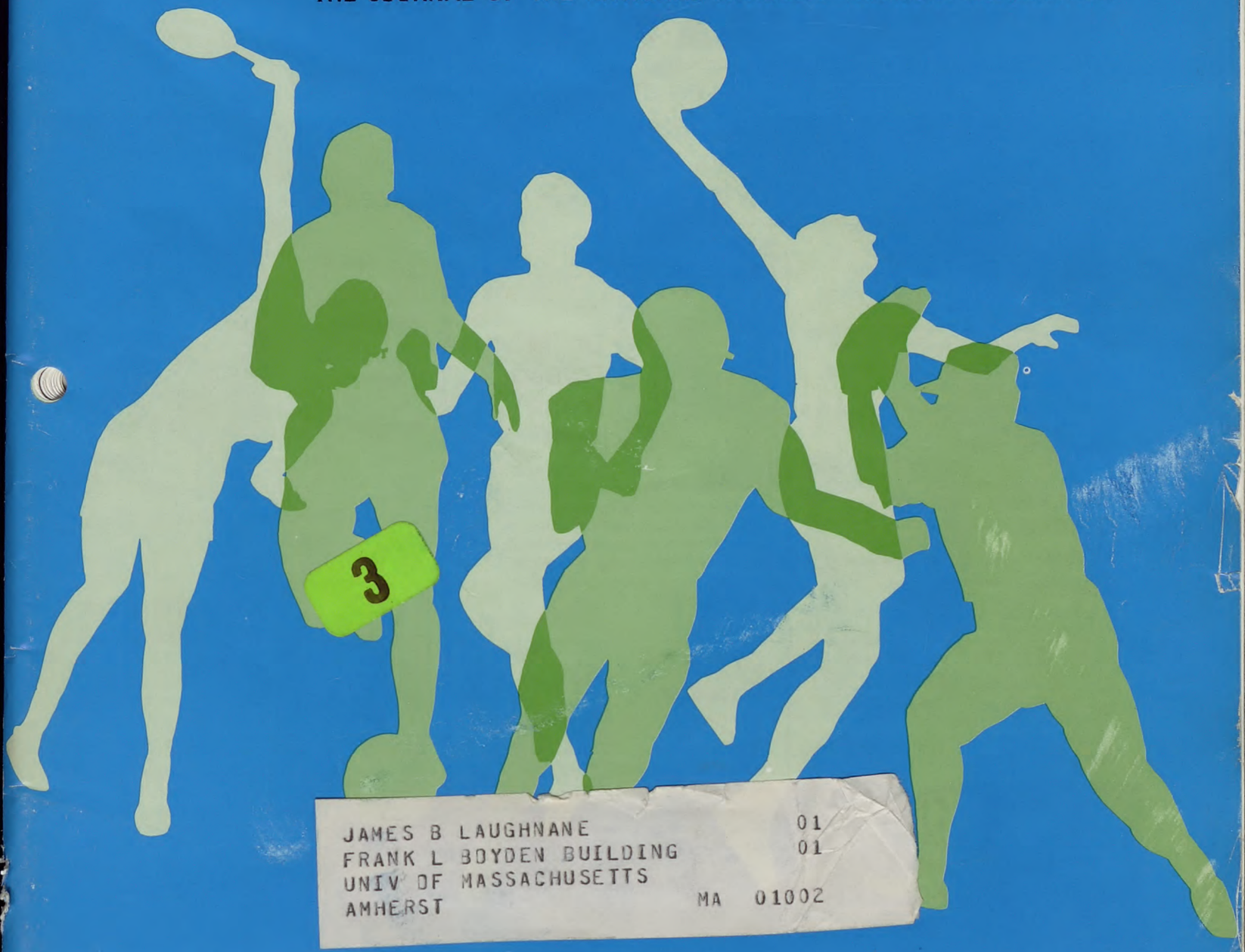
ATHLETIC TRAINING

THE JOURNAL OF THE NATIONAL ATHLETIC TRAINERS ASSOCIATION



IN THIS ISSUE —

VOLUME 17
NUMBER 2
SUMMER 1982

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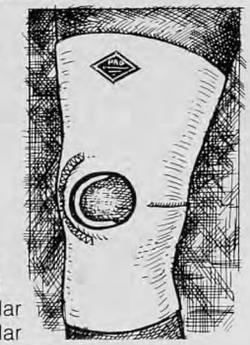
6 patellar stabilizers that really work.

And are clinically proven effective for ▪ Chondromalacia ▪ Tendinitis ▪ Normal patellar tracking ▪ Jumper's knee ▪ Patellar subluxation and dislocation ▪ Osgood-Schlatter's Disease ▪ Post operative therapy

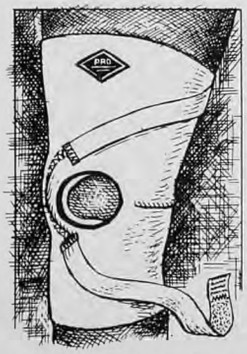
Only PRO offers a choice of 6 patellar stabilizers . . . each designed for helping a specific problem . . . and wherever therapeutic heat, elastic compression and support are indicated.

PRO has been creating . . . *not imitating* . . . and producing knee sleeves and patellar stabilizers for over 20 years. And they've been clinically proven as a conservative approach to patellar problems.



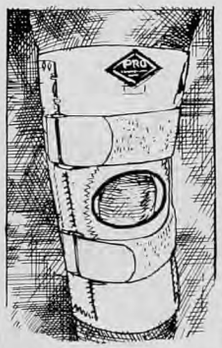
PRO 100B Deluxe Knee Sleeve

The classic Neoprene knee sleeve with a felt buttress at lateral edge of the patellar opening for patellar control and stabilization. The conservative approach to treating patellar subluxation. $24.95 *U.S. Pat. No. 4,084,584*



PRO 100B Modified Deluxe Knee Sleeve

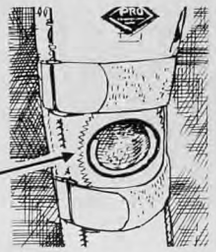
New design features pull straps, with Velcro fasteners, attached to the ends of the felt buttress at a 45 degree angle, to provide firmer control of patellar tracking. $26.95



Dr. "M" Patellar Brace

Patented design features buttresses of orthopedic felt in a horseshoe configuration, in combination with two adjustable Velcro pressure straps, to provide optimum patellar stabilization. Medial and lateral stays add stability. Ideal for jumper's knee and patellar tracking problems. $32.95

U.S. Pat. No. 4,084,584



Dr. "M-I" Patellar Brace

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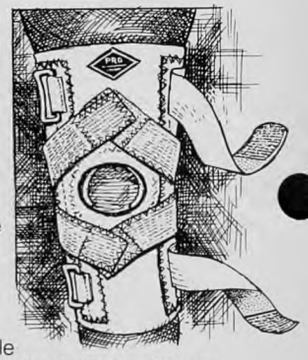
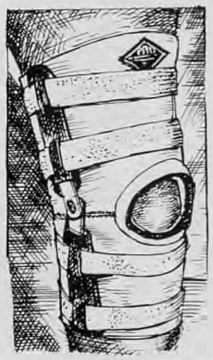


Dr. "M-C" Patellar Brace (Cartilage Sleeve)

The Dr. "M" with the addition of elastic "X" straps applying specific pressure over the lateral and medial menisci while enforcing normal patellar tracking. $34.95



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Athletic Training is published in the Spring, Summer, Fall and Winter by the National Athletic Trainers Association, a nonprofit organization. Second class postage paid at Greenville, NC 27834, and additional mailing offices.

The views and opinions in *Athletic Training* are those of the authors and not necessarily those of the National Athletic Trainers Association.

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CHANGE OF ADDRESS may be made by sending old address and new address with zip code number. Instructions should state whether change is temporary or permanent. Allow thirty days for changeover. Address changes should be sent to: P.O. Box 1865, Greenville, North Carolina 27834.

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ATHLETIC TRAINING

THE JOURNAL OF
THE NATIONAL ATHLETIC TRAINERS ASSOCIATION

Volume 17, Number 2, Summer 1982

Features

Tips from the Field

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President's Message

Dear NATA Members:

In April, our Association was presented the Presidential Citation granted by the American School and Community Safety Association because of NATA's efforts and meritorious service on behalf of the health and safety of athletes. All of us can be proud of this award because without the contributions of the entire membership, we would not have received it. The recognition of our Association by the ASCSA reaffirms my belief that we have made and are making contributions to the health care of athletes at every level. The award will be displayed in a prominent place in **our** building in Greenville.

For the past four years it's been my honor and privilege to serve as your President. It's been a busy, exciting time and I am grateful for having had this opportunity. I now have a deep appreciation for the type of dedicated people that make NATA the great organization that it is. Many times, over the past four years, I realized that what appeared to be impossible could be accomplished and was being accomplished due to this dedication.

The dedication of all the people that have served as District Directors, District Secretaries, Committee Chairpersons, and committee members has generated enormous strength for NATA, and to all of you — many thanks.

I wish each of you could fully appreciate the amount of time and work done by our Executive Director Otho Davis and by Mary Edgerley and her staff in Greenville. This was and will always be a constant source of inspiration to me.

I would be remiss if I did not express my gratitude to the people with whom I am associated at Fullerton College. Their encouragement, support, and extra efforts made it possible for me to serve as your President and for this I am most grateful.

Please continue to communicate with your officers because it is vital for NATA's continued growth. Your incoming President, Bobby Barton, will do an outstanding job for all of us and I am confident that you will give him the support and help that you extended to me.

God Bless each of you.

Sincerely,

William H. Chambers

Editor's Remarks

Ken Wolfert, ATC

More about the CEU Quiz . . . .

The Quiz addition to the Journal is proving to be more and more popular even after publishing only our second edition. We are pleased with your participation and hope to have a quiz in each issue if possible. It is extremely important, however, to be sure to read all the instructions thoroughly before sending anything. Please note that each quiz has a date after which your participation will be disallowed. The period of time we have established for taking each quiz is six-months after the issue in which it appeared. Be certain to check this date on the answer sheet before sending.

Need Old Journals? . . . .

We have heard from an interested member who says he would be happy to LOAN anyone copies of *ATHLETIC TRAINING* dating back to 1964. He also has on file both American and Canadian Journals on X-ray and Physical Therapy if anyone is in need. He also has many copies of *MEDICINE AND SCIENCE IN SPORTS* which he is prepared to donate to any teaching institution that asks. If interested, please contact:

Lewis W. Flagg, Jr., RPT, RT, ATC
Department of Health Services
The Phillips Exeter Academy
Exeter, NH 03833.

Journal Committee Member Needed . . . .

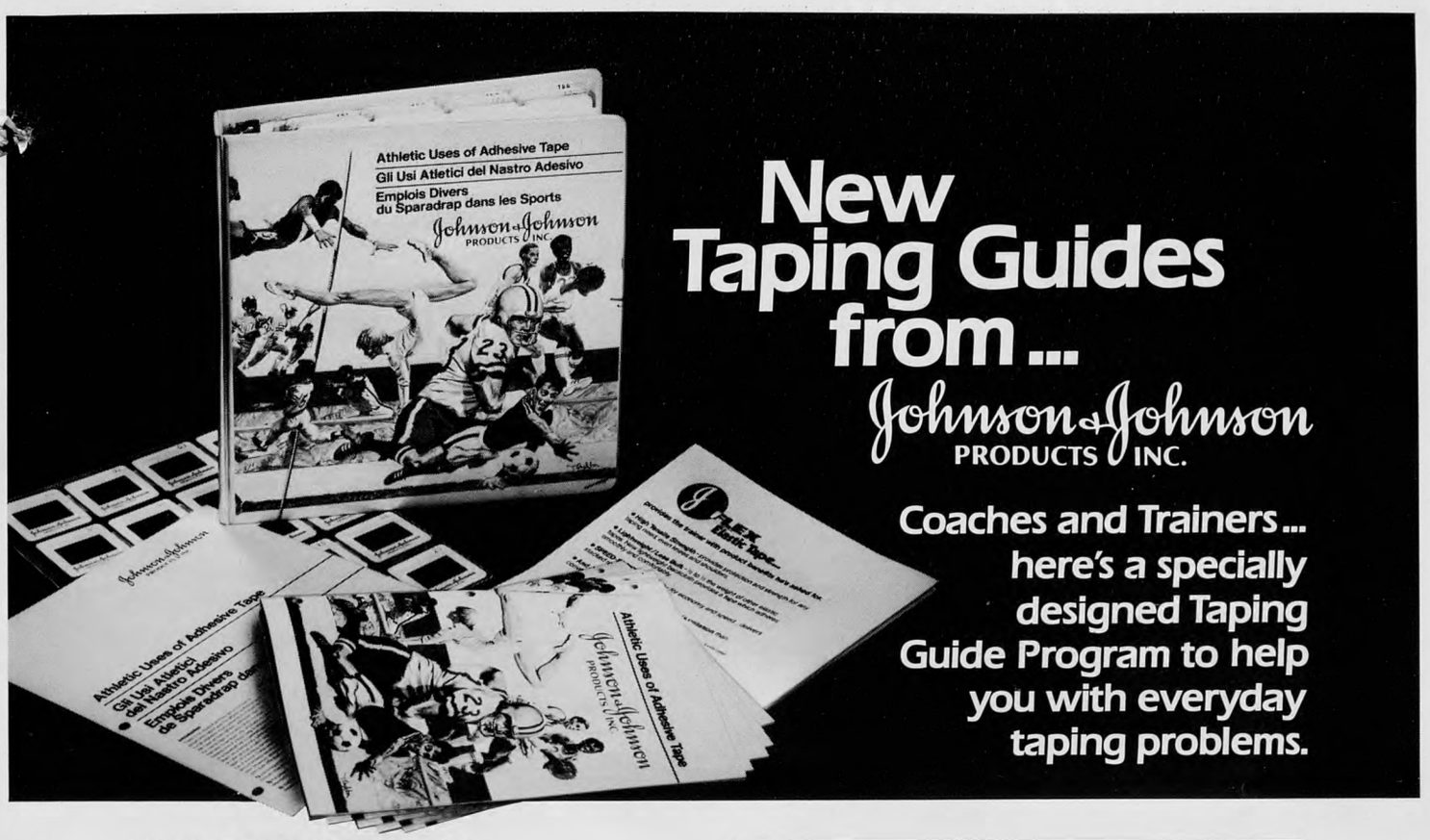
If you are in Districts 1, 6, or 10, are a high school athletic trainer, and are interested in being a part of the team putting our Journal, *ATHLETIC TRAINING* together, we would like to hear from you as soon as possible. Some writing and editing background is preferred but not necessary.

The reason for the limitation to these districts only is to eventually have a representative from all of our districts on the Journal Committee. At this time we have one position needed on the committee and three districts not represented. As soon as other positions on the Journal Committee become available we will consider any other applications we have received.

The reason for preferring high school trainers to apply is because the committee assignment will be concerned with reviewing all Tips from the Field and to prepare a regular column or section in each issue pertaining to the interests of high school employed members as well as student athletic trainers. We hope to expose many more basic and simplified methods and ideas as they are shared by other helpful members.

If you are interested, please send a letter and updated vita to me if possible prior to June 10, and be sure to let me know if you will be in Seattle.

Do it and keep it safe . . . (KW)+



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The slides are clearly numbered and inserted in plastic sleeves. A handsome, durable, 11½" × 11" vinyl binder is provided for the convenient storage of manual text and slides.

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The text of this 36-page manual is identical to the manual included in the Multilingual Slide Package. For use in conjunction with that program, or independently, this manual contains many illustrations, plus a glossary and anatomical references.

You'll find it an excellent staff training tool for use in your own training sessions and seminars. The manual measures 7¼" × 10¼", and is printed in two colors on high-quality paper stock.

And that's not all! As part of our special introductory offer, we'll include in your Taping Program Package, *absolutely free,* one J-FLEX* Elastic Tape wall chart. This clearly illustrated, two-color, 36" × 24" chart contains text and diagrams for basic knee, ankle and elbow taping, as well as taping for Achilles tendon and shin splints.

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Please allow 4-6 weeks delivery time.

Announcements

CORRECTION

In the Spring 1982 issue of *Athletic Training, page 4,* it should say that the Journals donated by Herman Bunch were given to the University of North Carolina — Chapel Hill.

Schedule of Future Sites and Dates NATA Certification Examination

Revised: July, 1981

REGIONAL

(All regional sites subject to a minimum of six candidates per site and limited to a maximum of thirty candidates.) ALL SITES SUBJECT TO CHANGE.

January 17, 1982

Eugene, Oregon
Fort Worth, Texas
Grossingers, New York
Atlanta, Georgia
Dayton, Ohio
San Jose, California
Raleigh, North Carolina
Ann Arbor, Michigan
Lawrence, Kansas

Deadline for requesting application forms:
October 15, 1981*
Deadline for returning applications:
December 1, 1981*

March 21, 1982

Odessa, Texas
Lexington, Kentucky
Eugene, Oregon
Raleigh, North Carolina
Philadelphia, Pennsylvania
Tucson, Arizona
Ann Arbor, Michigan
New Britain, Connecticut
San Jose, California
Lincoln, Nebraska*
(District 5 meeting)
(test date 3-19-82)

Deadline for requesting application forms:
December 15, 1981*
Deadline for returning applications:
February 1, 1982*

(Please indicate the date you wish to take the exam when requesting the application; also indicate the section under which you plan to apply: SEC I - NATA Approved Curriculum, SEC II - Apprenticeship, SEC III - Special Consideration, and SEC IV - Physical Therapy.)

NATIONAL CONVENTION

June 13, 1982 National Convention Site: Seattle, Washington.

(Subject to a maximum of 50 candidates - applications are accepted in order of remittance - only 25 additional candidates accepted for the written examination. June and August applications are processed under the same deadlines.)

August 1, 1982

Ann Arbor, Michigan
Cedar Falls, Iowa
Lexington, Kentucky
Eugene, Oregon
New Britain, Connecticut
Raleigh, North Carolina
Philadelphia, Pennsylvania
Indianapolis, Indiana
Sacremento, California

Deadline for requesting application forms:
March 15, 1982
Deadline for returning applications:
May 8, 1982

Application forms available from:
NATA Board of Certification
P.O. Drawer 1865
Greenville, NC 27834

NOTE: The 1983 Exam dates will approximate the 1982 dates and sites on a regional basis. The national exam will be given at the site of the annual NATA convention with similar numerical limitations.

***All items must be received by the NATA Board of Certification Office by the specified deadline date.**

Letters to the Editor

To the Editor:

Congratulations are in order for Dr. Geick, et. al., on their brilliant expose on "The Burnout Syndrome" among Athletic Trainers (Spring 1982). This article really hit home for me because while I read through it I found myself shaking my head acknowledging some of the signs and symptoms I suffered through during my first three years as a professional.

However, this past year I found that following a regular exercise program (running and lifting) and closely monitoring my diet really helped me alleviate much of this stress. I have already passed this on to a few of my colleagues because the results were fantastic.

Roger Hinds, ATC
Charleston, South Carolina

To the Editor:

In regards to the fine article entitled "Electrical Safety in the Training Room" by Mimi and Jonathan Porter in the Winter 1981 issue of our Journal. I would like to add to it two safety rules that should also be enforced in the training room. First, unsupervised use of the whirlpool should not be allowed, and second, anyone using the whirlpool should not be allowed to plug it in or touch the ON/OFF switch.

These may seem very basic but unfortunately violations of these rules probably occur every day even though they are potentially very dangerous. To help enforce these rules it is wise to post signs prohibiting unsupervised use of the whirlpool, and reminding the users not to touch the plug or ON/OFF switch. It is surprising the number of athletes that need to be reminded that water and electricity don't mix.

Patrick A. FitzGerald, MS, ATC
San Mateo, California +

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PREVENTIVE KNEE BRACE

NEW DOUBLE-HINGED, SINGLE SIDED-KNEE BRACE THAT OFFERS PROTECTION AND LATERAL SUPPORT, YET ALLOWS ACTION MOBILITY.

This unique design* is a double-hinged, single-sided brace with a center support bar. The end plates are aluminum with energy absorbing foam pads. Delrin® bearings give a smooth consistent motion at the hinge points.

The center support bar is made of high strength steel for maximum protection from lateral forces. The result is a strong, lightweight, polycentric, bi-axial brace that supports and protects with mobility for the most active of sports.

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Model 101 Brace is easily applied with tape for full motion and optimum fixation

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Model 103 Brace in leather pockets on Neoprene cuffs offers open knee freedom with adjustable straps

New!

Model 104—Brace and attachment system on full length Neoprene knee sleeve (Nylon 2 sides) with patella cut out.

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Potpourri

Dennis Aten, ATC, RPT, MS
Eastern Illinois University

Sports For Everyone

"The Widening World of Sports and Recreation for People with Disabilities" is a 10-panel brochure that describes a variety of sports attracting increasingly large numbers of disabled persons. The brochure emphasizes the benefits from athletic and other forms of recreation — improved physical fitness, learning new skills, developing independence, gaining self-confidence, making new friends, and having fun. Activities described include those that promote competition and those that enhance a sense of mastery and individual achievement.

For a copy of the brochure, send stamped, self-addressed No. 10 envelope along with 35¢ to the National Easter Seal Society, 2023 W. Ogden Avenue, Chicago, Illinois 60612.

Aspirin: A Bewildering UPI News Release

The Medical Newsletter, a non-profit biweekly publication on drugs, says buffered aspirin solutions may be the best way to take a single dose of aspirin, but are not suitable for long-term use because of their high sodium content and the chemical changes they cause.

Scores of aspirin-containing products are available to consumers. The newsletter concluded that there are no simple answers to choosing among the widely used formulations.

The Medical Newsletter said plain aspirin tablets dis-integrate in the stomach and dissolve primarily in the small intestine. The rate these products dissolve determines the rate they are absorbed into the blood and presumably when they begin to produce pain relief.

The newsletter said improperly manufactured tablets may be so tightly compressed that they do not disintegrate easily, or they may crumble before use.

It said pharmaceutical differences between tablets can produce differences in the body, but "no controlled trials have been done to show that any one brand of plain aspirin is a better analgesic than any other."

Aspirin tablets that are buffered tend to take less time to dissolve, but the Medical Letter said it has not been determined if buffered aspirin tablets offer patients any advantage in pain killing effectiveness or in reducing the gastrointestinal distress that aspirin can cause.

In timed-release aspirin preparations, small particles of the drug are encapsulated and bound together. The Medical Letter said absorption of this form of the drug is slightly delayed and prolonged, "but whether the analgesic effect is also prolonged has not been established."

Many aspirin formulations include other drugs such as phenacetin, antihistamines, small doses of caffeine and potassium chloride. The Medical Letter said combinations of aspirin with another pain reliever, acetaminophen, have not been shown to be more effective than optimal doses of either drug alone.

Neiss Reports

According to Neiss (National Electronic Injury Surveillance System) Data Highlights basketball again outdistanced all other sports during the winter period (January thru March, 1981) in reported injuries with 2876. Skating, both ice and roller, activities were second with 1,369 during that period.

These figures are tabulated from a network of reporting hospitals and would not include injuries seen by trainers and medical staffs in the athletic facility. This system does, however, project estimated figures for number of injuries nation wide in many of the various categories. Basketball leads in estimated number of injuries also with 182,258.

If anyone is interested in this publication write to:

U.S. Consumer Product Safety Commission
Room 342B
Washington, D. C. 20207

Ballet for Injury Prevention

U. S. Military Academy Release

Edward Villella, America's most celebrated male ballet dancer, says he hopes to humanize his art for the 4,400 cadets at the United States Military Academy. A former military cadet himself, Villella is West Point's visiting artist for the 1981-82 academic year. The Cadet Fine Arts Forum has invited him to West Point to present a series of lectures and demonstrations about ballet and how it relates to cadet academic, artistic and athletic endeavors.

For two decades Villella was the principal male dancer for the New York City Ballet. He was acclaimed world wide for his spectacular artistry — his strength and energy, his natural theatricality, and his delicate control. A former college baseball player and football player and an intercollegiate boxing champion, he was once described as the country's greatest athlete.

Villella's tenure at the Military Academy began recently when he addressed two groups of 100 Army football players. In one-and-a-half hour sessions, he demonstrated some basic ballet steps and described the rigorous physical conditioning required of ballet dancers, relating their training to that of athletes.

"When I saw spring training for professional baseball teams, I couldn't believe someone in fantastic physical shape for six months of the year could let himself go to pot the rest of the year," Villella told the cadets. "We aren't seasonal. We work year round." He added that dancers spend six to ten hours each day practicing and then dance two or three ballets a night.

"I wanted to indicate that dancing isn't just a frivolous thing. It's not just something soft and lyric and easy," he said. "It takes ten years to do this and it's a great deal of hard work. It takes disciplines, dedications and all of those cliches."

Coach Edward A. Wilson, offensive coordinator and quarterback coach for the Army football team, said plans are being made to institute a ballet class as part of the off-season development program for football players.

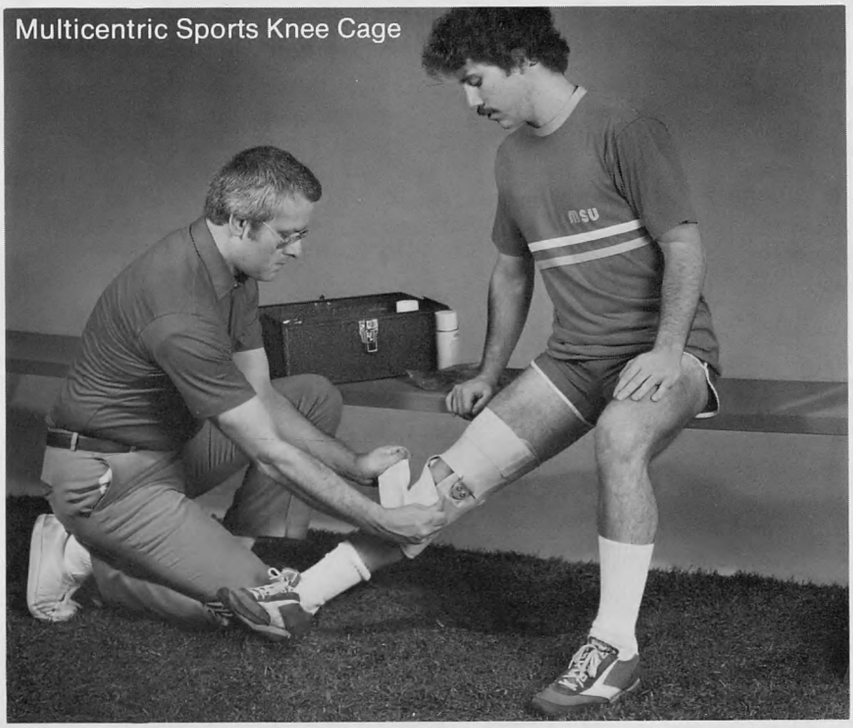
"Many of the principles Mr. Villella brought out in teams of ballet movement are applicable in any movement and directly relate to what a quarterback does," Wilson explained. "The principle in ballet that the lower body is doing one function while the upper body is performing a different motion altogether is true of a quarterback. His lower body may be running while his upper body isn't moving at all. Also the idea of continuous movement in ballet would help lesser athletes who don't have the fluidity of movement they need.

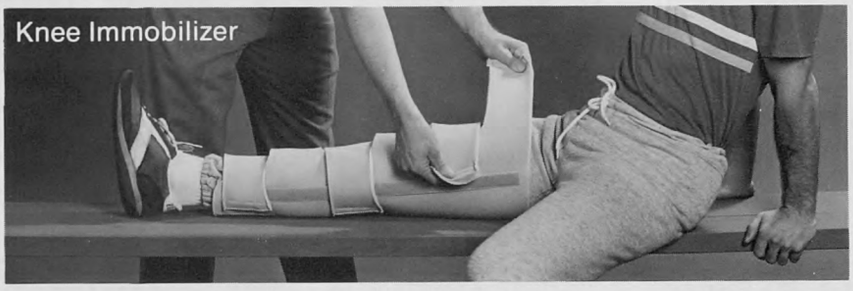
Cadet Harold K. Prukop, an outside linebacker from the Los Angeles area, said the ballet exercises the players learned will reduce their chances of injury. "We were really tight for a few practices," he explained. "Mr. Villella taught us to stretch so we won't pull hamstrings or strain our backs. Those are big problems in practice."

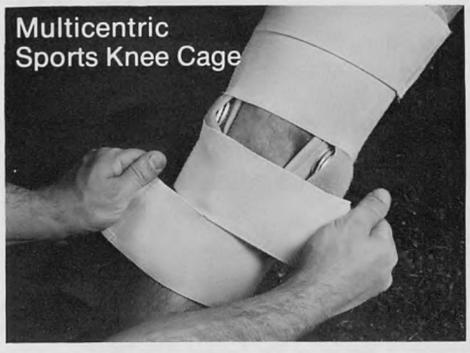
Continued on page 84

MEDIPEDIC'S NEW FAST-WRAP

IT COULD BE THE DIFFERENCE BETWEEN MISSING A GAME OR THE ENTIRE SEASON.







Prescription or prevention—Medipedic's new Fast-Wrap helps keep an athlete in action. From the unique Sports Knee Cage (its lightweight multicentric joint follows actual knee motion) to the Knee Immobilizer (applies firm support in seconds) to the Shin Splint (delivers required, ready compression), Fast-Wrap is in a class by itself. It's faster than taping and other traditional methods, goes on quickly and provides convenient, effective, comfortable support.

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FAST WRAP™ by Medipedic
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Jackson, Michigan 49201
or for immediate action, call (517) 787-2720

 AT582

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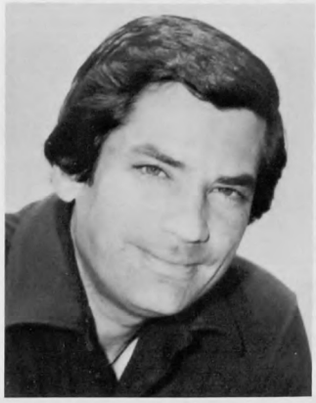

Jeff Fair, ATC, MS
Oklahoma State University

June, 1982

4-6 Advanced Cybex-Isokinetic Hands-On Experience Clinical Workshop, LaCrosse, Wisconsin. Contact George J. Davies, Orthopaedic and Sports Physical Therapy, c/o Bethany St. Joseph Health Care Center, 2501 Shelby Road, LaCrosse, Wisconsin 54601-8099.

7-10 Aerobics Workshop, Dallas, Texas. Contact The Aerobics Conference Center, 12200 Preston Road, Dallas, Texas 75230.

11-13 American Academy of Podiatric Sports Medicine National Meeting, New York, New York. Contact Louis Galle, MD, 10 Columbus Circle, N1255, New York City, New York 10019.

13-16 NATA National Convention, Seattle, Washington. Contact NATA, P. O. Box 1865, Greenville, North Carolina 27834.

20-22 Athletic Training Workshop; For High School Students, California, Pennsylvania. Contact William Biddington, Athletic Training Director, Hamer Hall, California State College, California, Pennsylvania, 15419.

21-24 Sports Medicine-Advanced (Football), Atlanta Falcon Training Camp, Suwanee, Georgia. Contact Ronald Peyton, The Sports Medicine Education Institute, Inc., 993 Johnson Ferry Road, Atlanta, Georgia 30342.

23-26 Arts and Sciences of Sports Medicine Meeting, Charlottesville, Virginia. Contact Frank C. McCue, III, MD, Box 243, University of Virginia Medical Center, Charlottesville, Virginia 22908.

25-26 The Relationship of Intraoral Protective Devices to Athletic Injuries and Performance, Ann Arbor, MI. Contact Charles B. Cartwright, DDS, University of Michigan School of Dentistry, Ann Arbor, Michigan 48109.

25-26 "Innovations in Sportsmedicine", Galveston, Texas. Contact Ms Paulette Haas, Office of Continuing Education, University of Texas Medical Branch, Galveston, Texas 77550.

25-27 Athletic Trainers of Massachusetts Sportsmedicine Symposium, Wellesley, Massachusetts. Contact Chris Troyanos, Athletic Trainer, Babson College, Wellesley, Massachusetts 02157.

28-July 2 Sports Medicine Workshop, Orlando, Florida. Contact Ronald F. Ribaric, ATC, Head Trainer, University of Central Florida, Orlando, Florida 32816.

28-July 2 George Williams College, Sports Injury Workshop, Downers Grove, Illinois. Contact George Williams College, Division of Physical Education, 551 31st Street, Downers Grove, Illinois 60515.

July, 1982

6-8 District IX Meeting Southeastern Athletic Trainers Association, Suwanee, Georgia. Contact Doug May, Doctors Hospital, 2969 University Drive, Jackson, Mississippi 39216.

8-10 Conference on the Prevention and Management of Sports Injury, Buffalo, New York. Contact Dr. Gil Etheridge, 209 Clark Hall, State University of New York at Buffalo, Buffalo, New York 14214.

10-15 ACTA 35th National Conference, Biloxi, Mississippi. Contact Bruce A. Tabor, Biloxi, MS VAMC, Biloxi, Mississippi 39531.

11-13 Sports Medicine and Athletic Training Seminar, Cape Cod, Maine. Contact William T. Bates, ATC, Director — NESMI, 733 A Cambridge St., Brighton, Maine 02135.

11-15 Second Annual DePauw University Athletic Training Workshop, Greencastle, Indiana. Contact Rex Call, Head Trainer, DePauw University, Greencastle, Indiana 46135.

12-16 2nd Annual North Hills Sportsmedicine Symposium for Student Athletic Trainers and Coaches, Pittsburgh, Pennsylvania. Contact North Hills Sportsmedicine Center, Passavant Professional Building, 9104 Babcock Boulevard, Pittsburgh, Pennsylvania 15237.

12-16 11th Annual Ashland College Athletic Trainers Workshop for High School Students, Ashland, Ohio. Contact Brian Siddal, Head Athletic Trainer, Ashland College — Athletic Department, Ashland, Ohio. 44805.

18-23 12th Annual Athletic Training Camp, Bowling Green, Kentucky. Contact Ron Dunn, Head Athletic Trainer, Western Kentucky University, Bowling Green, Kentucky 42101.

24 Cybex/Isokinetic Clinical Workshop, LaCrosse, Wisconsin. Contact George J. Davies, Orthopaedic and Sports Physical Therapy, c/o Bethany St. Joseph Health Care Center, 2501 Shelby Road, LaCrosse, Wisconsin 54601-8099.

26-29 Review Session for NATA Certification Exam, Greensboro, North Carolina. Contact Robbie Lester, Department of Education, North Carolina State University, Raleigh, NC 27611.

29-30 Louisiana Athletic Trainers Association Workshop "Practical Application of Athletic Training Techniques", Lafayette, Louisiana. Contact Bob Goodwin, ATC, Southeastern Louisiana University, Athletic Department, Hammond, Louisiana 70401.

30-August 1 NATA District 8 Sports Medicine Conference, Sacramento, California. Contact Crowl Sports Injury Center, 5207 J. Street, Sacramento, California 95817.

August, 1982

13-15 Cybex/Isokinetic Clinical Workshop, LaCrosse, Wisconsin. Contact George J. Davies, Orthopaedic and Sports Physical Therapy, c/o Bethany St. Joseph Health Care Center, 2501 Shelby Road, LaCrosse, Wisconsin 54601-8099.

20-22 "Sports Physical Therapy: Getting Involved", Washington, D.C. Contact the American Academy of Orthopaedic and Sports Physical Therapy, P.O. Box 901, Severna Park, Maryland 21146.

September, 1982

10-12 Cybex Orthopedics and Sports Medicine Seminar, Kansas City, Missouri. Contact Vi Nicoll, Sales Administrative Assistant, Cybex, Division of Lumex Inc., 2100 Smithtown Avenue, Ronkonkoma, New York 11779.

20-24 Sports Medicine Physical Therapy — Basic Course, Portland, Oregon. Contact Ronald G. Peyton, The Sports Medicine Education Institute, Inc., 993 Johnson Ferry Road, Atlanta, Georgia 30342.

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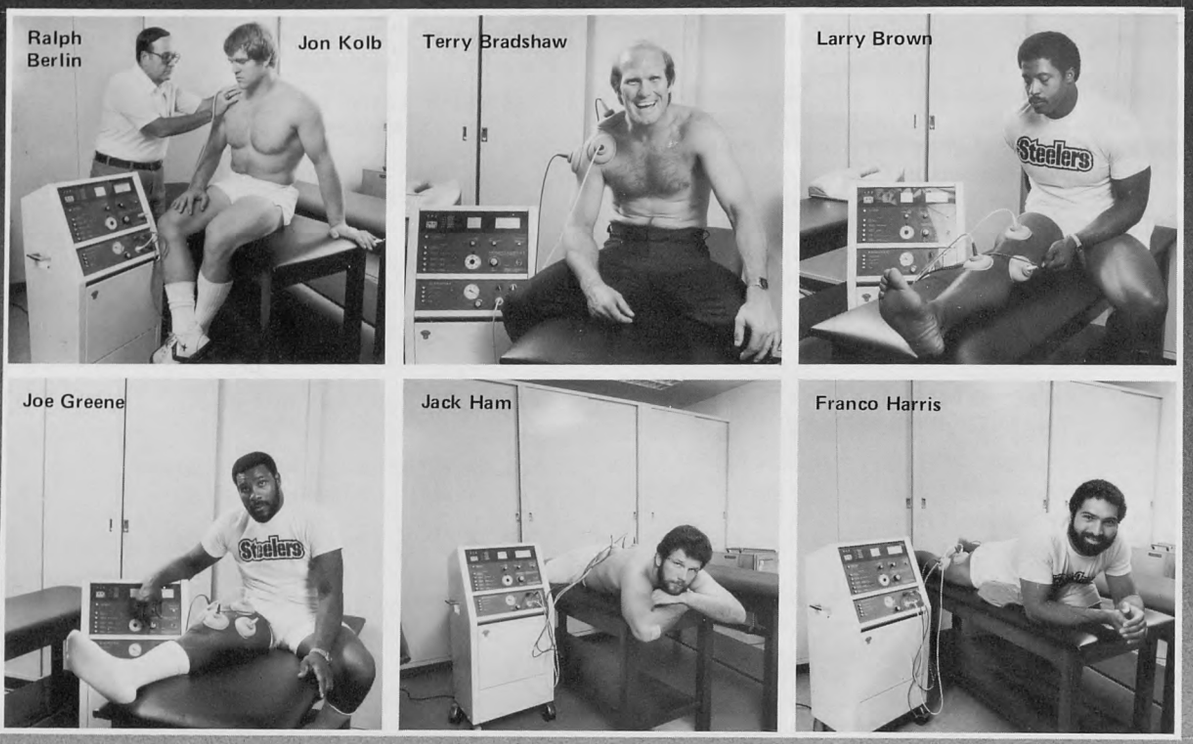

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The Anterior Cruiciate Ligament — Injuries and Functions in Anterolateral Rotary Instability

Bruce C. Johnson, MEd, ATC
Myron J. Cullen, MS, ATC

Introduction

The anterior cruciate ligament (ACL) is one of the most misunderstood and controversial structures of the knee. Orthopaedists have been at odds as to the functions of the ligament over the years.

The authors wish to discuss basic anatomy and theories of the anterior cruciate ligament injury, especially as it pertains to anterolateral rotary instability and the menisci. Differing opinions will be presented as to the interpretation and evaluation of the anterolateral rotary instability syndrome.

The authors will discuss different ways to examine the knee for anterolateral rotary instability as described by the experts. Hopefully, this paper will give the examiner a better understanding into the truly complex nature of the anterior cruciate ligament injury, which in turn will lead to better care.

The extent to which muscles can compensate for ligamentous insufficiency varies greatly with each individual. Knee stability is dependent upon many things, including the action of the musculotendinous units crossing the joint.[9]

Although various instabilities may arise from an anterior cruciate tear, there is no clear cut rule of treatment that can be followed. Each knee injury is different and will respond differently to an anterior cruciate ligament tear.

Most orthopaedists will agree that the loss of the anterior cruciate ligament is a significant injury, but many of them are not always appreciated and often go untreated.[22]

The athletic trainer should be familiar with various evaluative techniques. Understanding and a basic knowledge of testing will prove very valuable, especially in chronic cases.

Anatomy and Functions

According to Gray's Anatomy,[8] the anterior cruciate ligament is attached to the depression in front of the spine of the tibia, being blended with the anterior extremity of the external semilunar fibrocartilage and, passing obliquely downward and outward, is inserted into the inner back part of the outer condyle of the femur.

The major blood supply to the anterior cruciate ligament comes from branches of the middle genicular artery.[13] The largest branch to the ligament reaches it near its upper end and descends along its dorsal surface. Marshall, et. al.,[19] have described the anterior cruciate ligament blood supply as arising from synovium and fat pads with little contribution from bone insertion sites.

Myron J. Cullen

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The anterior cruciate ligament is now considered to consist of bands that function in varying degrees of flexion of the knee. Norwood and Cross[20] have described the anterior cruciate as having three separate bundles. Marshall, et. al.,[19] described the anterior cruciate as having two bands. Without going into detail, the attachment sites of the anterior cruciate bundles allow tautness to be maintained to some degree throughout the range of motion of the knee. We will be discussing Marshall's theory of anterior cruciate ligament bundles — the anteromedical and posterolateral.

In full extension, the posterolateral band is tight but somewhat loose in flexion. The anteromedial band is tightest in flexion and tight in extension.

The function of the anterior cruciate ligament has been described in many ways; especially concerning its preventive role of anterior movement of the tibia on the femur.[14,19] Other important functions of the anterior cruciate is one of a rotary stabilizer[5,9,10,19] and a check against interal rotation of the tibia in extension.[1,16,19,22,25] Marshall, et. al.,[19] and Youmans,[25] have further narrowed the functions of the anterior cruciate ligament by stating that it protects against external rotation of the tibia in flexion.

These statements give the anterior cruciate the image of primary stabilizer of the knee[20] while Hughston, et. al.,[9,10] gives the capsular ligaments the job of guarding the knee along with the anterior cruciate.

Symptoms and Mechanisms of Injuries

The initial injury of the anterior cruciate ligament is many times described as a deceleration from running so that the knee was extended and at the same time moving away from the supporting foot. The description is actually a cutting mechanism.[23] Often this description was accompanied by a "pop"[1,6,19,22,26] and the feeling that the knee wanted to "go out" or "give way".[10,22] Marshall, et. al.[19] reported that 90% of the patients who heard this "pop" had anterior cruciate ligament ruptures. The "giving way" was due to anterior subluxation of the lateral tibial plateau on the lateral femoral condyle occurring during weight bearing with the knee in mild flexion and spontaneously reducing as the knee reached 30°—40° of flexion.[23] The "shifting" phenomenon will be discussed later in more detail.

Accumulation of fluid that occurs within a couple of hours of injury to the knee indicates hemarthosis.[9] Absence of swelling indicates a tear in the capsule that allows fluid to seep into the soft tissues of the joint. DeHaven[4] reported that in 113 acute knee injuries with immediate disability and early onset of hemarthrosis, 81(72%) had ACL tears.

Anterior Cruciate Ligament Evaluation Using the Drawer Sign

The ACL is completely intra articular which makes it impossible to examine directly, short of surgery. Various tests have been designed to evaluate the integrity of the ACL. One of these tests, the drawer sign, is very controversial. Anterior instability is the most controversial of the instabilities because there are several types as well as several disagreements as to their interpretation.[5]

Figure 1. The Drawer Sign

To administer the drawer sign the patient should be supine on the examining table (Figure 1). The hip is flexed to 45° and the knee to 90°. The examiner sits on the table with a portion of his buttocks on the foot to fix it firmly in a neutral position. The hands are placed about the upper part of the tibia with the fingers crossing the hamstrings to be sure they are relaxed. The thumbs can palpate the joint line to detect any forward movement of the tibia when a pull and push force is applied to in to and fro manner.

Klafs and Arnheim[14] have stated that the anterior drawer sign is indicative of ACL insufficiency. Marshall and Olson[18] have also stated that the drawer sign is the most reliable test for ACL integrity. Other authors[4,9] have severely questioned the common practice of interpreting a positive anterior drawer test as an indicator of a torn ACL. The medial and lateral capsular structures are the primary stabilizers against the anterior drawer.[9] A tear of the ACL will accentuate the drawer sign but does not have to occur to have a positive sign.

As stated earlier by Marshall, et. al.[19] the ACL is a ligamentous band with two bundles; the anteromedial and the posterolateral. Each bundle plays a specific role in the interpretation of the drawer sign. The drawer sign would be positive if the anteromedial bundle was torn. If the posterolateral bundle was torn the drawer test would be negative. One can see this line of reasoning when recalling the tautness of the ACL bands in varying degrees of the ACL bands in varying degrees of flexion of the knee. The anteromedial band is intact if there is no drawer sign.

DeHaven[4] stated in his studies that in his last 35 consecutive cases with proven acute, complete ACL tears the drawer sign was positive in only 27% of the cases without anesthesia. The results increased to 52% positive under anesthesia. Implications of this sort do not speak highly of the drawer sign as a reliable indicator of the ACL.

Lachman's test is receiving considerable attention as being very reliable in the diagnosis of the ACL insufficiency.[2,24] It involves a drawer test as previously described except that the leg is in about 10° of flexion instead of 90° (Figure 2). The distal femur is stabilized securely with one hand while the other hand grasps the proximal tibia. The tibia is then brought forward and backward in a to and fro manner relative to the femur. A large leg can be checked by placing a rolled up towel beneath the femur and having an assistant hold the femur down while the examiner grasps the tibia and brings it forward and backward as previously described.

