ATHLETIC TRAINING

THE JOURNAL OF THE NATIONAL ATHLETIC TRAINERS ASSOCIATION

IN THIS ISSUE:

Volume 9
Number 4
December 1974

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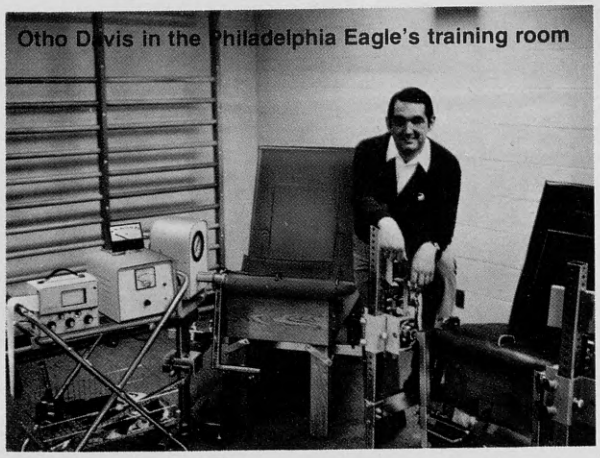

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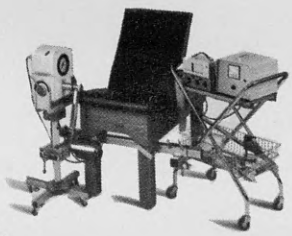

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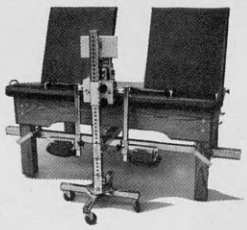

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ATHLETIC TRAINING

The Journal of the National Athletic Trainers Association

Volume 9 | Number 4 | December, 1974

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ARTICLES

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Dept. of Athletics
Providence, Rhode Island 02912

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Philadelphia Eagles
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Abstracts

"Should Epileptics Be Barred From Contact Sports? AMA Changes Position," **Medical World News**, February 22, 1974.

In 1968 the AMA Committee on Medical Aspects of Sports took a position that "barred epileptics with grand mal, petit mal, and psychomotor disorders from boxing, tackle football, ice hockey, diving, soccer, rugby, lacrosse, and from other activities where chronic recurrent head trauma may occur."

In February 1974, the committee had a draft form of a proposed statement that reflects a unanimous view that seizures induced by head trauma in sports is a gray area, and that "each patient should be judged on an individual basis."

Research studies done at the University of Nebraska-Lincoln Health Center so far support a liberalized view of epileptics participating in contact sports, provided that normal safeguards for sports participation are followed and adequate protection is used. The researchers at Nebraska studied the effect of exercise on the EEG and blood chemistry of epileptics and thus far have found that "vigorous aerobic exercise on a motorized treadmill" did not cause epileptogenic activity in most of the 14 subjects. Dr. Rose, Head of the University of Nebraska research team stated that their study had an unavoidable bias in the selection procedure. This was in the fact that, the individuals tested had to come forth and volunteer, and undertake a vigorous training program. So, random selection was not a choice.

The study was set up in the following manner:

"Tests for maximum exercise and hyperventilation capacity of each subject were done prior to and following completion of a ten-week physical exercise program. Post training "stress testing" was done within three days of the end of the exercise program. Pretraining was done and measurements taken to determine the "points of exhaustion" of each subject."

In other research one specialist reported treatment of a current professional football player for epilepsy. But stated, "there are no well-known football players, hockey players, or boxers who have permitted publicity about epilepsy."

Noted also was one case of a civil rights suit challenging a private company, from its barring epileptics from work. The suit was against a Sports Parachuting Center in New Jersey. The applicant filed suit and went into skydiving to prove to employers that he could function despite a long history of grand mal seizures. The suit is expected to go to a higher court.

Dr. Rose of the University of Nebraska has found in his studies that he must support the hypothesis that changes in blood chemistry—to "respiratory alkalosis with forced voluntary hyperventilation" and to "metabolic acidosis with muscular effort"—create a "protective effect" in which metabolic acidosis wards off seizures. He also states that his study will show that there is no evidence indicating that elevated lactic acid levels inhibit recovery from exercise.

It is hoped that by early fall research into "seizure threshold" can be turned to competitive sports (probably basketball and volleyball). Dr. Rose adds that epileptic patients "can do anything they want if they are controlled medically." However, Dr. Rose would still not recommend some forms of football, hockey, and boxing to epileptics. "This is a very individual thing—touch football is different from the tackle variety."

Charles Bolton

"A Team Approach to Sports Medicine," Fried, T. and Shephard, R., **jama**, Vol. 216, June 14, 1971.

Rather than leaving sports medicine as the province of the orthopedic surgeon, Fried and Shephard advocate utilization of the skills of the physician, physiologist, biochemist, and psychologist as well as the surgeon. With this broadened perspective, example is shown of four athletes who found competition possible through well rounded insights, rather than orthopedic principles, on the part of the physicians. These include a distance runner whose arch was too rigid to absorb impact (symptoms alleviated by increased shoe padding), a cyclist who suffered severe dyspnea when cycling uphill in cross country events (found to be due to his ventilation rate, which linked to pedaling rate), a swimmer who suffered bronchiospasm, dizziness, faintness, and dry mouth when competing in heavily chlorinated water (thought to be an anxiety reaction from an experience in which the swimmer had to be helped from the water in a pool in which the chlorine concentration was high), and another cyclist whose problem was excessive muscular bulk for his endurance events (recommended that he only train for endurance and drop the sprint-event training).

The conclusion, then, is that through a broad-based education and cooperation, those concerned with sports medicine can better advise and care for athletes.

Greg Vergamini

***

"Decisions Concerning Cerebral Concussions in Football Players," Schneider, Richard C., M.D., and Frederick C. Kriss, M.D., **Medicine and Science in Sports**, Vol. 1, No. 2, pp. 112-115, June, 1969.

Three grades of cerebral concussion were presented with suggestions as to management of individuals with such problems. The greatest concern should be whether there is an expanding lesion within the cranium. Initial symptoms and signs of concussion are reversible and are also identical with those of an expanding hemorrhage. Therefore, a few simple neurologic tests were presented which may help to determine the urgency of the situation.

