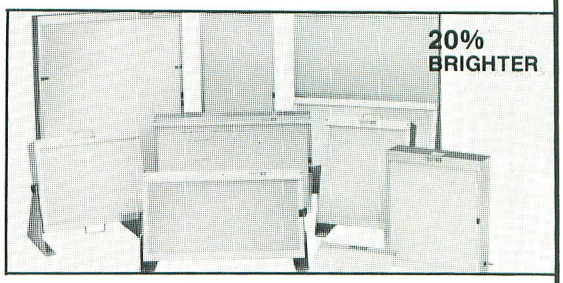

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AUGUST 5 - 11
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MEETING A:
August 5-7

THE CERVICAL SPINE - *Walter J. Personius*, P.T., Ph.D.
THE ELBOW - *Sandy Burkart*, P.T., Ph.D.
THE SHOULDER - *Sandy Burkart*, P.T., Ph.D.
THE WRIST AND HAND - *Carol Waggy*, P.T. *and David Labosky*, M.D.

MEETING B:
August 8-11

THE LOW-BACK / SI JOINT / HIP - *James Porterfield*, P.T., M.A.
THE KNEE - *Mae Yahara*, P.T.
THE FOOT/ANKLE - *Dan Riddle*, P.T., M.S.

The purpose of the "Review for Advanced Orthopaedic Competencies" is to provide Orthopaedic Section members and non-members with a process for review. (It is not intended to satisfy examination criteria for the Orthopaedic Physical Therapy Specialty Competency examination, but to serve as a **review process only.)**