Lachman's test is designed to check for ACL function. The advantages of this check are these: 1) there is less pain than the drawer test because the knee does not need to be flexed to 90°, 2) there is less meniscus impingement than the standard drawer test, and 3) the hamstrings will not be in as much spasm as when the knee is flexed to 90°.[7]

DeHaven[4] again has stated his experience with Lachman's test in 15 cases of acute ACL injuries. The test was positive in 80% of the awake acute ACL injuries, and 100% positive in anesthesized patients. We believe it would be beneficial to incorporate both Lachman's and the drawer sign in evaluation of the ACL.

Rotary Instabilities

When one starts to describe rotary instability and the problems associated with it, we must describe where this rotation takes place. The posterior cruciate ligament (PCL) is generally regarded as the fundamental axis about which the knee moves in flexion, extension, and rotation.[5,9] When the PCL is intact, any forward movement of either the medial or lateral tibial plateau must be a rotational instability.[10] Although there are many types of rotational disabilities, we will concentrate primarily on anterolateral rotary instability.

The recognition of the medial side of the knee as a unit producing stability and controlling anteromedial rotary excess is now joined by evaluation of the lateral complex of the knee as a functional unit controlling lateral instability.[11] The ACL is the hub of both the medial and lateral complexes.

The drawer test once again plays an important role in the evaluation of rotary instabilities. A positive anterior drawer with the tibia externally rotates in which the anteromedial border of the tibial plateau rotates forward (anteromedial rotary instability) is indicative of a medial capsular and posterior oblique ligament tear.

The instability is increased by the presence of an ACL tear.[5,9] Anteromedial rotary instability is quite widely held to be the least controversial and the most understood.[5]

A positive anterior drawer sign with the tibia in slight internal rotation (15°) is the most consistent and reliable sign of anterolateral rotary instability.[3] Internal rotation puts pressure on the lateral capsule. If this structure is torn along with the ACL, the anterolateral tibial plateau rotates forward when the drawer test is administered. This is still quite controversial.

Anterolateral Rotary Instability Involving the Pivot Shift

A positive anterolateral rotary instability test involving the pivot shift is dependent on an intact iliotibial band which is anterior to the lateral axis of rotation with the knee near full extension.[3,5] The extended knee has the iliotibial band in position of an extensor. In flexion, the iliotibial band is in position as a flexor.[3]

The "giving way" (pivot shift) so often described by patients with this condition is due to anterior subluxation of the lateral tibial plateau on the lateral femoral condyle. "Giving way" occurs during weight bearing with the knee in mild flexion. The tibia spontaneously reduces as the knee reaches 30°—40° of flexion.[23]

Discrepancy abounds as to what structures must be torn in order to produce this anterolateral tibial subluxation. Although lateral capsular deficiencies are quite generally agreed to in terms of anterolateral rotary instability, there is discrepancy as to the role of the ACL. A few authors[2,10,20] have stated that the ACL does not have to be torn to have anterolateral rotary instability, but that a tear does increase the instability. Others[3,5,12,15] have stated that anterolateral rotary instability is a direct result of ACL insufficiency.

Anteromedial rotary instability is not as dramatic as anterolateral rotary instability due to the fact that there is no pivot shift present.[5] The phenomenon is well known. Loss of the ACL increases both anteromedial and anterolateral rotary instability[3,20] although anterolateral rotary instability is more obvious when a pivot shift is present because of the sudden reduction produced by the iliotibial band as the knee goes into flexion.

Test for Anterior Subluxation of the Lateral Tibial Plateau

While various methods have been described in evaluating anterior subluxations of the lateral tibial plateau,[5,9,14] the authors of this paper have found Slocum's anterolateral rotary instability test[3] to be the most effective, especially in chronic cases.

The test is best performed with the patient in a lateral position with the affected side up. The pelvis is rolled 30° posteriorly with the foot placed on the table. The knee should be extended. The described position allows the knee to fall into valgus position with internal rotation on the femur. The examiner's hands are placed with the thumbs on the femoral and

Figure 3. Body and Hand Placement in Slocum's Anterolateral Rotary Instability Test

tibial sides of the posterior joint (Figure 3). In this position the iliotibial band is anterior to the lateral axis of rotation of the knee. The tibia will be subluxed anteriorly and internally on the femur (Figure 4). The knee is gently pressed forward into flexion. When a positive test is present, the reduction is felt as the knee passes the 25°—45° range (Figure 5). This may occur smoothly or suddenly. We have found that slight valgus pressure while pressing the knee into flexion aids in evaluation if the tibia subluxes.

When used in conjunction with Lachman's test and the drawer test, one can become quite accurate in evaluating the integrity of the ACL.

Anterolateral Rotary Instability and Meniscus Tears

Statistics involving ACL and meniscus tears are very interesting. Cabaud and Slocum[3] have stated that the posterior horns of the menisci and the oblique capsular ligaments are the second line of defense against anterolateral rotary instability. Their failure can result in chronic instability.

Fetto and Marshall[7] described that in 85 acute ACL injuries, 60% of them had meniscal tears, while 89% of the 162 chronic ACL tears had meniscal tears. DeHaven,[4] in 68 cases of acute ACL tears, had 65% with significant meniscal tears. The concept is reinforced that ACL injuries are not only associated with acute tears but also predispose the knee to further meniscal deterioration.

Debate centers around the lateral meniscus and its integrity in chronic anterolateral rotary instability. Subluxation of the anterolateral tibial plateau on a chronic basis put pressure on the lateral meniscus. Ellison[5] and Cabaud and Slocum[3] insist that the lateral meniscus is always involved in chronic anterolateral rotary instability while DeHaven[4] stated that the lateral meniscus is not always implicated. The controversy continues.

Summary

There are no clear cut answers to ACL tears. More work is needed in the area of anterolateral rotary instability as it pertains to ACL tears.

We believe that the athletic trainer should know basic evaluative techniques for anterolateral rotary instabilities. There are plenty of chronic pivot shifts that have thus far defied evaluation.

Capsulized versions of the tests described in this paper are given in tables 1 and 2.

Figure 2. Lachman's Test

References

1. Arnold JA, Coker TP, Heaton LM, Park JP, Harris WP: Natural History of Anterior Cruciate Tears, *The American J of Sports Medicine,* 7: pp. 305-313, 1979.

2. Cabaud HE, Slocum BB: The Diagnosis of a chronic Anterolateral Rotary Instability of the Knee. Comment by James R. Andrews, *The American J of Sports Medicine,* 5: p. 105, 1977.

3. Cabaud HE, Slocum DB: The Diagnosis of Chronic Anterolateral Rotary Instability of the Knee, *The American J of Sports Medicine,* 5: pp. 99-105, 1977.

4. DeHaven KE: Diagnosis of Acute Knee Injuries With Hemarthrosis, *The American J of Sports Medicine,* 8: pp. 9-14, 1980.

5. Ellison A: Knee Injuries, *Clinical Symposia*-CIBA, 29: pp. 18-37, 1977.

6. Feagin JA Jr.: The Syndrome of the Torn Anterior Cruciate Ligament. *Orthopaedic Clinics of North America,* 10: pp. 81-89, 1979.

7. Fetto JF, Marshall JL: The Natural History of Anterior Cruciate Ligament Injury. American Orthopaedic Society for Sports Medicine, New Orleans, Louisiana, February, 1976.

8. Gray H: *Anatomy of the Human Body.* Twenty-ninth American Edition. Edited by Charles May Goss, Lea and Febiger, Philadelphia, 1973.

9. Hughston JC, Andres JR, Cross MJ, Moschi A: Classification of Knee Ligament Instabilities. Part I. The Medial Compartment and Cruciate Ligaments. *The J of Bone and Joint Surgery,* 58A: pp. 159-172, 1976.

10. Hughston JC, Andrews JR, Cross MJ, Moschi A: Classification of Knee Ligament Instabilities, Part II. The Lateral Compartment. *The J of Bone and Joint Surgery,* 58A: pp. 173-179, 1976.

11. Johnson LL: Lateral Capsular Ligament Complex: Anatomical and Surgical Considerations. Comment by Robert L. Larson, *The American J of Sports Medicine,* 7: p. 160, 1979.

12. Johnson LL: Lateral Capsular Ligament Complex: Anatomical and Surgical Considerations. *The American J of Sports Medicine,* 7: p. 156-160, 1979.

13. Kennedy JC, Weindberh HW, Wilson AS: The Anatomical and Functions of the Anterior Cruciate Ligament. *The J of Bone and Joint Surgery,* 53A: pp. 1561-1570, 1971.

14. Klafs CE, Arnheim DD: *Modern Principles of Athletic Training.* CV Mosby, St. Louis, Missouri, 1973.

15. Losee RE, Johnson TR, Southwick WO: Anterior Subluxation of the Lateral Tibial Plateau. *J of Bone and Joint Surgery,* 60A: pp. 1015-1030, 1978.

16. Mains DB, Andres JG, Stonecipher T: Medial and Anterior-Posterior Ligament Stability of the Human Knee, Measured with A Stress Apparatus. *The American J of Sports Medicine,* 5: pp. 144-153, 1977.

17. Marshall JL, Johnson RJ: The Mechanism of Most Common Ski Injuries. *The Physician and Sportsmedicine,* 5: pp. 49-54, 1977.

18. Marshall JL, Olsson SE: Instability of the Knee. *The J of Bone and Joint Surgery,* 53A pp. 1561-1570, 1971.

19. Marshall JL, Rubin RM, Wang JB, Fetto JF, Arnoczky SP: The Anterior Cruciate Ligament-The Diagnosis and Treatment of Its Injuries and Their Serious Prognostic Implications. *Orthopaedic Review,* 7: pp. 35-45, 1978.

20. Norwood LA, Cross MJ: Anterior Cruciate Ligament: Functional Anatomy of its Bundles in Rotary Instabilities. *The American J of Sports Medicine,* 7: pp. 23-26, 1979.

21. Norwood LA, Cross MJ: The Intercondylar Shelf and the Anterior Cruciate Ligament, *The American J of Sports Medicine,* 5: pp. 171-175, 1977.

22. Reider B. Marshall JL: The Anterior Cruciate Guardian of the Meniscus. *Orthopaedic Review,* 8: pp. 83-87, 1979.

23. Slocum DB, James SL, Larson RL, Singer KM: Clinical Test for Anterolateral Rotary Instability of the Knee. *Clinical Orthopaedics,* 118: pp. 63-69, 1976.

24. Torg JS, Conrad W. Kalen V: Clinical Diagnosis of Anterior Cruciate Ligament Instability in the Athlete. *The American J of Sports Medicine,* 4: pp. 84-93, 1976.

25. Youmans WT: The So Called Isolated Anterior Cruciate Ligament Tear or Anterior Cruciate Ligament Syndrome: A Report of 32 Cases With Some Observations on Treatment and Its Effect on Results. *The American J of Sports Medicine,* 6: pp. 26-30, 1978.

Figure 4. Subluxation of the Anterolateral Tibial Plateau

Figure 5. Reduction of Anterolateral Tibial Plateau

Table 1: DRAWER TESTS

TEST	*PROCEDURES*	*WHAT HAPPENS*
Standard Drawer (For ACL and Capsules)	Flex hip 45° and knee to 90°. Place portion of buttock on patients foot in neutral position. Place hands to palpate hamstrings and give gentle push and pull. (Try internal and external rotation)	Displacement of Tibial Plateau — Anterolateral rotation neutral or internal rotation — Anteromedial rotation external rotation
Lachman's (For ACL only)	Distal femur is stabilized with one hand while other hand grasps the proximal tibia. The tibia is brought forward in relation to the femur with only 10°-15° of flexion.	Anterior displacement of tibial plateau

Table 2: TEST USED TO EVALUATE SUBLUXATION OF THE ANTERIOR LATERAL TIBIAL PLATEAU

TEST	*PROCEDURES*	*WHAT HAPPENS*
Anterolateral Rotary Instability Test (Slocum)	Patient lies on good side with unstable knee up and flexed 10° and medial aspect of opposite foot resting on table. Patient maintains ipsilateral pelvis rotated posteriorly 30° to 50°, knee pushed into flexion	Subluxation at 10° flexion followed by smooth or sudden reduction.

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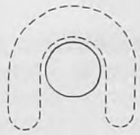

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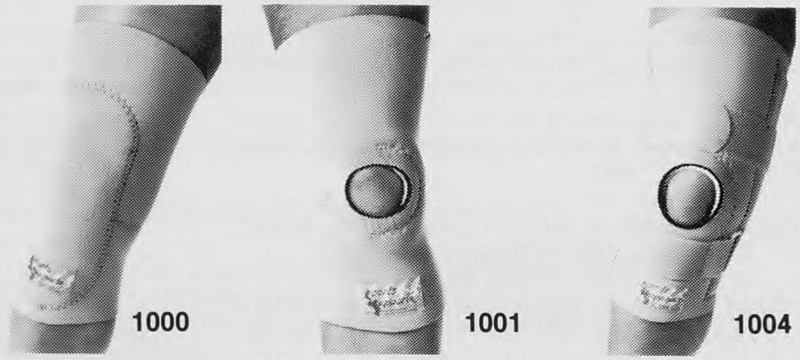

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Ed Christman, ATC, MEd
Knoxville, Tennessee

"Acute Soft Tissue Injuries: Nature and Management," Oakes, B. *Australian Family Physician.* 10 (7): 3 - 16, July, 1981.

"Athletic Performance in Children with Cardiovascular Problems", Starck, P. *The Physician and Sportsmedicine.* 10 (2): 78, February, 1982.

"Biorhythms and Sports", Wright, M. *Journal of Sports Medicine and Physical Fitness,* 1440 Monroe St., Madison, WI 53706. 21 (1): 78-80, March, 1981.

"Catastrophic Neck Injuries From Football in Western Pennsylvania", Maroon, J. *The Physician and Sportsmedicine.* 9(11): 83, November, 1981.

"Cervical Spine Injuries Resulting from Collision Sports", Kewalramani, L. *Paraplegia,* 43-45 Annandale St., Edinburgh, EH7 4AT, Scotland. 21(1): 74-80, March, 1981.

"Clinical Problems: the Injured Ankle", Goldman, L. *Nurse Practitioner,* 3845 42nd N.E., Seattle, WA 98105. 6(5): 51-5, September-October, 1981.

"Cold Weather Clothing for Comfort or Heat Conservation", Kaufman, W. *The Physician and Sportsmedicine,* 4530 W. 77th St., Minneapolis, MN 55435. 10(2):71, February, 1982.

"Conservative Indirect Patella Fractures in an Adolescent Basketball Player", Hanel, D. *American Journal of Sports Medicine.* 9(5):327-9, September-October, 1981.

"Developing a Stretching Program", Beaulieau, J. *The Physician and Sportsmedicine.* 9(11): 59, November, 1981.

"Developing Local and General Muscular Endurance", Smith, T. *Athletic Journal,* 1719 Howard St., Evanston, IL 60202. 62(3): 54, November, 1981.

"Early and Late Repair of Lateral Ligament of the Ankle", Gould, N. *Foot Ankle.* 1(2): 84-9, September, 1981.

"Elbow Injury in Women's Gymnastics", Priest, J. *American Journal of Sports Medicine.* 9(5): 288-95, September-October, 1981.

"Football Head and Neck Injuries — an Update", Maroon, J. *Clinical Neurosurgery,* P. O. Box 43, Assen, Netherlands. 27(414-29), 1980.

"Foot Orthoses in Ski Boots", Subotnich, S. *The Physician and Sportsmedicine,* 10(1): 61, January, 1982.

"Injuries in Competitive Figure Skaters", Smith, A. *The Physician and Sportsmedicine* 10(1): 36, January, 1982.

"Knee Pain in the Adolescent Soccer Player", Parker, T. *Texas Coach,* P. O. Drawer 14627, Austin, TX 78761. 24(5):48, January, 1982.

"Nutrition and Athletic Performance", Smith, N. *Medical Times,* 80 Shore Road, Manorhaven, NY, 11050. 109(8): 92-107, August, 1981.

"On the Field Exam for the Team Physician", Barrett, G. *Journal of the Mississippi State Medical Association,* 735 Riverside Dr., Box 5229, Jackson, MS 39216. 22(9):224-7, September, 1981.

"Problems with Early Season Muscle Pulls," Keller, B. and Reep, J. *Athletic Journal,* 62(3): 64, November, 1981.

"Reproductive Function in Women Athletes", Rebar, R. *Journal of the American Medical Association,* 535 N. Dearborn St., Chicago, IL 60610. 246(14):1590, Oct. 2, 1981.

"Ski Binding Biomechanics", Johnson, R. *The Physician and Sportsmedicine.* 10(2): 48, February, 1982.

"Strength Testing After Jaw Repositioning With a Mandibular Orthopedic Appliance", Burkett, L. *The Physician and Sportsmedicine,* 10(2): 101, February, 1982.

"Stress Reactions Involving the Pars Interarticularis in Young Athletes", Jackson, D. *American Journal of Sports Medicine.* 9(5):304-312, September-October, 1981.

"Theory and Management of Exercise-Related Hematuria," Hoover, D. *The Physician and Sportsmedicine.* 9(11): 90, November, 1981.

"The Effect of Rapid Weight Loss on Physiological Functions in Wrestlers", Houston, M. *The Physician and Sportsmedicine.* 9(11): 73, November, 1981.

"The Injured Athlete", Davis, O. *Coach and Athlete.* 44(4): 37, Jan.-Feb., 1982.

"The Knee — The Body's Largest Joint", Shybut, G. and Lynch, D. *Coach and Athlete.* 44(4): 26, January-February, 1982.

"The Relationship of Tarsal Coalitions to Ankle Sprains in Athletes," Snyder, R. *American Journal of Sports Medicine.* 428 E. Preston SE, Baltimore, MD 21202. 9(5): 313-7, September-October, 1981.

"The Sexes — How They Differ — and Why", Micheli, L. *Coach and Athlete,* P. O. Box 657, Needham, MA 02192. 44(4): 22, January-February, 1982.

"Volar Plate Injuries", Melchionda, A. *The Physician and Sportsmedicine.* 10(1): 77, January, 1982. +

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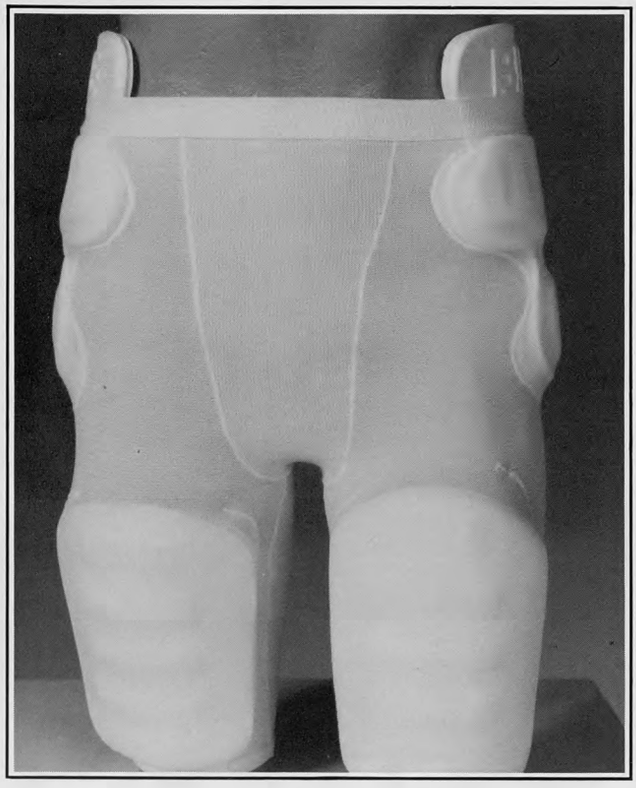

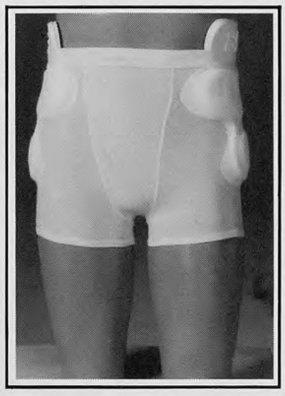

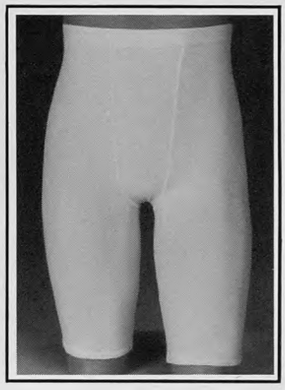

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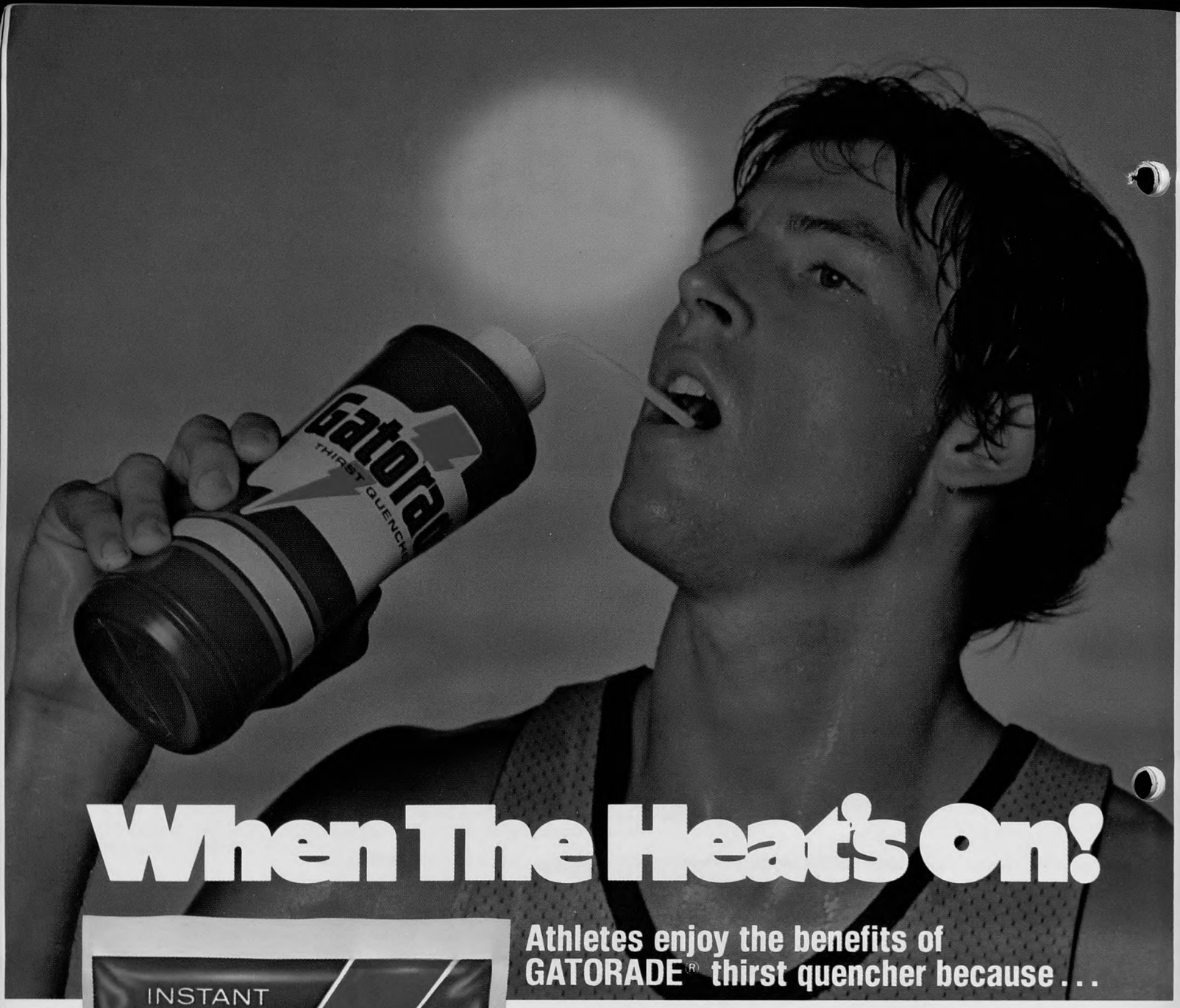

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The Nature and Causes of Hockey Injuries: A Five-Year Study

Michael F. Rielly, MS, ATC

Introduction

Ice Hockey, one of the fastest and most physically demanding sports in the world, has become increasingly popular in the United States within the past few years. Historically, ice hockey was a sport played primarily in Canada and the Northern United States. A recent survey of International Ice Hockey Federation member nations has shown that two million individuals registered with their national federation are currently participating in organized hockey.[7]

In the past decade, hockey has experienced tremendous growth throughout the southern and western United States at the professional and amateur levels. The Amateur Hockey Association of the United States (AHAUS) is the governing body of the league for youth participants. Sutherland[8] reports this organization had 10,844 teams registered for the 1974-75 season. Currently, the National Collegiate Athletic Association (NCAA) has approximately 268 ice hockey teams registered throughout the United States.[5]

The extremely fast, aggressive and competitive nature of hockey appears to be conducive to injury. While research has revealed discrepancy,[2 4 6] the incidence of injury is not as high as one might assume when taking into account the ever increasing number of participants. Coventry[1] has stated a reason for this is due to the employment of protective equipment coupled with the players' ability to absorb gravitational forces by sliding their skate blades or bodies along the ice surface. The rapid expansion of hockey resulted in the National Electronic Injury Surveillance System to estimate 26,832 hockey-related injuries during the 1974-75 season. This elevated the sport in rank from 75th to 34th position in the Frequency Severity Index Scale.[8] Likewise, the United States Consumer Products Safety Commission reported an increase in hockey injuries from 30,000 to 50,000 between 1973 and 1975.[3]

Mr. Rielly is an athletic trainer in the Department of Intercollegiate Athletics, State University of New York at Buffalo.

Although the Safety Commissions' report encompassed hockey injuries at all levels of competition, Sutherland[8] reported a proportional increase in injuries occurring from the younger age group to the professional level. Daffner[2], compiling injuries sustained in an amateur ice hockey program over a two-year period, also observed the number of injuries to increase with the level of players' skill and intensity of competition.

This point is further evidenced in data presented by Downs[3] following a one-year analysis of injuries sustained by a highly competitive intercollegiate hockey team and a junior hockey traveling organization. Although the junior organization amassed in excess of four times the total number of ice hours and contained more participants than the intercollegiate team, the total number of recorded injuries were similar.

Despite the continued development and improvement of protective equipment, the probability of participants sustaining injury exists. The growing concern for the safety of ice hockey participants prompted this examination into the nature, incidence, location and causal factors influencing injury in intercollegiate ice hockey.

Method

This analysis has been based upon 104 reportable injuries distributed among 125 members of the State University of New York at Buffalo Hockey Team from 1974 through 1979. The University of Buffalo Hockey Team competes at the Division II level of the National Collegiate Athletic Association and Division II of the Eastern Collegiate Athletic Conference.

Data was collected during this period on composite and standardized injury forms developed at the State University of New York at Buffalo. Reports were submitted following each practice and game day. As the forms were received, they were reviewed for completeness and accuracy prior to being filed.

A reportable injury was defined as being one that required definitive physical evaluation and medical treatment. Non-reportable or minor injuries were not included in this study.

Results — Discussion

The five-year period under examination contained 465 practice days and 155 games. Total ice time was calculated at 1,322 hours with a reportable injury occurring every 12.7 hours of play. The mean age of team members was 20 years. They possessed an average of 8.2 years previous playing experience prior to entry at the university (Table 1)

Until the introduction of NAIRS, the classification of injuries in the past has been somewhat haphazard. Williams[10] has identified a system of injury classification based upon etiology, that is most beneficial in identifying the mode of production. This system classifies sports injuries into an intrinsic or self-inflicted category, and an extrinsic category which includes physical contact with outside agents. Both areas have been further subdivided to note specific causal factors (Table 2).

Player contact refers to the active encounter of two or more athletes that results in an injury. In this examination, the most frequent injury producing agent was player contact, 43.3%. The factor of personal contact in ice hockey normally achieves high levels due to the very nature of the sport. Hockey is a team sport where players are functioning at maximum speeds within an enclosed are for the common goal of possessing the puck.

An inordinately high number of injuries resulted from puck contact, 27%. In part, this factor emanates from recent skill modification where a player falls upon the ice in an effort to block a shot with his body.

Among intercollegiate hockey matches, the fight regulation is usually liberally interpreted by officials. This is probably due to the severe penalties imposed for such a violation. Because of this strict regulation, players are instructed not to fight, thus predisposing stick contact.

The aggressiveness of American intercollegiate hockey, coupled with severe penalties for fighting, appears to be a primary contributing factor in those injuries resulting from stick contact, 14.4%. It is accepted that injuries will occasionally result from an inadvertent high stick. However, many close player encounters, especially along the boards, originate or terminate with periods of stick jousting.

Impact injuries, a player in motion striking obstacles such as the boards, goal or ice surface, occurred at a relatively low rate in this sample, 5.7%. Uncoordinated movements or a timely body check delivered during a scuffle for the puck are generally responsible for such injuries.

There were no recorded incidences of players receiving injuries from skate contact.

Self-inflicted muscul-tendinous strains accounted for a relatively small percentage of the total injuries recorded, 2.9%. These injuries were found to result from improper conditioning and acceleration or deceleration movements upon the ice. Each of the strains occurred during the initial pre-season transition from land exercise to on-ice training. The most prevalent intrinsic injury was observed to be assorted integumentary disorders, 6.7%. The causal agents were traced to the players' equipment.

Table 1 clearly illustrates the five year sum of practice days outnumbered game days three to one. This would lead one to predict the ratio should result in a greater number of injuries from practice, however, the data demonstrates the contrary in both the first and second halves of the season. To examine situational causes of injuries, Chi Square Tests were performed to compare practices X games and first half X second half of playing seasons (Table 5). Performance intensity, reasonably expected to be linked with occurrence of injury, increases from practice to game situations. Similarly, end of season opportunities increased intensity of team performances from first to second halves of each season. Injury data reflect these influences as significantly more incidents (P .001) were recorded during games than practices in the second half than the first half of seasons.

Table 3 identifies the anatomical location of injuries sustained during the observed period. It would appear that the most vulnerable segment of a player's anatomy is the region above the shoulder, 34.5%. This site ranked highest in reportable injury with the greatest percentage occurring to the face, 17.3%. Similarly, a relatively high number of injuries were received at the mouth and lip, 11.5%. While a small percentage of head and neck injuries were recorded, 5.7%, each incident resulted in a degree of cerebral concussion. Of particular importance was the non-existence of reportable occular or dental trauma.

Comparison of injuries to the upper and lower extremities identified a greater percentage occurring at the lower extremity. However, the shoulder ranked second overall in injury location, 14.4%, while the third most vulnerable site was the knee, 13.6%.

Injury classification according to type is presented in Table 4. As one might expect through interpretation of previous data, the most frequent injuries were incisions and lacerations, 28.9%. Contusions ranked second, 19.4%, and were distributed throughout a player's anatomy with the majority being directed to the anterior thigh. The injury analysis revealed a high number of fractures, 14.4%, however, they were situated among the foot, leg, wrist, fingers and nose. Ten shoulder separations were reported, 9.6%, with one requiring fixation. Joint sprains, 7.7%, most frequently affected the knee although the ankle, hip and elbow were subject to similar trauma.

Summary — Conclusion

This examination has shown that injuries sustained by a competitive intercollegiate ice hockey team over a five-year period were varied and generally accidental. A sum of 104 reportable injuries were distributed among 125 participants. It is felt lack of skill level was not a contributing factor to the incidence of injury as the group averaged 8.2 years of previous playing experience.

Practice days outnumbered game days at a three to one ratio. Following examination of this ratio as an influencing variable in the rate of injury, the contrary was revealed. Competition accounted for 68.2% of the recorded injuries, while 31.8% occurred during practice. A significant increase was similarly noted between injuries during practice and competition in the first (44.2%) and second (55.8%) halves of the season. This increase was probably indicative of increased playing intensity during the second half of the season as the playoff positions were being contested. A reportable injury was observed every 12.7 hours of ice time. This figure is in agreement with Sutherland's findings of one injury for every 11 hours of collegiate hockey.[8]

The aggressive nature and high degree of physical contact in ice hockey displayed extrinsic causal factors to be the principle mode of injury production (90.4%). In contrast to other findings, hockey sticks were not the most common source of injury.[2 4 6] The primary agents were identified as player contact (43.3%), the puck (27%) and stick contact (14.4%). These findings are in line with the data presented by Downs.[3] Intrinsic, or self-inflicted causal factors occurred at a disproportionate rate (9.6%). The incidence of skin infection, although not widespread, was the most frequent intrinsic injury. It appears the locker room heat and predominant darkness coupled with intense workouts producing extensive player perspiration provide an ideal environment for cultivating pathogenic growth. In this examination, the carrier was identified as the players' protective equipment. Although frequently overlooked, it is essential protective equipment be periodically sanitized.

As expected, the majority of injuries were of the soft tissue type and primarily located above the shoulder (34.5%). The highest incidences of soft tissue trauma were open wounds (28.9%) and contusions (19.4%). Lacerations and incisions were commonly received at the face (17.3%) and lips (11.5%).

Contusions were distributed throughout the upper and lower extremities with body or puck contact being the causal agents.

Injuries to the shoulder resulted primarily from direct body contact with the player being directed either to the boards or the ice. Like the shoulder, the knee is vulnerable to injury. Rapid changes in direction coupled with frequent stopping on the ice produces increased torsion at this joint. Player contact contributed very little to injuries at the knee.

Recommendation

Ice Hockey, a high-risk sport with inherent hazards, requires a players' ability to receive and accept great levels of physical contact. It should be understood that injuries will occur in any contact activity, however, specific measures can and should be undertaken to minimize their frequency and severity.

After years of discussion, the Eastern Collegiate Athletic Association adopted mandatory face mask legislation commencing with the 1979 season. The 1980 season saw similar adoption by the National Collegiate Athletic Association. Following the initial year, evidence pointed to a considerable reduction in facial injuries. While this avenue as a means of reducing facial trauma is apparently working, the incidence of sticks being directed toward the face mask and utilization of the mask as a weapon is on the rise.

Intentional abuses with the hockey stick which have produced injury must be readdressed, as must use of the face mask if further injury reductions are expected. The alternative is to accept serious head-neck injury.

References

1. Coventry M: Winter Sports Injuries. *Lancet*, 85: 66-70, 1965.
2. Daffner R: Injuries in Amateur Ice Hockey: A Two-Year Analysis. *J of Family Practice*, 4: 224-227, April, 1977.
3. Downs J: Incidence of Facial Trauma in Intercollegiate and Junior Hockey. *The Physician and Sports Medicine*, 7: 88-92, February, 1979.
4. Feriencik K: Trends in Ice Hockey Injuries: 1965-1977. *The Physician and Sports Medicine*, 7: 81-84, February, 1979.
5. *National Collegiate Athletic Association Directory and Record Book.* Kansas City, 1979.
6. Reeves J, Mendryk S: A Study of the Incidence, Nature, and Cause of Hockey Injuries in the Greater Edmonton Metropolitan Area. *Application of Science and Medicine to Sport*, 75: 301-308, October, 1975.
7. Rielly M: Hockey Injuries: Prevention and Care. *Relevant Topics in Athletic Training.* Edited by Scriber K, Burke EJ, Ithaca, New York: Movement Publications, 1978, pp. 72-78.
8. Sutherland G: Fire on Ice. *The American J of Sports Medicine*, 4: 264-269, November/December, 1976.
9. United States Consumer Product Safety Commission: Accidents Associated with Hockey Equipment. Bureau of Epidemiology, 1973-1975.
10. Williams J, Speryn P: *Sports Medicine*, Baltimore, Williams and Wilkins Co., 1976, pp. 243-244.

TABLE 1
DATA PROFILE 1974-1979

Number of Participants	125
Mean Age	20
Mean Years Previous Playing Experience	8.2
Reportable Injuries	104
Practice Days	465
Game Days	155
Ice Hours	1322

TABLE 2
CAUSES OF INJURIES

CAUSES	FREQUENCY	PERCENTAGE
Extrinsic	(94)	(90.4)
Player Contact	45	43.3
Puck	28	27
Stick	15	14.4
Impact	6	5.7
Skate	0	0
Intrinsic	(10)	(9.6)
Strain	3	2.9
Infection	7	6.7
TOTAL	104	100

TABLE 3
ANATOMICAL LOCATION OF INJURIES

LOCATION	FREQUENCY	PERCENTAGE
Above the Shoulder	36	34.5
Face	18	17.3
Mouth/Lip	12	11.5
Dental	6	5.7
Head/Neck	0	0
Eye	0	0
Upper Extremities	30	28.8
Shoulder	15	14.4
Upper Arm	0	0
Elbow	4	3.9
Forearm	1	.90
Wrist/Hand/Fingers/Thumb	10	9.6
Trunk	0	0
Back	3	2.9
Lower Extremities	35	33.8
Hip/Groin/Thigh	11	10.6
Knee	14	13.6
Leg/Ankle/Foot	10	9.6
TOTAL	104	100

TABLE 4
TYPE OF INJURY

TYPE	FREQUENCY	PERCENTAGE
Incision/Laceration	30	28.9
Contusion	20	19.4
Fracture	15	14.4
Separation	10	9.6
Sprain	8	7.7
Strain	7	6.7
Infection (Integument)	7	6.7
Concussion	6	5.7
TOTAL	104	100

TABLE 5
DISTRIBUTION OF INJURIES IN PRACTICE AND GAMES DURING FIRST AND SECOND HALVES OF SEASONS

	1st Half	2nd Half
Practice	14	19
Game	32	39
TOTAL	46 (44.2%)	58 (55.8%)

$x^2 = 12.41$, sig. at .001 level.

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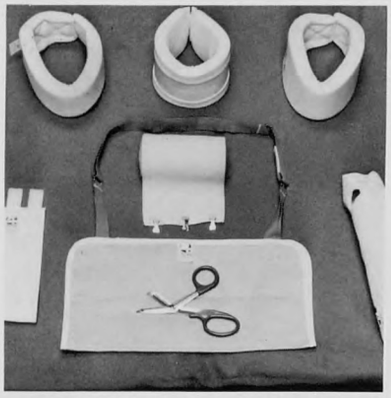

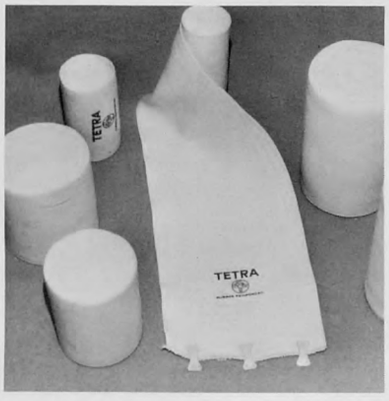

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Podiatry and the Athletic Trainer

Phillip Hossler, MS, ATC, Robert M. Lipp, DPM

One of the corner stones of athletic training is the early recognition and prevention of injuries. Some injuries are not capable of prevention, such as a contusion during the chaos of a football or soccer game. Many injuries, however, particularly those that result from a gradual, sustained mechanism of injury, could be prevented if the root cause of the injury had been detected early enough. For example, a lack of dedication to maintaining a state of adequate flexibility may needlessly predispose an athlete to a muscle strain or possible tendonitis which may hinder his success and enjoyment in any future physical activity. One of the most recent areas that sports medicine is exploring is the role that the state of the athlete's joints/muscles has in the possible predisposition to future injuries. Dr. James Nicholas of the Institute of Sports Medicine and Athletic Trauma at Lenox Hill Hospital developed five tests to check the looseness/tautness of certain areas of the body.

An area that has not been looked at frequently, as a preventive measure for athletes, is the application of podiatry through the cooperative work of a sports podiatrist and an athletic trainer. Many problems (i.e. shin splints, arch strains, and "runner's knee") could be alleviated or prevented if the time were taken to inspect the integrity/alignment of the athlete's foot-ankle-calf-shin-knee-thigh-hip relationship when the athlete first complains of discomfort in these areas.

The foot-ankle is an architectural wonder. The foot is composed of an intricate arrangement of 26 bones, supported by muscles, ligaments and tendons which may support hundreds of pounds of body weight. The foot-ankle can tolerate running distances well over 30 miles with each step producing 2-7 times the normal body weight upon impact. The foot-ankle can be expressive, delicate and used to demonstrate total body control. Yet, when there is a minor misalignment or malfunction, the foot can produce pain which prohibits normal functioning for extended periods of time. The Plantar surface of the foot is approximately 2-4% of the body's total surface. Man is literally perched upon two biological stilts. Just as a slightly imbalanced load in a wheelbarrow is capable of producing fatigue and/or pain in one shoulder more so than in the other, the foot, if allowed to remain slightly out of symmetry can, over a period of time, produce pain in the joints of one or both lower extremities.

Trainer evaluation with the present shortage of doctors and allied professionals in this country, coupled with the growing number of athletes, the position of the athletic trainer is a crucial one. The athletic trainer has the opportunity to see many physically active men and women everyday. This daily contact provides the trainer with the unique opportunity to become aware of the athlete's minor aggravations before they develop into crippling injuries. Without this day-to-day service, many problems could go unnoticed until they became disabling, requiring a visit to a physician, extended treatment, and/or prolonged rest. It is desirable for the athletes, doctors, and trainers to be able to recognize problem areas that may be a source of future disabilities while they are only minor aggravations to the athlete.

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What can the trainer look for in the alignment of the athlete's feet? What about the wear pattern on the athlete's shoes? How can the trainer assist the podiatrist in his efforts to minimize problems for the athlete? The following is a series of checks that can be performed by the athletic trainer. The trainer should make certain that the angles and alignments are checked in both the weight-bearing and non-weight bearing positions whenever applicable.

Non-Weight Bearing

1. Range of Motion. A sufficient amount of limb and joint movement is necessary for any athletic event. Of greatest importance in the ankle is the sub-talar joint. The sub-talar joint has two-thirds of its motion toward inversion and one-third toward eversion. At the junction of this two-thirds and one-thirds of motion is the neutral angle or neutral foot. The neutral foot is the ideal foot since stability is derived from the neutral joints, meaning the muscles do not have to support the arch of the body weight.[4] Neutral means that the heel is to the surface of the ground, the metatarsal heads rest evenly on the ground and the arch is normal.

During running, it is essential that the lower leg is capable of carrying approximately 10° past perpendicular. The tibia must pass through the vertical plane by 10°, to avoid forcing the entire foot-ankle-shin to pronate/internally rotate to allow the athlete to run.[2] This slight, unnoticeable twist multiplied by 800-1000 steps per mile is capable of producing very disabling complaints. This lack of flexibility has been cited as being contributory cause to the shin splints syndrome.[2] One type of shin splint is a sterile myotendonitis inflammation resulting from a combination of weak anterior shin muscles coupled with a stronger and tighter gastrocnemisus. If the gastrocnemius is excessively tight in order to achieve the last 10° of flexion necessary to run efficiently, the foot must pronate. The pronation causes strain and induces the fatigue of the anterior shin muscles resulting in shin splints.[3]

With the leg fully extended (Figure 1), the foot should be able to attain the perpendicular position. When the leg is slightly flexed (Figure 2), the foot should be able to pass beyond perpendicular. If not, the athlete must begin a program of exercises designed to stretch the Achilles tendon and the gastrocnemius muscle.

2. Blisters, Callouses and Corns. The presence of blisters, callouses and corns indicates a pathology of friction, rubbing and irritation. This pathology may be due to an imbalance of the foot or due to bony growths resulting in exostosis, or excessive motion of joints or complete segments. If the calluses are found under bony prominences, such as the metatarsal heads, they are the result of a biomechanical problem. Calluses on the heels usually result from improper gait patterns.[4]

The trainer and athlete should find the root cause of blisters since the habitual formation of blisters may yield calluses and corns. A series of questions may help discover the pathology of blister formation: 1) Is the athlete wearing new shoes? 2) If so, what did the athlete do to break the shoes in prior to wearing them for practice or games? 3) Do the shoes have flexible forefoot with a firm heel counter? 4) Do the shoes fit properly? (ball of the foot aligned with the "break" in the top of the shoe). 5) Are there any noticeable malformations in the athlete's foot? 6) Would the application of a lubricant be sufficient to alleviate the problem?

Figure 1

Figure 2

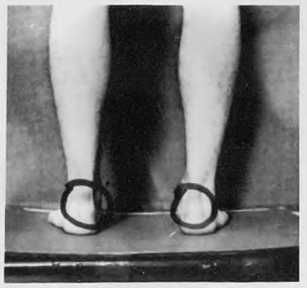


Figure 3

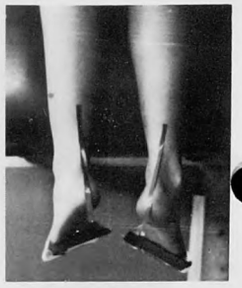


Figure 4

If the athlete's foot is hypermobile, he may need a professionally constructed orthotic to stabilize the foot. It is important to know a podiatrist who treats athletes so that questions can be answered quickly and conveniently. Figure 3 shows the early stages of callus formation bilaterally in identical locations.