The symptoms of cerebral concussion are usually felt by the patient. Such symptoms as consciousness, mental confusion, memory loss, dizzi-

ness, unsteadiness, and tinnitus (ringing, tinkling, buzzing, or other sounds in the ear). These symptoms are reversible. However, if there is a progression of the symptoms, this suggests an expanding lesion which demands immediate attention.

The signs of expanding lesion are rather easy to ascertain. Simple fundamental tests which should be used in suspected cases of expanding lesions are listed below.

State of Consciousness—Degree of impairment
Pupils—Inequality
Heart—Unusual slowing
Eye Movements—Nystagmus ("dancing eyes")
Outstretched Arms—Drift unilaterally
Finger to Nose Test (eyes closed)—Asymmetry (lack of symmetry)
Heel to Knee Test (eyes closed)—Asymmetry (lack of symmetry)
Romberg Test (standing-eyes closed)—Falling
Tandem Walk (heel to toe walking on a straight line)—Inability to perform

This examination could be done near the bench.

This paper was not an attempt to make a neurologist of the physician, coach, or trainer but to re-emphasize the use of fundamental tests which will indicate the urgency of the situation one may face.

Tom Carter

***

"Treatment of Tennis Elbow with Forearm Support Band," Froimson, Avrum, I., M.D., **The Journal of Bone and Joint Surgery** 53-A: 183-184, January, 1971.

Although the pathological lesion in tennis elbow has not been convincingly demonstrated, it appears that most methods of treatment have in common the reduction of tension in the common extensor origin on the lateral humeral epicondyle. To provide a simple method of achieving this desired relief of tension the author has designed a forearm support band that is being produced commercially. The support is a 5.4 centimeter wide band of heavy-duty non-elastic fabric lined with foam rubber padding to prevent slipping. Use of the support is advised only during actual play to avoid excessive tightness and the band is removed during periods of inactivity to avoid venous congestion and edema. In acute cases, treatment with the forearm band is augmented with local anesthetic and steroid injections into the tender tissues distal to the lateral epicondyle. Oral phenylbutazone or aspirin may also be prescribed.

Forty patients have been treated with this support. Twenty-three of the twenty-eight who were treated with the forearm band and injection therapy were relieved of pain, while ten of the twelve treated with the forearm band alone were relieved.

Once relieved, patients are advised to continue using the band during play for at least a year to avoid recurrence. This tennis-elbow support has several advantages. It is light in weight, easy to apply, and does not interfere with elbow motion, thereby allowing normal tennis strokes.

John Wells

***

"Hockey Injuries: The Pro is Hit the Hardest," Nagobads, V. George, **The Physician and Sports Medicine**: 55-57, Nov., 1973.

Several different theories and statistics about the how and why of hockey injuries were discussed in this article.

Dr. Nagobads draws his conclusions from fifteen years of experience with the Minnesota Fighting Saints, U.S. Olympic Team and the University of Minnesota hockey teams. Due to the increase of popularity of hockey in the United States, injuries in this sport have greatly increased. The majority of these are minor bruises, contusions, or cuts of the face. Most of the cuts, 90%, are caused by sticks and although drastic looking, are seldom severe. The more severe injuries are injuries to the joints and head injuries. There are more severe head injuries in the professional ranks, due to the fact that the professional players are not required to wear helmets, as do the college players. The majority of head lacerations are caused by sticks and pucks, while most concussions (61%) and skull fractures (33%) come from hitting the head on the boards or the goal post.

Injuries to the joints can be reduced by more special exercises, weight training and specific calisthenics. The hockey players should work harder during the off season to maintain a high level of physical condition. Bicycling has been found very helpful in strengthening collateral ligaments of the knee. More practical and effective off ice training programs should be encouraged in an effort to prevent join oriented injuries.

Donald P. Roach

happy holidays

FROM THE JOURNAL COMMITTEE


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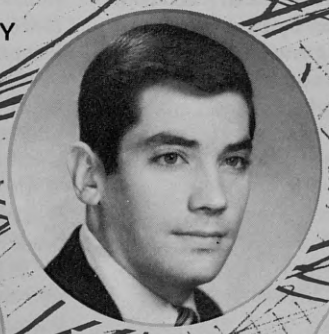
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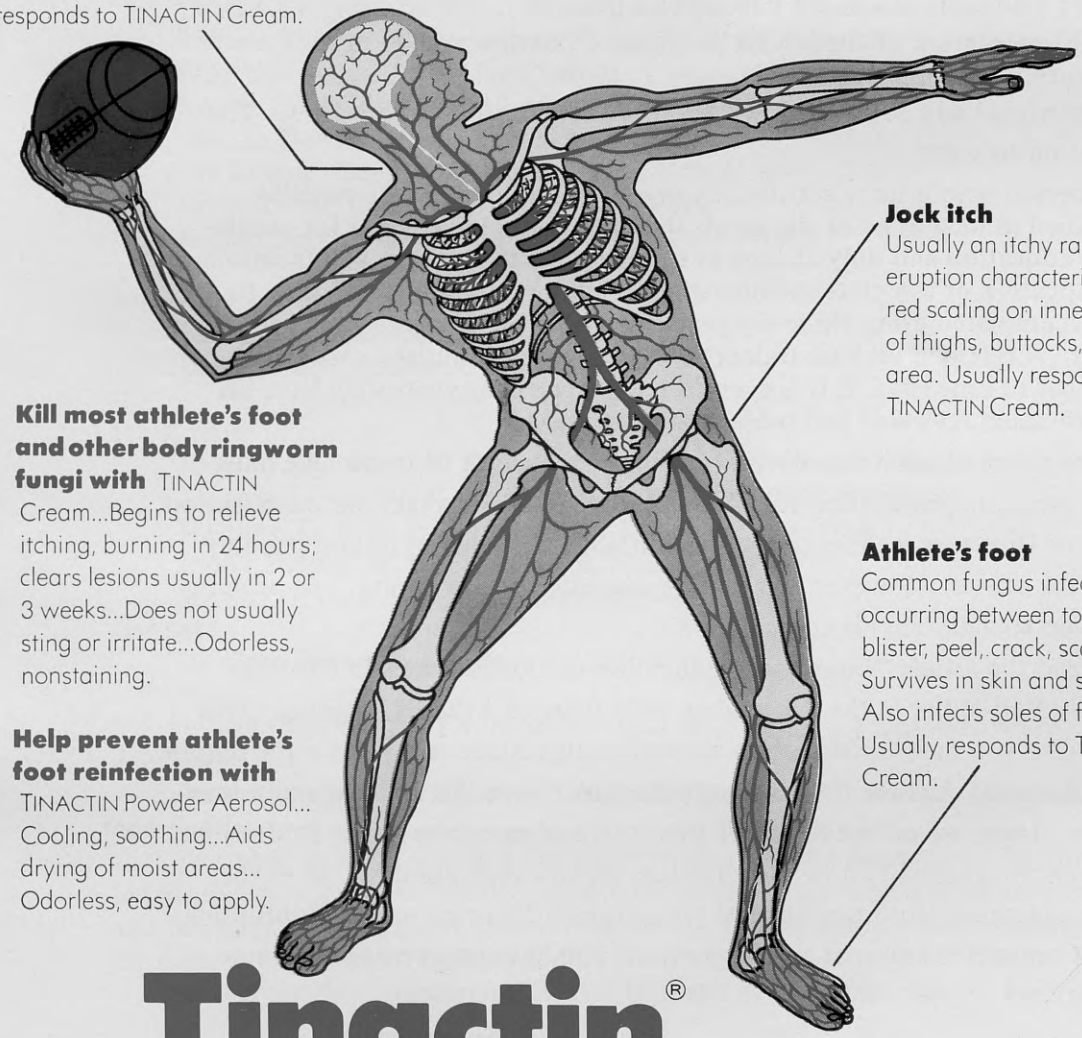