3. Positon of the Phalanges. The toes should be straight, facing forward with no hammering of the joints. Hammer toes have a dorsal flexing of the proximal phalanx and plantar flexion of the second and third distal phalanges. These toes may have been forced to shorten by improperly fitting shoes during the growth years. There should be no corns or calluses present. These indicate a disorder of friction that is better prevented than treated.

Figure 4 shows a fifth toe that lies under the fourth, the second toe points laterally and the fourth lies partially under the third. This would seem to indicate a habitual wearing of narrow-toed shoes during the growth years. The wear pattern of the athlete's shoes or sneakers would probably show lateral rotation on the ball of the foot with an excessive roll-off on the great toe.

4. Alignment of the Achilles Tendon with the Forefoot. The lower leg-ankle-foot should function in a straight line, that is, the leg should be positioned squarely on and directly proximal to the talus/calcaneous. The Achilles tendon functions best when the neutral foot acts as a smooth lever; if the forefoot is out of alignment, the gastrocnemius fires early and tends to maintain the contraction resulting in premature fatigue. When varus or valgus deformity of the forefoot occurs, the Achilles tendon usually appears slightly bowed.

Figure 5 shows the absence of prependicularity between the line bisecting the calcaneous and the plane of the forefoot.

A unilaterally beveled heel cushion with the thicker portion of the cushion placed on the side that drops closest to the surface of the ground, may temporarily allow the athlete to approximate a more neutral-like foot strike.

5. Wear Pattern on the Sole of the Shoes. The manner in which the soles of the athlete's shoes wear can be used to help solve an injury mystery just as fingerprints help solve a criminal mystery. The trainer should seek answers to questions such as: 1) How does the heel wear away? Does the foot strike the ground on the medial, lateral or middle of the heel? Ideally, the athlete's foot should strike on the lateral aspect of the heel, roll to a neutral position and leave the ground evenly off the forefoot and toes. 2) Does the ball of the foot show a wear bar across the width of the shoe similar to wear bars on automobile tires? This indicates a spinning or rotation of the foot just prior to toe-off. The athlete may benefit from a stabilizing insert for the foot to prevent excessive twisting. The tip of the shoe will show how the athlete's foot leaves the ground. 3) Does the foot function at its maximum at toe-off or is it rotating needlessly? The wearing at the toe should be evenly distributed across the width of the toe.

Figure 6 shows excessive wear along the entire width of both heels suggesting a very straight forward gait with little supination during the swing phase of the gait cycle. The athlete appears to roll evenly across the metatarsal arch area. Near the base of the great toe the wear pattern shows apparent excessive pronation prior to toe-off. The toe of the shoe suggests an inefficient toeing-off since wear is concentrated along only the medial border instead of being evenly distributed across the entire width.

Figure 7 shows proper wearing of the sole. Note the wear on the lateral aspect of the heel and the even distribution of wear across the forefoot.

6. Flat Feet. To check if the athlete has or is developing flat feet, feet in which the arch loses its natural integrity and sinks closer to the ground, either structurally or functionally, draw a line from the medial malleolus to the navicular bone then continue the line to the medial base of the great toe. If the navicular causes this line to dip, it is indicative of a fallen arch. This loss of integrity in the arch predisposes an athlete to possible plantar fascitis, mild arch strains, "tired feet," and possible shin splints. This test should be done in both the weight bearing position and non-weight bearing positions. In a non-weight bearing position, this line may appear straight, but upon weight bearing it may fall noticeably indicating a functional flat foot. This type of foot is the most likely to suffer pain due to the constant movement of the structure with each step. It is more susceptible to fatigue and over-use. When the arch is excessively low, it is necessary for the tibia to internally rotate. This causes a chain of events which may lead to an overuse injury.[4]

Structurally flat feet will appear flat in both the weight bearing and non-weight bearing position. Because the structural construction remains virtually the same throughout the gait cycle, structurally flat feet are less likely to produce symptoms of discomfort.

Flat feet, as well as high arched feet (pes cavus), may not produce symptoms of pain at all. Many factors such as body weight, distances run or walked, type of shoes and surface may determine the amount of discomfort. Flat feet and high arched feet are not considered to be as efficient as feet with a more proper arch.

Figures 8 and 9 show the non-weight bearing and the weight bearing positions with little falling of the inner longitudinal arch.

Weight Bearing

1. Achilles Tendon and Heel. As stated previously, the leg-ankle-foot works most efficiently when it is able to do so in a straight line. Looking at the back of a standing athlete's ankles, the trainer should notice the line that the Achilles tendon follows as it inserts on the calcaneous. The tendon should run straight, with not bending or bowing and the heel should sit perpendicular to the surface of the ground. A lack of straightness in the Achilles tendon often accompanies a flattened arch and a rolling inward (pronation) on the ankle when the athlete walks. This condition may also be detected by the wearing pattern on the medial rather than the lateral side of the heel of the athlete's shoes. Besides producing possible pain, this rolling medially may also cause a decrease in speed and may add seconds or even minutes to a long distance runner's times.

Figures 9 and 10 show an athlete with excessive pronation demonstrating the lack of perpendicularity between the Achilles tendon and the ground surface as well as the manner in which the shoes will wear. In figure 9, the line drawn along

the length of the Achilles demonstrates an obvious bowing medially. In figure 10, note the rolling medially of the right shoe which normally should sit level on the ground surface.

2. Patellar Tendon. The patella is a sesmoid bone that should, under proper conditions, ride up and down between the femoral condyles with little irritation or rubbing as the knee is flexed and extended. However, when the patellar tendon attaches obliquely onto the tibial tuberosity, the patella may rub against either or both condyles each time the quadriceps muscles contract. This minute rubbing may, over a period of time cause the underside of the patella to become irregular and may result in inflammation. Through this constant irritation and abuse of the hyaline cartilage lining the underside of the patella the athlete may develop chondromalacia.

Chondromalacia is a softening of the lubricative cartilage on the underside of the patella which may over a period of years progress and prove to be quite disabling if the athlete continues to be physically active.

The reason for the inability of the patella to pass between the femoral condyles with little or no irritation may be due to the manner in which the athlete's foot strikes the ground. If the foot is unstable, the athlete may have excessive rotation of the knee. This coupled with the lack of strength of the vastus medialis, to hold the patella in proper alignment may result in a dull, aching knee often termed "runner's knee."

The Q-angle is the angle formed between the line bisecting the femur shaft and the line bisecting the patellar tendon (Figure 11). An excessive Q-angle, generally considered to be greater than 20°, contributes to an unstable extensor mechanism. However, there is no absolute correlation between an increased Q-angle and patella instability.[1]

The athlete in Figure 12 has a Q-angle close to 30°; he complained of sore, aching knees and experienced pain when the patella was pressed against the femoral condyles.

Suggestions to alleviate chondromalacia include professional examination, straight leg raises 100-300 times per day to increase the muscle tone in the quadriceps group, limit 90° ROM extension exercise programs to the last 10-15° of extension to strengthen the vastus medialis, and check on the condition and quality of the athlete's shoes.

3. Concaveness-Convexness of the Ankle. When the foot is in the neutral position, a slight concaveness occurs on both the medial and lateral sides of the ankle just distal of the malleoli. As the foot pronates the concaveness on the lateral side become exaggerated and convexness begins to appear on the medial side as seen in figures 9 and 13. Figure 13 shows the fat pad of the heel being pushed laterally which exaggerates the pronation and appearance of the calcaneous. The measurement of shifting should be done on the bones, not on the fat pads; this will tend to increase even further the concavity of the lateral aspect.

Case History

A 17-year old female runner complained of dull aching and tightness of her ankles. Visual examination showed that she was a tall, slender girl weighing 118 pounds. She had just finished the cross country season, running an average of 35-40 miles per week. She was a good runner whose best time over the three mile course was 22.59.

Her history revealed that as a child (birth to sixth grade) she wore corrective devices to correct severe medial deviation of all five phalanges. Even today, when fatigued, she may unconsciously walk pigeon-toed. She participated in ballet lessons from age four until age 11; the last four years were toe ballet. Today she has a slight degree of genu varum and recurvatum bilaterally.

Figure 5

Figure 6

Figure 7

Figure 8

Figure 8a

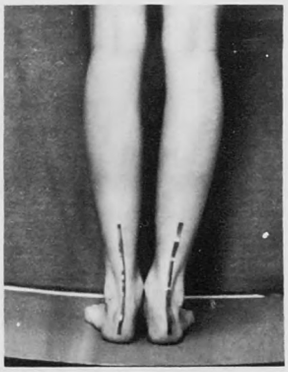


Figure 9

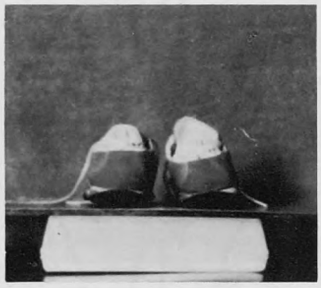


Figure 10

Figure 11

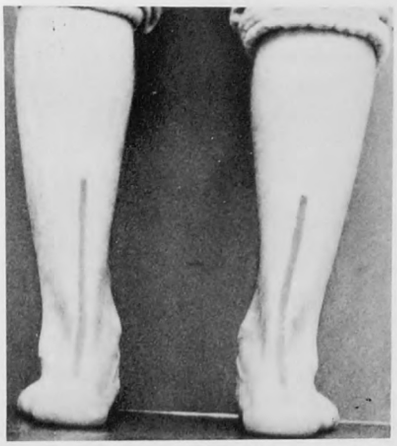


Figure 13

Figure 14

Figure 15

Figure 16

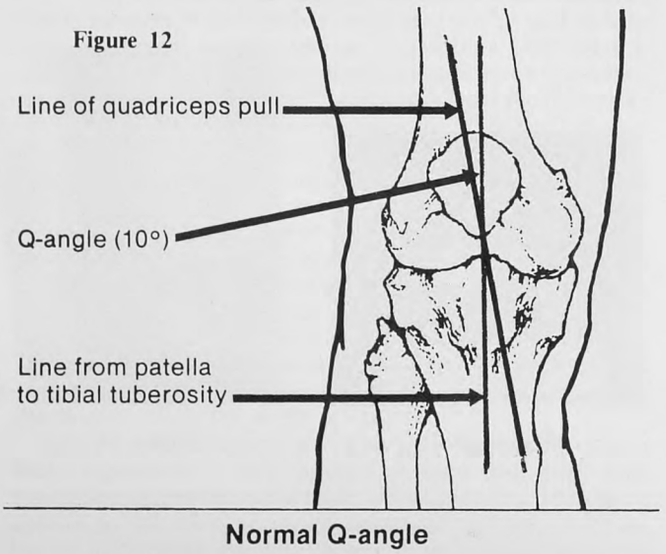
Figure 14 shows the loss of equality in concavity convexity particularly in the right ankle. This is complemented by genu varum forcing the ankle to pronate to allow plantar contact as shown by the fat pads of the medial aspects of the heels being more greatly depressed than the lateral side.

Figure 15 shows the wear pattern of her shoes. She apparently tends to overstride when running as seen by the wear pattern across the entire width of the heel. Her foot allows excessive pronation in the foot strike phase of the gait cycle, landing on the heel squarely rather than making contact on the lateral aspect of the heel and rolling medially. Closer examination shows a wear pattern along the medial side of the shoe with greater wear appearing on the great toe side of the front of the shoe. This would indicate that she may not fully recover from the initial excessive pronation upon foot strike. This is an ineffective gait pattern which produces slow, gradual pain and may be preventing her from increasing her running speed.

Figure 16 shows the phalangeal pattern of this female athlete. Examination shows a fifth toe longer than the fourth. The second, third, and fourth toes are hammered. The great toe is drawn excessively laterally. The condition of her toes seem to be an inherited tendency as both her father and brother have the same phalangeal makeup.

A podiatrist's review of this case history produced the following conclusions: the pronation at mid-stance is such that the soft tissues cannot alone realign her foot into a normal heel-toe configuration for toe-off. The patient rolls medially and her foot remains in contact on the medial aspect. An orthotic is needed to prevent excessive pronation and allow proper toe-off.

Figure 12



Normal Q-angle

Conclusions and Recommendations

The ability to locate problems when they are still only minor aggravations to the athlete is of paramount importance to the successful workings of any athletic program. One portion of this system of early detection should be a cooperative effort between coach, athlete, trainer and podiatrist whose interests and experience is with active people. Minor, nagging ailments are seen by the trainer everyday and can be alleviated if there is a mutual and frequent exchange of information between the coach-trainer-podiatrist.

The trainer should be educated by the podiatrist to locate the beginnings of problems within the trainer's level of expertise. The trainer serves in a valuable screening and referral position. The trainer is in a position to see large numbers of athletes on a day-to-day basis, something few other professionals can manage. There are many problems that are within the scope of recognition by today's athletic trainer. Padding, arch support, examination of the athlete's feet and shoes, and the opportunity to see the athlete in action are examples of areas in which the trainer can be useful in helping the athlete.

The podiatrist can more precisely define and realign the initial work of the trainer. They can construct casts of the athlete's feet and fit the athlete with corrective orthotics if necessary. The podiatrist can check and realign the degree of correction fitted into each athlete's orthotics.

Through a cooperative effort between the athletic trainer and the podiatrist, the athlete can be returned to full competition free from nagging complaints that before may have been passed off as part of the game.

References

1. Davies G. Larson R MD: Examining the Knee, *The Physician Sportsmedicine,* Minneapolis: McGraw-Hill Publications, April, 1978.

2. Rochmacher L DPM: personal conversation on April 5, 1978 at Mount Kisco Podiatry Group, Mount Kisco, New York.

3. Sheehan G MD: speech given at Valley Hospital Clinic, Ridgewood, New Jersey, March 27, 1976.

4. Subotnick S II, DPM: *The Running Foot Doctor,* Mountain View, California, World Publications, 1977, p. 26. +

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PODIATRY AND THE ATHLETIC TRAINER

Phillip Hossler and Robert M. Lipp

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		a	b	c	d	e
1. The neutral foot is the ideal foot in terms of stability.	a. True b. False					
2. Excessively tight _____ muscles may be the cause of shin splints in a runner.	a. hamstring b. calf c. gastrocnemius d. all of the above					
3. The presence of blisters, callouses and corns may occur because of	a. imbalance of the foot b. bony growths c. both a and b above d. none of the above					
4. With proper wearing of the sole, there is even distribution of wear across the heel and forefoot of the shoe.	a. True b. False					
5. The presence of flat feet predisposes the athlete to 1. shin splints 2. plantar fascitis 3. "tired feet" 4. mild arch strains	a. 1,2,3 b. 1,3 c. 2,4 d. 4 only e. 1,2,3,4					
6. Pain is virtually always present to some degree in runners with	a. flat feet b. high arched feet c. both a and b above d. none of the above					

		a	b	c	d	e
7. The athlete with flat feet is likely to have a wearing pattern on the _____ side of the heel of his/her shoes.	a. medial b. lateral					
8. With reference to chordromalacia of the patella, which of the following statements is/are true? 1. this is caused by constant irritation and abuse of the hyaline cartilage lining of the underside of the patella 2. this is characterized by a dull aching knee 3. straight leg raises may help to alleviate the problem 4. the condition and quality of the athlete's shoes should be checked when patients present with this problem	a. 1,2,3 b. 1,3 c. 2,4 d. 4 only e. 1,2,3,4					

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Aspirin and Athletic Training An Overview

Skip Hunter LPT, ATC
John M. Davis LPT, ATC

Twenty to thirty billion aspirin are consumed annually in the U.S.[4] Most of these are for the relief of pain. It is estimated that 15% of the population has "headache" pain weekly.[2] Sales of analgesic drugs such as aspirin comprise a major portion of the total dollars spent on nonprescription drugs. Since its usage is so common, most accept the advice of "take a few aspirin" with little thought. Actually, had this drug been discovered recently rather than hundreds of years ago, it would be labelled a "miracle drug" and would probably be dispersed by prescription.

As early as 1763, the salicylates of willow bark were utilized to treat malaria and its fever. In the early 1800's salicylates were extracted from willow bark and oil of wintergreen. Bayer, a German firm, introduced the drug aspirin in 1899. The name is derived from "A" in acetyl and "spir" for spirsaue (salicylate acid).[4]

Mechanisms of Action

There are three main actions of aspirin: 1) antipyretic, 2) analgesic, and 3) anti-inflammatory. Before one can understand the mechanisms of action of aspirin, a basic understanding of prostaglandins is necessary.

Prostaglandins are cyclic fatty acids produced by almost every cell in the body in response to any type of mechanical, nervous, or chemical stimuli. Prostaglandins are not stored by the cells but upon stimulation are synthesized by a complex series of reactions within the cell. Upon synthesis, prostaglandins affect basic cell metabolism at their site of synthesis or in nearby tissues.[4]

Prostaglandins have been found in all brain cells and have been shown to be important mediators of hypothalamic regulation of body temperature. One prostaglandin, PGE_1, is a potent pyrogen or fever causing agent. Its presence causes the hypothalmus to reset the body temperature at a higher level. This higher setting causes the basic body mechanisms to conserve rather than dissipate body heat. Salicylates can reduce this effect in two ways: 1) Salicylates interfere with an intermediate step in prostaglandin synthesis. Therefore aspirin inhibits the formation of the prostaglandin pyrogen. 2) Aspirin also causes peripheral vasodilation which increases heat loss.

The analgesic potency of aspirin is about 10% of the milligram potency of codeine.[6] The nature of this analgesic effect is again related to prostaglandins, both centrally and peripherally. Centrally, aspirin works on hypothalamic structures. Peripherally, Prostaglandin E_1 is produced by inflamed tissues and increases the sensitivity of peripheral pain receptors. By inhibiting the formation PGE_1, aspirin desensitizes these pain receptors.

Inflammation is chemically mediated by histamines and bradykinin. These chemicals are released locally to produce erythema through vasodilation. Prostaglandin interacts with these mediators to intensify their effects. Prostaglandins also increase capillary wall permeability in the area of inflammation to allow edema. Again aspirin interferes with an enzymatic precursor of these prostaglandins consequently reducing inflammation.[4,5]

Absorption and Metabolism

Once ingested, the dissolution of the tablet itself is the rate-limiting step for achieving therapeutic blood levels. This dissolution is enhanced by increasing the pH of the gastric fluid surrounding the tablet. Buffered aspirin therefore increase the dissolution rate by increasing the surrounding gastric pH as the tablet dissolves.[2]

Once dissolution occurs and absorption takes place, acetylsalicylic acid (aspirin) is rapidly hydrolyzed to salicylic acid and is bound to plasma proteins. The salicylates are then rapidly dispersed to all body tissues and fluids. Salicylates are metabolized by the liver and are excreted mainly by the kidneys. Appreciable concentrations of aspirin may be reached within thirty minutes of ingestion and peak concentrations occur at about two hours. Single doses of aspirin produce plasma concentrations of about 60 ug/ml. and this dosage has a half-life (the amount of time for the concentration to drop by 50%) of about three to six hours. With very high doses this half-life may be as high as 15 hours.[4]

Adverse Effects

The major adverse effects of aspirin are: 1) gastrointestinal disorders, 2) allergies, 3) increased bleeding, and 4) salicylism.

Between .2% and .9% of the nonallergic population will be hypersensitive to aspirin.[2,4,6] This figure rises significantly in asthmatics. The hypersensitivity reaction is characterized by rash, respiratory difficulty, edema and shock. Asthma and other allergic diseases such as Systemic Lupus Erythematous are contraindications for aspirin therapy.[1,2]

Some gastric damage occurs with even mild aspirin dosage. Forty to 70% of patients on aspirin will exhibit some form of mild G.I. bleeding. The exact mechanism of this is unknown but may involve a breakdown of the mucosal barrier. Alcohol ingestion with aspirin exacerbates this condition. The degree of gastric irritation is directly related to the duration of exposure to undissolved aspirin particles. Since buffered aspirin increases the pH and therefore speeds up dissolution of these aspirin particles, less irritation is produced.[2] Aspirin is contraindicated for any patient having a peptic ulcer. Also patients should be advised of the hazard of alcohol and aspirin together.

Salicylates also may increase bleeding time by inhibiting platelet aggregation and by reducing prothrombrin levels. Platelet aggregation is the more important of these and it may be adversely effected due to prostaglandin inhibition. Mean bleeding time may be approximately doubled for a period of 4-7 days following the ingestion of a single dose of aspirin (65 mgs.).[2] A tremendous amount of research is being carried out to determine the clinical usefulness of this fact in preventing heart disease and stroke. Since a single dose of aspirin may prolong bleeding time, it should be avoided in individuals with hemophilia, G.I. bleeding, Vitamin K deficiency, and possibility of future surgery.

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Salicylate toxicity may cause headache, dizziness, hyperventilation, mental confusion, convulsions, and coma. Tinnitus, or ringing of the ears is the "classic" early symptom. Mild toxicity may occur in adults following repeated administrations of large therapeutic doses. The mean lethal dose is 20 to 30 grams in adults. Emergency management of aspirin poisoning is directed toward delaying absorption and removing the drug from the stomach. If the patient is conscious give milk to reduce absorption and induce vomiting with syrup of ipecac.[1,2,4]

Implications for Athletic Training

It is highly probable that many athletic trainers have been administering aspirin without a thorough understanding of the drug's complex actions. Aspirin certainly has a place in athletic medicine. It is very effective when used for pain relief, for decreasing fever, and as an anti-inflammatory agent for bursitis, tendonitis, and other inflammatory processes frequently seen by athletic trainers. However, the indiscriminate dispensing of aspirin does not belong in the training room, and any use of aspirin, even a single dose, should be with a physician's guidance.

Also, the athlete ingesting the medication should be warned of possible side effects including G.I. irritation, increased bleeding time, allergic reaction, and toxicity. It should be emphasized that mild toxicity can even occur following repeated large therapeutic doses.[1,2] These precautions should accompany other medications that contain aspirin, including most medications for pain relief, relief of cold and sinus symptoms, and allergy medications.

Athletic trainers need to be aware of any athletes who have medical conditions that preclude using aspirin. These include asthma, allergy to aspirin, gastric ulcer, bleeding tendency, use of anti-coagulant therapy, use of corticosteroids, vitamin K deficiency, and sickle cell anemia.

The use of aspirin by athletes in contact sports should be carefully reviewed. Since aspirin significantly increases bleeding time with even a single dose, an athlete may increase the severity of an injury by ingesting aspirin prior to engaging in a contact sport.[3] This should be discussed with the team physician and guidelines drawn to guide the athletic trainer and the athlete.

One of the purposes of this paper has been to stress upon the athletic trainer the complexity of aspirin and therefore the need of using the medication with his team physician's guidance. The athletic trainer should be aware of the legal implications of handling prescription and nonprescription medications. Federal regulations apply uniformly, but state regulations vary and may very precisely define who is legally capable of dispensing and administering any type of medication.

References

1. Albanese JA: *Nurses Drug Reference,* New York, McGraw Hill, 1979.
2. American Pharmaceutical Association, *Handbook of Non-prescription Drugs,* 5th ed. Washington, American Pharmaceutical Association, 1977.
3. DeWalt JL: Personal Communication, Student Health Service, University of North Carolina at Chapel Hill, 1980.
4. Pallasch TJ: *Pharmacology for Dental Students and Practitioners,* Philadelphia, Lea and Febiger, 1980.
5. Scherrer RA: *Anti-Inflammatory Agents,* New York, Academic Press, 1974.
6. Wooley BH: Bulgin JM: *Studies in Over-the-Counter Therapeutics,* Miami, Symposia Specialist, 1976. +

The Importance of Clinical Signs and Symptoms in the Evaluation of Facial Fractures

Alan H. Halling, MS, ATC

Introduction

Trauma to the facial region is a parameter of sport injury, that if mishandled initially, will often result in permanent deformity. Thus, it is of utmost importance that the athletic trainer take all necessary precautions to protect the facial tissues of athletes.[2] In addition, the athletic trainer should develop specific evaluative techniques pertinent to facial trauma. According to Kircsh[5], a prominent sports medicine physician in Arizona, seventy-five percent of all facial fractures can be successfully recognized by a thorough clinical evaluation. Thus, it is the purpose of this paper to present basic clinical signs and symptoms that may enhance the initial recognition and distinction of the most common facial fractures sustained in athletics.

Knowledge of anatomy is the basic framework from which any successful injury evaluation procedure stems. Therefore, this paper will first deal with anatomical considerations specific to the face (Figures 1 and 2). Nasal fractures, mandibular fractures, maxillary fractures, orbital fractures, and zygomatic fractures are facial injuries which may arise during athletic competition. Clinical signs and symptoms as ascertained by historical information, inspection routines, palpatory techniques, and functional testing methods will be discussed under each of the above injury categories.

Anatomy

The skeletal portion of the nose is composed of the paired nasal bones. The posterior wall is formed by the nasal spine of the frontal bone while lateral support is provided by the nasal bones and frontal processes of the maxilla.

The nasal septum is the mid structure which separates the nasal cavity into two different compartments. Both bony and cartilaginous tissue make up the septal mechanism. The mobile action of the distal portion of the septal cartilage permits lateral movements and acts as a shock absorbing tissue.[3]

Anteriorly, the mandibular symphysis displays a vertical ridge in the mid-line. The lower border of the mandible consists of heavy bone which protrudes laterally from the body.[4] The proximal surface of the mandible, which encloses the base of the teeth, is known as the alveolar process. The mandibular body extends posteriorly by vertical segments, the rami which articulate with the skull base by means of the temporomandibular joints.

The maxilla assists in the formation of the orbit, nasal fossa, oral cavity, the floor and outer wall of the nasal fossa, and in addition, supports the nasal bones and cartilages.[4]

The body of the maxilla is connected centrally to the cranium by the thick frontal processes. At this point the maxilla also forms the greater part of the orbital floor. Cranial attachment of the maxilla occurs through the zygomatic process on each side, which articulates with the maxillary process of the zygoma.[3] As in the mandible, the alveolar process of the maxilla lodges the teeth. The maxilla attaches to the cranium posteriorly by way of the sphenoid and palatine bones.

The orbits are paired osseous structures divided in the middle by the interorbital space. This space is delimited above by the floor of the anterior cranial fossa, formed in this portion by the roof of the ethmoid sinuses laterally and the cribriform plate medially. The orbital contents are protected by strong bony abutement; the supraorbital arch of the frontal bone, above, and the thick rim of the orbital floor formed by the zygoma and maxilla, medially and inferiorly.[7]

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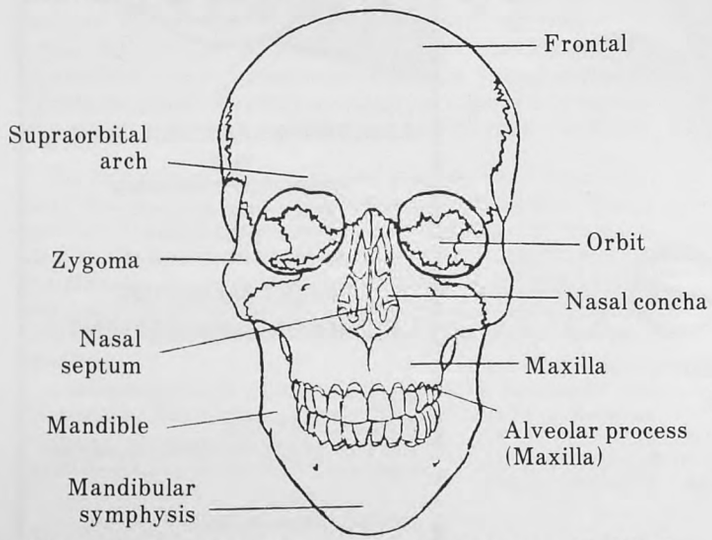


Figure 1 - Anterior view of the facial structures. Modified from Francis, C.C. *Introduction to Human Anatomy.* St. Louis: C.V. Mosby Company, 1973.

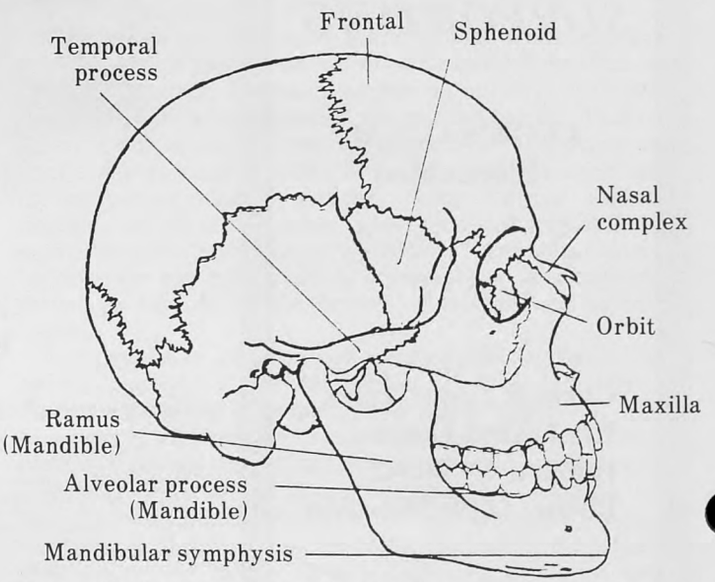


Figure 2 - Lateral view of the facial structures. Modified from Francis, C.C. *Introduction to Human Anatomy.* St. Louis: C.V. Mosby Company, 1973.

The zygoma has temporal, orbital, maxillary and frontal processes. The bone joins the maxillary zygomatic process anteriorly and the temporal zygomatic process of the temporal bone posteriorly, thus forming the zygomatic arch.[3] In its articulation with four bones, frontal, sphenoid, temporal, and maxilla, the zygoma assists in the formation of the orbit, maxillary sinus, and the zygomatic and temporal fossae.

Nasal Fractures

Fractures to the nasal region are frequently seen as a separation of the frontal processes of the maxilla, a separation of the lateral cartilages, or a combination of both.[6]

Clinical findings are the most reliable means of making the diagnosis of a nasal fracture, as positive x-ray visualization is sometimes absent even in a nose with gross traumatic deformity.[9]

Among the clinical procedures, observational techniques are the most informative. Nasal hemorrhage, deviation of the nasal complex, periorbital ecchymosis, and swelling are indicative of a nasal fracture. Palpation of the nose may uncover recognizable signs and symptoms such as tenderness and crepitus. At times a history of breathing difficulty can be most important and serious.[1]

Mandibular Fractures

Mandibular fractures usually occur to the frontal angle of the bone and tend to be most common among football and basketball players.[6] Dental malocclusion is said to be the most consistent physical finding in mandibular evaluation procedures.[6 8 9] In addition, ottorhea and ecchymosis and/or bleeding from the alveolar process are often observed in athletes sustaining mandibular fractures. According to Kircsh[5] this alveolar hemorrhaging occurs most frequently at the third molar. Further observations may show increased salivation and sublamal hematoma.[1 5] Tenderness, crepitus, and parasthesia over the mandible due to alveolar nerve interruption are common palpatory findings in mandibular fractures. Kircsh[5] has found his "tongue blade test" to be quite informative in evaluation (Figure 3). The tongue blade is inserted between the teeth and is turned. If the athlete can maintain a firm bite and disallow the blade from turning no fracture is suspected. However, if the blade is allowed to turn a mandibular fracture may be indicated.

Maxillary Fractures

Maxillary fractures are best diagnosed by careful physical examination.[8] The most consistent observational symptom is dental malocclusion occuring in an anterior/superior fashion. Most maxillary fracture victims will exhibit an elongated face with possible periorbital ecchymosis and rhinorrhea. In addition, close inspection may show hemorrhage and/or ecchymosis at the maxillary alveolar process.[5] Palpation demonstrates mobility and crepitus at the site of fracture lines. However, the examiner must be careful and critical of his findings because it is easy to imagine this abnormal motion or to attribute it falsely to other factors.[8]

Orbital Fractures

The mechanism of orbital fractures consists of a blow to the eyeball which transmits the force posteriorly and inferiorly to the orbital floor.[9]

At the onset orbital fractures will most likely become gross in appearance with significant amounts of ecchymosis/edema within the eyelids, conjunctiva, and sclera. Another common clinical observation is the appearance of the involved globe being displaced inferiorly and posteriorly. Blow out fractures of the orbit, especially the orbital floor, will often exhibit an inability to move the globe into an upward gaze.[7] This entity also quite often results in the loss of downward and lateral eye movements. It is the entrapment of eye musculature in the fracture site which disallows these ocular motions.[9] Diploplia in an upward gaze is a common physical finding in orbital fractures, however, Leibsohn[7] believes this is a symptom that is usually delayed.

Figure 3 - Tongue Blade Test

Because of the possibility of intraoccular injuries and their seriousness in orbital trauma, an opthalmological examination should be conducted investigating the possibility of vitreous hemorrhage, dislocated lens, or scleric rupture.

Zygomatic Fractures

The common and most obvious findings in zygomatic fractures are periorbital ecchymosis and reduced malar eminence height as viewed from above. Palpation of the involved malar bone will help supplement the overhead inspection. Tenderness and crepitus are also common findings during palpatory evaluation. Kircsh[5] has found diploplia to be a common sign of zygomatic fractures whereas Schultz[8] is of the opinion that diploplia is seldomly an encounter, even when there are associated maxillary and orbital floor fractures. Additional palpation may demonstrate parasthesia over the upper lip and involved cheek due to infraorbital nerve damage.

Conclusion

This presentation has attempted to demonstrate the importance of initial clinical evaluation in traumatic facial fractures. With this in mind, an attempt was also made to bring forth in an organized manner the most basic clinical signs and symptoms present in the most common facial fractures suffered in athletics.

In conclusion, it is the early clinical examination of an athlete with facial trauma that is essential for the accurate recognition of bone damage, for it is the prompt evaluation which minimizes deformity and functional disturbance.

References

1. Converse JM: *Surgical Treatment of Facial Injuries.* Baltimore, Maryland: The Williams and Wilkins Company, 1974.

2. Dolan JP and Holladay LJ: *First-Aid Management: Athletics, Physical Education, Recreation.* Danville, Illinois: The Interstate Printers and Publishers, Inc., 1974.

3. Francis CC: *Introduction to Human Anatomy.* St. Louis: C.V. Mosby Company, 1973.

4. Gray H: *Gray's Anatomy.* Twenty-ninth Edition. Philadelphia: Lea and Febiger, 1973.

5. Kircsh T: Recognition of Facial Injuries, *Lecture at The University of Arizona,* 1977.

6. Klafs CE and Arnheim DD: *Modern Principles of Athletic Training.* St. Louis: C.V. Mosby Company, 1977.

7. Leibsohn J: Orbital Floor Fractures, *Opthalmic Seminars.* 1: 451-514, 1976.

8. Schultz RC: *Facial Injuries.* Chicago, Illinois: Year Book Medical Publishers, Inc., 1977.

9. Schultz R and Oldham R: An Overview of Facial Injuries, *Surgical Clinics of North America.* 57: 987-1010, 1977. +

Case Report:

Subluxation and Dislocation of the Proximal Tibiofibular Joint

Kenneth F. Kladnik, ATC

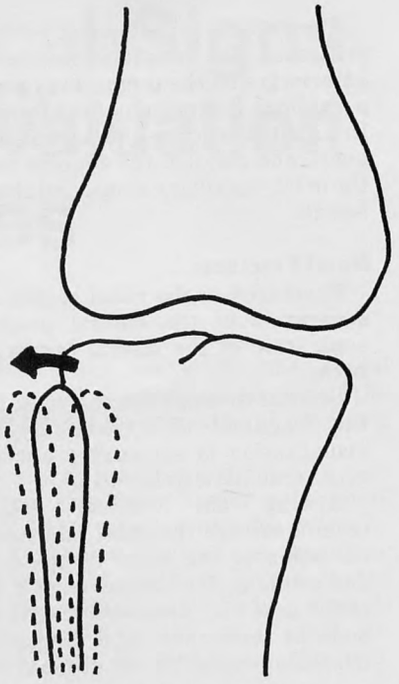
In the past two years there have been three episodes of athletes who have suffered proximal fibular head subluxations or dislocations at the University of Idaho. This is a rather unusual type of injury, of which there is little documentation.[1] Each specific injury will be explained and recommendations made for evaluation and treatment.

INJURY A: A 19 year old defensive back was back pedalling and quickly cut to his right, slipped and fell on his flexed, adducted right knee. He felt something give way at the time of impact. Upon examination he revealed lateral pain and tenderness. From the mechanism and location of the injury there was immediate suspicion of a fractured fibular head, lateral meniscus tear or lateral collateral ligament disruption. The comparison to his left leg revealed that there was obvious deformity of the fibular head. Palpation demonstrated point tenderness. Slight varus stress and leg extension resulted in an audible "pop" and subsequent reduction of the fibular head. There was immediate comfort and relief of pain. The athlete was placed in a posterior knee splint and taken to a hospital for x-rays. The x-rays were normal, indicating that no skeletal injury had occurred.

Evaluation by an orthopedist led to a diagnosis of a dislocated fibular head with a sprain of the superior tibiofibular ligament. The athlete remained in straight leg immobilization for two weeks and began gradual strengthening exercises. Total recovery occurred at four weeks. He had no further difficulty with the injury.

INJURY B: An 18 year old running back was tackled and felt something "give way" in his left knee. Examination revealed tenderness over the fibular head with no loss of range of motion, collateral ligament laxity or joint line pain. X-rays were negative. It was concluded that there was a subluxation of the fibular head. After five days of ice, rest, anti-inflammatories and support provided by an elastic wrap he was asymptomatic. A foam 4" x 4" x ½" pad and an elastic wrap were worn for the duration of the season.

INJURY C: This 20 year old tight end was struck on the lateral side of the fibular head by a glancing blow. He felt something slip, but had no weakness or laxity. Examination revealed tenderness on and about the fibular head. X-rays were taken and proved negative for a fracture of the fibular head. A subluxation was the diagnosis. Ice, rest and oral anti-inflammatories were prescribed for seven days. The athlete was immediately able to run and return to practice with the support of a foam pad and elastic wrap.



Subluxation of the tibiofibular joint

The dislocation or subluxation of the fibular head is a unique and interesting injury. A thorough evaluation is necessary for an accurate diagnosis. One must rule out a fracture, lateral collateral ligament sprain and lateral meniscus lesion. X-rays are always necessary. Marked tenderness especially during compression of the fibula is a good indicator. Mechanisms which can cause this injury are direct pressure, a twisting force and falling onto an inverted foot with the knee slightly bent and adducted.[2] It is altogether possible to have resultant damage to the ankle joint due to internal rotation of the fibula.[3]

Treatment is symptomatic to the severity of the injury. A total dislocation requires a quick accurate reduction.[4] Subluxation should be treated with ice, rest and pressure. Attention should be paid to possible involvement of the peroneal nerve, due to its vulnerable location as it crosses the fibular neck.

Care must be taken not to mis-diagnose and to recognize that it may not be an isolated injury. Carefully rule out fractures and knee joint involvement and treat it as you would any other dislocation or subluxation.

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References

1. Ogden JA, Subluxation and Dislocation of the Proximal Tibiofibular Joint, *The Journal of Bone and Joint Surgery,* Volume 56-A: 145-154, January 1974.
2. Crothers OD, and Johnson JTH, Isolated Acute Dislocation of the Proximal Tibiofibular Joint, Case Report, *The Journal of Bone and Joint Surgery,* Volume 55-A: 181-183, January 1973.
3. O'Donoghue DH, *Treatment of Injuries to Athletes,* W. B. Saunders, Philadelphia, London, Toronto: 1976.
4. Parkes JC, and Zelko RR, Isolated Acute Dislocation of the Proximal Tibiofibular Joint, Case Report, *The Journal of Bone and Joint Surgery,* Volume 55-A: 177-180, January 1973. +

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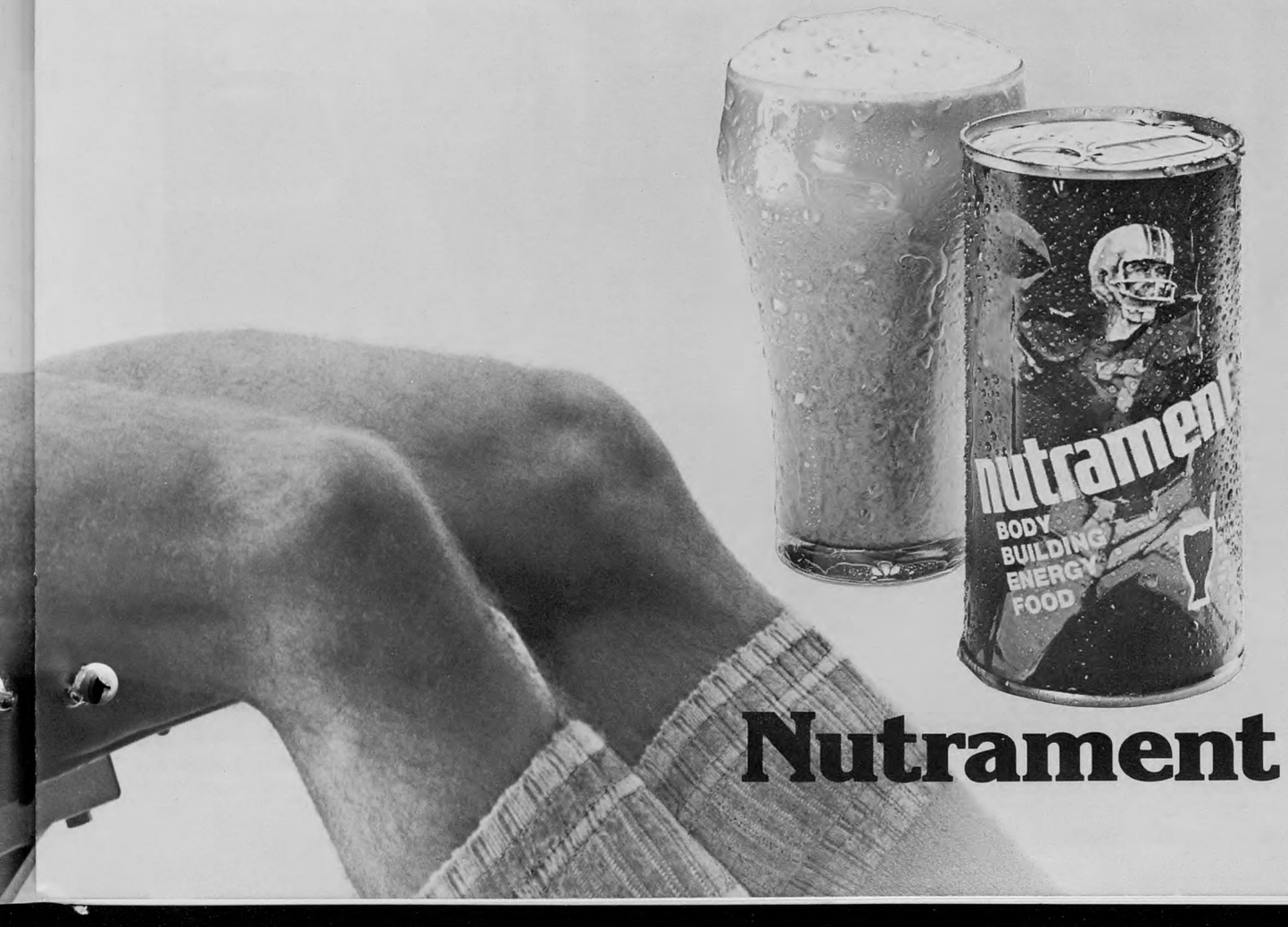

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NONSURGICAL SOFT TISSUE INJURIES ABOUT THE KNEE

James P. Evans, MD
Edited by: Don Kaverman, ATC

Introduction

This paper will concentrate on soft tissues about the knee, the types of injuries that are encountered, their diagnoses and specific methods of treatment found useful in returning the athlete to practice.

Classification of Injuries

Injuries may be classified as acute traumatic injuries and those that are stress related. Considering acute traumatic injuries, contusions are perhaps the most common. Contusions may result in hematoma formation in the subcutaneous tissues or in the bursal tissues about the knee. Sprains of the ligamentous structures may occur as first or second degree sprains of the medial collateral ligament system, most commonly, and occasionally of the lateral collateral ligament or lateral capsular structures. Strains of the musculotendinous units may occur acutely with varus or valgus type injuries, or sudden flexion-extension injuries involving the quadriceps mechanism. Avulsion injuries occur most commonly over the patellar tendon-quadriceps mechanism and may involve the tibial apophysis. Fractures of the epiphyses may occur in those athletes in which the epiphyses are not closed.

Stress related injuries are those that occur from repeated stress to a particular area with resultant inflammatory changes, pain, and disability.

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Figure 1. Standing.

Figure 2. Drop to 30°—40° and stop electric loading exercise for patellar tendinitus.

Specific Injuries and Treatment

Contusions

Contusions which occur in the subcutaneous or bursal tissues may result in ruptures of small blood vessels producing bleeding into the tissues. The bleeding may become loculated within a bursal sac or the subcutaneous tissues and result in a hematoma. This hematoma may remain in a liquid state or it may clot, forming a large, firm mass which may serve as a persistent problem to the athlete. Those areas of acute contusion which produce a hematoma with a ballatable type of fluid are best treated by early aspiration, compression and ice. Continued compression and icing of these areas is usually adequate to control bleeding and will discourage a significant collection of fluid that could require re-aspiration.