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FROM THE PRESIDENT'S DESK

EXECUTIVE DIRECTOR
OTHO DAVIS
Philadelphia Eagles
Veterans Stadium
Philadelphia, Pa. 19148
Telephone: 215/463-2500

Dear NATA Member,

Hope most of you are able to breathe a little easier after a busy football season. As was stated in the first letter to the membership, published in the September Journal, there will be a letter in each Journal informing the members of recent policy decisions by the NATA Board of Directors. This letter will deal mainly with the subject of continuing education. In June, 1974 the NATA Board of Directors made continuing education a part of the NATA By-Laws. Some of the highlights of this By-Law read as follows:

> "Implementation of the NATA program of continuing education will take place on January 1, 1976."

The interim period will be used for a pilot study on continuing education. The By-Laws go on to state:

> "A person who is once certified as an athletic trainer (ATC) **remains certified as long as he or she meets the minimum requirement for continuing education** and only as long as such requirement is met. To maintain certification or associate membership the minimum number of units to be accumulated every three (3) years shall be nine (9) continuing education units. A certified athletic trainer who does not accumulate a recorded number of nine (9) C.E.U.'s every three (3) calendar years shall have his certification reviewed and subject to suspension."

Please be aware of what this By-Law is requiring each of us to do. We must satisfy the continuing education requirement, if we wish to retain our certification. The Board of Directors realizes this will be difficult for some of us and possibly a hardship for others. However, continuing education is a necessity if an athletic trainer wishes to maintain his competence.

Please read the article "Continuing Education or Obsolescence in Athletic Training" by Bud Miller in the September 1974 issue of **Athletic Training**. This article will give you more information on continuing education and how the requirements may be met. Answer the questionnaire which is in this Journal and return it promptly. Then, we on the Board of Directors and members of the Professional Education Committee will know your feelings on and your ability to meet the continuing education requirement. Let your District Director or the Continuing Education Committee know of any suggestions you have concerning this very vital subject.

Sincerely,

Frank George

Frank George
President NATA

National
ATHLETIC TRAINERS ASSOCIATION

PRESIDENT
FRANK GEORGE
Brown University
Department of Athletics
Providence, Rhode Island 02912
Telephone: 401/863-2211

EXECUTIVE DIRECTOR
OTHO DAVIS
Philadelphia Eagles
Veterans Stadium
Philadelphia, Pa. 19148
Telephone: 215/463-2500

November 15, 1974

Dear Members :

There has been much discussion in the past several months in reference to the selection of athletic trainers for the various Olympic games. The United States Olympic Committee Medical and Training Services Committee recently appointed for the Pan American Games to be held in Sao Paulo, Brazil, April 26 to May 11, 1975 the following list of medical, training and nursing personnel:

Trainers:

Robert Lane (Head Trainer) University of Texas at Arlington
Z. M. "Mil" Blickenstaff - Indiana State University
Lewis C. Crowl - Sacramento, California
Gary Delforge - University of Arizona
Charles Demers - Deerfield Academy, Deerfield, Massachusetts
William Flentje - University of Missouri - Rolla, Missouri
Billy Hill - Ohio State University
Kenny Howard - Auburn University, Alabama
William Newell - Purdue University, Indiana
Vic Recine - Sayresville High School, New Jersey
John Sciera - Cortland College, New York
Robert Sinkler - Princeton University, New Jersey

Nurses:

Barbara Sabasteanski - Brunswick, Maine
Jane Person - Denver, Colorado

Physicians:

John B. Anderson, M. D. (Chief Physician) - Brunswick, Maine
Thomas J. Flately, M. D. Orthopedist - Milwaukee, Wisconsin
Matthew D. Branche, M. D. - New Rochelle, New York
Irvind Dardik, M. D. - New York, New York
Jerome H. Patmont, M.D. - Berkeley, California

Dentist:

Dr. Cort Boxwell - Denver, Colorado

Selected from the NATA list were: Delforge, Demers, Flentje, Howard, Newell, Recine, and Sciera.

Selected by the USOC, but not on the NATA list were: Crowl, Blinckenstaff, Hill, and Sinkler.

Lew Crowl recently notified the USOC that he would not attend the games because his name was not on the NATA recommended list. This took a great amount of courage and integrity on the part of Lew Crowl and the NATA appreciates his admirable decision. He is to be commended by his peers!

Trainers for the Summer and Winter Olympic Games have not yet been selected.

Respectfully Submitted,

Otho Davis
Executive Director

BOOK REVIEWS

Ken Murray
Certified Athletic Trainer

COMMENTS IN SPORTS MEDICINE
by: Timothy T. Craig, PhD, Editor
American Medical Association
230 pages

Comments in Sports Medicine is a composite, single volume with new topics and re-editing of the former booklet, **Tips on Athletic Training.** It is designed for athletic trainers, physicians and coaches as a very good quick reference to a variety of sports medicine issues. It deals with such topics as health problems, medical concerns, athletic accident prevention, injuries, and subjects useful to athletics. Its value lies in its covering of a number of subjects and providing at the end of each topic a list of additional references related to each topic. It also contains a glossary of related terms and an organizational index with addresses of a number of associations useful for references and materials.

This book is very useful for anyone interested in sports medicine and is a great asset to your library.

WORKBOOK: FUNDAMENTALS OF ATHLETIC TRAINING FOR WOMEN
By: Holly Wilson,
Certified Athletic Trainer
University of Iowa
List Price: $5.50 plus $.60 postage
267 pages — Illustrated

With the growth of women's atheletics, the need for good training programs for women is being recognized across the country. But where do you start in setting up a program? Holly Wilson's workbook is a good beginning.

Constructed as a blank outline for a 25-30 hour lecture course, with reference lists at the end of each section, the workbook covers the basics of injury prevention and car, conditioning for various sports, and rehabilitation programs. But this reviewer feels that one of the book's biggest assests is that it goes much further by including the basics of setting up the training program itself, with instructions and diagrams for building inexpensive equipment, samples of medical forms and treatment logs, and hints on money-saving ways to improvise when the budget is limited and equipment almost non-existent — a situation many women's programs are faced with! It also includes an objective and problem-solving test, with answers included, that the reader can use to test herself or a class.

This book would be a very useful resource for **any** beginner, be it teacher, coach or student.

GROUND BREAKING ON HENRY SCHMIDT PARK

Ground breaking and start of construction on the Henry Schmidt Park, on Saratoga Avenue at Las Padres Boulevard, Santa Clara, took place Wednesday, Oct. 16, 1974 on the park site.

Among officials at the brief ceremony, were Bing Crosby and his family, the Rev. Thomas D. Terry, S.J., president of University of Santa Clara; the Rev. Patrick Carroll, S.J., SCU athletic moderator; Pat Malley, Bronco athletic director, and Santa Clara Parks and Recreation Department officials.

The $220,000 nieghborhood park, which will be one of the finest and largest parks in the Santa Clara system, is named after Henry Schmidt, who is in his 48th straight year as Santa Clara athletic trainer.schmidt, a 1932 SCU alumnus, has been trainer at one university longer than anyone in the history of NCAA four-year colleges.

Target date for completion of the 8.5-acre facility is July, 1975.

The park will have a large cumminity center building which will house Schmidt's massive collection of sports artifacts and memorabilia, six lighted tennis courts, a football-soccer field, a Little League baseball diamond, children's play area and other turfed play areas.

Schmidt, who is justly proud of his many "firsts" while serving for almost a half century as SCU trainer, is a former trainer for the San Francisco 49ers, Los Angeles Rams and St. Mary's Pre-Flight football programs. He lives in Santa Clara about a block from his park.

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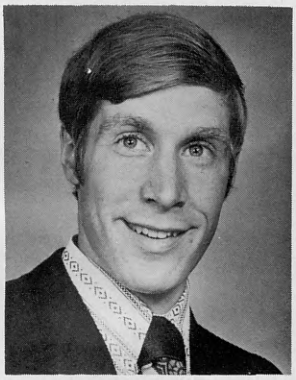

by Ed Christman
Certified Athletic Trainer

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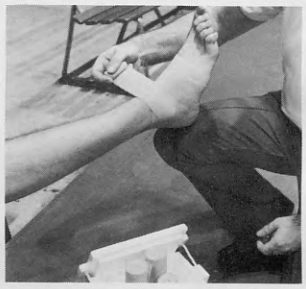

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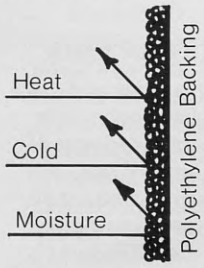

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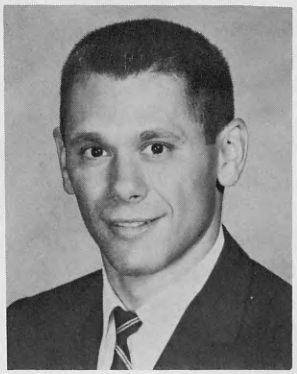


Dennis Aten
Certified Athletic Trainer

ACCIDENTS ASSOCIATED WITH HOCKEY EQUIPMENT

An estimated 30,000 persons received hospital emergency room treatment during the 1973 fiscal year for injuries associated with hockey equipment.

Lacerations, fractures, strains/sprains, and contusions/abrasions are the most frequent product-related injuries. They most often result from: being hit by a puck, hit by a stick, cut by a skate, being checked, or falling into the sideboards of the rink.

Injuries to the head and face, including the eyes, ears, and mouth, accounted for 64 percent of the total injuries reported, or 1,009 injuries in the danger area of the head. Eleven concussions were reported, and almost all of the remaining facial and head injuries were fractures, lacerations, or contusions/abrasions.

Injuries to the lower arm (6 percent), lower leg (11 percent), and the fingers (7 percent), accounted for most of the remaining cases.

A total of 843 lacerations, 373 contusions/abrasions, 155 fractures, and 140/sprains were recorded during the period.

The age span from primary through high school registered almost 80 percent of the injuries. The age groups 10-14 and 15-19 each reported 35 percent of the total injuries and the group 5-9, 8 percent. Only 12 percent of the injuries occurred to the age group 20-24, and 9 percent to persons 25 years and older. Of the total, 1,607 injuries recorded during the period, 91 percent (1,457) were to males.

DRUG PAMPHLET FOR COACHES

The NCAA has published a sixteen-page informational pamphlet on drugs for coaches. It contains some basic concepts and history of drug use in athletics. It discusses the different drug forms, how to recognize their use, and what the coach can do.