It is important to distinguish between a well localized collection of fluid that can be aspirated as opposed to a diffuse spongy type of infiltration of the subcutaneous tissue which is very difficult to aspirate adequately. The athlete who sustains a contusion may be disabled for several days, however, the intensive use of ice plus high frequency galvanic currents may result in a reduction of edema in the tissues and relief of pain. With adequate padding the athlete may return to activity relatively soon.

Sprains

Acute sprains may be localized to the medial patellar retinacular tissues as a result of traumatic subluxation of the patella. Recognition of this and ruling out internal derangement of the knee is essential in the treatment. Immediate application of ice, padding of the lateral side of the patella and immobilization of the knee in a soft splint is recommended. Quadriceps contraction exercises should be initiated as soon as possible. Reestablishing tone and strength in the vastus medialis is of prime importance and emphasis should be placed on quadricep setting exercises and isometric resistive exercises. As the athlete improves and pain and swelling diminish, short arc isotonic quadriceps exercises may be initiated. These may be accompanied by short isotonic hamstring exercises to tolerance. When the patient regains a full painless range of motion and exhibits no further swelling of the medial retinacular structures, the use of a patellar stabilizing brace is recommended. Return of good quadriceps strength allows the athlete to begin straight ahead jogging, progressing to a functional running program. Once the athlete is able to complete these functional activities he/she may be allowed to return to participation.

Sprains of the medial collateral ligament structures may necessitate the use of arthroscopy to rule out a tear of the anterior cruciate ligament. Second degree sprains, and sometimes third degree sprains of the medial collateral ligament system in which the anterior cruciate can be proven to be intact, may be treated non-surgically. Early immobilization of the knee in an immobilizer or cylinder cast is recommended until the tenderness and swelling subside in the tissues. Quadricep setting exercises, high frequency galvanic treatment, and electrical stimulation of the quadriceps mechanism are all incorporated during the early treatment phase.

Sprains of the lateral structures may present a different problem. X-ray evidence of an avulsion of the lateral side of the tibia may indicate a more serious type of injury. Even if significant instability is not initially demonstrated, late instability usually results if early surgical repair is not effected. Early immobilization until the tissues become relatively quiescent, followed by quadricep and hamstring strengthening exercises, progressing into functional exercises, is imperative. The athlete is allowed to return to practice, with protection, when he/she has progressed through all functional drills.

Strains

Strains of the musculotendinous units are primary first and second degree strains in which the most common area of tear is in the biceps femoris and quadriceps mechanism. Injuries in these areas will require early rest, immobilization and ice followed by electrical galvanic stimulation. Active exercises should be initiated as soon as possible. Quadriceps setting and isometric hamstring exercises should be pursued initially followed by short arc isotonic exercises to tolerance. When the athlete can ambulate comfortably, straight ahead jogging is initiated. The use of orthotics, such as an elastic knee sleeve, knee cartilage brace, or a hinged type brace may be recommended. Adhesive taping of the athlete is also beneficial during this early time of return both for sprains of the structures about the knee.

Avulsions

Avulsion injuries occur most commonly around the area of attachment of the patellar tendon to the tibial apophysis. The presence of this injury requires reduction in activities and rest until the acute response has subsided. Strapping with pads over the patellar tendon between the inferior pole of the patella and the tibial apophysis is sometimes helpful. Ice after activities and mild salicylates, such as aspirin, may also prove beneficial in the treatment of this condition. Any activity that causes an increase in symptoms predicates that further rest is necessary before a return to full activities. As one progresses in an exercise and rehab program the return to functional activities is based on the response; lack of pain and swelling in an area may allow a return to full activities.

Epiphyseal Injuries

Acute injuries to the epiphyses usually involve the distal femoral epiphysis. Adolescent athletes with open epiphyses may sustain separation in this area rather than ligamentous tearing. This injury usually occurs through the calcified zone of the growing cartilage and minimal displacement may occur and spontaneously reduce. Minimal effusion of the knee with marked tenderness over the epiphyseal area and the subsequent appearance of calcification in the periosteal tissues confirms the diagnosis. Rigid immobilization of the knee for a week to ten days is required followed by the use of a knee immobilizer. Quadriceps and hamstring exercises may usually be started approximately seven to ten days after the initial injury. Protected weight bearing with crutches is recommended for a minimum of three weeks until sufficient healing has occurred. Athletes should not be allowed to return to full activity until all tissue response has subsided, full range of motion has been obtained, and full functional recovery is obtained.

Stress Related Injuries

Bursitis may be stress related where bursal fluid accumulates from repeated irritation. This is particularly true in the prepatellar and fibular collateral area. Bursal fluid may accumulate with accompanying calcification in the fibular collateral bursa. Calcification is not commonly seen in the prepatellar area. Chronic bursitis along the pes anserinus bursa or in the prepatellar area could indicate the possibility of a low grade infection of bacterial or fungal origin. If fluid persists in the area of bursal tissue, aspiration and culture is recommended. The use of oral anti-flammatory medication in chronic bursitis of non-infectious origin may be beneficial. If swelling in bursal tissues persists, local steroid injections may be indicated. If this is not successful in relieving the continued inflammation surgical excision of the bursa may be necessary.

Tendonitis

Inflammation of the tendons occurs as the result of micro-tears and the ingrowth of inflammatory tissue. This is commonly seen around the area of the patellar tendon, particularly at the inferior pole, but may also be seen at the superior pole. This condition, known as patellar tendonitis, may respond to heat before activities, exercises which limit the extension forces on the knee, ice after activities, and mild oral anti-inflammatories. Certain types of braces from the simple neoprene sleeve to those which have straps above or below the patellar tendon may relieve some of the pressure over the area of attachment of the tendon to the patella. Closely involved with the tendonitis is the apophysitis seen over the tibial tubercle. Chronic stress applied to the patellar tendon — tibial tubercle results in partial avulsion of the tibial apophysis. Enlargement and calcification in this area may be noted clinically and by x-ray examination. Protective padding and restriction of activities until the inflammatory condition subsides is of utmost importance.

Principles in Treatment

In general, treatment is usually directed to the control and reduction of swelling, relief of pain and inflammation, and protection of the injured part to allow healing. Adequate rehabilitation is necessary before allowing a return to full functional activities. The importance of ice cannot be overemphasized. The nomonic I-C-E, which includes ice, compression and elevation, is still a basic precept that should be utilized in the training room. In addition to this basic regimen of treatment, moist heat may also be instituted in certain conditions, particularly in the chronic stage or in stress-related activities. This is usually most effective prior to activities. Electrical stimulation, including the high frequency galvanic stimulation and other electrotherapeutic measures, may also be beneficial.

Figure 3. Taping technique for patellar tendinitis.

Recently, the use of *iontophoresis* has been helpful in treatment of certain strains or stress related inflammatory conditions, particularly over the iliotibial band and the patellar tendon. The use of Lidocaine and Dexamethasone have proven effective in the relief of chronic pain in these areas. Various orthotics can play a prime role in the management of the acute and rehabilitative phases of these injuries. This includes the use of protective taping during the rehabilitative phase and return to functional activities. Specific areas of treatment found beneficial include selective taping techniques and therapeutic exercises. Negative or eccentric loading exercises have proven beneficial in the treatment of certain tendinous involvements. The muscle tendon unit is put on a stretch and then loaded. This has proven effective in the treatment of patellar tendonitis. The athlete stands with the knees fully extended, then relaxes into a partial squat position with flexion of approximately 30° to 40° at the knees (see Figs. 1 and 2). This may be enhanced by having a 20-30 pound barbell across the shoulders. Three sets of ten repetitions are performed. Initially, an increase in discomfort may be noted. However, after seven to ten days some improvement in symptomatology is generally forthcoming.

Stretching of the quadriceps mechanism is also important since static contractures occur with chronic tendonitis.

Taping techniques utilizing elastic tape applied in arches over the superior pole of the patella reduce some of the stress over the quadriceps-patellar tendon mechanism. Strips of plain white tape are used as anchors above the patellar tendon as well as over the tibial tubercle area. Arches of elastic tape begin medially, pass superior to the patella, and arch inferiorly and laterally to the tibia. Several strips are applied in this manner and then anchored with white tape. This method of taping has also proven effective in the relief of pain in chronic tendonitis. (See Figs. 3 and 4.)

Another method of treatment found to be quite useful is the application of intermittent mechanical compression in the training room.

In all of these injuries the goal is to provide full functional recovery and return to action when the athlete is asymptomatic. +

Figure 4. Taping technique for patellar tendinitis.

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Association Activities

David G. Yeo, DPE, ATC
Montgomery County Community College

Member Credits

Russ Fiore, Assistant Athletic Trainer at Brown University, has designed, patented, and manufactured a unique Multiaxial Ankle Exerciser. The unit allows the ankle to rotate freely in all planes of 360 degrees, not just in dorsiflexion, plantar flexion, inversion, and eversion. To increase the amount of tension on the ankle, foot, or lower leg, the exerciser has a simple lever by which internal resistance can be increased on a ball and socket joint from 1 to 235 foot-pounds in 36 progressive loads. After five years of work and a two-year patent process, Russ Fiore can claim an invention and a dream come true, and the profession can point to a much needed ankle and foot machine for injury prevention and rehabilitation.

Dennis Miller, Purdue University, is the newly appointed liaison to the American Physical Therapy Association. Progress with state credentialing and licensure, and professional activities and relationship between the NATA and the APTA will be included through his contribution to the Journal.

To become the only accrediting body for the profession of athletic training in compliance with the National Commission of Health Certifying Agencies, the Board of Certification has been granted complete administrative independence from the NATA Board of Directors for procedure and policy matters. The tremendous efforts of Jerry Bell of the University of Illinois and Paul Grace of Massachusetts Institute of Technology are acknowledged in the preparation of the application of the NATA to the NCHCA, and the chairmanship of the certification committee.

Thanks to the efforts of many people including Bill Walker of the University of Cincinnati, there is now an NATA Exhibit at the College Football Hall of Fame in Kings Island, Ohio.

Joseph Romo has retired after 13 years as trainer of the Oakland A's American League Baseball Team. His 41 years of service to the training profession included experience with five colleges and universities, an Olympic team, and the Golden State Warriors basketball team.

Who can top this? The University of Northern Colorado and Head Trainer Dan Libera can claim that they have three graduates working as trainers in the National Football League. Steve Antonopulos, Ed Seiler, and Ric Pisarcik are all with the Denver Broncos. Is UNC the true "cradle of trainers?" If there is any college who has graduated more than three NFL trainers, we would be happy to so note.

Many NATA members greatly contribute to the proper prevention and treatment of athletic injury by speaking at various workshops, clinics, and conventions throughout the country. It is impossible to highlight individual presentations as being more noteworthy than others, but it is indeed an honor to be asked to speak by the American Alliance of Health, Physical Education, Recreation, and Dance. The following individuals spoke at the AAHPERD National Convention in April: Lynn Barry, Eastwood High School, Texas; Paul Butler, William Penn Charter, PA; Joe Godek, West Chester State College; Patti Whiteside, Penn State University; and Paul Zeek, Lamar University.

District News

District 2

Dick Malacrea of Princeton is resigning as District 2 Director, effective June 1982, for health reasons. Following some realignment of the Eastern Athletic Trainers Association and District 2, Paul Slocum, Bloomsburg, was elected Secretary-Treasurer of the EATA and will serve as treasurer of both Districts 1 and 2. Don Lowe, Syracuse, will serve as District 2 Secretary.

District 3

In case you missed your district meeting in May, you are reminded that the close proximity of your district to District Nine makes it feasible to attend the District Nine Meeting. This meeting will be held July 6-8 at the Atlanta Falcons Training Center in Suwanee, Georgia. For further information turn to the "Calendar of Events" in this issue.

District 4

Bob Behnke, Indiana State University and Richard Roy, Kansas State (District 5) are compiling a national registry of states having state organizations and states attempting to introduce legislation to regulate the practice of athletic training.

District 5

From District Five we learn that the Kansas Athletic Trainers Society will be having its First Annual Clinical Symposium and Business Meeting on June 5, 1982 in Lawrence, Kansas. For more details contact: Cynthia Booth, Chairperson, 102 Allen Fieldhouse, University of Kansas, Lawrence, Kansas 66045.

It appears that by June, District 5 will be the only district to have all of its states organized into associations or societies. Once each state is organized with a constitution and by-laws, the district will be launching a campaign for 100% licensure.

District 8

David "Obie" Obenour, Head Trainer at DeAnza College, (Cupertino) California, has been honored for Outstanding Service for several years of service to the Northern California Section of the District. An associate member of NATA, Obie has been especially active in Northern Section convention arrangements. Jan Daniels is the new section president, and Ed Ferreira is the new secretary/treasurer.

Districts 2, 3, 4, 5, and 8 have reported of their district conventions, state meetings, honor awards, and scholarships. All district secretaries are reminded to submit member accomplishments and district news to Dave Yeo, Montgomery County Community College, Blue Bell, PA 19422.

Flashbacks in NATA History

Mike O'Shea, ATC
University of Miami

Do You Remember? . . .

The Helms Hall of Fame

The Helms Hall of Fame (1936-1970), which now is the Citizens Savings Athletic Foundation, was founded October 15, 1936, through the diligent work of Bill Schroeder. He was approached by the late Paul H. Helms, Sr. about setting up a non-profit philanthropic institution which would be designed to inspire youth and carry on the wholesome thoughts of the Olympic Movement.

In 1960 the National Athletic Trainers Association gave the late Eddie Wojecki of Rice University the task of developing a Hall of Fame for the Athletic Trainer. He polled all other Hall of Fames and it always led to — "Why don't you contact Mr. Bill Schroeder of the Helms Foundation?" After many letters and phone calls, Eddie and Bill came up with the Helms Athletic Training Hall of Fame. Today this Hall of Fame is known as the Citizens Savings Athletic Foundation.

On August 22, 1962, the Board of Directors of the NATA gave Mr. Wojecki the approval of 26 names screened from over 100 submitted to the Helms Foundation. These 26 men were the first athletic trainers inducted into our present Hall of Fame.

Presently, there are 113 members of the NATA that have been inducted into the Citizens Savings Athletic Foundation Hall of Fame.

Do You Remember? . . .

The first Board of Directors of the National Athletic Trainers Association?

The Board of Directors of the first meeting of the NATA (June 24-25, 1950) and their districts, were as follows:

District 1 — Richard Wargo, University of Connecticut
District 2 — Frank Kavanaugh, Cornell University
District 3 — A. J. "Duke" Wyre, University of Maryland
District 4 — Al Sawdy, Bowling Green University
District 5 — Joe Glander, Oklahoma University
District 6 — Frank Medina, University of Texas
District 7 — Fred Peterson, Wyoming University
District 8 — Henry Schmidt, Santa Clara University
District 9 — Henry "Buck" Andel, Georgia Tech University

Do You Remember? . . .

These Athletic Trainers?

a

b

c

(Answers on Page 150) +

Contour Casting for Cauliflower Ear

CONTOUR CASTING FOR CAULIFLOWER EAR

Corrie J. Odom, MS, ATC
Richard I. McCandless, RPT, ATC

The proper treatment and care of cauliflower ear will lessen the incidence of permanent mutilation and disfigurement of the ear for the injured athlete. The hematoma, once aspirated by the physician, can be casted for therapeutic as well as protective purposes. One casting technique utilizes collodion and gauze strips applied in layers to form a hard cast about the involved ear. Currently at Slippery Rock State College we are utilizing a moldable dental material, OPTOSIL® (made by Unitek), to pack the outer ear prior to the application of the gauze strips and collodion. OPTOSIL® forms a permanent mold of the outer ear providing a solid but functional consistency for easy removal and re-application for protection during competition and throughout the season. Use of the OPTOSIL® and collodion strips has proven to be a highly successful casting technique providing support, protection, and comfort for the athlete.

Materials

Acetone
Cotton
Cotton-tipped Applicators
Collodion Flexible
Forceps
OPTOSIL® with hardener
Roll Gauze - 3 inch
Scissors
Tape — 1½ inch porous (Figure 1)

Procedure

1. The patient pinches or squeezes the aspirated ear with a sterile piece of gauze for five minutes or until he arrives at the casting site. The hair is held away from the area to be prepared. Pack the ear canal with cotton (Figure 2). It is important to work as rapidly as possible so that additional hemorrhage between the cartilage and skin is minimal.
2. Prepare the moldable OPTOSIL® according to the accompanying directions. The material should be mixed thoroughly with the hardner using a knife, tongueblade, or by hand (Figures 3 and 4).
3. Pack the entire outer ear with the prepared OPTOSIL® (Figure 5). The material must be thoroughly and forcefully packed into all contours of the ear. Equalizing the pressure of the application will insure a well-fitted cast. The remaining OPTOSIL® may be molded behind the ear for additional support. Remember, molding must be completed before the material hardens (approximately 2 min.).
4. The 3 inch roll gauze should be cut into strips approximately 3 inches by ½ inch prior to mixing the OPTOSIL® . Ten to twelve strips should be sufficient. Dip the gauze strips in the collodion and immediately apply to the outer ear from back to front covering the OPTOSIL® pack (Figure 6). When the collodion strips harden the OPTOSIL® mold is held in place by the form-fitting cast. Excess collodion may be removed from the skin and utensils with acetone.

Although the collodion and gauze strips alone will harden to form a cast, use of the moldable OPTOSIL® prior to such casting facilitates the compression of the injured ear in all its contours. Remove the cast and re-evaluate the ear after one week. The mold may be used again in combination with protective headgear for continued protection during the remaining season. +

Figure 1

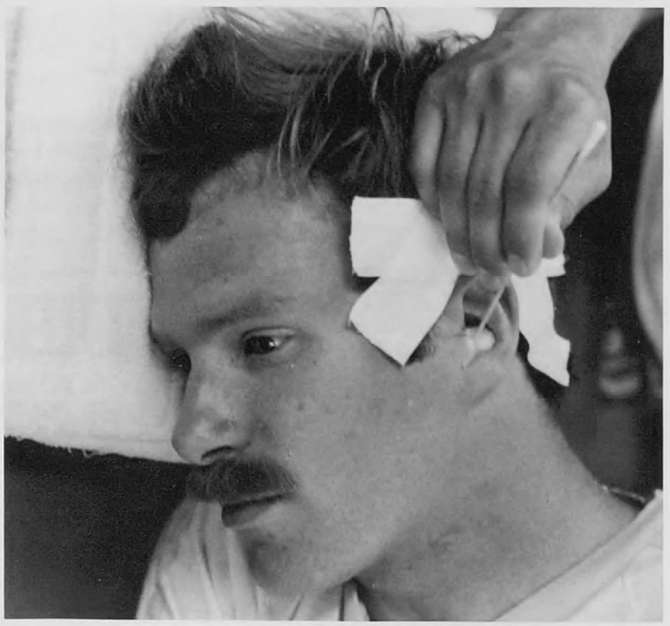

Figure 2

Editor's Note: Anyone wishing to have an idea, technique, etc. considered for this section should send one copy to **Ken Wolfert, 111 Buckeye Street, Hamilton, Ohio 45011.** *Copy should be typewritten, brief, and concise, using high quality illustrations and/or black and white glossy prints.*

Ms. Odom is a graduate assistant in Athletic Training at Slippery Rock State College, Slippery Rock, PA 16057. Mr. McCandless is the Physical Therapist and Clinical Director of Athletic Training at Slippery Rock State College.

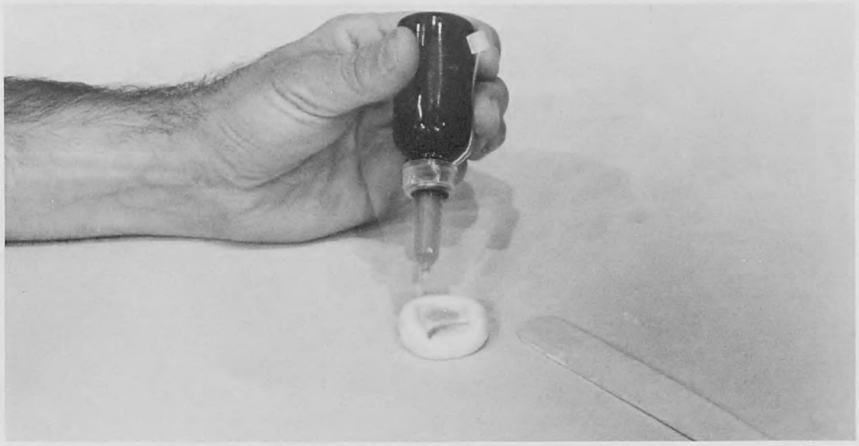

Figure 3

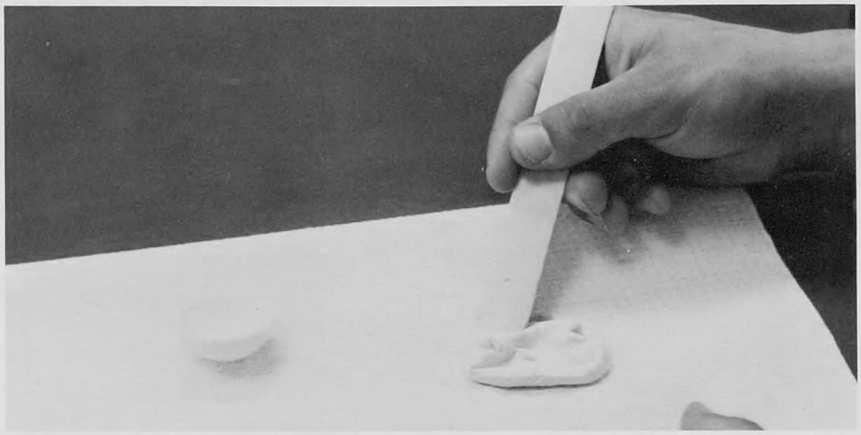

Figure 4

Figure 5

Figure 6

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c/o National Pharmacies, Inc.
P.O. Box 1000, Elmwood Park, N.J. 07407

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Social Security Number

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(please print)

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(number) (street)

City _____

State _____ Zip _____

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Current Placement File is also maintained by Committee Chairman, Craig Sink. If you would like to be included in this cross-indexed file, mail resume to him at NCSU, Box 5187, Raleigh, NC 27650.

Abstracts

John Wells, ATC, PT, PhD
Mars Hill College

"Isokinetic versus Isotonic Variable Resistance Training," Smith, M.J. and Melton, P. *The American Journal of Sports Medicine,* 9(4): 275-79, July-August, 1981.

Twelve adolescent males between the ages of 16 and 18 voluntarily participated in a six-week training program. They were randomly assigned to four categories: control, variable resistance (Nautilus), isokinetic low-speed, and isokinetic high-speed. Eight subjects had played football the previous fall. Four classified themselves as nonathletes and only participated in recreational sports. All groups trained three sets, three times a week. The training program for the variable-resistance group consisted of a Nautilus program where the individual worked at 80% of their maximum effort for 10 repetitions in three sets. They then progressed along the Nautilus protocol. They exercised on the leg curl machine and the quadriceps machine. The low-speed isokinetic group exercised on the Cybex II isokinetic dynomometer at 5, 10, and 15 rpm of limb movement until 50% fatigue was shown on graph readings. The high-speed isokinetic group also trained on the Cybex II at limb movement rates of 30, 40, and 50 rpm. These subjects were also trained until 50% fatigue was recorded. The control group received no training. No running was allowed any participant. Because of the concept of specificity of training, each individual was tested in varying areas. Isometric strength was measured for the knee extensors at 65° of flexion, and the knee flexors were measured at 45° of flexion. Isotonic strength was measured on a variable-resistance machine, different from their training machine. Then they were tested isokinetically at 0, 5, 10, 15, 20, 30, 40, and 50 rpm of limb movement on a Cybex II. Results showed the control group had no significant change in strength. The variable-resistance group had good increases in the isometric testing. however, when retested at high and low speeds on the isokinetic device, strength gains were not as great. The slow-isokinetic group had good strength gains, not only at low speeds but also at the higher speeds. The fast isokinetic group had strength gains in the isometric and low-speed testing and a remarkable increase in strength when tested at high speeds. In this study fast isokinetic exercise was shown to increase strength and performance levels more efficiently than low-speed isokinetic training or training with isotonic variable-resistance modes when the subjects were tested by quick acceleration.

Tim Garl

"Sudden Death Associated with very Low Calorie Weight Reduction Regimens," *American Journal of Clinical Nutrition* 34: 453-461, April, 1981.

After the widespread use of the so-called liquid protein diet popularized by *The Last Chance Diet* reports of deaths associated with the use of this and similar very low calorie weight reduction regimens were received by the Food and Drug Administration. An investigation by the FDA and the Center for Disease control revealed a recurrent pattern of either sudden death or death due to intractable ventricular arrhythmia in individuals who had been dieting for prolonged periods and who had lost large amounts of weight. The deaths of 17 individuals were found to fit this pattern and are summarized here. None had signs or symptoms suggestive of cardiac decompensation. Most were feeling very well and pleased with their marked weight loss, although hair loss and cold intolerance were infrequently reported. Ventricular tachycardia and fibrillation were documented in the 11 people who died under observation. Myocardial atrophy was the most prominent finding. The unique pattern of these 27 deaths, their association with extremely low calorie weight reduction regimens, and their occurrance over a 6-month period coincident with the wide-spread popularity of a dietary fad make a cause and effect relationship highly probable. The lack of antecedent symptoms referable to the heart seen in our cases is consistent with the well-documented cardiac effects of protein-calorie malnutrition. These regimens are based on the concept that by feeding small amounts of protein to a person with restricted caloric intake, the negative nitrogen balance associated with strict fasting will be prevented and lean body mass will be "spared". At the same time, rapid weight loss seen with strict fasting can be achieved. To assume that commercially available vitamin-mineral preparations, designed as supplements to normal diets, are adequate during the altered metabolism of near-starvation may not be warranted. At present it is not possible to determine whether deaths associated with the use of very low calorie weight reduction regimens consisting entirely or largely of protein can be prevented by some as yet unknown modifications of the regimens or whether they represent the inevitiable outcome of a prolonged period of near starvation.

Paul Concialdi

* * *

"Acetaminophen: Its Increasing Popularity and Inherent Dangers," Shilder, Erna, *Journal of Emergency Nursing* 7: 56-57, March/April, 1981.

Acetaminophen has become increasingly popular as an analgesic and antipyretic drug. It is currently widely promoted as an alternative to aspirin (acetysalicylic acid; ASA) because it lacks the gastrointestinal side effects and possible dangers of aspirin. The drug is thought to be safe, even for children, and is therefore increasingly used, leading to a higher incidence of acute intoxications. A trend was noted in the United Kingdom, where abuse of acetaminophen was said to be the leading cause of hepatic failure. The same trend can be observed on this continent. Although therapeutic doses of the drug are relatively safe, the apparent safety diminishes with the occurence of liver damage at higher doses. Even when the dosage remains within the therapeutic range (nine 325 mg. tablets/day) and liver function is essentially normal, symptoms may appear if ingestion continues for more than a year. This over-the-counter drug is readily available and does not carry any warnings about excessive dosage. The awareness of health care professionals of the potential problems associated with ingestion of this drug is of paramount importance.

Linda Murray

* * *

"Glandular Concentrates: What are they and what do they do?" Johnson, Linda and Grandjean, Ann C., *The National Strength and Conditioning Journal* 3:34-35, 1981.

There is currently a great deal of interest in the use of glandular concentrates by athletes. Glandular concentrates are basically glands or organs from animals (usually cows) that are made into tablet form for humans to take. They are sold as individual glandular concentrates, as combination with various vitamins and minerals as well as non-nutritional substances such as bee pollen. Often glandular concentrates are promoted as substances that will "improve" the body's glands, and are said to be gland specific. The claims for glandular concentrates ranged from exagerated to ridiculous. Suggestions such as taking raw brain concentrate for mental disorders and raw eye concentrate for astigmatism and glaucoma are examples of the types made. Glandular concentrate taken orally will undergo physical and chemical changes in the gastrointestinal tract, with the end product of digestion no longer resembling the original tablet. It is of course impossible for the glandular concentrate itself to be picked up by the blood and carried to the corresponding gland. Any entities that might be in the glandular concentrate may be detected in the corresponding gland. However, in most cases they are equally likely to be found in any other gland or tissue in the body. There are a few items that were suggested as the substances in the glandular concentrates responsible for the claimed effects. It is necessary to examine them individually. Enzymes are proteins made by the body which are needed for many different chemical reactions. Since enzymes are proteins, if taken orally, your body will digest them as it will any other protein. When digested, they no longer have enzymatic action. Hormones were also said to be the active factors in glandular concentrates. Hormones are proteins, phenolic amines or steroids in nature. If you injest a glandular concentrate containing hormones that are protein in nature they will be digested like any protein, and therefore inactivated. Certain glandular concentrates are promoted as sources of steroids. It is possible that small amounts of animal steroids may be present. Steroids will not stimulate a gland to produce more steroids. In fact, production can be decreased. Nucleoproteins are another substance which are claimed to have an effect. They are also proteins and will be digested before absorption. Some of the statements regarding glandular concentrates include misrepresentations or misinterpretation of scientific literature. No evidence was found to show that glandular concentrates will benefit athletic performance.

Tim Garl

* * *

"Relationship Between Tibial Rotary Torque and Knee Flexion/Extension after Tendon Transplant Surgery", Osternig, Louis, et. al. *Archives Physical Medicine Rehabilitation*, 62: 381-385, Aug., 1981.

Although knee injuries have been studied for years, difficulties in their prevention, evaluation, treatment and rehabilitation still exist. Substantial stresses to the knee supporting structures occur in activities which require rapid changes in direction and, when severe, may compromise ligamentous integrity. "Rotary instability" of the knee resulting from ligamentous trauma, is often surgically treated by changing the insertions of hamstring tendons to improve tibial rotary torque and counter abnormal rotation. One such technique, the "pes anserinus transplant", was devised to control rotary instability by changing the insertion of the common tendon of the gracilis and semitendinosis to mechanically increase their rotary effectiveness. The purpose of this study was to determine the relationship between knee flexion/extension muscular forces and tibial rotary torques among subjects who had received pes anserinus transplants. Post-surgical and healthy contralateral limbs of 15 males aged 16-34 years were tested for maximum, dynamic torque of knee flexion/extension and internal/external tibial rotation. All subjects had undergone surgery at least one year prior to testing and had no injury or impairment to the contralateral knee. Two isokinetic dynamometers (Cybex and Orthotron) were modified to provide simultaneous records of torque and joint position. Torque values developed during tibial rotation and knee flexion/extension throughout the full ranges of motion indicated no significant differences between postsurgical and nonsurgical contralateral limbs for maximum rotational torques at all positions tested. The data also revealed the peak torque was generated within the first 5-10° of motion for tibial rotation and within the first 20-30° of motion for knee flexion. Decrements of 10% in knee flexion force were observed among postsurgical limbs when compared to healthy contralaterals, 13% decrements were also found among the extensors which were not surgically altered. Despite the alleged weakening of pes anserinus transfers, on hamstring strength, postsurgical knee flexion deficits were actually less than the extension deficit. These findings suggest long-term sensitivity of the quadriceps to post-surgical immobility. The results of the study indicate that measures of maximal knee flexor torque cannot be used to predict the rotational capabilities of these same muscles and that separate measurement and rehabilitative techniques are necessary. In addition, deficits in muscular torque after pes anserinus transplant surgery may be more a function of immobility during recuperation than of mechanical changes resulting from the surgery.

D.A. Brubaker +

Brochure Requests

All requests for the brochure entitled "Careers in Athletic Training" should go to the National Office. Single brochures are supplied upon request at no charge. NATA officers and committees, schools having an approved athletic training curriculum, and those having an apprenticeship program are furnished multiple copies of the brochure upon request at no charge.

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The Use of Rigid Stirrup For Prophylactic Ankle Support

James Knue MA, ATC
Cheryl Hitchings MAT, ATC

Ankle injuries are one of the most common problems encountered in athletics. The traditional use of adhesive tape on ankle injuries has many inherent problems. The greatest being the rapid loss of support following application.[1,2,3] This loss of support creates a problem when attempting to protect an ankle that has sustained an injury greater than a minor first-degree sprain. A solution to this problem is the use of a rigid stirrup made from Hexcelite. The Hexcelite stirrup holds the ankle in a stable position protecting the ligaments, while providing consistent support to the injured joint. Full dorsi flexion and plantar flexion are permitted by the stirrup while inversion and eversion are limited. The athlete is able to run, cut, jump and move laterally without limitation in all sports. (Fig. 1) The support and protection given allows the athlete, with an ankle sprain, to return to the competitive situation sooner and reduce the chance of reinjury. The stirrup should be used for the remainder of the season or for the 6-8 weeks required for the ligament to heal.

There are two other advantages to the use of the splint. The first is that the use of the splint is less expensive than the use of adhesive tape. The second is that the stirrup is easily remolded and can be reused many times.

Mr. Knue is the Head Athletic Trainer at El Camino College and Ms. Hitchings is the Assistant Trainer at El Camino College, Torrance, California 90506.

Figure 1

Methods:

The construction of the Hexcelite stirrup is simple. Heat a roll of 3″ wide Hexcelite in 120 degree water until it is soft and pliable. (Fig. 2) Prepare the injured ankle by applying several layers of prewrap to the ankle. (Fig. 3) This is to insulate the ankle from the warm water and heated Hexcelite. Divide the roll of Hexcelite into thirds. (Fig. 4) With the ankle in a neutral position, apply the stirrup of Hexcelite directly under the base of the heel. Smooth the Hexcelite over the sides of the ankle and mold the stirrup over the malleoli. (Figs. 5 & 6) The stirrup should reach above the malleoli 3-5 inches. Secure the stirrup to the ankle with additional layers of prewrap. To harden the Hexcelite quickly immerse the ankle in an ice bath. If the ankle is able to bear weight have them stand with their weight on the injured ankle to mold the bottom of the stirrup to the heel.

Remove the stirrup from the ankle. Allow the stirrup to dry. Remove any prewrap that is stuck to the stirrup. Line the stirrup with Moleskin. Pad around the malleoli and the edge of the stirrup with ¼″ adhesive foam. Cover the padded portions with a plastic tape such as Dermiclear. (Fig. 7) Dermiclear is used so that the removal of tape does not destroy the padding. If the athlete is nonweight bearing or not competing, the completed stirrup is then attached to the ankle with an elastic wrap. During practice or competition the stirrup should be put on over a sock and secured with tape. The best method of taping is to apply a figure 8 and heel lock pulling the stirrup tightly up against the bottom of the foot. (Fig. 8)

Additional hints on trimming: The bottom of the stirrup should only extend to the end of the calcaneus, otherwise plantar flexion will be limited.

On small ankles it may be easier to make the whole stirrup narrower. We have found that a 1½ or 2″ wide stirrup works best on athletes with smaller ankles. The wider stirrup is too restrictive and limits the mobility of the smaller foot.

References

1. Ferguson AB Jr.: "The Case Against Ankle Taping," *Journal of Sport's Medicine* 1: 46 & 47 1973.

2. Klafs CE, Arnheim D: *Modern Principles of Athletic Training* 5th Edition St. Louis CV Mosby Co., 365, 1981.

3. Malina RM, Plagent LB, Ravick GI: "Effect of Exercise Upon the Measurable Supporting Strength of Cloth and Tape Ankle Wraps," *Res Quart* 34 (2): 158-165 1963. +

Figure 2

Figure 3

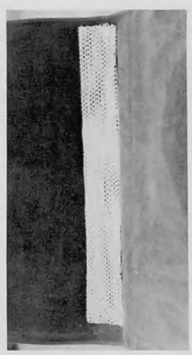


Figure 4

Figure 5

Figure 6

Figure 7

Figure 8

Continuing Education Requirements and Appeal Process

National Athletic Trainers Association Continuing Education Program

In accordance with the NATA Board of Directors at its meeting on June 13, 1973 at Atlanta, Georgia, further revised at its mid-year meeting on January 17, 1974 at Chicago, Illinois and its meeting on June 9, 1974 at Kansas City, Missouri and revised at its meeting at Fort Worth, Texas in 1981.

Implementation of the NATA program of Continuing Education will take place on January 1, 1976. (Due to delays now changed to January 1, 1979 at the Board of Directors meeting in Las Vegas, Nevada, June 1978). During this period of time prior to implementation selected programs may be used as a test vehicle to facilitate future applications.

A person who is once Certified as an Athletic Trainer (A.T.,C.) remains Certified as long as he or she meets the minimum requirements for Continuing Education and only as long as such requirements are met.

Units of Continuing Education shall be defined and designed by the Continuing Education Committee and approved by the Board of Directors. Where it is applicable, the Continuing Education unit (CEU) will be adopted as the unit of measurement to meet the Continuing Education requirements of the Certified Athletic Trainer of the NATA. The Continuing Education Unit (CEU) is defined as "ten contact hours of participation in an organized Continuing Education experience under responsible sponsorship, capable direction, and qualified instruction" (10 contact hours = one CEU). To maintain Certification the minimum number of units to be accumulated every three (3) years shall be 6 CEUs. (Originally 9, changed to 6 at June 1977 Board Meeting.)

A Certified Athletic Trainer is responsible for sending to the NATA National Office proof of completion of any Continuing Education units (CEUs) and activities to be used in updating his record in a required period of 30 days after completion.

A Certified Athletic Trainer who does not accumulate a record number of 6 CEUs every three (3) calendar years shall be put on probation. Any action taken affecting the status of an A.T.,C. relating to Continuing Education may be appealed to the Committee on Continuing Education. Following this appeal a final decision shall be given.

In accordance with this action of the Board of Directors, the Continuing Education Committee has developed the following definitions of acceptable Continuing Education for Certified Athletic Trainers.

I. Each Certified Athletic Trainer shall complete 6 CEUS of acceptable Continuing Education every three (3) years.

II. Categories

A. **NATA ANNUAL NATIONAL MEETING:** 2 CEUs for registration of each annual national meeting of the NATA.

B. **SCIENTIFIC WORKSHOPS OFFERED AT THE NATA'S ANNUAL NATIONAL SYMPOSIUM:** 1 CEU for every 10 contact hours of workshop. (1 contact hour = .1 CEU.)

C. **NATA DISTRICT MEETINGS:** 1 CEU for every 10 contact hours will be awarded for the scientific program content offered at the District meeting. (1 contact hour = .1 CEU.)

D. **NATA APPROVED SHORT TERM COURSES:** Clinics, workshops, seminars or NATA approved courses, etc. endorsed by the Continuing Education Committee at least 30 days in advance of the date of the program will be awarded one CEU for every 10 contact hours of scientific program content. (1 contact hour = .1 CEU.)

E. **SCIENTIFIC MEETINGS APPROVED BY THE CONTINUING EDUCATON COMMITTEE:** (Ex. American Medical Association, American Academy of Orthopedic Surgeons, American College Health Association, American College of Sports Medicine, American Association of Health, Physical Education and Recreation, American Physical Therapy Association, etc.) One CEU will be awarded for every 10 contact hours of approved content. (1 contact hour = .1 CEU.)

F. **PUBLICATION OF ORIGINAL WORK:** Publication of an original paper in the NATA's quarterly publication "Athletic Training" will be awarded 1.5 CEUs per original paper. One CEU will be awarded per original publication in a state or national scientific journal or publication of a related professional organization.

G. **PROGRAM PARTICIPATION:** Credit units will be awarded for the presentation of an original paper of program participation at State, District or National level NATA meetings or related professional meetings. One CEU will be awarded for each presentation of participation.

H. **PROMOTION OF ATHLETIC TRAINING TO OTHER GROUPS:** The presentation of athletic training to nonrelated organizations and civic groups will be awarded .5 CEU per presentation.

I. **TEACHING OF ATHLETIC TRAINING COURSES:** .5 CEUs will be awarded for each credit hour of actual teaching that is not part of your job description, not to exceed 1 per year.

J. **STUDENT TRAINER SUPERVISION:** .5 CEU per year will be awarded for supervision of a student trainer program for a full academic year. If more than one Certified Athletic Trainer is supervising the student trainer program each receives equal credit.

K. **POSTGRADUATE STUDY:** Hours spent in postgraduate study in athletic training or related fields may be submitted as units of credit for consideration by the Continuing Education Committee. .5 CEU will be awarded for each credit hour accepted with the limit of 2.0 per year.

L. **SPECIAL PROJECTS:** All projects must be submitted to the Continuing Education Committee for consideration. Projects such as development of or participation in films, radio conferences, television programs or other audiovisual aids that may be used as a teaching aid or for public relations in the field of athletic training will be awarded .5 CEU per project. Preparation and presentation of scientific athletic training exhibits at the Local, District or National level. Limit .5 CEU per exhibit.

M. **CORRESPONDENCE COURSES:** Correspondence courses in "Athletic Training, The Journal of the National Athletic Trainers Association" will be awarded .3 CEU per course. Correspondence courses offered by other publications related to Athletic Training will need to be approved in advance by the Continuing Education Committee. All courses approved by the Continuing Education Committee will require an examination that certifies the satisfactory completion of the course.

N. **OTHER NATA ACTIVITIES:**

1. Serving as a National or District Officer in the NATA will be awarded one CEU per year.
2. Committee membership in the NATA at the National level and/or District level will be awarded one CEU per year. An additional .5 CEU each year will be awarded for the chairmanship of the committee.
3. Certification testing. Those members participating in the certification examinations will be awarded .5 CEU per testing date not to exceed one CEU per year.
4. Official liaison activity. Those members participating in the capacity of a liaison for the NATA will be awarded .5 CEU each year.
5. State Organizations. Those members serving as elected officers or committee chairpersons in a formally organized State Athletic Trainers organization recognized by NATA shall receive .5 CEU for each full calendar year served in that capacity. This would include those committee persons officially designated as working toward state licensure.
6. Visitation team members doing curriculum evaluations shall be awarded .5 CEU per visit not to exceed 1 per year.

O. **TAPES AND CASSETTES OF PROCEEDINGS:** Purchase of tapes and cassettes of NATA approved proceedings will earn .1 CEU per tape acquired. Proof of purchase is necessary to receive credit.

P. **SPECIAL CONSIDERATIONS:** The Continuing Education Committee will give consideration to all educational activities submitted that are not listed above. Ex. Current CPR.

APPEAL PROCESS

The dues statement from the National Office for the 1982 dues will show the number of CEUs on the member's record at the time of the statement. This will be sometime in November so additional CEUs may be added for the 1979—1981 three year period. A member will have until January 31, 1982 to report to the National Office the CEUs earned during the latter part of 1981. It should be noted that CEUs earned during the 1979—1981 period cannot be counted for the next (1982—1984) period.

If a member has not earned and had recorded at least six (6) CEUs for the 1979—1981 period he/she will be put on probation. The probation allows for two(2) years to make up the deficiency. There will be no effect on membership privileges at this time.

AS CEUS ARE REPORTED, THEY WILL BE RECORDED TO MAKE UP THE DEFICIENCY FIRST AND WHEN DEFICIENCY IS SATISFIED THE REMAINING AND SUBSEQUENT CEUS REPORTED WILL BE RECORDED FOR THE CURRENT PERIOD. THE PERSON MUST EARN SIX (6) CEUS FOR THE CURRENT (THREE YEAR) AS WELL AS MAKING UP FOR DEFICIENCY.

For 1979—1981, 1982—1984 period, Certified members only are required to earn and report CEUs.

A Member who is put on probation for failure to earn sufficient CEUs may appeal. The appeal must be in writing stating the reason(s) for the appeal and sent to the National Office so that it is received no later than 30 days following receipt of notification.

If the appeal cannot be resolved through correcting of any errors of recording and the substance of the appeal concerns reporting and/or recording of CEU values of meetings, courses or activities, or the pro-rating of CEUs the member needs, the appeal shall be referred to the Chairman of the Committee for Continuing Education. This shall be done within 30 days of receipt of appeal.

If the substance of the member's appeal from probation status concerns hardship, a belief that special consideration is warrented or possible cancellation of membership the appeal shall be referred to the Chairman of the Membership Committee. This shall be done within 30 days of receipt of the appeal. The Membership Committee should make a decision as soon as possible but no later than the June (same year) meeting of the Committee.

(Continuing Education Committee, next page)

Securing Whirlpool Motors

Joe H. Gieck, EdD, ATC, RPT

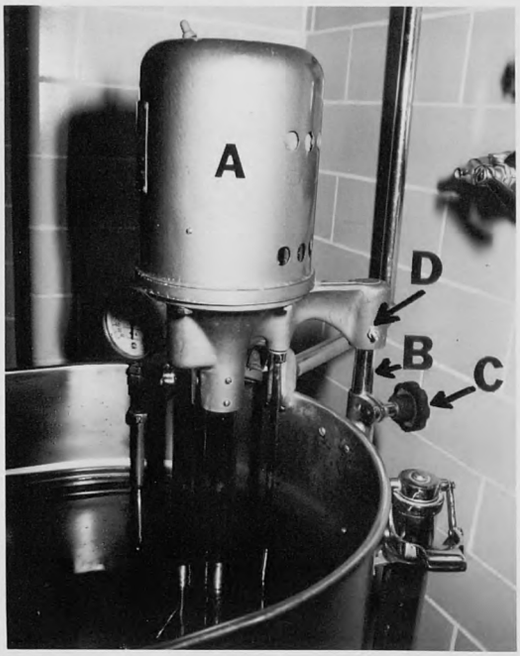
As most every training room is equipped with hydrotherapy modalities, it is important that adequate safety procedures are maintained and possible hazardous situations prevented. Serious injury and even deaths have resulted in the use of the whirlpool.