Copies of this pamphlet can be obtained for $.25 a copy from NCAA, 1221 Baltimore, Kansas City, Missouri 64105.

DRUGS AND SPORTS DON'T MIX

The use of drugs as an aid to athletic performance has been condemned by the American Academy of Pediatrics' Joint Committee on Physical Fitness, Recreation, and Sports Medicine in the September issue of **Pediatrics**, the Academy's monthly scientific journal.

Noting that some athletes and coaches have tried nutritional, physical, and pharmacological methods of increasing performance, the committee said "there is no scientific basis for any such practices." The statement dealt in particular with two types of drugs—anabolic steroids, used mainly for weight gain, and amphetamines.

The committee said several side effects have been associated with the use of steroids, including precocious sexual development in boys and the possibility of masculinization in girls.

Research in the use of steroids has not demonstrated increases in strength, the committee said. "Athletes who claim gain in weight and increased athletic performance appear to have taken self-administered doses of steroids far beyond the therapeutically recommended amount of these drugs," the committee said. "The results are questionable at any age, and highly undesirable in adolescence."

On amphetamines, the committee said the drugs may improve physical performance if the athlete is fatigued, but the individual's judgment, and his estimate of his own performance, may be impaired.

"The amphetamines are dangerous because of their hazardous effect of masking the signs of fatigue or exhaustion," the statement said. "Thus, the drug may be harmful to the stressed athlete." More harmful side effects—including psychological dependence—may occur with chronic use, the committee noted.

The committee also warned against the frequent use of "downers"—mainly barbituates—to help athletes obtain restful sleep before a performance. Their frequent use is hazardous because of "detrimental effects on performance and the possibility of psychological dependence," the committee said.

The committee said there is no

scientific evidence to indicate that special foods, vitamins, massages, ultraviolet lights, breathing oxygen, or nutritional supplements can improve the ability of an already healthy athlete.

"Young people today grow up with the notion that there is a drug to hasten recovery from practically every illness and that a healthy person can be even better off if he has something special in his diet or in his manner of living," the committee said.

"The result of these beliefs and attitudes is a host of misconceptions about ways by which a healthy individual can be improved by a miracle drug, a special diet, a vitamin, a hormone, particular exercises, or some other procedure."

The statement concluded: "No drug can safely make the athlete better than he would normally be. The facts and dangers regarding the use of anabolic steroids, stimulants, and sedatives should be made available to athletes, coaches, parents of young athletes, and physicians.

"All of them should know that the misguided use of ergogenic aids to improve athletic performance is contrary to good medical care, harmful to physical and mental health, and counter to ethical and sportsmanlike participation in athletics."

SPORTS AND PREGNANCY

The Victorian notion that a pregnant woman must be shielded from physical stress has broken down. Many gynecologists now agree that the first two or three months of pregnancy probably have no effect on sports performance. There were three pregnant gold medal winners in the 1956 Olympics. One physician remarked that he saw no harm if a woman wanted to continue in athletics up to the last day of pregnancy.

Physicians also have concluded that there is no evidence that women athletes have difficulties in conceiving. Sports women actually seem to have fewer complications in child birth than non-athletes, and their first stage of labor is shorter. If there are no complications, an athlete can usually resume activity within a few weeks after delivery.

SYNTHETIC TURF STUDIED

Synthetic football playing turf increases player speed and thus may set the stage for higher collision forces and more severe injuries, according to a report to the American Academy of Orthopaedic Surgeons.

College football players were timed in a series of 40-yard dashes, both in a straight line and zig-zag course. The average reduction of running time was about .2 seconds on the straight sprint and about .24 seconds in the slalom course as compared with grass. The slower players, who also were the heaviest, found the synthetic turf most advantageous.

It has been calculated that with the increased speed afforded by synthetic turf, plus the increase in player weight (11 per cent in the last 30 years), the collision force has increased about 13 per cent on synthetic turf. The study also indicated that Astro Turf absorbed 10 per cent less energy on impact than Poly Turf or grass and 6 per cent less energy than Tartan Turf.

AAP ISSUES MINIBIKE WARNING

The American Academy of Pediatrics has recommended that state legislatures outlaw operation of minibikes by children. An AAP committee felt minibikes were dangerous because of poor handling resulting from a short wheel base and small tires; insufficient acceleration; inadequate brakes; the small size; poor visibility; and inadequate protection of drivers. The Bureau of Product Safety estimated that 75,000 minibike injuries occurred in 1973.

NOT FOR MEN ONLY

Holly Wilson
Certified Athletic Trainer

Today, if you offer anyone in women's athletics a penny for their thoughts chances are, nine times out of ten, the response will concern Title IX. Title IX of the Education Admendments Act which prohibits sex discrimination in schools should have a synamic effect on the course of women's athletics in the months to come. Its impact has become a major concern to everyone involved in physical education, athletics and related fields.

I offered Dr. Peg Burke, President of the Iowa Associaltion of Intercollegiate Athletics for Women, a penny for her thoughts on the subject but she demanded at least a dime. I asked her to summarize the effects of the Act on women's athletics and then infere its effect on athletic training. Dr. Burke is well qulaified to write such an article having attended several meetings on Title IX and Women's Athletics.

THINGS YOU'VE ALWAYS WANTED TO KNOW ABOUT TITLE IX, BUT WERE AFRAID TO ASK
By Peg Burns Ph.D

What is Title IX?

Title IX of the Education Amendments was enacted by Congress June 24, 1972 and provides that "no person in the United States shall on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance".

What does Title IX cover?

In educational institutions receiving federal funds it covers admission policies, with certain exceptions, treatment of students in all programs and activities and employment.

Do many educational institutions receive financial aid?

Yes, most if not all receive aid in some form. This aid ranges from research grants to student loans to subsidies to school lunch programs.

Have guidelines been published to aid in interpretation of Title IX?

Yes, the Department of Health, Education and Welfare has published in the **Federal Register** on June 20, 1974. This publication should be available in any major library. Copies are also available from the Office of Civil Rights, Department of HEW, Washington, D.C.

Are these Regulations in final form?

No. Following the publication of the regulations the Department of HEW allowed for a comment period. This comment period officially ended on October 15, 1974. During that period hearings were held at a number of regional sites and individuals and groups were invited to attend these meetings and/or send comments to the Director of the Office of Civil Rights of the Department of HEW.comments received before October 15, will be considered before the final action is taken of the regulations. Comments received after that date may also be considered until the regulations are prepared in final form. The proposal may be changed in light of the comments received. The preparation of the final form of the regulations is predicted to take until 1975.

Are the comments treated as public information?

Yes. Comments received in response to Title IX will be available for public inspection in Room 3256, 330 Independence Avenue, S.W., Washington, D.C. 20201 between 9 a.m. and 5:30 p.m. Monday through Friday until the regulation is published in final form. Copies of representative comments will also be made available for public inspection in the office of each Regional Director of the Office of Civil Rights during normal business hours. The address and locations of the Regional offices are available in the June 20, 1974 **Federal Register.**

Do the regulations say anything specific to physical education?

Yes. Section 86.34 states

> "A recipient (Educational institution receiving federal funds) shall not provide any course or otherwise carry out any of its education program or activity separately on the basis of sex, or require or refuse participation therein by any of its students on such basis, including health, physical education..."

How have physical educators reacted to this stipulation?

There have been mixed reactions, some support it while many argue that in the post-pubertal years where well documented differences in strength, speed and size are factors, students should be allowed the option of co-ed or single classes.

Do the regulations say anything specific to athletics?

Yes. The entirety of section 86:38 is devoted to athletics.

> (a) **General.** No person shall, on the basis of sex, be excluded from

participation in, be denied the benefits of, be treated differently from another person or otherwise be discriminated against in any physical education or athletic program operated by a recipient, and no recipient shall provide any physical education or athletic program separately on such basis; provided, however, that a recipient may operate or sponsor separate teams for members of each sex where selection for such teams is based upon competitive skill.

(b) **Determination of student interest.** A recipient which operates or sponsors athletics shall determine at least annually, using a method to be selected by the recipient which is acceptable to the Director, in what sports members of each sex would desire to compete.

(c) **Affirmative efforts.** A recipient which operates or sponsors athletic activities shall, with regard to members of a sex for which athletic opportunities previously have been limited, make affirmative efforts to:

(1) Inform members of such sex of the availability for them of athletic opportunities equal to those available for members of the other sex and of the nature of those opportunities, and

(2) Provide support and training activities for members of such sex and expand their capabilities and interests to participate in such opportunities.

(d) **Equal opportunity.** A recipient which operates or sponsors athletics shall make affirmative efforts to provide athletic opportunities in such sports and through such teams as will most effectively equalize such opportunities for members of both sexes, taking into consideration the determination made pursuant to paragraph (b) of this section.

(e) **Seperate teams.** A recipient which operates or sponsors seperate teams for members of each sex shall not discriminate on the basis of sex therein in the provision of necessary equipment or supplies for each team or in any other manner.

(f) **Expenditures.** Nothing in this section shall be interpreted to require equal aggregate expenditures for athletics for members of each sex.

What has been the reaction to the regulations concerning athletics?

Varied and emotional. Men generally feel the regulations go too far, and women generally feel they do not go far enough and most feel they are unclear. Questions which remain largely unanswered include:

How to deal with the traditionally single sex sports such as football, wrestling and field hockey.

What proportion of the total number on a team would have to be women for a single team at an institution to be considered non-discriminatory.

What methods of determining student interest would be acceptable and to whom should this information be made available.

How the need for affirmative action should be determined and what reporting system would be required.

How inequities will be determined if equal aggregate expenditures are not required.

Is financial aid to athletes specifically mentioned?

Yes. Section 86:35 (d) states:

" . . . seperate financial assistance for members of each sex may be provided as part of separate athletic teams for members of each sex to the extent consistent with 86:38."

A question that remains unanswered here is whether the total number of such financial grants must be equal or judged comparable on some other basis.

A second question is what is required if there are no separate teams for each sex.

Is "athletics program" being broadly interpreted to include intramurals?

Yes, and the interpretations given at regional meetings have been that intramural activities could not be provided separately on the basis of sex.

Is athletic training covered in Title IX?

It is not memtioned specifically but would appear to be affected by several sections governing programs, services and employment.

If institutions have not allowed women into athletic training programs they would appear to be subject to the Remedial Action part of 86.3 which states, "A recipient which has previously discriminated against persons on the basis of sex in an education program or activity shall take such remedial action as is necessary to overcome the effects of such previous discrimination."

If an institution has admitted women to their athletic training programs but their numbers have been small it would appear subject to the Affirmative Action section of 86.3 which states, "In the absence of prior discrimination on the basis of sex in an education program or activity, a recipient may take affirmative action to overcome the effects of conditions which resulted in limited participation therein by persons of a particular sex."

The right of female athletics to access to athletic training services, appears to be provided for under 86.38 (a) to the extent that such services are being provided to male athletics.

The employment rights of female athletic trainers and graduate assistants is provided for under 86.41. The general employment statement reads, "No person shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination in employment, or recruitment, consideration, or selection thereof, whether full-time or part-time, under any education program or activity operated by a recipient which receives or benefits from Federal financial assistance." Equality of opportunity in regard to promotions, tenure, job assignments, compensation, etc. is also provided for in this section.

Many questions concerning Title IX have not been answered, and cannot be answered at this time, but I would like to pose three final questions.

Why was Title IX necessary?

Because for nearly two hundred years of this country's existence our educational institutions have not voluntarily ended sexual discrimination.

What is the intent of Title IX?

To end discrimination based on sex.

Should bureaucratic red tape be used as an excuse for continued discrimination?

No, but that is happening. It has been well over two years since Congress enacted the Education Amendments and the question still frequently heard from educational administrators is "What **must** we do to comply with Title IX?" Shouldn't they be asking, "What **ought** we do to be fair to all students?" Surely justice rather than compliance should be the central issue!

Wouldn't it be nice if the fianl draft of the guidelines didn't have to be written at all?