Procedures for obvious dangers have been documented.[1] Checking units to see if ground wires are connected, installation of ground faults, visibility of the hydrotherapy area, adequate ventilation, and placement of grab bars in low units reduce the likelihood of serious injury in association with whirlpool use.

One situation which has resulted in serious injury to trainer and athlete alike is in using the Ille® whirlpool and others of similar construction. A heavy spring counterbalances the turbine (A) as it rests on the motor support shaft (B). When the trainer or athlete adjusts the turbine upward the support shaft may stick, especially if the tension screw (C) is not loosened first. This may result in the turbine coming off the support shaft. If the unit happens to be "on" during adjustment and the individual drops the motor in the water, the danger is obvious.

Another danger is that of a stuck support shaft. Upon freeing the stuck shaft, with the turbine removed, the heavy spring catapults the support shaft upward with a possible traumatic force. These two situations have resulted in serious injury with the motor being dropped in the water and the shaft striking the individual in the face.[2] People have been struck in the face by the shaft and in one instance the individual was in danger of losing sight in an eye. In another, the athlete was struck in the face by the shaft while holding the motor and dropped the motor in the water.

Dr. Gieck is the Head Athletic Trainer and the Curriculum Director, Athletic Training, University of Virginia, Charlottesville, Virginia 22903.



A simple way to prevent these two situations from occurring is to attach the turbine to the support shaft with a set screw or bolt (D). A ⅛" bolt was inserted through a drilled hole in the turbine, mount and support shaft and secured on the opposite side with a nut.

Safety in the use of all modalites is of the utmost importance. Simple ones described can prevent injury before and after the athlete is on the field.

®registered trademark

References

1. Gieck JH, "Considerations for Hydrotherapy Safety," NATA, Winter 1978.
2. Conversations author has had.

+

National Athletic Trainers Association Continuing Education Committee

James B. Gallaspy - Chairman
P.O. Box 5105
Hattiesburg MS 39401
(601) 266-4174

NOTE: Please send approval requests to the district in which the event is taking place.

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Mass. Institute of Tech.
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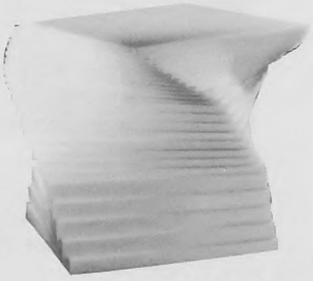

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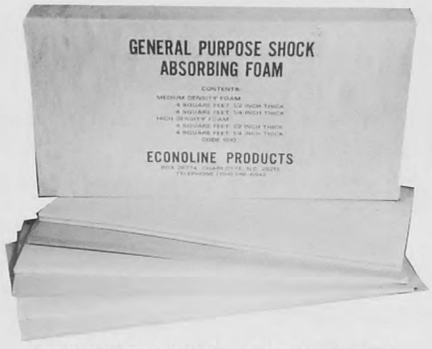

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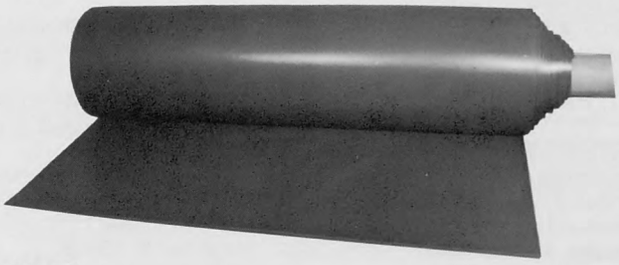

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Anterior Sterno-Clavicular Brace

Janet Marquis

Figure 1.
Front view of brace.

Figure 2.
Rear view of brace.

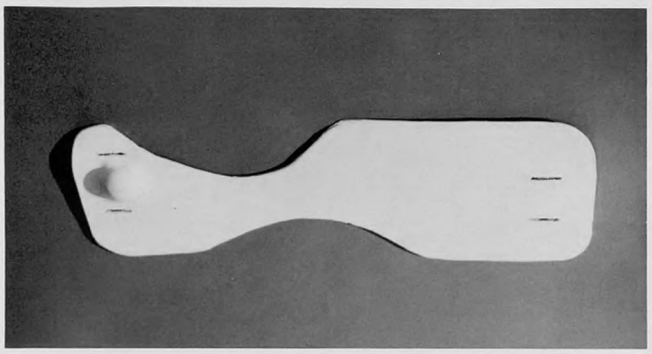

Figure 3. Anterior sterno-clavicular brace after all cuts are made.

Figure 4. The completed anterior sterno-clavicular brace.

Ms. Marquis is currently a student athletic trainer at Indiana State University. Terre Haute, Indiana 47809.

Earlier this year when I was assistant athletic trainer for the women's volleyball team, I was presented with the challenge of coming up with a way to stabilize the proximal end of an athlete's clavicle. This particular athlete had torn her right anterior sterno-clavicular ligament. She was experiencing pain in her medial deltoid area with any movements involving the shoulder joint, movements essential to volleyball players. This was due to the movement of the proximal end of the clavicle anteriorly and in turn the distal portion posteriorly. Her doctor recommended corrective surgery, but said that no further damage could occur and that this athlete could continue to compete without surgery if she could bear the pain.

Needless to say, finding a method of stabilization that would minimize pain and not restrict her movement was going to take some experimentation. I found that by conforming Orthoplast® to her proximal clavicular area with the added pressure of a convex projection, the size of her process, sufficient pressure could be applied to keep the end of the bone in its proper position, thus reducing the pain in her deltoid area. (Figure 3)

To make an anterior sterno-clavicular brace, the following supplies are needed:

—One 14" x 14" *strip of Orthoplast®
—One 16" x 6" *strip of rubber skin guard tape
—One elastic 1" belt with a military style buckle
—One roll of conform tape
—Two 4" x 2" squares of ¼" felt

*These dimensions, of course, will vary slightly according to the size of the athlete.

Start by heating the strip of Orthoplast® in very hot water until it is pliable. With the athlete's shoulder bared, form the strip between the neck and the shoulder joint with the anterior end extending approximately ½" below the clavicle. Mark on the Orthoplast® where the C-shaped cuts for the neck and shoulder will be. (Figure 3). After making the cuts, reheat the strip and place it back on the shoulder. Press on the clavicular process and make a concave impression. Immediately invert the impression into a convex projection and run under cold water to harden. As a safety precaution, round all corners. Return the Orthoplast® strip to the shoulder in the exact position it is to be worn and, with an elastic wrap, wrap it on and allow time for it to harden.

The next step will be to pad the underside and edges of the brace. It is advisable to use an extra square of rubber skin guard tape over the convex projection. Cut the large square of rubber skin guard tape to the form of the brace. It is important to have all edges well padded.

Now the holes for the belt can be made. Cut two 1" vertical slits on each side as shown in figures three and four in the illustrations. They should be at least 2" apart.

The felt pads for protection from underarm rubbing are easily made. Just cut two vertical slits 1" long in each pad and slide them over the belt. (Figure 4).

By weaving the belt through the brace as shown in the illustrations, a type of halter system is formed to hold the brace in place. Putting the buckle in the front serves three purposes: First, it makes it convenient for the athlete to put the brace on themselves; second, the athlete can adjust the tightness to their liking; and last, with the buckle in the front, extra pressure is applied to the convex projection giving maximum stabilization. (Figure 4).

To finish the brace, wrap conform tape over the surface to secure the ends of the skin guard tape and prolong the life of the brace.

This brace has been used by an Indiana State University volleyball player for a period of four weeks with great success. Her movement was not hindered in any way and, with the pain reduced greatly, she was able to concentrate on her game, thus improving her play. +

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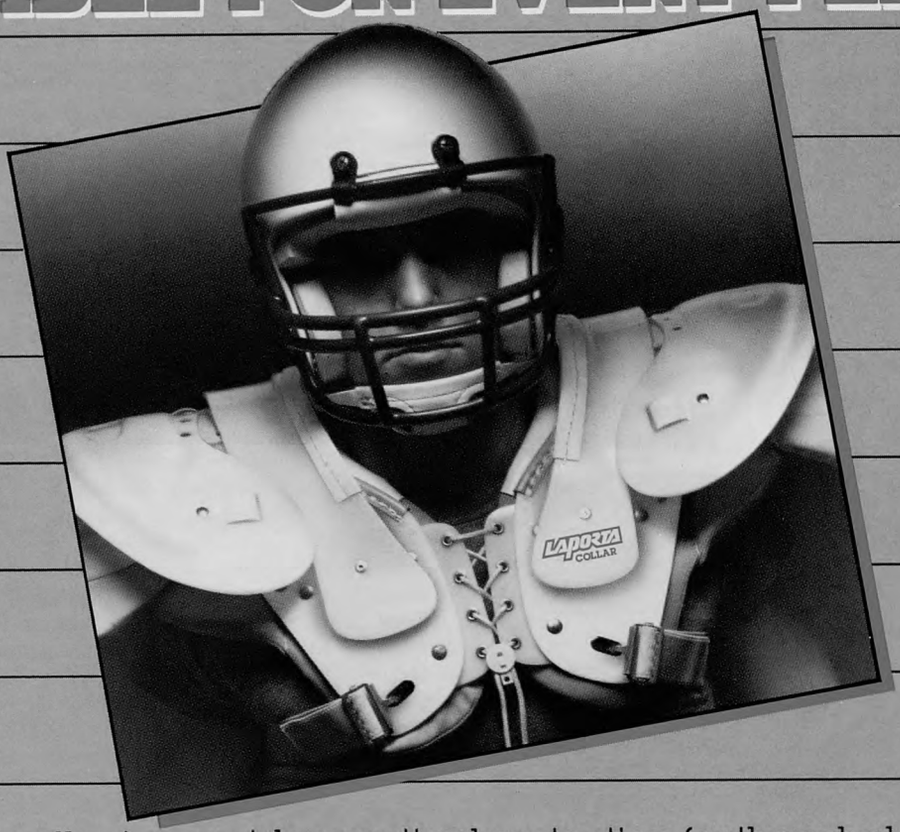

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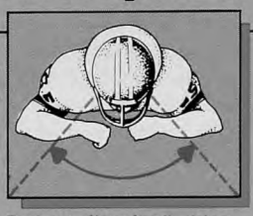

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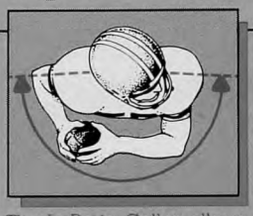

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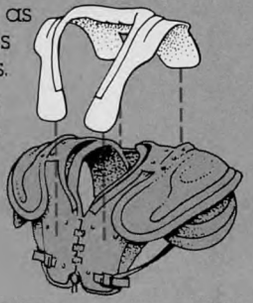

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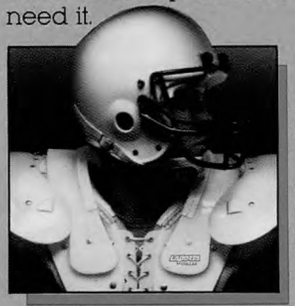

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Name _____ Date _____

Membership number _____

Present address of record for NATA membership _____

_____

_____

Position in District of present record – Name and Address of Institution or Organization _____

_____

_____

Transfer from District No. _____ Last year for which dues have been paid:

Transfer to District No. _____ _____

Membership Class:

_____(1) Certified _____(2) Associate _____(3) Retired _____(4) Student

_____(5) Affiliate _____(6) Advisory _____(7) Allied _____(8) Honorary

New address for NATA Records _____

_____

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New position, name and address of Institution or Organization _____

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Information Verified by National Office: _____
Date Signature

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(Please Xerox for additional copies)

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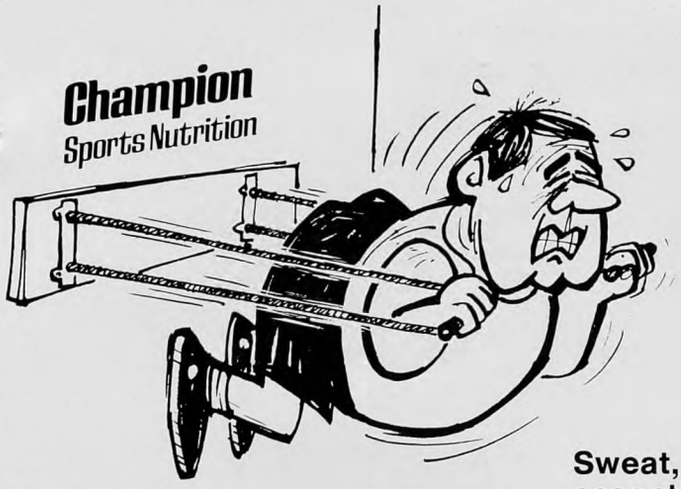

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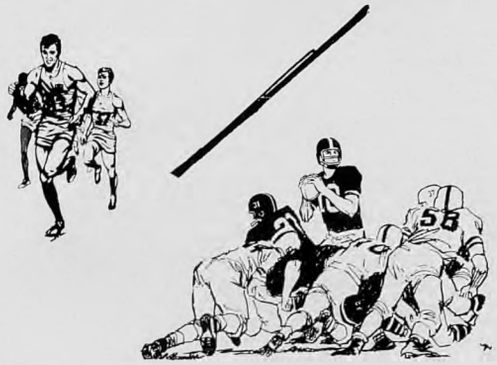
WORK .. WORK .. WORK

STRESS .. STRESS .. STRESS



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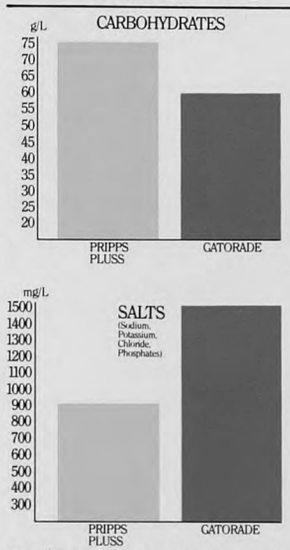
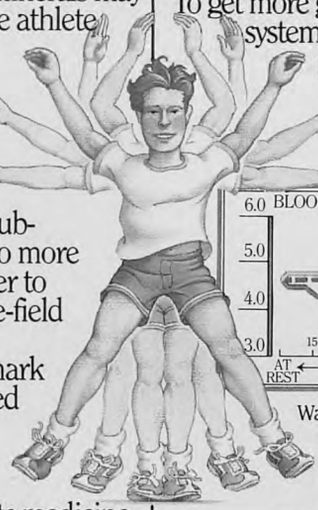
Until recently, the most popular drinks formulated for athletes have been electrolyte replacement fluids—liquids designed to put back the salts and minerals lost in sweat.

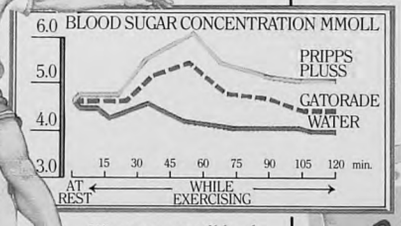
Today, a growing number of studies suggest that salts and minerals may not be what the athlete needs most during heavy exertion, and that drinking liquids containing these substances does no more than plain water to improve on-the-field performance.



Relative salt and glucose concentrations of Pripps vs. Gatorade. Stockholm, 1981.

A benchmark study conducted at Sweden's world-renowned center for sports medicine research has provided dramatic new evidence that the carbohydrate formula of Pripps Pluss does what electrolyte drinks—such as Gatorade—are not designed to do: enhance athletic performance beyond the benefits derived from water during the prolonged exertion of actual physical competition.

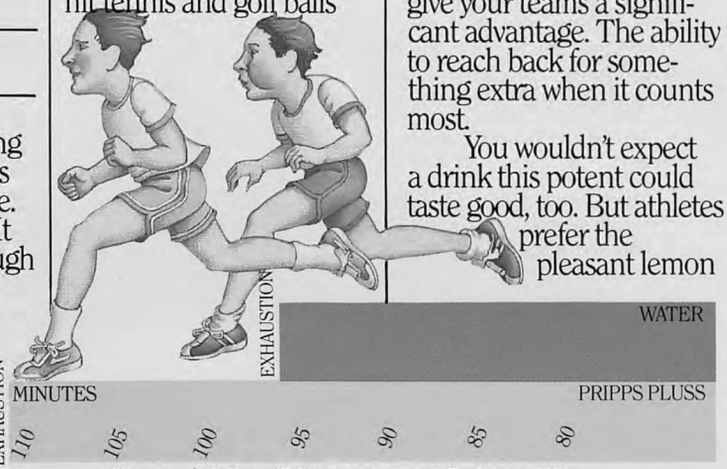




Warren curve of blood glucose concentrations, Pripps vs. Gatorade vs. water. Stockholm, 1979.

PROOF IN BLACK AND WHITE.

The Swedish study revealed striking results. Subjects who drank Pripps Pluss during their physical activity had higher blood glucose levels than those who drank water. The Pripps group could jump higher. And were able to hit tennis and golf balls more accurately. During treadmill exercise, Pripps drinkers performed ten minutes longer than water drinkers before exhaustion.



Time to exhaustion of Pripps vs. water users. Stockholm, 1981.

REFUELING REDEFINED.

One of the most important factors limiting an athlete's endurance is his level of blood glucose. This is his muscle fuel. It is quickly depleted through strenuous exercise and dehydration. And most quickly replenished through carbohydrate consumption.

Recent studies reveal that many electrolyte beverages actually contain too many electrolytes for the body to absorb, which creates a lag time of several hours between consumption and utilization.

In contrast, the unique carbohydrate formula of Pripps Pluss is specifically formulated to benefit the athlete *during* the contest. To get more glucose into his system than water can provide. Or Gatorade.

THE BOTTOM LINE.

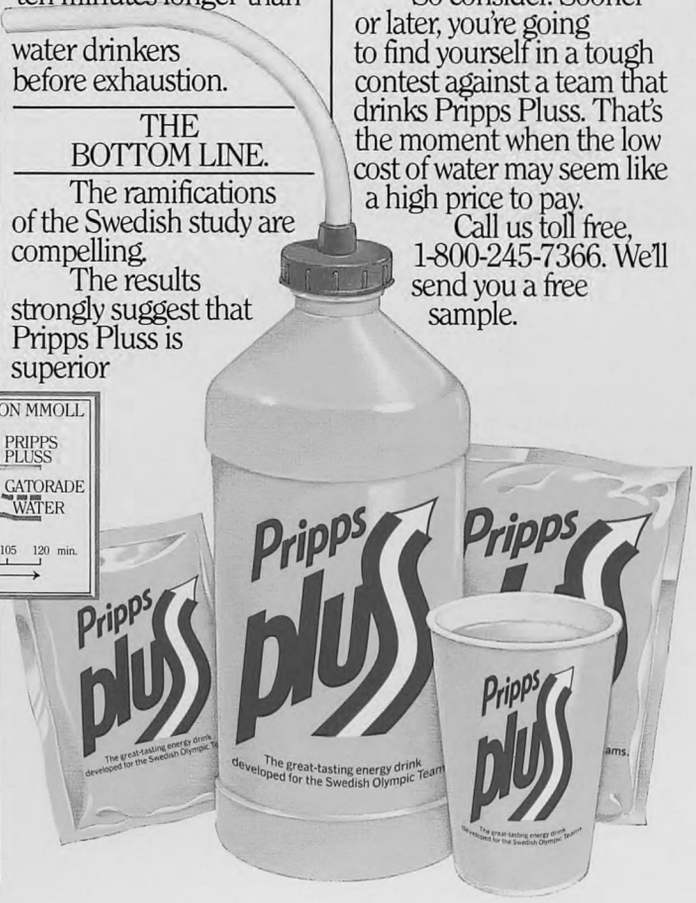
The ramifications of the Swedish study are compelling.

The results strongly suggest that Pripps Pluss is superior to water in helping an athlete maintain his explosive power and coordination throughout an athletic contest. In other words, Pripps Pluss can give your teams a significant advantage. The ability to reach back for something extra when it counts most.

You wouldn't expect a drink this potent could taste good, too. But athletes prefer the pleasant lemon taste of Pripps Pluss over water. And certainly over Gatorade.

So consider. Sooner or later, you're going to find yourself in a tough contest against a team that drinks Pripps Pluss. That's the moment when the low cost of water may seem like a high price to pay.

Call us toll free, 1-800-245-7366. We'll send you a free sample.



Guide to Contributors

Athletic Training, the Journal of the National Athletic Association, welcomes the submission of manuscripts which may be of interest to persons engaged in or concerned with the progress of the athletic training profession.

The following recommendations are offered to those submitting manuscripts:

1. Seven copies of the manuscript should be forwarded to the editor and each page typewritten on one side of 8½ x 11 inch plain paper, triple spaced with one inch margins.
2. Good quality color photography is acceptable for accompanying graphics but glossy black and white prints are preferred. Graphs, charts, or figures should be of good quality and clearly presented on white paper with black ink, in a form which will be legible if reduced for publication. Tables must be typed, not hand written. Personal photographs are encouraged.

   All art work to be reproduced should be submitted as black and white line art (either drawn with a Rapidograph [technical fountain pen] or a velox stat or PMT process) with NO tonal values, shading, washes, Zip-a-tone — type screen effects, etc. used.

   All artwork to be reproduced in black plus a second (or more colors) should be submitted as black and white line art (see above paragraph), with an Amberlith® or similar-type overlay employed for each area of additional color(s). Also, all areas of tonal value, shading, "washes", etc. should also be supplied on a separate clear or frosted acetate or Amberlith® overlay. In addition, all areas to be screened (a percent or tint of black or color) should be supplied on an Amberlith® overlay.
3. The list of references and citations should be in the following form: a) books: author, title, publisher with city and state of publication, year; b) articles: family names, initials and titles of all authors, title of article, journal title, with abbreviations accepted as per Index Medicus, volume, page, year. Citations in the text of the manuscript will take the form of a number in parenthesis, (7), directly after the reference or name of author being cited, indicating the number assigned to the citation bibliography. Example of references to a journal, book, chapter in an edited book, and presentation at a meeting are illustrated below:
   a. Knight K: Preparation of manuscripts for publication. *Athletic Training* 11(3):127-129, 1976.
   b. Klafs CE, Arnheim DD: *Modern Principles of Athletic Training*. 4th edition. St. Louis, CV Mosby Co. 1977 p. 61.
   c. Albohm M: Common injuries in womens volleyball. *Relevant Topics in Athletic Training*. Edited by Scriber K, Burke EJ, Ithaca NY: Monument Publications, 1978, pp. 79-81.
   d. Behnke R: Licensure for athletic trainers: problems and solutions. Presented at the 29th Annual Meeting and Clinical Symposium of the National Athletic Trainers Associaton. Las Vegas, Nev, June 15, 1978.
4. In view of *The Copyright Revision Act of 1976*, effective January 1, 1978, all transmittal letters to the editor must contain the following language before manuscripts can be reviewed for possible publication: "In consideration of the NATA taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns or otherwise conveys all copyright ownership, to the NATA in the event that such work is published by the NATA." We regret that transmittal letters not containing the foregoing language signed by all authors of the manuscript will necessitate return of the manuscript.

   Manuscripts are accepted for publication with the understanding that they are original and have been submitted solely to *Athletic Training*. Materials taken from other sources, including text, illustrations, or tables, must be accompanied by a written statement from both the author and publisher giving *Athletic Training* permission to reproduce the material. Photographs must be accompanied by a signed photograph release form.

   Accepted manuscripts become the property of the Journal. For permission to reproduce an article published in *Athletic Training*, send requests to the Editor-in-Chief.
5. Manuscripts are reviewed and edited to improve the effectiveness of communication between the author and the readers and to assist the author in a presentation compatible with the accepted style of *Athletic Training*. The initial review process takes from six to eight weeks. The time required to process a manuscript through all phases of review, revision, and editing, to final publication is usually six to eight months depending on the timeliness of the subject. The author accepts responsibility for any major corrections of the manuscript as suggested by the editor.

   If time permits galley proofs of accepted papers will be sent to the author for corrections prior to publication. Reprints of the article may be ordered by the author at this time.
6. It is requested that submitting authors include a brief biographical sketch and acceptable black and white glossy photograph of themselves. Please refrain from putting paper clips on any photograph.
7. Unused manuscripts will be returned, when accompanied by a stamped, self-addressed envelope.

   Address all manuscripts to:

   Clint Thompson
   Department of Athletics
   Michigan State University
   East Lansing, Michigan 48824

The following recommendations are offered to those submitting CASE HISTORIES:

1. The above recommendations for submitting manuscripts apply to case studies as well but only two-copies of report need be sent to the Editor-in-Chief.
2. All titles should be brief within descriptive limits. The name of the disability treated should be included in the title if it is the relevent factor; if the technique or kind of treatment used is the principal reason for the report, this should be in the title. Often both should appear. Use of subtitles is recommended. Headings and Subheadings are required in the involved report but they are unnecessary in the very short report. Names of patients are not to be used, only 3rd person pronouns.
3. An outline of the report should include the following components:
   a. Personal data (age, sex, race, marital status, and occupation when relevant)
   b. Chief complaint
   c. History of present complaint (including symptoms)
   d. Results of physical examination (Example: "Physical findings relevant to the physical therapy program were . . . ")
   e. Medical history - surgery, laboratory exam, etc.
   f. Diagnosis
   g. Treatment and clinical course (rehabilitation until and after return to competition) use charts, graphs when possible
   h. Criteria for return to competition
   i. Deviation from the expected
   j. Results - days missed
4. **Release Form**
   It is mandatory that *Athletic Training* receives along with the submitted case a signed release form by the individual being discussed in the case study injury situation. Case studies will be returned if the release is not included.

The following recommendations are offered to those submitting material to be considered as a TIP FROM THE FIELD:

1. The above recommendations for submitting manuscripts apply to tips from the field but only one copy of the paper need be sent to the Editor-in-Chief.
2. Copy should be typewritten, brief, consise, in the third person, and using high quality illustrations and/or black and white glossy prints.

Journal Deadlines

In order to avoid confusion and delays for any contributions you have for the Journal the deadlines for various sections of the Journal are provided below.

Send all materials for any selection of the Journal other than formal articles and "Calendar of Events" to:

Ken Wolfert
111 Buckeye Street
Hamilton, OH 45011

This includes sections such as "Tips From the Field," "Announcements," "Case Studies," "Letters to the Editor," etc. The deadlines are:

Journal	**Deadline**
Fall Issue	June 15
Winter Issue	September 15
Spring Issue	December 15
Summer Issue	March 15

Deadline for "Calendar of Events":

Information on upcoming events should be sent to:

Jeff Fair, ATC
Athletic Department
Oklahoma State University
Stillwater, Oklahoma 74074

Fall Issue	June 15
Winter Issue	September 15
Spring Issue	December 15
Summer Issue	March 15

Manuscripts must be sent to:

Clint Thompson
Jenison Gym
Michigan State University
East Lansing, Michigan 48824
(517) 353-4412

The Editorial Board will then review each paper and work with authors to help prepare the papers for publication. Each is handled on an individual basis.

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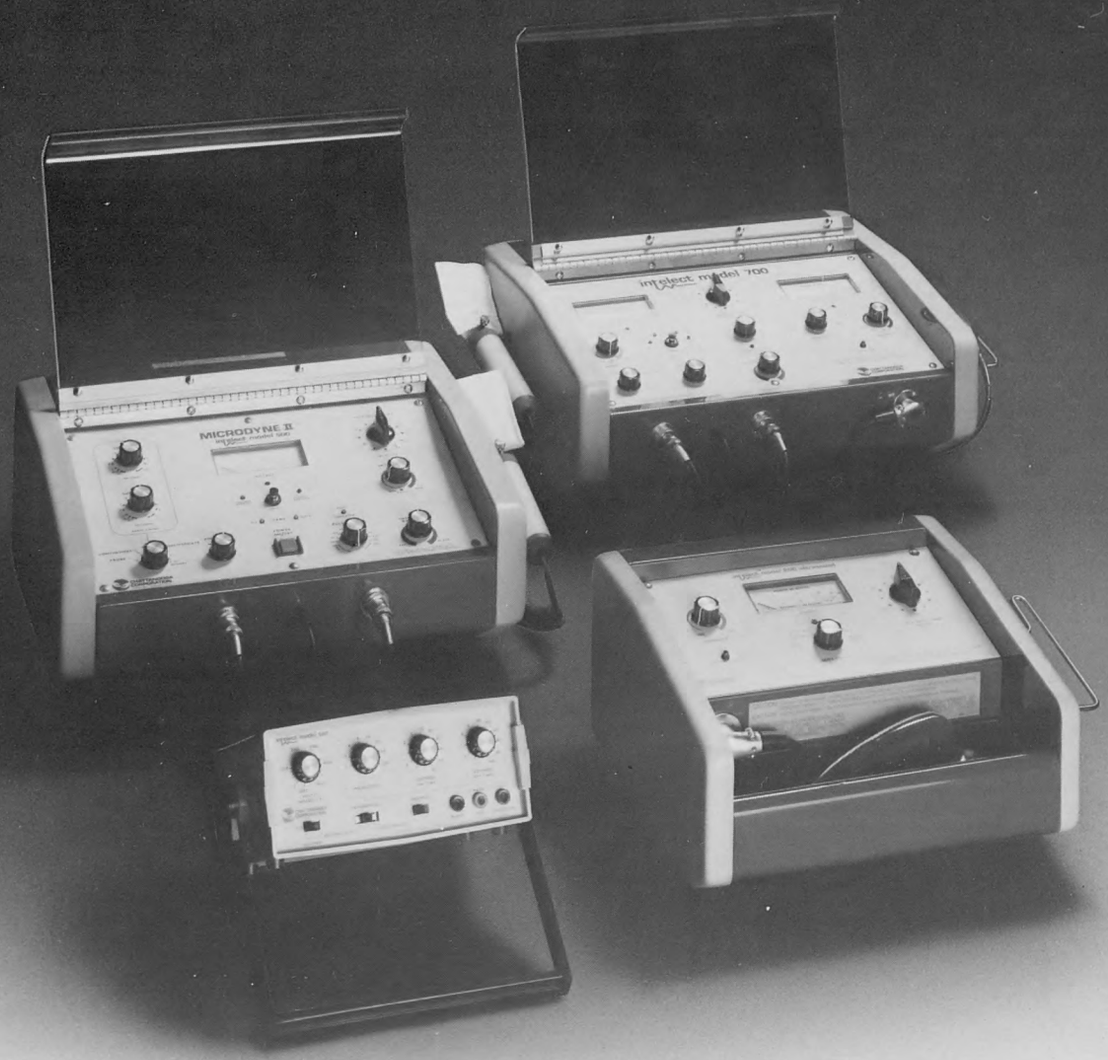

Using the most highly advanced solid-state technology, Chattanooga Corporation's new Intelect line of electrotherapy products provides safe, effective high voltage and ultrasound treatments.

The Intelect 500 high voltage galvanic stimulator features smooth, non-burning, unidirectional pulsed direct current. This state-of-the-art generator includes many unique features, such as variable surge on and off control, peak current readout and intensity balance control of the active electrodes.

A portable model – the Intelect 550 – incorporates the basic features of the Intelect 500, and fits in an easy to carry shoulder bag.

When ultrasound is the treatment of choice, rely on the new Intelect 200. This highly advanced unit features a large, 10 cm^2 transducer and a unique safety monitor that cuts power to zero if the applicator overheats. Three treatment modes, Continuous and Pulsed at 20% and 50% duty cycles, increase its range of therapeutic options.

Finally, the versatile Intelect 700 combines ultrasound and high voltage in one unit. This compact generator delivers all the features of the Intelect 200 ultrasound unit, plus most of the components of the Intelect 500 high voltage stimulator – including peak current readout and intensity balance control.

So look to the Intelect line for leadership in electrotherapy. Look to Chattanooga Corporation for:

LEADERSHIP IN PHYSICAL MEDICINE

☐ I would like an office demonstration.

☐ Please send literature.

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CHATTANOOGA CORPORATION

101 Memorial Dr./P.O. Box 4287/Chattanooga, TN 37405
Phone (615) 870-2281

AT-1

On June 13, you're invited to help take the wraps off a new exercise/testing module and a new company.

At the NATA Meeting, we're unveiling a new computer-based, programmable dynamometer with virtually unlimited research and testing capabilities. This powerful testing and exercise tool has concentric and eccentric capabilities with constant velocity, isometric and isotonic modes.

We're also introducing a new company — CHATTECX CORPORATION. And even though we are a new name, we were started by the old hands at CHATTANOOGA CORPORATION who've been leading the way in physical medicine product technology for 35 years.

At CHATTECX, our business is creating and developing new ideas in physical testing and exercise technology . . . like our new muscle dynamometer and other ideas you'll be hearing about soon.

Meet us at booth 120-122.

For more information, write or call:

CHATTECX
CORPORATION

101 Memorial Dr./P.O. Box 4287/
Chattanooga, TN 37405/Phone (615) 870-2281

Taping Techniques for Rotational Instabilities about the Knee

Tony Griffith, ATC

I would like to commend Marty Bradley for his article on the spiral taping technique for rotational instabilities about the knee in the Volume 16, Fall 1981 issue. The technique shown is excellent for an anterio-medial rotary instability about the knee. However, the article alludes to the fact that this technique is also useful in the anterior cruciate deficient knee.

At Carson-Newman College, we have found that rotational taping techniques are indeed superior to the conventional knee taping techniques as far as giving the athlete a feeling of increased stability and increased confidence during participation.

Torn medial ligaments, and specifically a tear of the posterior oblique on the posterior medial corner of the knee, result in a rotational instability that occurs with deceleration and external rotation at the tibia. The athlete resists instability function very well with the technique illustrated by Marty Bradley. The anterior cruciate deficient knee, however, has an antero-lateral rotary instability. That is to say, the instability or feeling of instability occurs with knee flexion, internal tibial rotation and deceleration. The feeling of instability that the athlete gets is duplicated by the pivot shift test which is performed with the knee flexed, the tibia internally rotated, and the tibia subluxed anteriorly on the femur. When that position is maintained and the leg is brought into full extension, the subluxation reduces spontaneously resulting in a jerk which is diagnostic of an anterior cruciate tear. The purpose of our rotational taping technique is to prevent that subluxation. The technique is very similar to that of Marty Bradley's, except that the tibia should be externally rotated with the spiral strips. These are applied with the knee flexed which also tends to prevent some anterior subluxation of the tibia on the femur. This instability is further retarded by pulling the proximal tibia posteriorly with three strips across the anterior tibial tubercle crossing in the popliteal fossa and anchoring to the thigh laterally, medially, and anteriorly. This taping technique prevents the pivot shift from occurring and thereby prevents the feeling of instability during athletic performance.

Rotational taping techniques, therefore, are very useful; however, one must be aware that with medial ligament tears, the tibia needs to be rotated internally. With the anterior cruciate ligament tears, the tibia needs to be rotated externally. With a combination of medial ligaments and anterior cruciates, both internal and external rotation of the tibia needs to be controlled, as well as anterior subluxation of the tibia.

The pictures illustrate the procedure for supporting the combination of medial ligaments and the anterior cruciate ligaments. +

Mr. Griffith is the Athletic Trainer at Carson-Newman College, Jefferson City, Tennessee 37760.

Fig. 1. Medial strips for medial ligament support. Arrows indicate direction of pull on the tape during application.

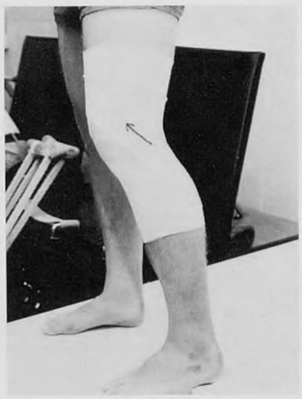


Fig. 2. One lateral strip beginning posteriorly over lateral ligaments to medial thigh.

Fig. 3. First of three strips anchored on lower calf with pull applied supporting external rotation of the tibia limiting stress to anterior cruciate ligament.

Fig. 4. Second overlapping strip.

Fig. 5. Third overlapping strip.

Fig. 6. Completed procedure.

PROCEEDINGS of the NATIONAL ATHLETIC TRAINERS' ASSOCIATION

SUMMARY OF ACTIONS MID-WINTER BOARD OF DIRECTORS MEETING FEBRUARY 7-8, 1982 GREENVILLE, NORTH CAROLINA

The following agenda items were considered and actions taken by the NATA Board of Directors at its Mid-Winter meeting held on February 7-8, 1982 at the Holiday Inn Motel, Greenville, North Carolina, Mr. William Chambers, President, presiding and the following present:

Mr. William H. Chambers, President
Mr. Otho Davis, Executive Director
Mr. Bruce Melin, Parliamentarian
Mr. Laurence Graham, Attorney
Mr. Jack Baynes, District 1
Mr. Joe Camillone, District 2 (Representing Mr. Richard Malacrea)
Mr. Andy Clawson, District 3
Mr. Robert Behnke, District 4
Mr. Frank Randall, District 5
Mr. Cash Birdwell, District 6
Mr. Dale Mildenberger, District 7
Mr. Roger Dennis, District 8
Mr. Bobby Barton, District 9
Mr. Gary Craner, District 10

I. Items presented to the Board of Directors for a mail vote were discussed.

A motion was made by District 7 and seconded by District 6 to accept the mail vote items. Action: Approved 8-0 with Districts 3 and 4 being absent.

The items approved by mail vote are as follows:

A. Correspondence courses through the National Athletic Trainers' Association will be awarded .3 CEU's per *Athletic Training, the Journal of the National Athletic Trainers' Association* quiz by the Continuing Education Units Committee and scores will be submitted directly to the National Office.

B. The NATA Audio Visual Aids Committee will have a media review room available to the membership at the Seattle Convention in June, 1982. This room will be used to continuously show AV material on any athletic training subject. If you know of a film or have any AV material that may be of interest and help to the membership, please contact John Streif, Chairman of NATA Audio Visual Aids Committee as soon as possible.

John Streif
Athletic Department
University of Iowa Training Room
Iowa City, Iowa 52242

C. Approved to the Audio Visual Aids Committee as members were:

Robert Gray, District 4
Oberlin, Ohio
Dennis Murphy, District 10
University of Montana
Jerry Nowesnick, District 4
College of DuPage
Robert Smetanka, District 8
San Francisco, California

D. Approved to the Continuing Education Units Committee as members were:

Harriett Pearce, District 1
Massachusetts Institute of Technology
Donald Kessler, District 2
Princeton University
Debra L. Granner, District 3
University of South Carolina
Fred Turner, District 4
Hazel Crest, Illinois
Reginald Speak, District 5
Bettendorf, Iowa
Mike Nesbitt, District 7
Northern Arizona University
Larry Krock, District 8
California State University, Northridge
Linda Arnold, District 9
Memphis State University
Jackie K. Leander, District 10
University of Idaho

E. Approved to the Drug Education Committee as a member was:

Scott Biron, District 1
University of New Hampshire

F. Approved to the Journal Committee as members were:

David Yeo, District 2
Montgomery County (PA) Community College
Sue Halstead, District 3
University of Virginia

G. Accepted resignation of Chris Neuman, Kansas State University, District 5, from the Journal Committee.

H. Approved to the Licensure Committee as a member was:

John Bush, District 3
University of Maryland

I. Accepted resignation of Bick Harmon, Mt. San Antonio (CA) Junior College, District 8, from the Licensure Committee.

J. Approved to the Memorial Resolutions Committee as members were:

Connie Bauman, District 1
Wellesley College
Donald Kessler, District 2
Princeton University
Max Crowder, District 3
Duke University
Dennis Helwig, District 4
University of Wisconsin
Ivan Milton, District 5
Southwest Missouri State University
Ken Murray, District 6
Texas Tech University
Tom Abdenour, District 7
Weber State College
William Nakaso, District 8
San Jose City College
Warren Morris, District 9
University of Georgia
Gary Smith, District 10
Spokane, Washington

K. Approved to the Placement Committee as members were:

Phillip Mateja, District 1
University of Maine-Orono
John Sciera, District 2
State University of New York at Cortland
Terry Middleswarth, District 3
University of North Carolina-Wilmington
Kathleen Doyle, District 4
Eastern Illinois University
James Booher, District 5
South Dakota State University
Steve Smith, District 6
Texas A&M University
Larry Willock, District 7
University of New Mexico
Jerry Lloyd, District 8
California State University-Fullerton

L. Not approved to the Placement Committee as members because no vitae were submitted, were:

Ernie Golin, District 9
Athens, Georgia
Phil Luckey, District 10
Idaho State University

M. Approved as Chairman of the Public Relations Committee was:

Richard Vandervoort, District 6
Houston Rockets NBA Basketball

N. Approved to the Publications Committee as a member was:

Richard Casey, District 4
LaGrange, Illinois

O. Approved to the Professional Education Committee as a member was:

David Perrin, District 2
University of Pittsburgh

P. Accepted the resignation of Philip Donley, West Chester State University, District 2, and Paul Zeek, Lamar University, District 6, from the Professional Education Committee.

II. Items submitted to the Board of Directors for discussion were acted upon with a motion from District 10 and seconded by District 9 to accept for information purposes, with action being voted upon 10-0 for acceptance, are as follows:

A. Drug Education Commitee Report:

John Wells, Chairman, Mars Hill College
Scott Biron, University of New Hampshire

DUTIES OF ALL MEMBERS
1. Literature Review
2. Journal Writing
3. Research

The two drug education articles for 1981 to *Athletic Training; The Journal of the National Athletic Trainer's Association* were submitted to the Journal review board. Both articles are still in the review process. The first article is on DMSO. The Board received a copy of this in April, 1981. The second article is on alcohol.

Communications between the chairman of the Drug Education Committee and the chairman of the Journal Committee have worked out a modified review procedure which should eliminate this delay in the future.

No request is made for additional funds.

Respectfully submitted,
John Wells, Chairman

B. Honor Awards Committee:

September 25, 1981
TO: National Athletic Trainers Association:
Board of Directors
District Secretaries
Committee Chairmen
Otho Davis
Bill Chambers
FROM: George Sullivan, Chairman, Honor Awards Committee

Since 1974, with the selection of Dr. Don Cooper, through the award to Dr. Ed Smith last June, the President's Challenge Award has been presented through a special selections committee of the Grants and Scholarship Committee. The Board of Directors, in keeping with their actions of February 1981, approved the processing of all future selections through the Honor Awards Committee.

Kwik Kare Products, Division of Kay Laboratories, has been outstanding in the establishment of this award and, with special thanks to Jim Cody, has agreed to fully support its continuance. The award has received wide acceptance by the doctors of medicine and osteopathy, and has become one of the NATA's most prestigious awards.

The Committee therefore encourages the NATA membership to make nominations of those they feel most deserving. The criteria and objectives are outlined in the folders and are guidelines to be used in screening your candidates for consideration.

The nomination folder with supporting evidence of the contribution or activty having the greatest impact on sports medicine, must be mailed to your District Director not later than February 1, 1982, for your candidate to be eligible. The Director will then forward the completed folder to the Chairman of the Honor Awards Committee.

TO: Otho Davis
FROM: George Sullivan
DATE: November 13, 1981
SUBJECT: Committee Members-Mid-Year Board Meeting

HONOR & AWARDS COMMITTEE
GEORGE SULLIVAN, CHAIRMAN
University of Nebraska

President's Challenge Award
This award is given to a Doctor of Medicine or Osteopathy who has made a significant contribution to the field of Sports Medicine.
William "Pinky" Newell
Purdue University

Eddie Wojecki Award
This award is given to the individual who achieves the highest score on the certification exam.
William "Pinky" Newell

25-Year Award
The District Director must verify that the trainer has been in the profession for 25 years and recommend the trainer to the Committee for final approval.
Troy Young
Arizona State University

Honorary Membership
Recommendations for Honorary Membership are made by the President and the District Directors and submitted to the Committee for final approval.
William Chambers
President, NATA
Otho Davis
Executive Director, NATA

C. Licensure Committee:

July 5, 1981

Otho Davis, Athletic Trainer
Philadelphia Eagles Football Club
Veterans Stadium
Broad at Pattison Streets
Philadelphia, Pennsylvania 19148

Dear Otho:

As per your request, the following individuals are the members of the NATA State Licensure Committee:

District No. 1:
Louis DiNitto, Athletic Trainer
University of Massachusetts-Boston
Harbor Campus
Boston, Massachusetts 02125
(617) 287-1900

District No. 2:
John Sciera, Athletic Trainer
S.U.N.Y. Cortland
Athletic Department
Cortland, New York 13045
(607) 753-4962

District No. 3: J. J. Bush, Athletic Trainer
University of Maryland
Athletic Department
College Park, Maryland 20740
(301) 454-4819

District No. 4:
Robert Behnke, Athletic Trainer (Chairperson)
Indiana State University
110 MPE
Terre Haute, Indiana 47809
(812) 232-6311 ext. 2438

District No. 5:
Ed Crowley, Athletic Trainer
University of Iowa
Athletic Department
Iowa City, Iowa 52242
(319) 353-4096

District No. 6
Michael K. Stephens, Athletic Trainer
University of Texas
Athletic Department
P. O. Box 7399
Austin, Texas 78712
(512) 471-5513

District No. 7:
Steve Antonopoulus, Athletic Trainer
Denver Broncos Football Club
Denver, Colorado

District No. 8:
Buford Harmon, Athletic Trainer
Mt. San Antonio College
Athletic Department
1100 N. Grand Avenue
Walnut, California 91789
(714) 598-2811 ext. 344

District No. 9:
Robert Barton, Athletic Trainer
Eastern Kentucky University
Athletic Department
Richmond, Kentucky 40475
(606) 622-2912

District No. 10:
Larry W. Standifer, Athletic Trainer
Sports Trauma & Orthopedic Physical Therapy
677 East 12th Street, Suite 220
Eugene, Oregon 97401
(503) 485-7489

Each commitee member acts as a two-way source of information: one, semi-annually, each member submits a report to the Chair regarding current activities on licensure in their districts, and two, serves as a resource person for any state within their district working on regulatory legislation for athletic trainers. The group meets formally at the NATA Annual Symposium and Business Meeting and informally by mail and phone continually when the need arises.