Report from the Ad Hoc Committee on Women in Athletic Training

Liaison representatives have been appointed by Frank George, President of the NATA, to the National Association for Girls and Women in Sports (GWS) and the Association of Intercollegiate Athletics for Women (AIAW). Holly Wilson is the liaison to the GWS and Marge Albohm, Indiana University, to the AIAW.

The Ad Hoc Committee is continuing its status for another year. The committee would welcome suggestions on areas of concern so that it can establish its priorities for the coming year. Please contact the committee member in your area. The names and addresses of all the committee members are on the list of certified women trainers, except Kaye Cosby, Indiana State University, and Sue Schneider, Michigan State University.

* * *

Report from the National Association for Girls and Women in Sports

Not only is Title IX an area of concern in women's athletics, but athletic training is finally being recognized as a vital facet of the women's sports program. Evidence of this recognization can be seen in the formation of a Special Committee on Women in Athletic Training by the GWS Board of Directors in mid-August. The charge for the committee is to "develop a plan through which GWS can improve the quality and quantity of athletic trainers for girls' and women's sports and implement the plan following approval by the Board of Directors." The GWS Board acknowledges the NATA's standards for certification and will work within the NATA's guidelines; however, it desires professional assistance in planning its athletic training endeavors such as the Cramer-GWS summer workshop for women.

The members of the committee are Holly Wilson, Chairperson; Marge Albohm, Sherry Kosek, and Linda Treadway.

* * *

Certified Women Trainers

Currently there are sixteen women who have been certified by the NATA. Most of these women were certified in the last two years which is an indication of the increased interest shown by women in the field of athletic training.

* 1. Marge Albohm, Department of Incollegiate Athletics, Assembly Hall, Bloomington, IN 47401
2. Linda Weber Daniel, Ohio State University, columbus, Ohio
3. Claudette DeLamater, State University of New York, 1400 Washington Avenue, Albany, New York 12203
4. Joanne Dolcemaschio, Brown University, Porvidence, RI 02912
5. Virginia Forsyth, 1043 Wilmington Pike, West Chester, PA 19380
6. Katherine Gallengher, 172 Woodbridge Avenue, Sewaren, New Jersey 07077

* 7. Linda Hammett, Lake Braddock Secondary Schools, 9200 Burke Lake Road, Burke, VA 22015

* 8. Sherry Kosek, University of Washington, Seatle, Washington 98105

9. Marsha Teets, University of Arizona, Tucson, AZ 85721

*10. Linda Treadway, West Chester State, West Chester, PA 19380

11. Mary Ann Visker, 3833 N. 4th Avenue, Tucson, AZ 85705

13. Doris Wickel, 42-04 Fox Run Drive, Plainsboro, New Jersey 08536

*14. Gail Weldon, Western Illinois University, Macomb, IL 61455

*15. Holly Wilson, Field House or Women's Physical Education, University of Iowa, Iowa City, IA 52242

16. Maryann Zickler, 1126 Bell — #4A, Denton, TX 76201

If I have omitted anyone, please contact me so that your name can be added to the list.

* Member of Ad Hoc Committee on Women in Athletic Training

Interesting Reading:

1. "Revolution in Women's Sports," **WomenSports** September 1974
2. C. Harmon Brown and Jack H. Wilmore "The Effects of Maximal Resistance Training of the Strenght and Body Composition of Women Athletes." **Medicine and Science in Sports** Vol 6. No. 3, Fall, 1974 p 174
2. Jack H. Wilmore and C. Harmon Brown "Physiological Profiles of Women Distance Runners," **Medicine and Science in Sports** Vol 6. No. 3, Fall, 1974 p 178

CALENDAR OF COMING EVENTS

December 13-15, 1974—The American Academy of Orthopaedic Surgeons will sponsor the course "The Hip Joint Injury and Disease." For further information, write to the American Academy of Orthopaedic Surgeons, 430 North Michigan Avenue, Chicago, Illinois 60611.

December 16-19, 1974—A refresher course in emergency care will be sponsored by the American Academy of Orthopaedic Surgeons. For information, write to the American Academy of Orthopaedic Surgeons, 430 North Michigan Avenue, Chicago, Illinois 60611.

December 27-28, 1974—The Second Annual Symposium on Innovations in Athletic Conditioning and Sports Medicine will be held at the University Extension, University of California, Berkeley. For more information, contact Nathan W. Cohen, Department B, University Extension, University of California, 2223 Fulton St., Berkeley, CA 94720.

January 31, 1975—The American Academy of Orthopaedic Surgeons will sponsor the course "Difficult Problems About the Shoulder, Arm, and Elbow." For further information, write to the American Academy of Orthopaedic Surgeons, 430 North Michigan Avenue, Chicago, Illinois 60611.

February 1, 1975—The Dallas-Fort Worth Metroplex Trainers Clinic will be held at Trinity High School in Euless, Texas. For further information, contact Aubrey Fisk, Trinity High School, 500 N. Industrial Blvd., Euless, TX 76039.

February 10-13, 1975—"Skiing Injuries" will be sponsored by the American Academy of Orthopaedic Surgeons at Snowmass-at-Aspen, Colorado. Information may be obtained from the American Academy of Orthopaedic Surgeons, 430 North Michigan Avenue, Chicago, Illinois 60611.

March 14-15, 1975—The District 4 meeting will be held at the Ann Arbor Inn, Ann Arbor, Michigan. District 4 members contact your District Secretary for more information.

Athletic Training will be happy to list events of interest to persons involved in sports medicine, providing we receive the information at least two months in advance of publication. Please include all pertinent information and the name and address of the person to contact for further information. This information should be sent to Jeff Fair, Athletic Department, Oklahoma State University, Stillwater, Oklahoma 74074.

EDITOR'S COMMENTS

ABC MEET NATA

Recently the ABC television network ran a hour long program on the dangers of injuries in athletics in their "ABC News Closeup" series. Although this program did do a service in showing the public that serious injuries can occur while playing various sports, especially high school football, the approach was rather fear instilling. It may have made the mothers of America think that paralyzing injuries are an everyday occurance. This approach probably did make a better show for the viewers, but how about all the youngsters that will not be allowed to play football now because of the parents viewing the program?