Sincerely,
Robert S. Behnke, Chairperson
NATA State Licensure Committee

Richard Ray, Athletic Trainer
Kansas State University
Athletic Department
Manhattan, Kansas 66506

Dear Rich:

Thanks for your phone call. I fully support your efforts to organize a directory of individuals responsible for legislation efforts in behalf of regulating the profession of athletic trainers.

Enclosed please find a roster of my committee members who should be able to put you in direct contact with THE person in each state in their districts, and, also, please find a state-by-state listing of those individuals I've had direct contact with and those states I have received copies of proposed legislation from the past six years.

Good luck and best wishes for an excellent year.

Sincerely,
Robert S. Behnke
Indiana State University

To: NATA LICENSURE COMMITTEE
From: BOB BEHNKE
Date: 9-23-81
Subject: SEMI-ANNUAL REPORT

My thanks to all of you who attended ourcommittee meeting in Forth Worth. As you indicated at the time, it was well worth it to get together. Also as you indicated, we'll plan on meeting annually at the Convention immediately after the National Business Meeting.

Please be reminded to send me updates on the status of any legislation or athletic trainer organizations in the states in your district by November 1. Also, if you can update the attached sheets, Please let me know.

Thanks for all your help. Have a good year.

November 23, 1981

Otho Davis, Athletic Trainer
Philadelphia Eagles Football Club
Veterans Stadium
Broad and Pattison Streets
Philadelphia, Pennsylvania 19148

Dear Otho,

Enclosed please find the following materials submitted as the Mid-Year Report of the Licensure Committee:

1) Committee members and responsibilities
2) A September 23, 1981 note to all committee members requesting a report from them by November 1 (I'm including this as part of the report to indicate my displeasure with the lack of response. I realize asking for anything during football season might be unreasonable, but as long as we need reports by December 1 for the mid-year agenda, we'll need cooperation from commitee members or we'll need new committee members!)
3) Committee member reports.
4) Chair report from the Council of State Governments meetings at St. Louis in September, 1981.
5) Ballot supporting appointment of J. J. Bush as the District 3 member of the Licensure Commitee.
6) List of contact people as identified by the chairperson.

Sincerely,
Robert S. Behnke, Chair
NATA Licensure Committee

LICENSURE COMMITTEE REPORT
NOVEMBER, 1981

District No. 1: Lou DiNitto:

NO REPORT
(no inquiries to the chair from anyone in District 1)

District No. 2: John Sciera:

NO REPORT
(comments to the Chair from Joe Godek, West Chester State indicates Pennsylvania is very close to passing a two-level licensure act.)

District No. 3: J. J. Bush:

District of Columbia: no organization or licensure efforts

Maryland: Bill heard and defeated. No further action until January, 1983.

North Carolina: H. B. 768 to study committee. No action until January, 1983.

South Carolina: Bill similar to Georgia's. To Senate in January, 1983.

Virginia: Request for licensure denied. Virginia Medical Society support for a Registry for Athletic Trainers is being investigated.

West Virginia: Mandate for all high schools with football have A.T.s by 1983. A.T. does not have to be NATA Certified. State Board of Education to certify A.T.s.

District No. 4: R. Behnke:

Illinois: no action at this time.
Indiana: re-introduction in January, 1983.
Michigan: Bill written but as yet not introduced. Apparent conflict between AT's and PT's.
Minnesota: Study conducted and hearings conducted by the State indicated no problems with practicing AT's, therefore, no need for such legislation. (?)
Ohio: Standards of athletic trainers has been established through the State Department of Education in cooperation with the OAHPERD.
Wisconsin: no action reported at this time.

District No. 5: Ed Crowley:

NO REPORT
(Richard Ray, Kansas State University continues to send the Chair monthly copies of the Kansas State Athletic Trainers Society Newsletter which includes the actions regarding licensure in Kansas. A new sponsor has been attained and re-introduction is nearing this coming spring. Rich has also started to develop a National Registry Directory to provide an up-to-date listing of State Officers and Legislative committee members in athletic training. This young man is really outstanding and is to be commended in his efforts regarding licensure.)

District No. 6: Spanky Stephens:

New rules for licensure have now been published. (Sept., 1981). Of great importance are the new requirements for out-of-state applicants.

District No. 7: Steve Antonopoulus:

Arizona: Chris Smith, Assistant at Arizona St. is the new contact person. No action at this time. Difficulties with definition of AT
Utah: only 9 ATCs. No action.
Wyoming: Only 4 ATC's. No action Watching other states.
Colorado: First attempt defeated. State Association forming. Next action in 1983.
New Mexico: Bill's sponsors defeated in attempt to be re-elected. Next attempt in 1983.

District No. 8: Bick Harmon: NO REPORT

District No. 9: Bobby Barton: NO REPORT

District No. 10: Larry Standifer: NO REPORT

NOTE TO COMMITTEE MEMBERS:
As stated earlier, if you have nothing to report, please indicate so. Remember, your reports (even notes stating no action) are due to the Chair on November 1 and April 1. If no action, at least update any changes in the contact people in each state. This information is essential if the Board, Committee Chair, and other Committee members are going to provide information to members when requested.
Thanks.

ALABAMA—proposed bill, but no contact person
ALASKA—Merle Young, University of Alaska-Fairbanks
ARIZONA—Mike Nesbitt, Northern Arizona University
ARKANSAS—Dean Weber, University of Arkansas
CALIFORNIA—Bick Harmon, Mt. San Antonio College, Walnut
COLORADO—Steve Antonopoulos (see Licensure Committee sheet)
FLORIDA—Mike Silverstein, University of Tampa
GEORGIA—Warren Morris, University of Georgia
IDAHO—Tom Koto, 125 E. Idaho, Boise, 83702
ILLINOIS—Jeff Sunderlin, Bradley University
INDIANA—Denny Miller, Purdue University
IOWA—Ed Crowley, University of Iowa
KANSAS—Jim Rudd, Kansas State University
KENTUCKY—Bob Barton (see Licensure Committee sheet)
LOUISIANA—proposed bill, but no contact person
MARYLAND—J. J. Bush (see Licensure Committee sheet)
MASSACHUSETTS—Lou DiNitto (see Licensure Committee sheet)
MICHIGAN—Dick Milder, 20002 Farmington Rd., Livonia, 48152
MINNESOTA—Gordy Graham, Mankato State University
MISSOURI—Bill Hopfinger University of St. Louis
NEVADA—Tim Jones, 1001 Shaddow Lane, Las Vegas, 89106
NEW JERSEY—Joe Camillone, Trenton State University
NEW MEXICO—Barry Svalberg University of New Mexico
NEW YORK—Mike Cappeto, Columbia University
NORTH CAROLINA—Rod Compton, East Carolina University
OHIO—Bob Livengood, Medical College of Ohio
OKLAHOMA—Jeff Fair, Oklahoma State University
OREGON—Larry Standifer (see Licensure Committee sheet
PENNSYLVANIA—Joe Godek, West Chester State College
TENNESSEE—Tim Kerin, University of Tennessee
TEXAS—Spanky Stephens, University of Texas
VIRGINIA—Ed Matthews, 6500 Quander Rd., Alexandria, 22307
WASHINGTON—Jim Whitesel, Seattle Seahawks
WEST VIRGINIA—John Spiker, University of West Virginia
WISCONSIN—John Eggart, University of Wisconsin -LaCrosse

The above names are simply those individuals in the above states who have sent or requested information to or from the NATA Licensure Committee Chairperson. Some individuals are chairs of Licensure Committees, others are Presidents of State organizations, and still others are athletic trainers just interested in starting investigations looking into regulatory legislation to control the practice of athletic training within their states.

THE COUNCIL OF STATE GOVERNMENTS
First Annual Conference
of the Clearinghouse on
Licensure, Enforcement, and Regulation
September, 1981
St. Louis, MO

As the representative of the National Athletic Trainers Association, I was fortunate enough to meet many individuals who share the athletic trainer's concern over regulatory legislation. As the attached roster of conferees indicates, representation of organizations with mutual concerns abounded. The roster is enclosed with the hopes committee members and Board members might find help from individuals in their states with mutual concerns.

The program included sessions on:
"Appointment of Licensing Board Members"*
"What a Legislator Needs to Know About Licensing"
"Accreditation, Licensure and Certification"*
"Sunset: Realities of the Political Process"
"Coordination of the Complaint-Receiving Process"
"Issues in Rule-Making for Boards and Agencies"*
"Legislative Process and the Rise of Sunrise"
"Avoiding Investigative Pitfalls"
"Centralizing the State Licensing Function"*
"Program Evaluation Measures for Sunset Review of Licensing"
"Exchange of Information about State Disciplinary Actions"*
"Role of Board Members in the Disciplinary Process"
"Productivity Improvements in the Administration of Licensure"
"Caucus for Public Licensure Board Members"
"Legislative Review of Administrative Regulations"*
"Professions' and Boards' View of Sunset Process"*
"Regulations of Behavioral Science Professions"
"Alternatives to Licensure"*
(*) Sessions personally recorded by NATA Licensure Chairperson.

The combination of tape recordings, handout materials, and personal contacts have made the Chairperson of the NATA Licensure Committee much more enlightened regarding regulatory legislation. (Please also note the enclosed handout typical of the materials available at the Clearing house: "The Relationship Between Eligibility For Licensing in Various Professions and Accreditation in Five Different States.")

A wealth of publications and periodicals are available from the Council of State Governments. (See enclosed PUBLICATIONS 1981 catalog.)

The information obtained by attending the Clearinghouse, coupled with the contacts made, have enhanced the knowledge of the Chair to serve as a resource for the NATA membership interested in working for regulatory legislation regarding the practice of athletic training. The Chair is compiling a short bibliography of materials available from the Council of State Governments that directly pertain to regulatory legislation. Such a bibliography will be helpful as a source of materials for those members working in their respective states.

The Chair is obtaining information regarding Affiliate Membership in the Council of State Governments for the NATA and will report further at the June, 1982 meetings in Seattle.

There is no other one source with such a wealth of materials directly relating to this committee's function than the *Clearinghouse on Licensure, Enforcement and Regulation* of the COUNCIL OF STATE GOVERNMENTS. The chair will attempt to solicit funds annually for either the Chair or committee member in the geographical area to attend this most worthwhile meeting.

Please encourage the NATA Board of Directors to urge their members to utilize the services the committee and chair have available.

December 28, 1981
TO: NATA LICENSURE COMMITTEE MEMBERS
FROM: Bob Behnke, Chairperson
ABOUT: Miscellaneous Enclosures

First of all, please be advised that I will be on sabbatical leave from January 11, 1982 to approximately mid-May. I would appreciate your Spring Reports (due April 1) being sent to me c/o: U.S. Olympic Training Center, 1750 East Boulder Street, Colorado Springs, Colorado, 80909 ATTN: Sports Medicine.

Comments about enclosures:

1) Otho Davis' letter. As you can see, my requests for semi-annual reports from you by November 1 and April 1 are extremely important so that Otho can enter my combined report on the agendas for the Board of Director's mid-year and summer meetings. Most of you have been good about this. A few of you have unavoidably gotten reports to me too late to be entered in my report to the Board. Some of you have not submitted anything! Please, submit something by each November 1 and April 1. I realize many states are doing absolutely nothing. Even if that is the case, please send me a note indicating just that. We need a semi-annual status report of each activity in *each state* in your district. If you feel you cannot get such information from the states within your district, or cannot possibly, because of the demands of your position, get this report to me by November 1 and April 1, please consider recommending someone else in your district who would be interested and could accomplish this semi-annual task. (REMEMBER: APRIL 1 and November 1)

2) Panel Discussion on Accreditation, Licensure, and Certification. This is a handout I had Otho duplicate for committee members. It is from a presentation given at the CLEARINGHOUSE meetings I attended in September in St. Louis. This organization has a wealth of material directly relating to our concerns and I hope we continue to associate ourselves with this organization.

3) CLEARINGHOUSE Roster. As a means of identifying individuals involved with regulatory legislation similar to our efforts in your district's states, I've enclosed a copy of the roster from the CLEARINGHOUSE workshop. When responding to questions within your district about who to contact regarding legislation, suggest these people.

4) John Sciera's Questionnaire. John has developed an excellent instrument which I believe each committee member should utilize once a year within your district; I am requesting you duplicate John's questionnaire for each state in your district, send it immediately to the state individuals you know who are in charge of their state's licensure efforts; have them return the questionnaire to you; and please submit these questionnaires to me as part of your APRIL 1 report. By our meeting in June, we should then have the most accurate assessment of regulatory legislation efforts in the profession.

5) District No. 5 fall report.

6) District No. 8 resignation. I've written Bick thanking him for his efforts and I've also written Roger Dennis, District No. 8 Director, for recommendations for a replacement.

7) District No. 9 report.

8) Progress reports from Michigan and Illinois.

9) As I indicated in my December 1 report to the Board (of which a copy was sent you), transcriptions (tape cassettes) of the presentations at the CLEARINGHOUSE on Accreditation, Licensure, and Certification are available at a nominal fee. You might consider recommending certain tapes to individuals in your district who have concerns regarding the various topics covered.

10) District 1 report

I have received word from Otho that my request that the committee receive copies of the publication "Professional Regulatory News" has been ok'ed. Look forward to receiving this very informative publication.

The American Orthopaedic Society for Sports Medicine, with our committee's cooperation, is ready to make a concerted effort to support athletic trainer licensure at the state levels. More on this later.

I've requested the 12:30 pm to 2:00 pm time slot on Monday of the Convention in Seattle (immediately after the National Business Meeting) for our annual meeting. The format will remain the same: first 30 minutes devoted to various committee member problems and comments, and the last hour given to a speaker currently involved with athletic training legislation followed by questions and discussion. You all seemed to enjoy this in Fort Worth so we'll continue in Seattle. I hope all of you can attend.

Please give your immediate attention to any of the above items directly effecting you, your district, and the states within your district. Remember, your next report to me is due APRIL 1 and be sure to include copies of John's questionnaire from each state in your district.

After one year, I feel we are finally off and running and can be a valuable asset to the membership of the NATA. Your help has been appreciated and I hope you'll continue to participate in this most worthwhile committee.

November 20, 1981
TO: Bob Behnke
FROM: Bobby Barton
RE: District 9

Since June, there has been no change in the licensure status of our states. Nothing has been transacted at my level.

November 24, 1981
Bob Behnke Ph D
Head Basketball Trainer
Indiana State University
Dept. of Intercollegiate Athletics
Terre Haute, IN 47809
Dear Bob:

Just a brief note to update you on the status of our licensure here in Illinois.

As of this date, we have had no activity with regards to state licensure. Most of our recent efforts have centered around the development of our state organization. We felt it important to create an air of unity amongst the state trainers before we embarked upon the legislation trail again.

While our organization efforts have been somewhat choppy, we believe we have moved beyond our initial obstacles and have scheduled our next election in January. At the mid-winter meeting in March we are planning to address the licensure issue and re-establish a legislative committee.

We recognize the fact that the process will not be a cake walk, but I honestly believe that because of trailblazing that you, Kauth, and Aten did combined with a unified state group our path will be less obstructed.

At any rate, have a good sabbatical and we'll see you in Indianapolis.

Sincerely,
Jeff Sunderlin,
Program Director

December 1, 1981
Mr. Bob Behnke
NATA District Four Director
Indiana State University
Terre Haute, IN
Dear Bob:

This letter is to up-date you as to the licensure effort in the state of Michigan.

Michigan submitted a licensure bill to the state legislature in the fall of 1979. It was referred to the Public Health Committee for hearings. Subsequently, the Governor created, in the mean time, the Health Occupations Council, a moratorium board to make recommendation of the license of professions in the state of Michigan. We have finished our hearings.

We were turned down for licensure, the HOC recommended to the Public Health Committee that we seek registration along with respiratory therapist and occupation therapist in the next legislation session.

Our state committee is presently digesting the HOC report and will be forthcoming with a recommendation in January to our state trainers association.

It sure has been a lesson in power plays and politics, we are fighting a huge up hill battle. With the state economy right now, unemployment at 11%, it doesn't look good for a long time in Michigan. However, we are determined to hold our own for as long as we can.

Enjoy your sabbatical.

Sincerely,
Ken Kopke
Chairman State Licensure Committee - Michigan

December 2, 1981
Dr. Robert Behnke
Indiana State University
Terre Haute, Indiana 47809
Dear Bob,

Sorry for the tardiness of the report, I was in the process of waiting for confirmation from representatives of individual states. I would greatly appreciate a detailed breakdown of my responsibilities to the committee and to the individual state representatives.

Connecticut: Paul Concialdi - organized a group of trainers in spring of '80, but has not reported since.

Maine: Richard Labonte from the Biddeford school district is reviewing the licensure pamphlet and developing some form of an organization with limited memberships.

Mass.: The athletic trainers have a strong organization (ATOM), that includes three clinics a year. The piece of legislation (revised Senate Bill 604) is having problems due to financial difficulties resulting from massive state cutbacks. However, the bill is alive and '82 looks like a promising year.

N.H.: Dennis McManus, from Plymouth State College-has received a sample pamphlet and has sent inquiries to all trainers to promote the licensure effort.

Vermont: No representative.

R.I.: Frank George has not reported.

I am sorry that the deadline for the report was not adhered to, and for any inconvenience I caused because of the tardiness. I can assure you that future reports will be punctual and communications will improve.

Sincerely,
Louis M. DiNitto

December 7, 1981
Bob Behnke
Indiana State University
110 Arena
Terre Haute, IN 47802
Dear Bob:

Sorry for the delay in my report. I have no excuse other than just being an athletic trainer.

Several states are moving toward State Licensure in our district:

1. Oklahoma has made it; they have licensure. Dan Pickett and Jeff Fair are the contacts.
2. Nebraska - not moving
3. Iowa - developing an Iowa State Athletic Trainer Society to look into licensure.
4. Kansas - Has already developed a State Athletic Trainer Society. Jim Rudd contact.
5. South Dakota - Is planning to submit a Bill to Congress. Leo Dougherty is the contact.
6. Missouri - no contact with Bill Hapfinger

This year at the District No. 5 meeting there will be a discussion of State Licensure, its pros and cons to stimulate thinking and interest along these lines.

I faithfully submit this report to you knowing it is late and I apologize for that. I have had several requests to provide copies of all state licensure for people to review. Where do I acquire these copies? Can you help?

Sincerely,
Ed Crowley

D. Memorial Resolutions Committee:

November 23, 1981
Mr. Otho Davis
Executive Director
NATA
Philadelphia Eagles Football Club
Veterans Stadium
Philadelphia, PA 19148
Dear Otho:

This letter is to report to you the actions of the Memorial Resolutions Committee since the June report.

The memorial for the following deceased trainers appeared in the summer issue of *Athletic Training.*
John Edward Noonan, Harvard University

The memorial for the following deceased trainer appeared in the summer issue of *Athletic Training.*
Dwight Aultman, Univ. of New Hampshire

Memorials for the following trainers have been processed and are slated to appear in the winter issue of *Athletic Training.*

Sam Lankford, Virginia Tech Univ.
Donald Bleam, Adrian High School, Michigan
Francis Sheridan, Lafayette College

Another deceased trainer has been reported and Donald Kessler, the District 2 representative is in the process of memorial preparation. The deceased trainer is John Korbmacher.

Enclosed you will find a list of the committee members and their functions. Also I've included the committee appointment sheets and resumes for my committee members. These are all available except two, Warren Morris and Sam Nakaso have yet to respond to several requests for a resume. I am in the process of following up on this.

The committee met briefly at the NATA meeting in Fort Worth. We discussed several topics. We approved the enclosed procedures for development of a memorial. These should allow memorials to be better prepared and more complete.

The committee will continue to send monthly reports of deceased trainers to district directors, secretaries and committee members.

Sincerely,
Jim Rudd, Chairman
Memorial Resolution Committee

MEMORIAL RESOLUTIONS COMMITTEE
Chairman Jim Rudd
District 5
Kansas State University
Fooball Office
Manhattan, KS 66502

Duties:
1. Send monthly mailing on deceased trainers to:
   a. NATA Office
   b. District Directors
   c. District Secretaries
   d. Committee Members
   e. President and Executive Director
2. Notify National Office immediately upon hearing of the death of a member.
3. Coordinate with Mary Edgerley the receipt of memorials for publication in the Journal.
4. Coordinate with Ken Wolfert the memorial section of the Journal.
5. Receive and review all memorials from District Representatives to insure proper information is included - Then send to the National Office.
6. Coordinate with the committee workable policies and procedures for memorial preparation.

District 1	District 6
Connie Bauman	Ken Murray
Athletic Department	Texas Tech University
Wellesley College	P.O. Box 4199
Wellesley, MA 02181	Lubbock, TX 79409
(617) 235-0320	(806) 742-3355
District 2	District 7
Donald Kessler	Tom Abdenour
Athletic Department	Athletic Department
Princeton University	Weber State College
Princeton, NJ 08540	Ogden, UT 84408
(609) 452-3527	(801) 626-6501
District 3	District 8
Max Crowder	William Nakaso
Cameron Stadium	San Jose City College
Duke University	2100 Moonpark Ave.
Durham, NC 27706	San Jose, CA 95128
(919) 684-2707	(408) 298-2181
District 4	District 9
Dennis Helwig	Warren Morris
University of Wisconsin	Athletic Department
1440 Monroe St.	University of Georgia
Madison, WI 53706	Athens, GA 30601
(608) 262-3630	(404) 542-3915
District 5	District 10
Ivan Milton	Gary Smith
2621 S. Fremont	444 W. 28th
Springfield, MO 65802	Spokane, WA 99203
(417) 836-5461	(509) 456-6560

Duties of Committee Members:
1. Notify Committee Chairman immediately upon hearing of the death of a member.
2. Collect necessary information and picture for memorial.
3. Write memorial and send along with picture to the committee Chairman.
4. Work with the Chairman to develop policies and procedures for memorial preparation.

MEMORIAL RESOLUTION COMMITTEE PROCEDURES

The following procedures should be followed by each committee member in the event of the death of a trainer in his/her district.

1. Call the Committee Chairman immediately upon learning of the death of a member. Provide the following information:
   a. Name of Trainer
   b. Date of Death
   c. Place of Employment
   d. Other information if available
2. Next the committee member shall obtain as much vital information as is possible about the deceased trainer and prepare a memorial. It is suggested that contact be made with the Sports Information Office at the deceased trainers institution or obtain newspaper article as it appeared in the local paper.

   Items to be included in the memorials:
   a. Birth Date - Death Date
   b. Place of Employment - Position
   c. Personal Background
      1) Where the trainer was born
      2) Education
      3) Family
   d. Institutions or Clubs worked for during his/her career.
   e. District, Committee or National Offices held.
   f. Related Professional Associations and Memberships.
   g. Honors and Awards (i.e. . . . 25 year Award, Helms Hall of Fame, Distinguished Service, International Competition Trainer Duties)
3. The committee member should also obtain a black and white glossy print photograph of the deceased. This should be forwarded to the committee Chairman along with the memorial. In the event a picture is not available the committee member should obtain a copy of the school crest for publication in the journal.
4. The completed memorial and picture or crest should be forwarded to the chairman of the committee as soon as it is completed.

E. Joint Commission on Competitive Safeguards and Medical Aspects of Sports:

MINUTES

Joint commission on competitive **safeguards** and medical aspects of sports.
June 6, 1981 (Saturday)

The meeting was called to order by Roy Don Wilson, chairman, at 8:35 a.m. in ballroom A & M of the Best Western Convention Center Hotel, Ft. Worth, Texas.

Welcome and introductory remarks were made by

Chairman Wilson. Listed are the members present.
Major P. Gladdon, MD
John M. Miller, MD
Wally Schwartz
Al Ortoloni, ATC
David Montgomery
Karen Knortz
Don Bushore
William "Pinky" Newell, ATC
Tom Shaffer, MD
W. D. Heintz, DDS
Carl Blyth, PhD
Dick Schurdler
Roy Don Wilson, ATC
Jim Dilley
Kermit Smith
Glen Snow, ATC

The minutes of the January meeting were discussed and approved.

A treasurer's report was given out by Jim Dilley.

UPDATE FROM MEMBER INSTITUTIONS:

1. American Academy of Pediatrics by Tom Shaffer, MD. The academy is having more questions directed to them about children's problems: they are interested in sports medicine rather than surgery. Projects currently being proposed are: (A) A voluntary program for youth coaches oriented toward sports medicine. Soccer coaches responded best, but with little success from baseball and football coaches. (B) Work is still being done on seat belts for children. Some policy statements were issued as follows: (1) Swimming for infants should be done on a one-to-one basis to three years of age. Older than three should be on group basis. (2) Trampoline statements revised to read, "should not be a competitive sport but may be used in schools for proper purposes." (3) Weight training *vs* weight lifting programs. This is questionable in pre-teenagers. It should be based on maturity rather than certain age. Also, the program should be carefully supervised. (4) The marathon and long distance running may not hurt other than a psychological reaction rather than physical.

Others included: (5) DMSO - should not be used. (6) Also, beware of "risk taking" performed by people on TV and in movies. A statement concerning trampolines was presented.

2. American Dental Association by Dr. Bill Heintz. A discussion centered about "update in mouth protection for athletes." Dr. Heintz thinks there is a problem of kids trying to cheat about not wearing mouth pieces. Who is responsible? He seems to think the team trainer and officials should enforce the rule.

3. Roy Don Wilson read a letter from Jack A. Bell expressing interest in the American Medical Association becoming an associate member of the joint commission. Dr. Don Cooper has been appointed the official representative.

4. AIAW - Karen Knortz reported that the AIAW will continue to be a dues paying member of the joint commission. She discussed briefly a position paper on "Anabolic - Androgenic Steroids." It is made in terms of education rather than punishment. Physical examinations were changed to be more in line with the NCAA requirement. A lengthy discussion ensued concerning the ethics of substances that claim to enhance the ability of athletes in competition.

5. Canadian Amateur Football Association. The Canadian injury program is going well. Copies may be secured by writing Bill Morrison, University of Ottawa, Ontario, Canada, K1N6N5. A football fitness testing program has been designed which includes six categories of testing. Also, Canadian Amateur Football is sponsoring a player profile starting at sixteen (16) years of age. Projects to be completed include a manual entitled "Your Child in Football." Also, there is a study being conducted on mouth guards and helmets. Football players are using electrical instruments for muscle stimulation.

6. NAIA - The NAIA has formed its own athletic trainers association. Since the association has only sixty-two certified trainers, a move is necessary to promote and strengthen this vital area of health care for athletes. The NAIA medical aspects of sports has been conducting an athletic symposium. A discussion centered around the hazards of spring football practice. It is the feeling of the NAIA representatives that spring football is not necessary. Maybe spring practice should be in shorts and "T" shirts.

7. NCAA - Dr. Carl Blyth discussed the interest of the NCAA starting an injury reporting system. The lacrosse injuries report will be released this fall. Dr. Blyth discussed the work of NOCSAE. A comprehensive report will be released this summer giving the history and update of NOCSAE. Copies of the 1980 annual survey of football injuries research was given to each member. Richard Schindler and Carl Blyth discussed the report. Copies may be secured by contacting these persons.

8. High School Federation - Robert Schindler. The main problem of injury data collection is the vast number of high schools involved. How would this be collected? Many requests are received for injury reports throughout the nation. The federation publishes four books each year with much of the information being about mouth protection, examination, safety equipment, etc. Some rule changes in football are: (A) No blocking below the waist outside the free blocking zone; (B) Delayed block at the knees; (C) Prevent blocking on the kicker until the ball has gone five yards; (D) Spearing not allowed (helmet deliberately used to hurt an opponent.) Baseball changes: (A) Outlaw metal spikes beginning in 1981. (B) The use of throat protectors beginning in 1982. (C) All hard and abrasive equipment in wrestling must be padded.

9. NJCAA - To try an injury reporting system during the 1981-82 year in football. Other NJCAA sanctioned sports will be included later. Due to the community concept of the junior/community college system, many schools consider the case of their athletes as a "community affair." As a result, injuries are not reported as they would be in university or professional sports. The NJCAA continues to use EMY's, nurses, and special trained staff within schools to administer help to athletes.

10. John Axford of Bike Athletic Equipment Co., Knoxville, Tennessee, spoke on safety and liability in sports equipment. Football helmets manufacturers now fund NOCSAE for 10¢ per helmet, and 3¢ below junior high school. An expected increase is projected. Lawsuits are becoming a real problem to manufacturers. This could endanger the continuation of making football helmets.

11. NATA - John Spiker, athletic trainer at West Virginia University, discussed a recent law drawn up to require an athletic trainer in all schools in West Virginia. However the law did not pass due to the lack of time. But, the State Department of Education has a certified program to be used in all high schools. A person may become certified by taking twenty-one (21) semester credit hours in a training curriculum. The state will require someone in each school with six (6) credit hours by 1981. Extra money in about $1,500.00 to $2,000.00. This appears to be a good motivating factor. Pinky Newell affirmed that all working committees will be transferred to the new headquarters building. Also, seventeen (17) scholarships will be presented at this meeting. These awards will amount to over $11,000.00 in scholarships. The Cramer Company has initiated two new scholarships.

JUNE 7, 1981 (SUNDAY) 8:30 A.M.

Don Bushore of Athletic Institute spoke about problems of manufacturers. If a sporting goods company is owned by a conglomerate, the profit must be there or they will stop making helmets. The Athletic Institute had worked on safety in seven sports. Films are available from the institute. They generally cover such areas as good coaching, proper officiating, good equipment and proper conditioning.

A pamphlet from the FDA on drug information was given to each member by Chairman Wilson. A rather lengthy discussion centered around the legal and medical aspects of DMSO. It has been used for treatment of animals but athletes are using it quite freely. One definite conclusion exists—it should not be used unless supervised by a medical doctor.

The group feels that eye protection should be worn in all racquet ball games. This is especially true in all school sponsored classes. However the individual still has the prerogative in free play.

CHEERLEADERS - There is some question as to whether we should include cheerleaders safety in our discussions. Dr. Tom Shaffer will bring a positions statement from the academy to our next meeting.

A discussion was presented as to how many trainers were to be given a seat in a baseball dugout or on a basketball bench. Some clarification should be made.

There was serious discussion about the enforcement of mandatory equipment rules. This committee feels schools should administer the use of equipment that would be safe for players. Each member of this committee should emphasize this to their respective organizations.

Pinky Newell inquired about the athletic institute becoming an associate member of the joint commission. Don Bushore spoke in favor of this and expressed appreciation for being considered. Newell made a motion to this effect, seconded by Al Ortolani, and voted unanimously.

The next meeting will be at the site of the NCAA Convention in Houston, Texas. We will meet on Sunday afternoon, January 10, 1982, and on Monday, January 11.

The meeting was adjourned at 11:30 a.m.

Respectfully submitted,
Kermit Smith
Secretary

REPORT BY
ASSOCIATION OF INTERCOLLEGIATE
ATHELTICS FOR WOMEN
AIAW SPORTS MEDICINE COMMITTEE
POSITION STATEMENT ON ANABOLIC -
ANDROGENIC STERIODS
May, 1981

Whereas anabolic-androgenic steriods are potent drugs which must be prescribed by a physician . . .

Whereas there is no significant increase in athletic performance as a result of anabolic-androgenic steriod usage . . .

Whereas anabolic-androgenic steriod administration has a dangerous effect on many body systems, and includes the following risks and side-effects in women: liver dysfunction, salt and water retention, masculinization, deepening of the voice, baldness, acne, and excess growth of body hair . . .

Whereas the use of any drug for possible enhancement of physical performance is in violation of the ethics of women's intercollegiate athletics . . .

The AIAW (Sports Medicine Committee) hereby recommends that student-athletes be strongly discouraged from the use of anabolic-androgenic steriods, and pledges to investigate reported incidents of usage, with the intent to protect student-athletes from harm by imposing sanctions where indicated, and by education of administrators, coaches, and student-athletes regarding the inherent dangers associated with the use of anabolic-androgenic steriods.

THE FACTS ABOUT ANABOLIC STERIODS

Q: What are anabolic steriods?

A: Anabolic steriods are artificial derivatives of the male hormone testosterone. Such chemical substances have two effects: anabolic and androgenic. Anabolism is the constructive phase of metabolism in which body cells, particularly muscle cells, synthesize protoplasm for growth and repair. Androgens are substances which stimulate male characteristics. They are responsible for the secondary sex characteristics, such as the beard and the deepening of the voice. They also stimulate the growth of muscle and bones and thus account in part for the greater strength and size of men as compared to women. Anabolic steriods always have androgenic effects, though manufacturers have attempted to produce substances which minimize the androgenic effects while maximizing the anabolic effects.(2,3,4) Although many such agents have a relatively high anabolic-androgenic ratio, it has not been possible to completely separate these two activities in any of them.(5) They are very potent drugs, and can have dangerous side-effects, thus they must be prescribed by a physician.

Q: What do anabolic steriods do?

A: Anabolic steriods were first used in the 1930's for the medical treatment of debilitation and starvation.(6,7) Muscle wasting was evidenced by "negative nitrogen balance," a result of protein catabolism or destruction. Treatment with anabolic steriods is thought to help restore nitrogen balance, a consequence of protein building.(8) At present, the Food and Drug Administration limits the use of anabolic steriods to treatment of aplastic anemia, disseminated breast cancer, pituitary dwarfism, and serious endocrine disturbances.(2) An American physician who was a weight lifter began taking steriods himself thinking that they would work even better to enhance protein building in persons who already had a positive nitrogen balance, and unlimited access to protein. He was himself convinced that as a result of anabolic steriod ingestion he became bigger and stronger.(9) Soon this testimonial spread throughout the ranks of weight lifters and body builders, who began the haphazard and dangerous experimentation which persists today. Physicians, athletes, and coaches who use anabolic steriods for the purpose of enhanced athletic performance should be aware of three things: The practice is illegal, medically dangerous, and questionable in outcome.(10)

Q: Who takes anabolic steriods?

A: Anabolic steriods are used predominantly by weight-lifters, body builders, field event competitors, and football players for the purpose of increasing size and strength. Many of these athletes are frustrated by the fact that they cannot keep up with regional or international competitors even when performing at their peak.(11) Drug testing and testimonial have revealed that women athletes, too, are using steriods.(12,13) They knowingly take a substance which can do serious harm to the body, whether or not it can possibly improve performance.(9)

Q: Do anabolic steroids really give athletes an advantage?

A: Many studies have been undertaken to document physiological effects of anabolic steroid usage. All experiments must be critically reviewed before judging the merit of their conclusions. Many of the steroid studies which showed muscle mass and strength increases were poorly designed (2) and their conclusions were, therefore, highly questionable. The validity of these findings is even more doubtful in light of the contradictory findings of a substantial number of well controlled studies that will stand very close scrutiny to indicate that anabolic steriods do not contribute significantly to gains in muscle mass or strength.(9) It is interesting to note that one study which utilized an inert substance (placebo) documented muscle mass and strength gains of the same significance as experiments performed under similar conditions claiming these improvements as a result of anabolic steroid administration.(14) The following conclusions were drawn by organizations with

a concern for safety in sports:

1. American College of Sports Medicine: "The administration of anabolic-androgenic steroids to healthy humans below age 50 in medically approved therapeutic doses does not of itself bring about any significant improvements in strength, aerobic endurance, lean body mass, or body weight. There is no conclusive scientific evidence that extremely large doses of anabolic-androgenic steroids either aid or hinder athletic performance."(15)

2. British Association of Sport and Medicine: "No known chemical agent is capable of producing both safely and effectively an improvement in performance in a healthy human subject."(16)

Q: Are there risks or side-effects involved in the use of anabolic steroids?

A: Anabolic steroids are synthetic hormones and have serious effects on many body systems owing to their interaction with other human hormones.(9) When an anabolic steroid is administered to a normal healthy male, the body's own testosterone production decreases. This is because the body cannot distinguish between testosterone and a testoterone-like anabolic steroid. When concentration of the hormone reach a certain level in the blood, the body slows or stops natural testosterone production. Reduction in sperm production has been noted in healthy adult males(17,18,19) and in 1976, two athletes dosing themselves reported sterility.(20) In men, other sex related abnormailities associated with steroid usage includes loss of the sex urge and testicular atrophy.(10) Liver disorders are perhaps the most serious side effect of prolonged anabolic steroid usage. Liver function has impaired in as many as 80% of some 69 patients treated with testosterone derivatives. (2) Liver cancer has been detected even in persons taking low dosages of anabolic steroids.(22,23,24,25) Salt and water retention has also occurred in male athletes taking steroids.(11) In fact, this phenonema may be responsible for the increased body weights reportedly resulting from anabolic steroid usage.(20)

Some serious undesirable effects have been reported in women. These include masculinization, deepening of the voice, acne, baldness, and excess body hair.(10,26,21,27,28) Under certain conditions, these effects may not be reversible.(2) Anabolic steroids interfere with the menstrual cycle,(21) and their long term effects on the reproductive system are not known. Use of steroids should be limited to medical treatment of life-threatening illnesses, in which the benefits may outweigh risks.(10)

Q: Can women athletes excel without the use of steroids?

A: The progress of women athletes in sports will not be aided by the use of anabolic steroids or any other drug. Performance capabilities of women athletes will continue to increase as a result of tremendous improvements in training methods, coaching, attitudes, equipment and facilities. The potential for athletic excellence in women has barely been tapped. There is much to look forward to in this regard.

The very cornerstone of athletics is fair play, the assumption that all competitors have equal opportunities for success. Whether or not anabolic steroids give the athlete an edge, and it certainly appears that they do not, their use, like the use of any illegal drug, is akin to knowingly using a lightweight shot in competition. Cheating, in whatever form, undermines the very foundation of athletic ethics, and transforms athletic competition from fair play into a deplorable charade. Let us hope that the progress of women in sport will occur as it has in the past, as a result of hard work, dedication, and persistence.

References

1. Miller B F, Keane C B: *Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health*, Philadelphia W B Saunders, p. 43, 1978.
2. _____ "Anabolic Steroids for Athletes." *Med. Letter Drug Ther.* 18(27): 120, 1976.
3. _____ "Athletes and Anabolic Steriods." *Drug Ther. Bulletin* 15(11): 43-44, 1977.
4. _____ "Who Needs Anabolic Steriods." *Drug Ther. Bulletin* 17:54-56, 1979.
5. Boris A, Stevenson R H, Trmal T: "Comparative Androgenic, Myotrophic and Antigonadotrophic Properties of Some Anabolic Steroids." *Steroids* 15:61, 1970.
6. Samuels L T, Henschel A F, Keys A: "Influence of Methyl Testosterone on Muscular Work and Creatin Metabolism in Normal Young Men." J. Clin. Endocrin Metab 2:649-654, 1942.
7. Simonson E, Kearns W M, Enger M: "Effects of Methyl Testosterone Treatment on Muscular Performance and the Central Nervous System of Older men." *J. Clin Matab* 4:528-534, 1944.
8. Kochakian C: "Definition of Androgens and Protein Anabolic Steroids" *J. Pharmac. Ther. B.* 1(2): 150-151, 1975.
9. Ryan A: "Anabolic Steroids Are Fools Gold" presented at the Federation of American Societies for Experimental Biology and American Society for Pharmacology and Experimental Therapeutics Symposium on Drug Use in Athletes, 1980.
10. Munch, L R "Drugs and the Athlete" *Sports Medicine for the Athletic Female* Oradell, N J, Medical Economics, p. 354, 1980.
11. Percy E C: "Symposium on Sports Medicine: Athletic Aids—Fact or Fiction?" *Can. Med. J.* 117: 601, 1977.
12. Amdur N: "The Drug Game Threatens International Amateur Sport" *The New York Times*, November 4, 1979.
13. Foster R S: "Athletes Say Coach Urged Steroids" *California Track and Running News*, December 1980/January 1981.
14. Ariel G, Saville W: "Anabolic Steroids: Physiologic Effects of Placebos" *Med. Sci. Sports* 4:124-126, 1972
15. ACSM: "The Use and Abuse of Anabolic - Androgenic Steroid in Sports" 9: xi-xiii, 1977.
16. BASM: "BASM Policy Statement on Doping (1964)" *Brit. J. Sports, Med 9(2): 58-59, 1975.*
17. Henderson R A, Kilshau B H Hobson B M: "*Effects of Large Doses of Anabolic Steroids.* Brit J. Sports Med. 9(2): 70-73, 1975.
18. Hervey G R: "Are Athletes Wrong About Anabolic Steroids?" *Brit. J. Sports, Med* 9(2): 70-73, 1975.
19. Kilshaw B H, Harkness R A, Hobsen B M, Smith A M: "The Effects of Large Doses of the Anabolic, Methandrostemolone, on an Athlete." *Clin. Endocr. J.* 83:860-862, 1960.
20. Brooks R: "Anabolic Steroids and Athletes." Phys. Sports Med 8(3), 1980.
21. Sanchez-Medal L, Gomez-Leal A, Duarte L, Guadalupe-Rico M: "Anabolic-Androgenic Steroids in the Treatment of Acquired Aplastic Anemia." *Blood*, 34:283-300, 1969.
22. Farrell G C, Joshua E E, Uren R F, Baird P J, Perkins K W, Kaaienberg H: "Androgen Induced Hepatoma." *Lancet*, 1:430-431, 1975.
23. Guy J T, Auslander M D: "Androgenic Steroids and Hepatocellular Carcinoma. *Lancet* 1:148, 1973.
24. Henderson J T, Richmond J, Sumerling M D: "Androgen Steroids and Hepatocellular Carcinoma." *Lancet:* 1:934, 1972.
25. Johnson F L, Feagler J R, Lerner K G, Majems P W, Siegal M, Hartman J R,Thomas E D: "Association of Androgenic-Anabolic Steroids With Development of Hepatocellular Carcinoma." *Lancet* 2:1273-1276, 1972.
26. Allen D M, Fine M H, Necheles T F, Dameshek W: "Oxymetholone Therapy in Aplastic Anemia." *Blood* 32:83-89, 1968.
27. Shahidi N T: "Androgens and Erythropoiesis." *N. Engl. J. Med.* 289:72-79, 1973.
28. Slink J, Firkin B G: "An Analysis of Hypoplastic Anemia with Special Reference to the Use of Oxymetholone in its Therapy." *Austr. Ann. Med.* 17:224-235, 1968.

F. National Association for Girls and Women in Sport:
TO: Otho Davis, Executive Director NATA
FROM: Liaison Representative of the Athletic Training Council
Toni VanDePutte ATCLAT, Chairperson TVDP
DATE: November 16, 1981
SUBJECT: Liaison Report

A. Activities of the NAGWS-ATC

1. Submitted for publication AAHPERD "Tips on Training"

2. Preparing for feature article in "*Journal of Health Physical Education, Recreation and Dance,*" in 1982.

3. Finalizing ATC program for the National AAHPERD Convention in Houston, Texas, April 22-27, 1982.

a. Research on the Female Athlete - Speaker to be announced (Friday, April 23rd 1:30 p.m. - 2:45 p.m.)

b. Texas: Licensing for Athletic Trainers - Speakers Logan Wood Jr. and Allan Eggert (Friday, April 23rd 3:15 p.m. - 4:30 p.m.)

c. Taping Demonstration—Speaker Lynn Barry (Saturday, April 24th 3:45 p.m.-5:30 p.m.)

4. Revising the ATC Operating Code to an Affiliated Athletic Training Council

5. Meeting of ATC at the National Convention

The ATC at this time has no items to be placed on the agenda for discussion. As the chairperson of the ATC, I would recommend that the liaison status with the NATA be maintained.

Presently there are approximately 3,900 members of the ATC, women and men who are interested in athletic training for women. Both associations, the NATA and the NAGWS, are striving to provide safe environments in which women can compete.

A liaison relationship can keep the Board up-to-date with the developments in the NATA so that the new athletic training structure can continue to work within the guidelines established by the NATA, just as the ATC has done.

G. National Association of Intercollegiate Athletics:
November 12, 1981
Mr. Otho Davis, Executive Director
National Athletic Trainers Association
112 South Pitt Street
Greenville, North Carolina 27834
Dear Otho:

We are in receipt of your letter dated October 1, 1981 concerning the mid-year board meeting agenda items.

The NAIA Athletic Trainers Association is, of course, very interested in continuing its affiliation with NATA.

Enclosed is a copy of the minutes of the NAIA-ATA meeting held June 8, 1981 in Fort Worth, Texas. As you will note officers were elected at that meeting and we are currently in the process of formulating an operating code for approval at our interim meeting in March in Kansas City.

The athletic trainers in attendance at our annual meeting held in conjunction with NATA have recommended that we continue to hold our annual meeting during the NATA Convention.

While the NAIA-ATA has no specific agenda items at this time, a copy of our governing code will be sent to you upon finalization.

Sincerely,
Wally Schwartz
Associate Executive Director

cc: Al Ortolani, President, NAIA Athletic Trainers Association

MINUTES OF THE NAIA-ATA
June 8, 1981
Fort Worth, Texas

The meeting was presided over by Al Ortolani, Chairman of the NAIA Medical Aspects of Sports Committee.

30 NAIA Athletic Trainers were in attendance.

A report on the membership of NAIA-ATA and its financial base was given by Wally Schwartz of the NAIA National Office.

Membership in 1979-80 - 72 members
Membership in 1980-81 - 145 members

The unofficial financial report shows $2,100 on hand. (The official report is made on August 1st each year).

First order of business was the election of officers for 1981-82. Nominations were received for the office of President, 1st Vice President, 2nd Vice President and SecretaryTreasurer. The following slate of officers were elected:

President: Al Ortolani, Pittsburg State KS

1st Vice President: Karl R. Klinksiek, Southern Colorado

2nd Vice President: Harold Bennett, Texas Lutheran

SecretaryTreasurer: Glenn Meidl, Wisconsin-Eau Claire

President Ortolani chaired the discussion of adopting a Constitution and Bylaws for the NAIA-ATA. It was approved to use the NATA (National Athletic Trainers Association) Constitution and Bylaws as a model. A draft will be made and sent to those in attendance at this meeting for input before a final copy is presented to the NAIA Executive Committee for approval.

It was further approved that the following committees be structured within the NAIA-ATA: A National and International Games Committee; a Professional Advancement Committee; a Publications Committee and a Membership Committee.

It was recommended that the annual meeting of the NAIA-ATA be held in conjunction with the NATA meeting. It was agreed that Sunday (June 6th) from 5:00 to 7:00 p.m. would be preferable for the 1982 business meeting. The NATA is scheduled for Seattle, WA in 1982 and Ortolani was to check with the NATA to secure a meeting room and for listing our meeting on their printed agenda.

Adjourned.

H. National Collegiate Athletic Association Football Rules Committee:

(No report received, as the Committee will meet at a later date and report will be submitted in June, 1982.)

I. National Head and Neck Injury Registry:

Otho Davis, ATC
Executive Director,
National Athletic Trainers Association
Philadelphia Eagles
Veterans Stadium
Philadelphia, PA 19148
RE: Liaison Report - National Athletic Head and Neck Injury Registry.
Dear Otho:

Since our June report the Registry has made changes to its reporting form that we feel will substantially increase the accuracy and ease of reporting.

In addition, Registry data is now compiled on an in-house computer system. This system has been in operation since August.

We feel that these two improvements will greatly aid the Registry's ability to monitor severe and catastrophic head and neck injuries.

Members of the NATA should expect the new reporting forms towards the end of January.

The Registry would like to express its thanks to the NATA for the cooperation it has provided in obtaining

information regarding these injuries.

Sincerely,
Joseph J. Vegso, ATC
Head Athletic Trainer
University of Pennsylvania

J. National Operating Committee on Standards for Athletic Equipment:
Otho Davis, ATC
Philadelphia Eagles
Veterans Stadium
Philadelphia, PA 19148
Dear Otho:

Enclosed, please find my report to the NATA Board regarding NOCSAE.

Again, let me emphasize the importance of a continuing relationship between us. NOCSAE is just beginning to expand its enormous potential, and we (NATA) need to be there to guide and help.

Thanks to the Board for forwarding our annual contribution ($100.00) to NOCSAE. I sincerely believe our contribution should be much larger.

We have had two meetings since last I reported, and I am enclosing the minutes of those meetings with pertinent information highlighted. There are several other enclosures that are important to all NATA members.

Enclosures:

1. Minutes of July 23, 1981 meeting in Chicago.
2. Minutes of November 6, 1981 Conference call meeting.
3. Baseball Helmet Standards.
4. NOCSAE Helmet Certification List revised July 23, 1981.
5. Nat. Ath. Equip. Reconditioning Assoc. (NAERA) membership list.
6. Copy of letter I sent to Otho regarding the following 7 and 8.
7. NOCSAE Football Helmet Warning Statement.
8. Helmet Inspection List.
9. Copy of NOCSAE Manual.

One other thing I think is important is a group that is being formed called the Catastrophic Injury Foundation. It was nurtured by NOCSAE, and is a group that NATA should be a part of. I would be pleased to attend if so directed.

I hope the Board sees fit to continue our relationship with NOCSAE. I have enjoyed the privilege of representing NATA, and would be pleased to continue.

Sincerely,
Robert C. White

Minutes of the National Operating Committee on Standards for Athletic Equipment (NOCSAE)
Board of Directors Meeting
O'Hare Airport, Rotunda Building, July 23, 1981

Active members present: John Miller, ACHA; Bill Kelley, AEMA; Harry Olree, NAIA; Byron Goldman, NAERA; Don Gleisner, NAERA; Carl Blyth, NCAA; Kermit Smith, NJCAA; John Axford, SGMA; Ken Baldwin, The Sports Foundation, Inc.; Dwight Hauff, The Sports Foundation, Inc.; Charles M. Morris, NAIA (Treasurer); Dick Schindler, NFSHSA (Secretary); Ray Ball, NFSHSA (Vice President); Dennis Poppe, NCAA (President); Robert White, NATA.

Associate member present: John Macik, NFL Players Association

Active members absent: Theo Heap, NFCAA; Frank Gordon, SGMA

Guests attending: Voigt Hodgson, Principle Investigator NOCSAE; Richard Glover, Rawlings; William Rovani, Kendal/Bike; Rick Ball, Attorney; Rick Black, Attorney; Sebastian DiCasoli, SGMA; Jim Van Deusen, Bike Athletic; E. L. Gordon, Riddell; Mike Kelly, Attorney; Milo Lundblad, Attorney

1. The meeting was called to order at 9:15 am by Dennis Poppe, President NOCSAE.

2. Minutes of the NOCSAE Board of Directors Meeting held on January 13, 1981, at the Hilton Hotel, Miami Beach, Florida were approved as submitted to the Board of Directors.

3. The financial report for the first quarter of 1981, January 1 through March 31, was presented by Charles Morris. Sebastian DiCasoli of the SGMA also submitted a copy of the Football Helmet Research Fund of NOCSAE contributions as of July 15, 1981. Mr. DiCasoli advised the group that it is anticipated because of seasonal fall off and increased cost of the Wayne State University Project "that SGMA may increase their surcharge helmets to double what they are at the present time." This increase may be temporary. This would mean an increase to 20 cents on varsity helmets and 6 cents on junior helmets. There was considerable decision as to why the NAERA fees were not a part of the regular donations or dues and run through the regular bookkeeping procedures. Byron Goldman, Don Gleisner and Voigt Hodgson reviewed the procedure.

It was voted, "To approve the financial report as submitted by the treasurer with the supplement by Mr. DiCasoli."

4. John Axford brought out a helmet for examination by the NOCSAE committee. It contained a warning statement which was attached to the ear hole of the helmet and also the statement on the chin strap that a warning label was included inside the helmet. Mr. Axford suggested that uniformity in where and how the label should be attached should be a recommendation of the NOCSAE group. Rick Ball, an attorney, commented on a Texas case where the jury determined that every helmet must contain a warning statement to the player that he may sustain a severe injury and that it is gross negligence if no warning is in the helmet. He also reported that in the last 14 months, 14 million dollars in helmet verdicts have been litigated. All cases addressed the question of warning labels. He suggested further advancement of the warning system. He also suggested that all member schools of the institution represented within the NOCSAE group be notified that the warning statement is very important and should be read and posted for athletes to see. Also, that the football inspection lists be properly posted. Rick Black also reported on warning labels, pointing out the school is responsible if they allow the players to use the helmet without a warning statement. Dennis Poppe then appointed the following subcommittee to procede with developing a statement. The committee consisted of: Carl Blyth, Rick Ball, Rick Black, Dick Schindler and Dennis Poppe. They are to prepare a statement for distribution to the school, college and community as soon as possible.

It was voted, "That on the regular NOCSAE certification, a statement be added, "see warning inside". The statement is to be added at the bottom of the seal, and the seal should be toward the lower left hand side of the helmet."

It was voted, "That a statement, "see warning inside" be put on the chin strap pointing out that a warning statement is included inside the helmet. In addition, NOCSAE should encourage manufacturers to put a tag on the ear opening which would contain the entire warning statement. Motion carried."

5. Catastrophic Injury Foundation Concept—John Macik of the NFL Players Association made a presentation. He handed out a printed draft of the proposal. Voigt Hodgson discussed the problem of football injuries and liability. Voigt felt that football has the means of helping to save the game. Catastrophic injuries are down to about an average of 35 a year in the early 70s to approximately 10 each year at the present time. Rick Black commented that perhaps there will never be complete protection but believes most families will not go beyond the fund and that it may effectively end most litigation. He suggested building a fund that will also take care of some who were injured years ago. Some questioned if it would be football only or whether it should include other sports. Rick Ball commented on how he visualized a foundation would work and what groups besides fans would help to fund it.

It was voted, "To establish a committee to investigate the catastrophic injury foundation concept. A meeting was set for Tuesday, September 1, 1981, at 9:00 a.m. at the National Federation headquarters in Kansas City. Each of the member organizations of NOCSAE to send one delegate to the meeting."

President Poppe appointed the following committee to develop a format for the meeting: Ray Ball, John Axford, Dennis Poppe, John Macik. Rick Ball and Rick Black were also to be consulted.

6. Dennis Poppe discussed with the group whether a policy should be adopted concerning the use of the NOCSAE logo in advertising by equipment manufacturers. Poppe noted that one ad he had seen was not erroneous but that the NOCSAE certification seal was used in a commercial manner.

It was voted, "That the president may contact equipment manufacturers who, according to his estimation, has used the name of NOCSAE or its logo in any commercial manner, and request that it refrain from any further use of the NOCSAE name or logo in its advertisement."

7. Dick Schindler then gave an update of the progress in getting the NOCSAE manual printed. He pointed out because of the changes that had been made in the original copy, instead of having the booklet printed in March or April as planned, the booklet now must be scheduled within the Federation's regular printing work. Everytime a change is made, it sets the date back futher. Schindler reported the date of August 15 is now the target date for getting the book to the various members.

8. Dennis Poppe read an informational letter from the Athletic Institute in which they pointed out a program whereby messages could be aired on cable T.V. by Public Service Announcement (PSA). A NOCSAE message would reach millions of people. SGMA representatives were asked to check on this further and to report back at a future meeting. The cost of the project at this time seemed to be prohibitive.

9.The group then checked through and looked over the helmet inspection list and a number of changes were proposed and adopted.

10. Dennis Poppe then reported on the Federation Trade Commission (FTC) update and that the commission still has authority to investigate standards that could restrain trade, but the NOCSAE had complied with all requests. No further action was taken.

11. Voigt Hodgson then gave a NOCSAE research update to the group. He reported not only on the football helmet research but also on the progress made with the baseball batting helmet. Voigt pointed out the Ad-Hoc committee had adopted or suggested the 60 miles per hour standard be adopted. The baseball standard was discussed at length.

It was voted, "That the NOCSAE baseball standard as developed by Voigt Hodgson and revised July 23, 1981, be adopted."

The group then agreed a warning statement be put in the baseball helmet.

It was voted, "That a warning statement for baseball helmets read as follows, "Do not use this helmet if the shell is cracked or deformed or if interior padding is deteriorated."

It was voted, "That a NOCSAE seal will have to be developed using a baseball helmet instead of a football helmet. It would state "meets NOCSAE standard-see warning inside."

12. Sebastian DiCasoli then handed out a suggested art work and ad copy for the NOCSAE advertising which will be carried in *Sports Merchandiser* magazine. The group discussed the project and approved the suggested wording and art work.

13. F. L. Gordon made a report on the special committee which had been working on the selection of a NOCSAE Executive Secretary. Mr. Gordon reported he did not feel the committee felt that NOCSAE had enough money to hire a person at this time. Mr. Gleisner then recommended Carl Blyth be asked to serve as the Executive Secretary and his salary be worked out. Dennis Poppe asked the special subcommittee to discuss this with Carl Blyth and to report back at the special meeting in September.

14. The election of officers is to be reviewed in January.

15. Dennis Poppe set the next meeting of the NOCSAE committee on January 11, 1982, in Houston, Texas beginning at 8:30 a.m.

No further business. The meeting was adjourned.

Respectfully submitted,
Dick Schindler,
Recording Secretary

MINUTES OF THE TELEPHONE CONFERENCE CALL ON THE NATIONAL OPERATING COMMITTEE ON STANDARDS FOR ATHLETIC EQUIPMENT

November 6, 1981

The National Operating Committee on Standards for Athletic Equipment (NOCSAE) held a telephone conference call meeting beginning at 10:30 am on Friday, November 6, 1981, with the following members participating:

Dennis Poppe, President
Ray Ball, Vice President
Richard Schindler, Secretary
Charles Morris, Treasurer
John Miller
Bill Kelley
Harry Olree
Walt Tomczak
George Gangwere
Robert White (ATC)
Carl Blyth
Frank Gordon
John Axford
Ken Baldwin
Dwight Hauff
John Macik

The first item discussed concerned the Rawlings football advertising situation. Poppe asked Frank Gordon to explain to the group what had happened. Mr. Gordon gave an update in which he stated that after Poppe's letter was received and the situation was discussed, Rawlings had agreed to redo their future advertising and that the original ad in question will not be seen in their future ads.

Mr. Gordon also pointed out that he had information that an independent lab report had been circulated by a helmet company in which the overall rating of various helmets to the NOCSAE test were compared. Walt Tomczak of Medalist Gladiator then explained all the details concerning this report as it was his company that had circulated the information to members of their sales staff.

Dennis Poppe was directed to write a letter to Rawlings thanking them for their cooperation and also outlining the reasons why the NOCSAE Board was concerned about the type of advertising they had used. It was agreed that the lab report comparison situation be put on the agenda and discussed in January. It was also agreed that Poppe would bring a report of previously adopted guidelines in regard to using NOCSAE in any advertising.

The Board then discussed the size of the NOCSAE football seal. Poppe was asked to contact the SGMA

and advise them that NOCSAE recommends that the size "B" seal be the one that is used. It is approximately 1-inch square.

The Board then discussed the situation concerning 2 helmet reconditioners who reportedly are recertifying football helmets. At the present time, it has not yet been determined whether or not they have the necessary testing equipment or if they are following the recommended NOCSAE recertification procedures. President Poppe was asked so that the entire matter may be placed on the agenda and discussed at the January meeting.

John Macik and Frank Gordon brought the Board up-to-date on some of the things they have been doing in regard to the National Sports Rehabilitation Foundation. Macik reported he has made many contacts, many letters have been sent out and much background work has been done. Also, he informed the Board he had met with the SGMA to go over various plans. He also advised the Board that the vice president's office is very interested in the project. Frank Gordon pointed out that he has been busy working but did not give a specific report. Poppe pointed out that he had been asked to give a specific report. Poppe pointed out that he had been asked to give an IRS tax exempt number for use by those who are donating money to the Foundation but felt this was inappropriate. The Board agreed that this is not to be done and Mr. Macik pointed out that an IRS exempt number would be made available through the Foundation.

Dennis Poppe then appointed Dwight Hauff chairman of a subcommittee including Ken Baldwin and Kermit Smith to work out a plan for funding from the baseball helmet manufacturers similar to the helmet surcharge presently being collected in football.

Charlie Morris also provided a financial report indicating the obligations that will be due between now and January 1st and also the projected income for the same period.

Obligations:
$80,000 payment to Wayne State University
2,500 legal fees
200 meeting expenses
$82,700

Projected Income:
$ 400 NAIA dues
1,500 NF dues
10,000 NFL Charities
2,500 Sports Foundation
$14,400

This indicates a deficit of $68,300.

Charlie also reported that he has under $300 in the checking account and under $2,000 in savings.

The Board then reviewed the dates and times of the next meeting. The meeting will start at 1:30 pm on January 11, 1982, at the Hyatt-Regency in Houston and will continue on the 12th until approximately mid-afternoon. Dennis Poppe was asked to set up a dinner meeting of the Board as was done last year. The charge of $20-$25 per person would be paid by each of the individuals. The agenda and reservation cards will soon be sent to each of the Board members.

The meeting was adjourned at approximately 12:20 pm.

Respectfully submitted,
Dick Schindler

September 15, 1981

TO: Members of the Board of Directors
SUBJECT: NOCSAE Baseball Batting Helmet Standard.

Attached please find a copy of the National Operating Committee on Standards for Athletic Equipment (NOCSAE) Baseball Batting Helmet Standard. In addition, a copy of the warning statement that is to be affixed to the inside of the helmet and art work for the certification seal which should be affixed to the outside rear portion of the helmet have been provided. Please forward this information to the members of your organization.

The standard may be adopted by any organizations or group willing to adhere to the requirements of its guidelines. Please advise your constituents that testing will begin immediately; and if possible, a preliminary certification list will be available at the Board's winter meeting. Manufacturers of baseball batting helmets are encouraged to purchase the necessary test equipment to conduct the initial tests for the standard as well as maintaining a quality control check during future productions. However, until manufacturers can obtain the testing equipment, separate arrangements may be made with Voigt Hudson, Ph D , to conduct the preliminary tests on the models. Individuals or firms desiring information concerning the testing apparatus should contact Voigt at 313/577-1340.

For your information, the NCAA Baseball Committee has adopted the standard and it will recommend that all new helmets purchased for the 1983 season bear the NOCSAE seal and by the 1985 season, all helmets worn by an NCAA student-athlete must bear the NOCSAE seal.

If you have any questions, do not hesitate to contact me.

Dennis L. Poppe

PRELIMINARY
STANDARD METHOD OF IMPACT TEST AND PERFORMANCE REQUIREMENTS FOR BASEBALL BATTERS' HELMETS

Prepared by
The
NOCSAE BASEBALL HELMET TASK FORCE
for
NATIONAL OPERATING COMMITTEE
ON STANDARDS FOR ATHLETIC EQUIPMENT

October 27, 1978
Revised November 12, 1980
Revised July 23, 1981

PREFACE

In an effort to minimize head injuries in baseball, the National Operating Committee on Standards in Athletic Equipment (NOCSAE)—has developed a procedure for testing baseball helmets and the minimum requirements to be met under each test. It is believed better helmets and fewer head injuries will be incurred provided the following conditions are met:

a) Manufacturers adherence to the testing of new helmets under the NOCSAE Test Standard.

b) Manufacturer implementation of an effective Quality Assurance Program.

c) Consumer adherence to a program of periodically inspecting used helmets for shell cracks and damage, alteration or decomposition of the liner.

The methods of test and performance required are based on research begun in 1971 at Wayne State University (WSU), Department of Neurosurgery Biomechanics Laboratory.

The test procedure has been devised to minimize injury to the wearer of a batter's helmet from baseball impacts to any point above the reference plane.— The test method uses a head injury index based upon linear accleration as the performance criteria.

NOCSAE recognizes the difficulty of formulating a laboratory standard to control head injury in a game in which the injury incidence is relatively low and the impact time duration near the shortest time interval applicable to the WSU cerebral concussion tolerance curve on which human head injury tolerance is based. This Standard is a recommended procedure for baseball helmet manufacturers which, if followed, will produce better helmets and thereby aid in minimizing head injuries. It is recognized the Standard should be continuously reviewed in the light of progress in injury reporting, research and manufacturing techniques and suggestions for improvement by interested parties. In instances where changes affect any of the following critical test parameters, the effective date of the revised Standard will be the time of issuance plus six months.

a) human simulator (dummy) characteristics
b) ball speed
c) environmental conditions
d) Severity Index (SI)
e) number of impacts
f) impact location
g) instrumentation

No procedural changes will be made on the Standard other than those written into the Standard as a revision.

—NOCSAE membership established 1969: American College Health Association—Sporting Goods Manufacturing Association—National Athletic Trainers Associaton—National Collegiate Athletic Association—National Federation of State High School Association—National Junior College Athletic Association and The Sports Foundation. The National Athletic Equipment Reconditioners Association was accepted into membership on July 21, 1975. The National Association of Intercollegiate Athletics was accepted into membership on January 12, 1977.

—The helmet must attenuate impacts to a level in accordance with 3.1 on all parts of the helmet above the reference plane described in Figure 4.

III. Items submitted to the Board of Directors for review and discussion with no action being taken are as follows:

A. Ethics Commitee: No report

June 22, 1981

Mr. L. F. Diehm
Department of Athletics
University of New Mexico
Albuquerque, New Mexico 87131

Dear "Tow";

The Board of Directors directed me to write and request that your committee rework the NATA Code of Ethics. There are some areas that need to be strengthened. In particular, definite guidelines for procedures of hearings and more sections that would be more specific in regard to violations as per your recommendation.

We would like to have this for our mid-year meeting, consequently, your changes need to be sent to the Executive Director by December 1st.

Many thanks for your continued work on behalf of NATA.

Sincerely,
William H. Chambers
President

To: Otho Davis
From: "Tow" Diehm
Subject: Ethics Committee Membership

	District
L.F. Diehm (Chairman) Univ. of New Mexico Athletic Department South Campus Albuquerque, NM 87131	7
John Omohundro Head Trainer St. Louis Cardinal F.B. Club St. Louis, MO 63102	5
Wayne Rideout Athletic Trainer Allen Academy (Box 953) Bryan, TX 77801	6
Leon Skeie Athletic Trainer Athletic Department Orange Coast Community College Costa Mesa, CA 92626	8
Larry Standifer Sports Trauma Clinic 677 East 12th Suite No. 220 Eugene OR 97401	10
Joe Kinney Athletic Trainer Athletic Department Winthrop College Rock Hill, SC 29733	3
Linda Treadway Windmill Apartments No. 141 15400 Belgrade Westminister, CA 92683	8

The funciton of this committee is to investigate any violations of the Code of Ethics, at the request of the President and report its findings along with any recommendations to the Board of Directors.

July 7, 1981

Mr. L. F. "Tow" Diehm
University of New Mexico
Athletic Department
Albuquerque, New Mexico 87131

Dear Tow:

Bill Chambers informed me of the suggestion and subsequent board approval of a new section in the Journal called "Ethical Opinions." This idea sounds worthwhile to me and I would like to know more about just how you and Larry Graham intend to proceed.

You should be aware that the deadlines for you to get your copy to me for each issue is as follows:
Fall—July 1
Spring—January 1
Winter—October 1
Summer—April 1

I will look forward to hearing from you, Tow.

Sincerely,
Ken Wolfert
Editor-in-Chief

B. Grants and Scholarship Committee:

It was reported that the NATA Grants and Scholarship Committee had received a check from International Harvester Company, Chicago, Illinois, for $1,000.00 on behalf of Charlie Johnson, Philadelphia Eagles player as being named "Player of the Week" in the National Football League during October, 1981.

C. History and Archives Committee:

No activities to report at this time. The Committee continues to gather history on the Association.

D. Public Relations Committee:

It was reported that Richard Vandervoort, Athletic Trainer for the Houston Rockets Basketball Club had been approved as chairman of this committee and will evaluate the needs and present a report in June, 1982.

E. Research and Injury Committee:
Report to be presented in June, 1982.
F. No reports were received for the following areas:
1. American Academy of Family Physicians
2. American Physical Therapy Association
3. National Association of College Directors of Athletics
4. National Federation of State High School Associations
5. National Football League Alumni
6. United States Collegiate Sports Council
7. Ad-Hoc Long Range Planning Committee

IV. No action reports: A motion was made by District 6, seconded by District 5 and carried 10-0 that the following be noted as containing no action items:
A. American Academy of Family Physicians
B. American Physical Therapy Association
C. National Association of Collegiate Directors of Athletics
D. National Federation of State High School Associations
E. National Football League Alumni
F. United States Collegiate Sports Council
G. Ad-Hoc Long Range Planning Committee
H. Athletic Trainer of the Year-Drackett Company
I. President
J. Schering Symposium
K. American Council on Education
L. United States Olympic Committee

V. Pre-Participation Physical Examination:
Moved by District 7, seconded by District 8 and carried 10-0, that the NATA draft a policy, to be done by the NATA Legal Counsel, to the effect that the NATA supports the concept of an annual pre-participation physical examination.

VI. Audio Visual Aids:
After giving consideration to the items presented by this Committee, the Board of Directors, by unanimous action, tabled the matter concerning the University of Iowa Motion Picture Unit pending further meetings to be held at Chicago and the matter pertaining to the production of NATA tapes pending receipt of additional information and procedure for funding.

VII. Career Information and services:
Motion by District 7, seconded by District 10 and carried 10-0 that the following items of this report be accepted as information:
1. The membership of the Career Information and Services Committee remains as follows:
Chairman:
Charles O. Demers, Deerfield Academy
Robert S. Behnke, Indiana State University
Fred G. Kelley, Dartmouth College
2. The General Committee function is as follows:
a. To provide a reference source for Athletic Training Career Information.
b. To publish and assit in distribution of the NATA Career and Placement Brochures.
3. In accord with most recent NATA Directors decisions, the following changes in Career Information and Services Committee operation have been incorporated.
a. The NATA office is presently the primary source of brochure supply; the Chairman will continue to fill requests for brochures directed to him until such time as his supply is expended. The Cramer Company will fill requests initiated through *The First Aider.*
b. There is no longer a charge to anyone for the brochure.
Motion by District 1, seconded by District 3, and carried 10-0 that the President inform the Professional Education Committee and Certification Committee to update materials and to coordinate these efforts with Career Information and Services.

VIII. International Games:
Moved by District 6, seconded by District 2 and carried 10-0 to accept the resignation of Mr. Lew Crowl as Committee Chairman.

IX. Journal:
Moved by District 9, seconded by District 10 and carried 10-0 to accept the following items of the Journal Committee report for informational purposes:
1. Ethical Opinion Section
"Tow" Diehm and Larry Graham have been notified about what they should do regarding the new section in the Journal pertaining to this as was directed by the Board last June. As of this time I have received nothing to initiate the section.
2. Journal Committee Meeting
Because of the distance, it may be difficult for all members of the Journal Committee to meet in Seattle. A meeting will be called, however, for those who can be present sometime on Sunday or Monday, A room will be requested to the convention committee for the Journal Committee meeting. An agenda of items to discuss will be sent along at a later time this Winter/Spring. There will be no budget expenses for this meeting.
3. Continuing Education Quiz
The first quiz appeared in the Winter 1981 Journal. Surely there will be problems to work out and we would expect to be able to evaluate the initial reaction to our attempt possibly by the June Board Meeting. As you know, the cost to participate is $12.00 rather than $10.00 and the CEU credit is .3 rather than .25.
Moved by District 6, seconded by District 10 and carried 10-0, that there be representation from all districts on the Journal Committee and that the Bylaws be modified to express that change.
Moved by District 7, seconded by District 1 and carried 10-0 to table Item 5-A (advertising-in other Journals) of Mr. Wolfert's report and obtain from him further information concerning cost and circulation, with a further report to be made on this issue at the Seattle Board meeting.
Moved by District 6, seconded by District 1 and carried 10-0 that the committee be given an additional budget in the amount of $300.00.
Moved by District 5, seconded by District 9 and carried 10-0 that the Executive Director further explore the feasibility of purchase of the assets of the (a financially troubled) printing company with the possible goal of the establishment and running by the NATA of its own printing facility.

X. Membership Committee:
Moved by District 3, seconded by District 10 and carried 8-1-1, with District 2 voting in the negative and District 7 abstaining, that the recommendation of the committee concerning the Chartier case be approved with the statement that this individual fully comply with the CEU requirements.
The issue relative to the establishment of an "inactive" class of membership for persons leaving the profession, by unanimous consent, was declared to be tabled for the present.
The suggestion for the use of the terms "probation," suspension," etc. with regard to members failing to accumulate sufficient CEU's was likewise, by unanimous consent, declared to be tabled.
Moved by District 5, seconded by District 9 and carried 10-0 that Mr. Don Chu look into the issue of long range planning for the Association and likewise the possibility of a revision in the dues structure.

XI Approval of Proposed Articles in By-Laws:
It was moved by District 9, seconded by District 8 and carried 10-0 that the recommended changes in Articles 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 23, 24, 25, 26, 27, 28 and 29 of the By-Laws approved.
Selection of Committee Members: Recommended by the Chairman, appointed by the President with agreement of the Executive Director and approval of the Board of Directors from the Certified membership of the Association.
It was moved by District 6, seconded by District 9 and carried 10-0, that Article III, Section 1 of the By-Laws read as follows: "Selection: Elected representatives of the ten (10) NATA Districts. Each representative must be a Certified member of the Association."

XII. Certification Committee:
Moved by District 10, seconded by District 1 and carried 10-0, that the Board of Certification be granted administrative independence.
Moved by District 9, seconded by District 3 and carried 10-0 that the Board approve the $6,000 request to be used in relation to job delineation.
Moved by District 8, seconded by District 7 and carried 10-0, that the definition of an approved NATA undergraduate school and approved graduate program as presented by the committee be approved.
They are as follows:
SECTION ONE—NATA APPROVED UNDERGRADUATE CURRICULUM PROGRAM
To be considered eligible for NATA Certification from an NATA Approved Undergraduate Curriculum Program the applicant must have completed the approved Curriculum program in no less than two years. Having attained in this period (2 years) 800 clock hours of athletic training experience exclusively in an athletic training setting and being awarded a bachelors degree from the institution which sponsors the approved NATA Undergraduate Curriculum Program.
SECTION ONE—A—NATA APPROVED GRADUATE CURRICULUM PROGRAM
To be considered eligible for NATA Certification from an NATA Approved Graduate Curriculum Program the applicant must have completed the NATA entrance prerequisites into the approved graduate curriculum program and the graduate program requirements of the institution which sponsors the approved NATA Graduate Curriculum Program.
Moved by District 4, seconded by District 1 and carried 10-0 that the Student Trainer Banquet be named after Mr. William "Pinky" Newell.
It was moved by District 7 and seconded by District 8 that Section 4, the physical therapy track as a route to certification be eliminated. Following a discussion concerning the advantages and disadvantages of adopting such a recommendation, the first ballot taken indicated Districts 1, 3, 7, 8 and 9 as being in favor of elimination and Districts 2, 4, 5, 6 and 10 abstaining from the vote. Following the subsequent passage of a motion to reconsider and further discussion of the issue to clarify several other points, the recommendation was again voted upon, with Districts 1, 3, 5, 7, 8 and 9 voting in the affirmative and Districts 2, 4, 6 and 10 abstaining, with the recommendation then being declared as passed.
It was moved by District 6, seconded by District 1 and carried 10-0, that all members of NATA Committees meeting at the annual meeting be requested to take part in the role delineation process that had been scheduled.
It was moved by District 10, seconded by District 5 and with a vote of nine districts in favor and District 9 being against, that the program director or anyone in an approved curriculum sign for non-apprenticeship students and that this be put into the protocol. If an institution of higher education has an approved NATA Undergraduate Curriculum Program, the only route to NATA Certification for students of this instution is through the approved curriculum program (Section 1). If an institution of higher education has an NATA Graduate Curriculum Program, the only route for graduate students of this institution to NATA Certification is through the approved curriculum program (Section 1-A). Undergraduate students at this institution would be eligible through either Section 1 or Section 2.
It was moved by District 7, seconded by District 8 and carried 10-0 that the Board approve the list of certified members nominated for the committee.
They are as follows:
Mary Allen Watson, District 3
North Carolina State University
Kathleen Heck, District 4
Michigan State University
Steven Risinger, District 4
Anderson College
Stephen Bair District 2
Temple University
Bruce Kola, District 7
Colorado College
Terry Lewis, District 9
University of Tennessee at Chattanooga
Janet Anderson, District 10
Lane Community College

It was moved by District 8, seconded by District 7 and carried 10-0 that Criteria 6-G of the membership application be dropped.
It was moved by District 4, seconded by District 7 and carried 10-0, and with the effective date to be July 1, 1982, that the definition of an Associate member be changed to read as follows:
"An Associate Member is a member of the NATA who has been awarded a Bachelor's Degree and is fulfilling the requirements to become an NATA Certified Athletic Trainer."
It was moved by District 7, seconded by District 9 and carried 10-0 that Student Membership be changed to read as follows:
"Student membership is open to all undergraduate students who are fulfilling the requirements for NATA certification. Upon graduation, a student member who has not taken the certification examination prior to graduation will be reclassified as an Associate Member."
It was moved by District 9, seconded by District 1 and carried 10-0 that the following language be added to the eligibility for certification:
"A person who is not a member of the NATA may be eligible for NATA certification provided that the individual meets the CORE requirements (excluding membership) and the section requirements they are applying under. A test differential charge will be assessed to non-members. For NATA members to receive the benefits of NATA membership for certification the candidate" . . . (the remainder of the wording remains the same as previously).
It was moved by District 8, seconded by District 7 and carried 10-0, that Section 2 concerning the "Apprenticeship" program now read "Internship" Program.
It was moved by District 10, seconded by District 2 and carried 10-0 that the paragraph concerning eligibility for NATA certification read as follows:
"To be considered eligible for NATA certification from the Intern tract, the candidate must have attained, in no less than two years, (July 1 to June 30), 1800 clock hours of athletic training experiences under the direct supervision of an NATA Certified Athletic Trainer, crediting no more than 900 hours in one year (12 months). Additionally, the candidate must show proof of successful course completion of one course in each of the following areas: care and prevention of athletic injuries; human anatomy; and human physiology. All candidates for certification from the Section 2 tract must have this documented on their transcript for the January, 1984 test. The maximum period a candidate can credit hours for NATA certification that will be accepted by the Board of Certification is five years.
"All NATA Certified Athletic Trainers who work with Section 2 candidates must submit to the Board of Certification each year, no later than June 30, the following:

"1. The names of all potential candidates fulfilling the NATA certification requirements.

"2. Names of all NATA Certified Athletic Trainers working and/or instructing these students.

3. All potential candidates, by June 30 of each year must submit to the Board of Certification the number of hours attained in this year under the direct supervision of an NATA Certified Athletic Trainer and have this signed and notarized by the Certified Athletic Trainer and a Notary Public. Failure to do so would require the Board of Certification to not accept the candidate's hours for the year in question."

XIII. POLICY 9:

It was moved by District 9, seconded by District 10 and carried 10-0, that item 4 of Policy 9 read as follows:

"4. Items presented to the Board of Directors will be acted upon as stated; however, items which require further clarification will be tabled and referred to appropriate parties."

XIV. POLICY 16:

It was moved by District 7, seconded by District 1 and carried 10-0, that Policy 16 read as follows:

"All commitee and liaison reports submitted to the Board of Directors will be in written form. Verbal reports will only be accepted when presented with a written report.

"Twenty (20) typewritten copies of the abovementioned reports must be submitted to the Executive Director for distribution prior to the designated deadline for committee reports."

XV. DEFINITION OF ACTIVELY ENGAGED:

It was moved by District 10, seconded by District 3 and carried with nine districts in favor and District 4 abstaining, that a new Article IV of the Code of Ethics 'Actively Engaged" in athletic training read as follows:

"To be considered by the National Athletic Trainers Association as 'Actively Engaged' in athletic training, a person must be an employee on a salary basis, not a fee-for-service or vendor contract basis, of an accredited educational institution (public, private or parochial elementary or secondary school or a degree granting college or university) or of a professional athletic organization for the duration of the institution's school year or the professional athletic organization's season and who performs the duties of athletic trainer, and is recognized as such, as a mjaor responsibility of his or her employment. NATA approved Clinical instructors whose responsibiity is teaching or supervising in an NATA approved athletic training curriculum is considered an Actively Engaged Athletic Trainer."

XVI—PROFESSIONAL EDUCATION COMMITTEE:

It was moved by District 7, seconded by District 9 and carried 10-0, that the Board of Directors approve the PEC recommendation that the requirement that all athletic training curriculum programs approved by the NATA offer a major field of study in athletic training or its equivalent by July 1, 1986, apply only to undergraduate athletic training curriculum programs approved by the NATA.

It was moved by District 7, seconded by District 10 and carried 10-0, that the Board of Directors approve the PEC interpretation that the requirement that all athletic training curriculum programs approved by the NATA offer a major field of study in athletic training by July 1, 1986, allow for NATA approval of programs that develop the equivalent of a major.

It was moved by District 1, seconded by District 7 and carried 10-0 that the Board of Directors approve the PEC recommendation that the requirement that all athletic training curriculum programs approved by the NATA offer a major field of study in athletic training or its equivalent by July 1, 1986, be changed to require that schools be officially "in the process" of developing a major in athletic training or its equivalent by July 1, 1986.

It was moved by District 5, seconded by District 10 and carried 10-0, that the Board of Directors approve the PEC recommendation that the 800 clock hour clinical experience requirement as a condition of NATA approval of undergraduate athletic curriculum programs remain as described in Section 11, G-2 of the February, 1980 *Guidelines for Development and Implementation of NATA Approved Undergraduate Athletic Training Education Programs* (approved Curriculum).

It was moved by District 9, seconded by District 6 and carried 10-0, that the Board of Directors approve the PEC Chairman's recommendation that Ken Murray, Texas Tech University, be appointed to the PEC representing District 6.

It was moved by District 7, seconded by District 2 and carried 10-0, that the Board of Directors approve the PEC recommendation that Section 7 (Subcommittee for Graduate Education) and Section 8 (Subcommittee for Continuing Education) of Article XXV of the February 8, 1981 revised NATA By-Laws be eliminated.

It was moved by District 1, seconded by District 10 and carried, with nine districts voting in favor and District 6 abstaining, the approval of the PEC recommendation for establishment of a three-year rotating site schedule for the NATA Sayers "Bud" Miller Eastern Regional Professional Preparation Conferences to include Pittsburgh, Pennsylvania (1983), Atlanta, Georgia (1984), and a third site to be determined (1985) with rotating site schedule to be repeated in subsequent three-year periods.

It was moved by District 8, seconded by District 10 and carried 10-0, that the Board of Directors approve the PEC recommendation for the establishment of a three-year rotating site schedule for the NATA Sayers "Bud" Miller Western Regional Professional Preparation Conferences to include Anaheim, California (1983), Palo Alto, California (1984) and Denver, Colorado (1985) with rotating site schedule to be repeated in subsequent three-year periods.

It was moved by District 9, seconded by District 7 and carried 10-0, to accept the addendum report for informational purposes.

The addendum report is as follows:

National Athletic Trainers Association
PROFESSIONAL EDUCATION COMMITEE
ADDENDUM REPORT TO THE BOARD OF DIRECTORS
February 7, 1982
Gary Delforge, Chairman

Information included herein should be considered an addendum report to the PEC progress report submitted to the Board of Directors on December 1, 1981. This report includes items discussed and actions taken at the January 7-9, 1982, Professional Education Committee meeting in Pittsburgh, Pennsylvania.

I. *Professional Education Committee*

PEC meeting (January 7-9, 1982). The following members were in attendance:

Jerry Bell
Joanne Dolcemaschio
Dan Foster
Lou Osternig
Al Proctor
Jack Redgren
John Schrader
Ron Sendre
Leon Skeie
Glen Snow
David Perrin

Dennis Sealey was unable to attend because of other commitments. Tow Diehm was unable to attend because of illness.

Committee Organization/Assignments. The organizational structure of the PEC and new committee assignments were discussed and approved by the Committee. All new committee assignments (sub-committee chairmen, project directors) became effective January 1, 1982. A copy of the PEC organization including the roles and responsibilities of sub-committee chairmen and project directors is included with this report as an informational item. While the overall structure of the PEC should remain essentially as presented, it should be noted that specific responsibilities of sub-committee chairmen and/or project directors are subject to change as operational protocol becomes more clearly defined throughout the remainder of the year.

The committee voted to support the chairman's recommendation of Ken Murray, Texas Tech University, as a new PEC member from District 6. The PEC also voted to recommend a change in the NATA By-Laws pertaining to the organization of the PEC due to the fact that the sections in question are no longer appropriate.

Committee Role and Functions. The proper role and function of the PEC was discussed at some length. The Chairman raised several questions in this regard as the result of experiences during his first six months in office. The broad scope and diversity of activities now being undertaken by the PEC demands a great deal of expertise, commitment, and time on the part of various PEC members. Although the activities now beducted by the PEC appear to be highly desirable NATA functions from a professional viewpoint (conferences, workshops, etc.), questions have arisen as to whether or not time and energy spent in these other endeavors is detracting from efforts that should be directed toward more pressing issues (ie. development, approval, and enhancement of athletic training education programs). While the new organizational structure of the PEC should serve to facilitate conduction of its various activities, priorities may have to be established for the future. The PEC has no recommendations for change of committee responsibilities at the current time. However, continued thought will be given to this matter.

II. Graduate Education

5-year Program Evaluations. Two graduate programs (Indiana State University, University of Arizona) are scheduled for 5-year evaluations during the 1981-82 academic year. Dan Foster and Ron Sendre conducted an on-site evaluation of the graduate athletic training education program (and undergraduate program) at Indiana State University on October 25-28, 1981, and submitted an evaluation team report at the PEC meeting in Pittsburgh. As per PEC policy, action will be taken on the evaluation team's recommendations at the June, 1982, meeting. Lou Osternig (chief visitation officer) and Leon Skeie were assigned to conduct the on-site evaluation of the graduate program at the University of Arizona in the Spring of 1981-82.

Certification Eligibility Requirements. NATA certification eligibility for students attempting to meet requirements through graduate athletic training education programs (Section I) was discussed. As understood by the PEC, a graduate student must complete all "athletic training education program" requirements as defined by the NATA approved college or university but does not have to complete the actual Masters degree in order to meet certification eligibility requirements (provided that all undergraduate NATA requirements have been satisfied). No change in this interpretation is recommended by the PEC.

Discussion was also held regarding certification eligibility of an individual who had previously *completed* a Masters degree and who returns to an NATA approved graduate atheltic training education program to complete NATA coursework and clinical experience requirements for certification. As interpreted by the PEC, certification guidelines currently permit such a person to meet certification eligibility requirements by completing all "athletic training education program" requirements as defined by the NATA approved college or university (provided that all undergraduate NATA requirements have been satisfied) and that such a person does not have to complete a second Masters degree. No change in this interpretation is recommended by the PEC. The Committee does feel, however, that should the above situation arise, only those individuals who have completed a Master's degree in the same academic field as that which houses the NATA approved athletic training education program should be considered eligible for certification.

Further discussions with the Certification Committee will be held in an attempt to eliminate any discrepancies in interpretation of requirements regarding the situations described above.

III. Undergraduate Education

5-Year Program Evaluation. Dennis Sealey (chief visitation officer) and Lou Osternig were assigned to conduct the on-site evaluation of the undergraduate program at the University of Montana this Spring. John Schrader (chief visitation officer) and Ron Sendre were assigned as evaluation team officers for South Dakota State University. Action on the evaluation team recommendations for these two programs will be taken at the June, 1982, PEC meeting. As stated previously, Dan Foster and Ron Sendre conducted an on-site evaluation of the undergraduate program at Indiana State University on October 25-28, 1981.

Programs on Probation. Program directors from six undergraduate programs currently on probation (California State University at Sacramento, SUNY at Brockport, Springfield College, Toledo University, Arizona State University, BYU) will be scheduled for probation hearings at the June, 1982, PEC meeting in Seattle. The PEC voted to accept the solution to a Guidelines violation (Section II, C, 1, c) presented by Bridgewater State College. Acceptance of this solution will be communicated to the appropriate personnel at Bridgewater State College. Removal of Bridgewater State's current probationary status, however, will not be considered until the June, 1982, PEC meeting. The Committee decided not to require a probationary hearing for Bridgewater State College at its June, 1982, meeting.

Developing Programs. Dan Foster presented an update on the progress made by James Madison University and Kean College of New Jersey in development of their undergraduate programs. PEC action on these two programs (tabled from June, 1981 meeting) is scheduled for the June, 1982, meeting in Seattle.

Other Undergraduate Education Matters. After a brief discussion the Committee voted to support a PEC/Certification Commitee joint recommendation that the physical therapy route to certification (Section IV) be eliminated (see Appendix A, recommendation 4). The PEC also voted unanimously to recommend to the Board that the undergraduate 800 clock hour clincial experience requirement remain as stated in the 1980 undergraduate guidelines.

IV. Experimental Education

Experimental Educaton Guidelines. Al Proctor presented an up-date on development of the manual, *Guidelines for Development and Implementation of NATA Approved Experimental Education Programs.* Although the document is nearly complete, several questions remain regarding the standards and criteria included. Consequently, it was decided to delay presentation to the Board until its June, 1982, meeting.

V. Projects Associated with Education Program Approval

A. Evaluation Team Preparation

Future on-Site Visitation Schedule. Discussion was held regarding manpower needs to meet future on-site program evaluation demands. Several recommendations were made including active recruitement and training of additional evaluation team members by current PEC

members at the district level. Selection of individuals as NATA evaluation team members based on previously established criteria was also discussed. Consideration was given to re-scheduling colleges and universities for 5-year evaluations in order to minimize a concentration of visitations in any particular year (ie., some of the 28 scheduled visitations in 1985 may be able to be delayed until 1986). Ron Sendre, Project Director, Evaluation Team Preparation, will continue to investigate effective methods of recruiting and training evaluation team members.

Evaluation Team Reports. Gary Delforge reminded committee members of the importance of clearly enumerating program violations based specifically on criteria and standards included in the Guidelines with specific citation of the particular section(s) in which the requirement(s) are stated. Chief visitation officers were also reminded to forward evaluation team reports to the PEC chairman and the appropriate subcommittee chairman as soon as they are completed.

Evaluation Team Expenses. Recent problems concerning evaluation team expenses were discussed. Joanne Dolcemaschio cited a recent experience in which she was not fully reimbursed for expenses incurred during a visitation because of college/university limitations on per diem expenses. While no definite solution to this problem was formulated, it was generally agreed that evaluation team members and college/university personnel should have a clear mutual understanding of expenses to be covered prior to the visitation. Until such time that more definite policies can be developed, evaluation team members were urged to assume the responsibility for clarifying financial arrangements associated with their particular visitation assignment.

B. Annual Reports

Ron Sendre presented a summary of possible Guideline violations evidenced by annual reports submitted this past Fall. These reports will be further scrutinized and, if necessary, program directors will be contacted for clarification of questions, etc. Jack Redgren, new project director for annual reports, has been asked to continue efforts to revise annual report forms for adaptation to computer use.

C. Education Program Graduates

Undergraduate/Graduate Certificates. The PEC discussed the desirability of continuing the policy of awarding certificates only to program graduates who are current NATA members. It was decided to continue the current policy and that an effort should be made to more clearly articulate this policy to program directors in written form.

Three schools (Northeastern, Western Michigan, Bowling Green) have not yet submitted their list of 1981 graduates. Reminders have been sent. Joanne Dolcemaschio expects to complete distribution of all certificates to 1981 graduates by February.

Certification Results. Joanne Dolcemaschio reported that she has received a comprehensive computer printout from Paul Grace providing information regarding certification exam results for curriculum graduates.

D. Ethics In Education. No report.

VI. Conferences/Workshops

A. Professional Preparation Conferences

Eastern Regional Conference. The NATA Eastern Regional Sayers "Bud" Miller Professional Preparation Conference was held January 8-10, 1982, in Pittsburgh, Pennsylvania. Largely due to the efforts of Dan Foster, Dave Perrin, and Jack Redgren, the conference was considered to be very successful. Those in attendance responded very positively to program topics and speakers. Total attendance including PEC members was 107 and included 78 certified athletic trainers, 5 associate members, 20 students, and 4 non-members.

Audio taping of the sessions and sale of audio cassettes at the conference was minimally successful (see attached financial report). Orders were taken at the conference and audio casettes will be advertized in the NATA Journal. Thus, the overall success of this project cannot yet be determined.

Western Regional Conference. At the time of this writing, final plans are being made for the NATA Western Regional Sayers "Bud" Miller Professional Preparation Conference scheduled for February 5-7, 1982 in Denver, Colorado. As of January 27th approximately 47 individuals had pre-registered.

Future Conferences. A three-year rotating schedule of conference sites was developed by the PEC and is presented to the Board for recommended approval.

Conference Proceedings. As per contractual agreement, $1,000.00 has been paid to Human Kinetics, Inc., for editing of the 1979 and 1980 Eastern Regional and 1980 Western Regional Professional Preparation Conference proceedings. Editing is now completed and the final Proceedings are scheduled for completion this Spring.

Sale of the remaining copies of the Proceedings of the 1978 Professional Prepartion Conference in Nashville, Tennessee, has been good. A total of 171 copies have been sold to program directors and students as the result of a special purchase offer distributed this past Fall. Approximately 80 of the 1,000 originally printed remain and will be advertized for sale in the Spring issue of the NATA Journal.

B. Continuing Education Workshop

Glen Snow gave a report on plans for the 1982 Continuing Education Workshop in Seattle. The desirability of changing the name of this workshop in order to avoid confusion with the NATA Continuing Education Committee was discussed. Glen Snow was asked for recommendations in this regard.

C. *Program Directors Council Workshop*

Dan Foster gave a report on plans for the 1982 Program Directors Council Workship in Seattle. Tentative plans are for the Workshop to be held on Saturday, June 12.

VII. Special Projects

Apprenticeship Programs/Guidelines for Athletic training "Major". Considerable discussion was held regarding the Committees charge to explore and develop methods of improving the apprenticeship route to certification (Section II) as well as to develop guidelines for development of athletic training majors. Since June, 1982, the PEC has had two ad hoc committees working on these respective projects. Lou Osternig, Chairman of the ad hoc committee on apprenticeship programs presented a report of his committee's recommendations. These recommendations were discussed briefly but no committee action was taken pending clarification of the PEC's proper role in the development of criteria and standards for NATA certification as related to guidelines set forth by the National Commision for Health Certifying Agencies (NCHCA). Questions in this regard arose during the Chairman's meetings with Paul Grace and Otho Davis prior to the January PEC meeting in Pittsburgh and during subsequent telephone conversations. Consequently, it was decided that PEC recommendations to the Board regarding apprenticeship programs should be put "on hold" until the PEC's responsibility is clarified. The PEC ad hoc committee has, however, recommended that future NATA approved apprenticeship programs be required to have the three following essential components:

1. An identified academic course of study consistent with and related to the body of knowledge of athletic training.
2. Sponsorship by an accredited college or university.
3. An identified and qualified program director.

The PEC Ad Hoc Committee on Apprenticeship Programs has also recommended a 5-year "phase-in" period at the end of which the sponsoring college/university would submit to an on-site evaluation by a NATA evaluation team. While the ad hoc committee has recommended the above as guidelines for further development of apprenticeship programs, the ad hoc committee now seeks PEC and Board direction for continued development of apprenticeship guidelines within the recommended framework.

The PEC ad hoc committee for development of guidelines for a "major" in athletic training is also in need of direction. A review of the resolutions pertaining to development of "major" programs approved by the Board on June 10, 1980, caused several questions to be raised regarding the intent of the resolutions. The PEC chairman has noted conflicting interpretation of this document. In addition, questions have arisen regarding the practicality and advisability of enforcing the July 1, 1986, deadline date for implementation of "major" programs in view of problems encountered by some schools in developing formal major programs and in view of delays in establishing definite NATA guidelines. Consequently, the PEC is submitting three important recommendations for Board approval in an effort to clarify interpretation of the original resolution and to establish clear guidelines for further development of the athletic training major.

The PEC charge to improve apprenticeship programs as well as to develop guidelines for athletic training majors has become very complex and complicated. The PEC chairman feels strongly that these two educational programs should not be studied as separate entities but must be dealt with simultaneously. Recommendations for change or improvement in one educational program must be considered in light of their effect on the other. Two factors, results of the Role Delineation study by the Professional Examination Service and clarification of NCHCA requirements, may have significant implication for both programs. In view of these considerations and following reflections on discussions at the January PEC meeting in Pittsburgh, the two previous ad hoc PEC committees (apprenticeship programs and major programs) have been absolved and replaced by a single ad hoc committee to continue development of guidelines for both the apprenticeship programs and major programs. This ad hoc committee on education programs has been asked to formulate their recommendation by April 1, 1982, in preparation for presentation to the PEC by May 1, 1982. At the present time, the ad hoc committee consists of Jerry Bell (chairman), Dan Foster, Lou Osternig, Dave Perrin, and Gary Delforge. John Schrader and Ron Sendre will act as ex officio members and will be called upon for imput.

XVII. CONTINUING EDUCATION

It was moved by District 8, seconded by District 7 and carried 10-0, that in relation to Article XXX, Section 1, Certified Code 1, that all "suspended" notations be changed to "probationary."

It was moved by District 6, seconded by District 5 and carried 10-0 to postpone Associate starting time for CEU to January 1, 1985.

It was moved by District 7, seconded by District 1 and carried 10-0 that "suspension" in the Associate class be changed to "probationary."

It was moved by District 10, seconded by District 9 and carried 10-0 to reaffirm the mail ballot concerning Category M of the CEU.

XVIII DISCOUNT OFFERS:

Mr. Davis called attention to various communications he had received offering discounts on pharmacy supplies, rental cars, etc., following which it was moved by District 9, seconded by District 10 and carried 10-0, that this information be distributed to the membership for their consideration and possible use.

XIX. NATIONAL CONVENTION:

Notice was given of the intention of Boston and Pittsburgh to place their bids for the 1988 Convention with instructions being given to the District concerned that this material be sent to Mr. Fred Hoover for further consideration of the National Convention Committee.

XX. DIRECTORS' EXPENSES:

Mr. Chambers, upon the request of several of the Directors, brought up the matter of payment of their expenses. After brief discussion, it was the consensus that the procedure remain as discussed and passed at the Forth Worth, Texas meeting.

XXI. PLACEMENT COMMITTEE:

It was moved by District 4, seconded by District 10 and carried 10-0 to receive the report for informational concerning a phone recorded job list to be run out of the National Office.

XXII. PUBLICATIONS COMMITTEE:

It was moved by District 7, seconded by District 10 and carried 10-0 to receive the report for informational purposes.

it was moved by District 4, seconded by District 7 and carried 10-0, to approve Karl Glass as a committee member.

XXIII. AMERICAN ACADEMY OF PEDIATRICS:

It was moved by District 2, seconded by District 1 and carried 10-0 that the report be accepted and that the NATA continue its liaison with this group.

The report is as follows:

TO: BOARD OF DIRECTORS, NATA
FROM: R.F. Malacrea, Liaison to Committee on Sports Medicine, American Academy of Pediatrics
SUBJECT: CONTINUED LIAISON
DATE: November 30, 1981

The last meeting of the Committee was held in Chicago, Illinois on August 26, 27, 1981. Your liaison representative was not able to attend due to the press of pre-season football activity. However, telephone contact with Dr. Schaffer, Chairman, was made prior to the meeting to discuss any agenda items of mutual interest or concern. The greatest interest being in our individual state licensure efforts.

We anxiously await the publication of the Youth Sports Guide (see attached minutes) and the Chapter on the Athletic Trainer (previously submitted to the Board). There has been no notification of editorial revision and assumed then that there are no changes in the text. It would be good to have individual Board members review to insure that all statements, materials, and data are current.

I would recommend that Directors encourage their state leaders to make contact with and become active with the State Chapter Committees on Sports Medicine of the AAP (see minutes). It is an excellent forum for the athletic trainer to gain exposure in the local medical community.

I also recommend continued liaison with this Committee for the following reasons:

1. The Committee has succeeded in having the Executive Board of the AAP endorse athletic trainer licensure.
2. The Committee is most interested in maintaining contact with athletic training and seeking NATA input on matters before it.
3. The AAP is on record as recommending that a school health program include the services of an athletic trainer, certified by the NATA.

American Academy of Pediatrics
COMMITTEE ON SPORTS MEDICINE
Chicago, Illinois
August 26-27, 1981

MINUTES
Sports Medicine Committee
Chicago, August 26-27, 1981

The meeting was called to order at 9:00 a.m. by the Chairman, Dr. Thomas Shaffer.

Academy Update—Nancy Rickert

The Executive Board in an economy measure made several committee changes at its June meeting. Committees that merged together include the Committee on Genetics with the Committee on Environmental Hazards and the Committee on Adoption and Dependent Care with the Infant and Preschool Child Committee. The Radiology and the Indian Health Committees will receive no funding during the 1981-82 fiscal year. The Planning Committee and the Committee on Communications and Public Information were disbanded.

Committee Directive—Tom Shaffer, MD

Dr. Shaffer reviewed each directive to the Committee from the Executive Board and urged the committee to be particularly cognizant of its charge to provide leadership to State Chapter Committees.

Chairman's Report—Tom Shaffer, MD

Dr. Shaffer reported on the last meeting of the Joint Commission on Competitive Safeguards and Medical Aspects of Sports. The next meeting will be held in January in Seattle and will be attended by a committee member from that area.

Dr. James Moller suggested that the committee consider preparation of monthly articles on health problems associated with a particular sport. These would be given to the National Federation of State High School Associations for distribution to state high school athletic associations for publications in their journals. Reaction was favorable. Chairman will get comments from the National Federation.

Statements

Competitive Athletics for the Elementary-aged School Child

T. Shaffer, MD

This statement was published in the July issue of *Pediatrics* and has received national coverage in newspapers, magazines, and journals.

DMSO—Paul Dyment, MD

The committee reviewed changes and editing done by the Committee on Drugs and decided to change parts of paragraph 2.

ACTION: N. Rickert will send the statement to Dr. Lockhart for final approval of the Committee on Drugs and will send it to the Council on Child and Adolescent Health and the Executive Board.

Weight Training and Weight Lifting

This statement was approved at the July Council meeting. The committee reviewed comments made by Council members and approved changes.

ACTION: N. Rickert will send the statement to Dr. Lockhart to be submitted for Executive Board approval.

Distance Running in Children—Eugene Luckstead, MD

Dr. Luckstead presented 2 new versions of the statement. The committee liked the full page statement best and made minor changes.

ACTION: N. Rickert will send the statement to the Council for approval.

Climatic Heat Stress for the Exercising Child—Tom Shaffer, MD

This statement was approved by the Executive Board with changes. Dr. Shaffer has recently obtained permission to reprint a graph and has made all the necessary changes.

ACTION: N. Rickert will submit the statement to Dr. Lockhart to send to Dr. Lucey at *Pediatrics*.

Menstruation and the Adolescent Athlete—Elizabeth Coryllos, MD

Dr. Coryllos presented the first draft of a statement on the effects of exercise on menstruation. Drs. Paul Dyment and John Murray were appointed as a subcommittee to review the statement and present it to the committee. The subcommittee recommended that it be submitted as an article for *Pediatrics* under Dr. Coryllos' authorship.

Schering Award—Dr. Shaffer

Dr. Shaffer reported that a representative of Schering Corporation has indicated some interest in seeking his company's cooperation with the Academy to establish an annual award to an individual who has made outstanding contributions to children's fitness, recreation, and sports.

The committee unanimously passed the following resolution related to establishment of an award by Schering Corporation:

WHEREAS, the future of our country will be significantly affected by the development of optimum physical and emotional fitness of our children and

WHEREAS the American Academy of Pediatrics is dedicated to a goal of full potential for physical, emotional and social health for the children of Americans and

WHEREAS, the Academy of Pediatrics has already expressed sincere interest and support for physical activity and holistic fitness of children and adolescents by establishing the Committee on Sports Medicine,

THEREFORE BE IT RESOLVED that the Executive Board of the Academy be requested to invite the Schering Corporation to co-sponsor, at each annual meeting of the Academy, the presentation of a Schering Award to an individual who has made outstanding contributions to the advancement of recreation and wholesome safe participation in sports.

AMA MOTION—Tom Shaffer, MD

A motion introduced and tabled at the April 25-26, 1981 meeting was reintroduced and passed, stating:

MOVED: Once publication in *Pediatrics* is accomplished, this committee's statements will be sent to the Executive Council of the American Medical Association for consideration of publication in an AMA journal.

ACTION: N. Rickert will send Dr. Luckstead a package of recently published statements for transmittal to Dr. Donald Cooper.

Second White House Symposium on Physical Fitness—Tom Shaffer, MD

Another White House Conference on Physical Fitness will be held November 22-23, 1981.

ACTION: Dr. Shaffer will call Mr. Glen Swengroes, President's Council on Physical Fitness, concerning the possibility of the Academy co-sponsoring the White House Conference.

Self Appraisal for School Sports Medicine Program—Tom Shaffer, MD

The need for recommendations on how to evaluate a health program for young atheltes was discussed.

Before the next meeting each committee member will develop a list of staff qualifications and duties in a sports medicine program and recommended standards and facilities for a school or community-based medical program for young athletes.

ACTION: N. Rickert will mail each member materials included in the hand out "Self Appraisal for School Health Programs" developed in Ohio.

Exercise Testing for the Child with a Chronic Disease

Dr. Jim Moller, in conjunction with the American Heart Association, is doing a study on exercise testing and training for the child with a chronic disease. The committee agreed to review the first draft of the study upon completion.

Youth Sports Guide

Committee members reviewed assigned chapters of the sports manual prior to the meeting. Each chapter was discussed and Dr. Nate Smith copied all suggestions and will incorporate them into chapters.

Chapters will be sent to other appropriate committees for review. Three chapters have not been completed to date but will be submitted by December. The Committee set its target date for publication in late spring, 1982.

Dr. Smith will forward all completed chapters to Nancy Rickert. They will be reviewed by an outside editor before being forwarded to the Executive Board for approval. Several chapters will be sent to outside reviewers to assure accuracy of content.

ACTION: Dr. Paul Dyment agreed to review and edit the chapter on Drug Abuse.

ACTION: Dr. Eugene Luckstead will review the chapter "Thermoregulation, Fluid and Electrolytes in the Young Athlete" and send his comments to Dr. Shaffer.

ACTION: Dr. Elizabeth Coryllos will send the chapter she wrote on Visceral Injuries to Drs. Smith and Shaffer.

Next Committee Meeting

The next committee meeting will be held Thursday, May 13 and Friday, May 14, 1982 in Washington D. C.

XXIV AMERICAN ALLIANCE FOR HEALTH, PHYSICAL EDUCAITON, RECREATION AND DANCE:

June 29, 1981
William H. Chambers, President
National Athletic Trainers Association
Fullerton College
Fullerton, California

Dear Bill,

I have received your letter stating the desire of the NATA to see the establishment of a single athletic training council within AAHPERD. Please be advised that following various communications between myself, AAHPERD, and the National Association of Sport and Physical Education and the National Association for Girls and Women's Sports, it has been decided that a single athletic training council that is jointly administered by NASPE, and NAGWS is probably the best option in order to increase efficiency and satisfy political considerations. To this end a joint meeting of the two existing councils will be held at the 1982 meeting of AAHPERD in Houston for the purpose of initiating the implementation of this merger. I, as the liaison from NATA will be in attendance at that meeting and will keep you and the Board of Directors informed as to what exactly transpires.

It seems as though progress is finally being made after several years of effort. Thanks for your support, and be sure that your letter will be introduced into the discussions at the Houston meeting.

Sincerely,
Joseph J. Godek
Liaison to AAHPERD

CC: Laurie Priest
Otho Davis
Members of the NASPE Athletic Training Council

MEMORANDUM

TO: William H. Chambers
Board of Directors
District Secretaries
Committee Chairmen
FROM: Otho Davis
DATE: November 21, 1981

The Journal of Physical Education and Recreation is running a feature on sports injuries and athletic training in its June Publication. Anyone who has an original article that he or she has written and which might be appropriate for inclusion in this feature, should send a copy of the article to Joe Godek at Weat Chester State College, West Chester, PA, 19380, as soon as possible. This journal is the professional Journal of the American Alliance of Heath, Physical Educaiton, Recreation and Dance and has a *very* large readership, which includes many Athletic Directors, Physical Educators and Coaches.

TO: Otho Davis, Executive Director
National Athletic Trainers Association
FROM: Joseph J. Godek, Liaison Representative
SUBJECT: Liaison Report

I. Significant Meetings

A. The NASPE Athletic Training Council Executive Committee met in Washington, DC in June of 1981 to discuss future projects for the Council. In attendance were Lauri Priest, Paul Butler, and Patricia Whiteside along with the NATA Liaison Representative. Various projects were planned which will be discussed later in this report.

B. The Executive Council of the Athletic Training Councils of NASPE and NAGWS will next meet at the AAHPERD national Convention in Houston, Texas in April of 1982.

C. There will be a joint meeting of the athletic training councils of NASPE and NAGWS along with the NATA Liaison and staff members of AAHPERD at the Houston Convention. The purpose of this meeting will be to form a single athletic training council in AAHPERD. This single fact represents the solution of a problem that has existed for years and will at last allow for unified efforts within AAHPERD in the area of athletic training.

II. Major Projects Completed

A. The Liaison representative coordinated the assembly of a series of pertinent articles on athletic training which were published in the September, 1981 volume of the Bulletin of the National Association of Secondary School Principals. This featured series was very well received and various parts are to be re-printed in other professional publications. Contributing authors for this series were:

Casey Clarke, PhD
Dean E. Laird, ATC
Paul S. Butler, ATC
Joseph J. Godek, ATC
Michael Codos, DO
Jamie Moul, ATC
Patti Whiteside, ATC
William E. Buckley, ATC
Richard J. Carey, ATC

B. A series of articles has been collected for printing as a "feature" on athletic training in the June, 1982 volume of JOPER, the professional journal of AAHPERD.

III. Major Projects still Being Developed

A. A pamphlet on injury prevention, recognition, and care for the volunteer youth sports coach is being written and printed by NASPE in conjunction with a nationwide project on youth sports. A late Spring of 1982 completion is anticipated.

It was moved by District 10, seconded by District 1 to accept the first three items of the committee report having to do with significant meetings, major projects of being developed for information, this motion being carried 10-0. (I. II. III.)

It was moved by District 9, seconded by District 2 and carried 10-0 that the NATA continue its professional liaison with the AAHPERD.

It was moved by District 5, seconded by District 4 that the NATA fund the attendance of its liaison representative to the 1982 Houston Convention of AAHPERD with the motion being carried 9-1 with District 6 voting the negative.

Concerning the recommendation of the committee to allow Mr. Graham to attend the April meeting to be held at Houston by this group and allow expenditure of funds to permit his attendance, it was moved by District 1 that this recommendation be approved. However, no action was taken by the Board due to the lack of indication of a second to the motion.

XXV. AMERICAN COLLEGE OF SPORTS MEDICINE:

It was moved by District 4, seconded by District 2 and carried 10-0, that the report as presented be accepted and that the NATA continue its liaison with this group.

XXVI. AMERICAN CORRECTIVE THERAPY ASSOCIATION:

It was moved by District 9, seconded by District 1 and carried 10-0, that the report as presented be accepted and that the NATA continue its liaison with this group.

XVII. AMERICAN ORTHOPAEDIC SOCIETY FOR SPORTS MEDICINE:

It was moved by District 9, seconded by District 1 and carried 10-0 to accept the report of the committee and that the NATA continue its liaison with this group.

The reports and communication are as follows:

July 1, 1981
TO: Board of Directors, NATA
FROM: Joe Gieck, LIAISON AOSSM
SUBJECT: 1981 Annual Meeting, ASSOM

The 1981 meeting of the American Orthopaedic Society for Sports Medicine was held June 21-25 at Lake Tahoe, Nevada. Actions by the society are as follows.

The AOSSM is now offering CME credit to all orthopaedists. They also have established a separate research and continuing education committee from the previous single committee. Their Journal continues to improve and an active solicitation of funds from related orthopaedic companies are projected to help finance the society.

Fred Allman, MD replaced Bob Larson, MD as president of the society. The AOSSM now approves educational programs something the NATA may wish to apply for in regard to our national convention.

More related to the NATA was a meeting of their liaison committee which I attended. They have liaison with the President's Council for Physical Fitness which is affiliated with the state governors' councils. They suggest that one purpose of these governors' councils is the aiding of licensure efforts for athletic trainers. Two publications of interest to the NATA membership are a bibliography of sports medicine and the trainer's manual or book they have been working on. Both are supposed to be ready later this year and will be available for purchase.

The AOSSM Distinguished Service Award for Athletic Training, Pinky Newell being the 1981 recipient, will be awarded annually to a past Hall of Fame member of the NATA. Nominees for this award should be forwarded to Joe Gieck by each district director by January 1 of each year. A selection will be made at the society's mid-year meeting. A $1500 award will be made to the NATA scholarship fund in the name of the recipient.

The society continues to encourage NATA member participation through attendance at their meetings, presentation of papers at the meetings, and submitting of articles to their journal.

September 14, 1981

William E. Newell
Purdue University
Purdue Student Hospital
West Lafayette, Indiana 47907

Dear Pinky:

Enclosed is a copy of the criteria for the Distinguished Service Trainers Award for Outstanding Contributions to Sports Medicine and the Athletic Training Profession. I thought you would like to have this for your files. This states the objectives, eligibility and criteria for the award.

I would like you to disseminate this information, along with the application for this award, to the District Directors of the NATA. Also, I think it would be valuable for you to disseminate this same information to Bill Chambers, President of the NATA.

As I told you on the telephone, we look forward to having you as our guest at the Annual Meeting, which will be held in Tan-Tar-A, July 12-15, 1982. We will be in touch with you further about this as time goes on. We still have not decided who will be the sponsor of the scholarship award. This should be decided at our next Board meeting and I'll let you know as soon as we know who the actual sponsor will be. If there are any questions, please do not hesitate to get in touch with me. As you can see, we will need some recommendations for the second recipient for the next award which will be presented at the Annual Meeting in 1983.

Sincerely yours,
James R. Andrews, MD

CC: Thomas Nelson, Executive Director, AOSSM
Fred Allman, MD, President, AOSSM
Selection Committee: Frank McCue MD, Joe Gieck, Gerald O'Connor, MD, Kenny Howard, ATC

July 13, 1981

James Andrews, MD
6262 Hamilton Road
Columbus, Georgia 31995

Dear Jim:

At your request, here's the letter setting forth some of my ideas regarding working with the athletic trainers. You might recall our conversation at the meeting in Lake Tahoe. I would again like to offer my services in any way that I possibly can to assist you in your task as Liaison Chairman with the National Athletic Trainers Association. Here in Southern California, more specifically in the Huntington Union High School District, we have certified athletic trainers at six of the local high schools and this is one area where we might be able to help the athletic trainers in that all high schools participating in contact sports would benefit greatly from the services of the trainer in prevention of injuries and in the care and treatment of injuries.

I took the liberty of talking to Bill Chambers and discussed some of the suggestions with him. Areas where we might be of benefit would be:

1. In the licensure of athletic trainers in each state.
2. Appoint regional liaison people to work with the NATA Committees in each of the ten regions to assist them in whatever way we can in attaining their desired goals regionally. Having a Committee Member from the AOSSM in each of the ten regions of the NATA would provide a ready-made Liaison Committee.

Bill was going to discuss this with some of his regional directors to see if any other ideas might be obtained.

It was a pleasure talking to you, and hearing your paper at Lake Tahoe, and I am looking forward to working with you more closely on this project.

Sincerely,
R. E. Cassidy, MD

September 14, 1981
Leslie Bodnar, MD
Chairman, Liaison Committee
328 North Michigan Street
South Bend, Indiana 46601

Dear Les:

Enclosed is a copy of a letter from Robert E. Cassidy, MD in Huntington Beach, California. He has suggested that the Liaison Committee of the American Orthopaedic Society for Sports Medicine work hand-in-hand with the NATA in regard to the licensure of athletic trainers in each state. I think the idea of having regional liaison people to work with the NATA would also be very rewarding. I believe the way to organize that is to have one of our active members assigned to each of the 10 districts. It would be the responsibility of each, of course, to work with the District Director and also to try to attend the annual district meetings. As you can see, Robert Cassidy has a great deal of interest along these lines, and I would certainly recommend that he be remembered in regard to my subcommittee on Liaison to the NATA and perhaps give him some official role.

Let me know what you think.

Sincerely yours,
James R. Andrews, MD

September 14, 1981
Robert E. Cassidy, MD
17752 Beach Boulevard
Suite 203
Huntington Beach, California 92647

Dear Robert:

Thank you very much for the letter in regard to the Liaison Commitee for the NATA. I have forwarded your letter to Les Bodnar, who is Chairman of the Liaison Committee for the American Orthopaedic Society for Sports Medicine. I think that the idea of having district representatives as Liaison from the American Orthopaedic Society of Sports Medicine to each district of the NATA is an excellent idea. I will try to get this approved through Les Bodnar and also will bring it up at the next Board of Directors Meeting for the AOSSM. In the meantime stay in touch with me and we will work toward some of your goals.

Sincerely yours,
James R. Andrews, MD

September 28, 1981
William H. Chambers
Fullerton Junior College
Department of Athletics
Fullerton, California 92634

Dear Bill:

I hope that the activities suggested in the letter from Jim Andrews and Bob Cassidy come off better than the last activity in which you and I were involved. This sounds like an excellent suggestion and I believe Bob Cassidy has already spoken to you of it. I hope that you thought as favorably of it as his letter suggests.

I presume that Fred Allman will approve of this and Jim Andrews will be in touch with you all.

With best personal regards.

Sincerely,
Leslie M. Bodnar, MD

October 27, 1981
Leslie M. Bodnar, MD
328 N. Michigan Street
South Bend, Indiana 46601

Dear Dr. Bodnar:

I am very excited that you feel Bob Cassidy's suggestion is a good idea. I am confident that the licensure efforts of NATA will be helped a great deal by having support from the AOSSM.

Our Association is grateful for the continued help and support we continually get from the AOSSM. Rest assured we will provide to you any information needed to help the cause of athletic trainers licensure.

It was nice to hear from you and I hope all is going well for you.

Sincerely,
William H. Chambers
President

October 20, 1981
Leslie M. Bodner, MD
328 N. Michigan Street
South Ben, Indiana 46601

Dear Les:

I think the suggestions of Jim and Bob Cassidy are very good and something that we should implement at the earliest possible time. I will be most happy to work with you, Jim and Bob in selecting people if that is desirable with the three of you. I think it will be very worthwhile for both organizations to have such a close liaison.

Most Sincerely,
Fred L. Allman, Jr., MD

November 30, 1981
William H. Chambers
National Athletic Trainers Association
P. O. Drawer 1865
Greenville, North Carolina 27834

Dear Bill:

With football over, and rather disastrously for Notre Dame, I am catching up on correspondence. In response to your letter of October 27th, I enclose a copy of a letter from Fred Allman indicating that AOSSM is anxious to do further work on the suggestion of Jim Andrews and Bob Cassidy. If you will forward your thoughts to them, perhaps we could get something more definite going.

With best regards.

Sincerely,
Leslie M. Bodnar, MD

TO: Board of Directors, NATA
FROM: Joe Gieck, Liaison to American Orthopaedic Society for Sports Medicine
RE: Continued Liaison with AOSSM
DATE: October 30, 1981

The AOSSM will meet next January 19-21, 1982 in New Orleans, Louisiana.

Reasons for continuing the liaison are:

1. The AOSSM has strongly supported the NATA including a policy statement on licensing, and continue to seek opportunities to work with the NATA toward common goals.
2. They have established an annual distinguished service award for the past NATA Helms member plus $1500 to our scholarship fund.
3. They have reduced their dues to athletic trainers who belong to the AOSSM to get more athletic trainers involved in their organization.

As a member of their committee that picks the annual distinguished service winner, I have requested that each district submit one name for consideration for this award. This is a major award in our field. I feel that each district should have one individual they feel qualified to receive this honor.

XXVIII. NATIONAL SPORTS REHABILITATION FOUNDATION

It was moved by District 7, seconded by District 1 and carried 10-0, that the NATA support the concept of the helmet manufacturers establishing a National Sports Rehabilitation Foundation for the purpose of establishing a catastrophic insurance fund.

XXIX. AMA LIAISON CONTACT MEETING:

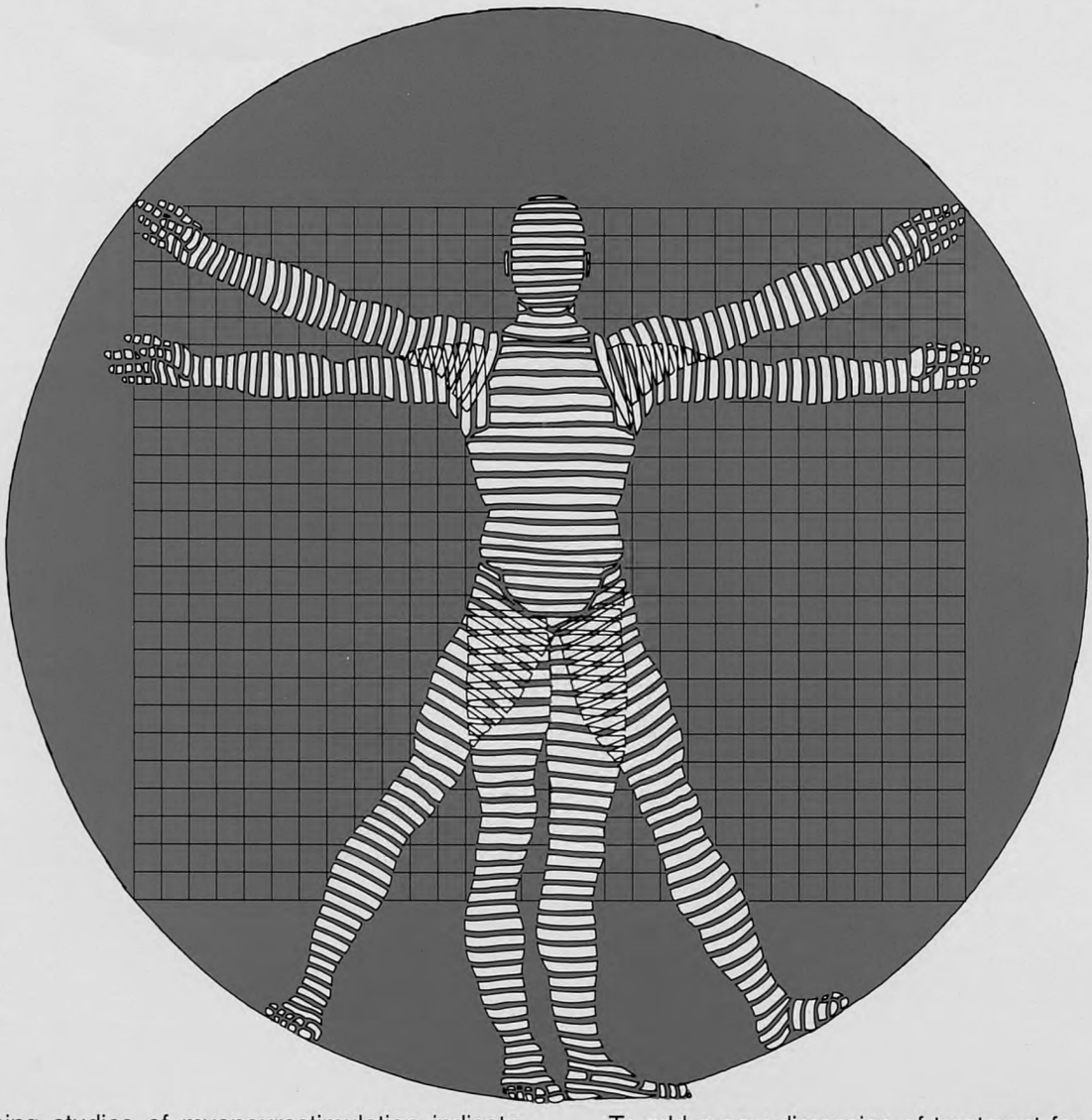
It was moved by District 9, seconded by District 1 and carried 10-0, that the NATA select a representative to attend this metting, with Mr. Davis to select a representative from the local area.

XXX. ARBY'S PROPOSAL:

It was moved by District 10, seconded by District 9 and carried, with nine districts in favor and District 8 abstaining from voting to reaffirm the mail vote motion of approval concerning the name of the NATA to be printed on pamphlets involving nutrition to be distributed at various Arby's facilities.

XXXI.The Mid-Winter Board of Directors meeting was adjourned at 10:39 AM on February 18, 1982.

SOKEN BRINGS YOU A NEW DIMENSION OF TREATMENT WITH PROVEN RESULTS



Ongoing studies of myoneurostimulation indicate this new dimension of non-invasive treatment effects faster recoveries, reduction of edema, increased circulation and less patient discomfort. It's being prescribed for patients with acute and chronic conditions with proven positive results.

The Soken PEMS has gained high patient acceptance in a variety of applications. Its treatment pads allow more comfort for bilateral use, polarity control, and the capacity of treating two areas simultaneously. All units are portable and are easy to operate in the clinic or the field, with multiple settings and adjustable intensity control. Every Soken PEMS is covered by a 3-year replacement warranty for mechanical defects.

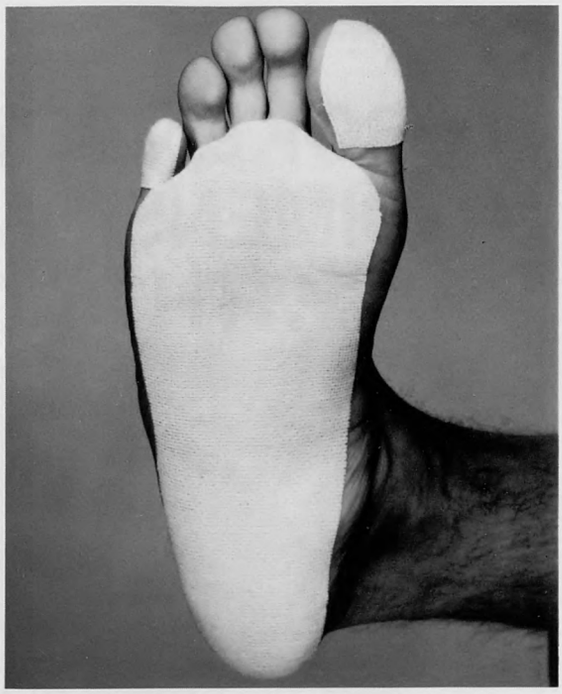
To add a new dimension of treatment for your patients, call or write for information, local distributors, contraindications or a demonstration.

Soken of
North America
4062 Summerhill
Texarkana,
Texas 75503
214/793-6888
800/442-8993 in TX 800/527-8493 out of state

Soken

Have You Seen These?

Comments on Products are supplied by the manufacturers and are not to be construed as having the endorsement of the NATA.



ADHESIVE KNIT STAYS ON PALMS AND SOLES

A new adhesive knit fabric has been developed especially to stick to and protect the palms and soles, which are mobile and sweaty. It is made from a highly breathable synthetic fiber, spun like a sock to fit snugly around any movable curved surface. Its medical grade adhesive will resist sweating off, it will stay on during bathing, its protective nap absorbs friction, and it will change shape to fit any curved and movable surface.

Contact: Max Beasley, Marketing Director, Sports Medicine Division, Spenco Medical Corporation, P. O. Box 8113, Waco, Texas 76710. 818-772-6000. +

Answers:

a. The late Eddie Wojecki of Rice University, who helped develop the Hall of Fame for the Athletic Trainer in the NATA.

b. Tom Healion, New England Patriots.

c. L to R: Paul Schneider, University of Nebraska; Eddie Byrne, University of California; Ed Gobal; Pinky Newell, Purdue; Chuck Medlar, Penn State (seated).

A Timely Reminder . . . .

Your contributions and continuing support to the NATA Scholarship Fund are always welcome and are necessary so that the endowment goal of $500,000 can become a reality. Please remember that our program of financial assistance is a four-fold one that offers scholarships, loans, grants and part-time employment. Organizational support from the NATA to the Fund continues, but your individual contributions are vital to the Scholarship Fund's ultimate success. All contributions are tax deductible. Won't you consider now the importance of your participation in the NATA Scholarship Fund? Make your checks payable to Scholarship Program, and mail them to this address: **William E. Newell, Purdue University Student Hospital, West Lafayette, Indiana 47907.**

Change of Address and District Transfers

Please be advised that many of our members are listed incorrectly by District. This is partially due to the many address changes we receive that are unaccompanied by requests for District Transfers.

In order to facilitate the District Transfer process and to aid in updating our records, could you please do the following: 1) Check billing statement or membership card as to the correct District listing, 2) When requesting address changes, if they are changing Districts, request a District Transfer application.

Many members are unaware as to the process involved in transferring their records from one District to another and should be reminded of the correct procedures.

Students must be members of the District in which the university they attend is located. +

Our Advertisers

PATRONIZE ATHLETIC TRAINING ADVERTISERS

Preview

CYBEX introduces six new products.

1. Data reduction computer
2. Completely new Orthotron
3. Single-actuator knee machine
4. Double-actuator knee machine
5. Compact accessories cart
6. Dynamometer and patient stabilization kit

See them for the first time at our booths at the ACSM, NATA and APTA meetings. Briefly, here's what they are.

1. **CYBEX DATA REDUCTION COMPUTER** interfaces with the dual-channel recorder and dynamometer to provide instantaneous analysis of CYBEX II tests including peak torque and angle, torque at preselected angles, range of motion, average power (watts), total work, endurance ratios and more. All data automatically gravity-corrected with any artifact/damping error eliminated. Automatic calculation of agonist/antagonist and injured/uninjured ratios and deficits on all parameters. Cost payback in one year of time saved. Plus new performance measurements and greater accuracy than visual analysis.

New **ORTHOTRON** line incorporates improvements based on clinical feedback from literally millions of patient treatments with original Orthotron units. Important features are improved hydraulics and readout, torso and pelvic stabilization, reduced tare load and floor space, new ease of operation.

2. **ORTHOTRON II™** is designed for diversified physical therapy caseloads with the capability to exercise weak/acute patients as well as athletes in the major ankle, knee, hip and shoulder patterns. Separate high and low pressure gauges improve objective feedback to patient and clinician.

3. & 4. **ORTHOTRON KT1™ & KT2™** are *dedicated knee machines* especially suitable for sports-medicine use. KT1 has one actuator with a double shaft between two special chairs. KT2 has two actuators on one chair for simultaneous or consecutive left and right knee exercise and uses a minimum of floor space. All new Orthotrons adjust to accommodate the largest or smallest person.

5. **CYBEX® II/U.B.X.T.™ ACCESSORIES CART** has a vacuum-formed panel with shaped slots and convenient shelves. Neatly stores every CYBEX II and U.B.X.T. accessory and adapter in less than 4½ sq. ft.

6. **DYNAMOMETER STABILIZATION AND PATIENT STABILIZATION KIT** for existing CYBEX IIs eliminates mechanical play in dynamometer and pedestal. Simplifies all dynamometer adjustments and provides ideal patient stabilization for knee testing.

Watch for our ads on these new products in next month's publications, or send coupon for literature.

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☐ Send literature ☐ Contact me about:
☐ CYBEX® DATA REDUCTION COMPUTER ☐ ORTHOTRON II™
☐ ORTHOTRON KT1™ & KT2™ ☐ CYBEX® II/U.B.X.T.™ ACCESSORIES CART
☐ DYNAMOMETER AND PATIENT STABILIZATION KIT

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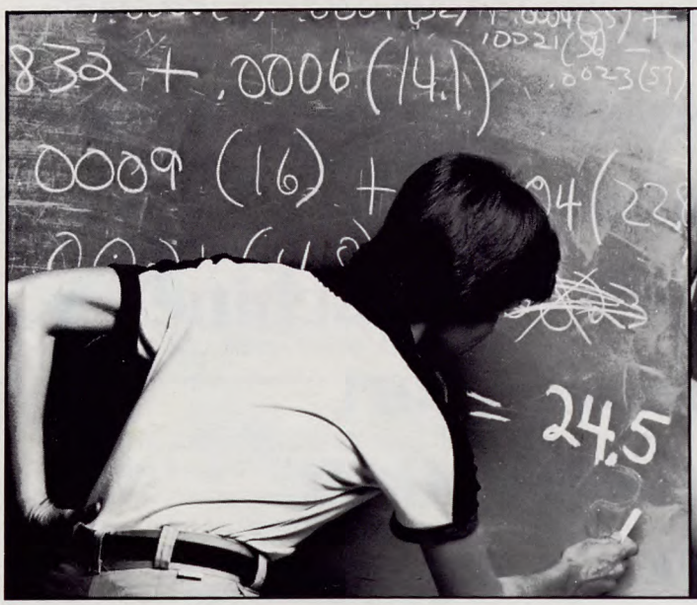
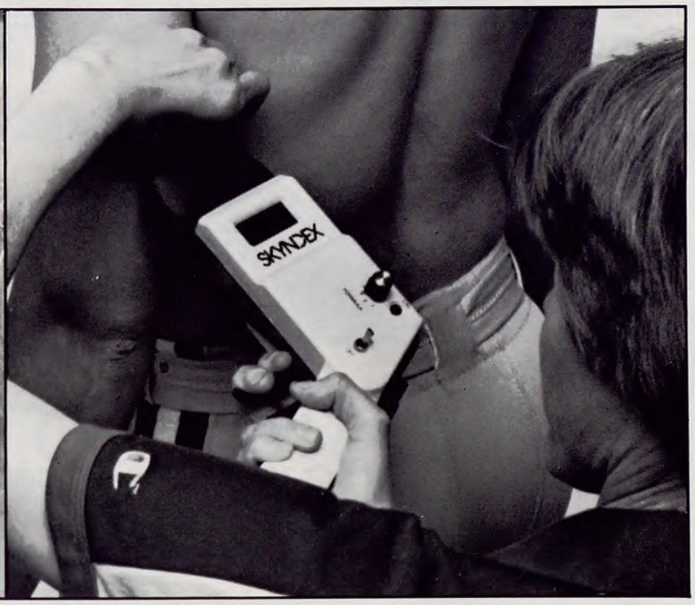
AT Su82

BODY FAT CALCULATION:

THE OLD WAY.
22 MINUTES PER PLAYER.

THE NEW WAY.
45 SECONDS PER PLAYER.





SKYNDEX is the new electronic Body Fat Calculator that allows you to check an entire team in just a couple of hours. Every player in just 45 seconds. Quickly. Accurately. No errors in arithmetic. The SKYNDEX is rechargeable and carries a full 2-year warranty. It's programmed for Sloan and Durnin, but other commonly used formulas can also be programmed into the unit's memory. SKYNDEX has a digital LCD readout. Better than mechanical calipers. Better repeatability. Priced at just $450—with no calculated risk. You get your money's worth.

Find out more. Get your free Cramer SKYNDEX Information Kit. Simply fill out the coupon and mail it. Today.

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YES! *Send me free information on your new SKYNDEX electronic body fat calculator. I want to find out how I can accurately measure a team player every 45-seconds!*

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