Also, according to the program if a coach is not certified in the coaching techniques of his sport and a doctor is not readily available there is no one else to turn to for help. This should be rather disturbing for most of the NATA members. I would certainly hope we are preparing young men and women for just this purpose, not to mention the fine trainers who are already on the job. Perhaps a card or letter to Mr. Jules Burgman concerning the membership's feelings would be justified. It is true that there are too few high school trainers now, but the NATA should be recognized for its efforts in providing the person to turn to for help in the absence (or presence) of the certified coach and/or team physician.

THANKS JOURNAL COMMITTEE

This issue brings to a close the second volume of **Athletic Training** for this Editor-in-Cheif. I must thank all of those who have contributed their thoughts, time, and efforts to this publication. A speical thanks must go to the core group, the Journal Committee members, for without them it would be at least impossible.

ANSWER THE SURVEY

Please take note of the letter from our President, Frank George, and the survey questionnaire on the new Continuing Education program. This is a very large step for any professional organization to undertake and it will have an effect on all of us. Your thoughts on the program are most important at this formative stage. Your feelings could bring up a new aspect of the situation or help correct any problem areas. Please take the time to fill out and mail the questionnaire as soon as possible. Get it in before the deadline.

JOURNAL DEADLINES

In order to keep the Journal coming out on time with all the pertinent information the deadlines for materials must be strictly enforced. Any announcements, letters to the editor, points of interest, etc. must be sent in by the following deadlines:

Issue	Due Date
March	February 1
June	April 15
September	August 1
December	November 1

Send the information to the following address:
Rod Compton
Athletic Training
Sports Medicine Division
East Carolina University
Greenville, NC 27834

SEASON'S GREETINGS

May everyone have a very happy holiday and may 1975 be a most rewarding year for you all.

Rod Compton
Editor-in-Chief

THE GRADUATE CERTIFICATE PROGRAM

by
Gary Delforge
Chairman, NATA Sub-Committee
on Graduate Education

Recognizing the responsibility of the National Athletic Trainers' Association to give encouragement and guidance to the development of graduate level educational programs in athletic training, the NATA Board of Directors created a committee on graduate education in June of 1972. This group, functioning as a sub-committee of the previously established Professional Education Committee, was charged with the responsibility of developing curriculum guidelines which would give direction to those colleges and universities interested in developing master's level programs in athletic training. As a result of the committee's efforts during the first year of existence, curriculum guidelines specifying NATA required coursework and clinical experience were developed.

The Graduate Certificate Program

Specific graduate level coursework and clinical experience requirements have been incorporated into what has been identified as the Graduate Certificate Program in Athletic Training. Upon completion of this program, students may be awarded a Graduate Certificate by the National Athletic Trainers' Association as recognition of their educational achievements. The program requirements are presented here for the benefit of those colleges and universities interested in having their graduate level curriculums approved by the NATA.

Prerequisites for Acceptance into Graduate Certificate Programs

Students accepted into Graduate Certificate Programs in Athletic Training should meet the following prerequisites:

A. Bachelor's degree from an approved four-year undergraduate college or university.
B. Completion of the following NATA required **undergraduate** courses and clinical experience:
   1. Anatomy (1 course)
   2. Physiology (1 course)
   3. Physiology of Exercise (1 course)
   4. Applied Anatomy and Kinesiology (1 course)
   5. Psychology (2 courses)
   6. First Aid and Safety (1 course)
   7. Nutrition (1 course)
   8. Remedial Exercise (1 course)
   9. Personal, Community and School Health (1 course)
   10. Basic Athletic Training (1 course)
   11. Advanced Athletic Training (1 course)
   12. Laboratory or practical experience in athletic training to include a minimum of 600 total clock hours under the direct supervision of an NATA Certified Athletic Trainer. At the discretion of the school, course credit may be given for clinical experience.

In the event that any of the above coursework is offered as part of the graduate curriculum, either in the area of specialization in athletic training or in the general curriculum, the student may satisfy undergraduate course deficiencies by satisfactory completion of the graduate course (i.e. he does not have to take an undergraduate course if a graduate level course is available to him in his specific area of deficiency). At their discretion, the college or university may allow a student who is deficient in one or more of the above courses to enroll in the Graduate Certificate Program with the stipulation that the requirements be made up before a Graduate Certificate in Athletic Training is awarded. The college or university may also allow a student who has completed at least 300 clock hours of laboratory or practical experience at the undergraduate level to enroll in the Graduate Certificate Program. In this event, the student must complete an additional 600 total clock hours of laboratory or practical experience under direct supervision of a Certified Athletic Trainer at the graduate level.

Graduate Coursework and Clinical Experience

A. **Required** Courses and Clinical Experience

NATA approved graduate level programs in athletic training must include the coursework and clinical experience outlined below. Before a Graduate Certificate in Athletic Training can be awarded, the student must complete graduate work in the following areas:

1. Advanced Athletic Training (2 courses)
2. Laboratory or practical experience in athletic training to include a minimum of 300 total clock hours under the supervision of an NATA Certified Athletic Trainer. At the discretion of the school, course credit may be given for clinical experience.
3. At least **one** course in the follow-

ing areas:

a. Advanced Anatomy
b. Advanced Physiology
c. Advanced Physiology of Exercise
d. Advanced Kinesiology or Applied Anatomy

It is recommended that the above coursework constitute the core of a twelve to fifteen unit area of specialization or minor in the Graduate Certificate Program.

B. **Recommended** Coursework

Suggested graduate level courses to complete the area of specialization in athletic training include:

1. Corrective or Therapeutic Exercise
2. Adapted Physical Education
3. Therapeutic Modalities
4. School Law
5. Evaluation in Physical Education (Tests and Measurements in Physical Education, etc.
6. Pharmacology
7. Any of the courses not selected to satisfy requirements under A, 3 listed above.

Awarding of the Graduate Certificate in Athletic Training by the NATA does not require actual completion of the Master's degree or attainment of a secondary school teaching certificate provided all of the above requirements are met. Completion of requirements for both the Master's degree and a teaching certificate is, of course, strongly recommended. It should be noted that awarding of the Graduate Certificate designates completion of NATA required coursework and clinical experience only and should not be confused with additional requirements necessary to become a Certified Athletic Trainer.

Rationale for the Graduate Certificate Program

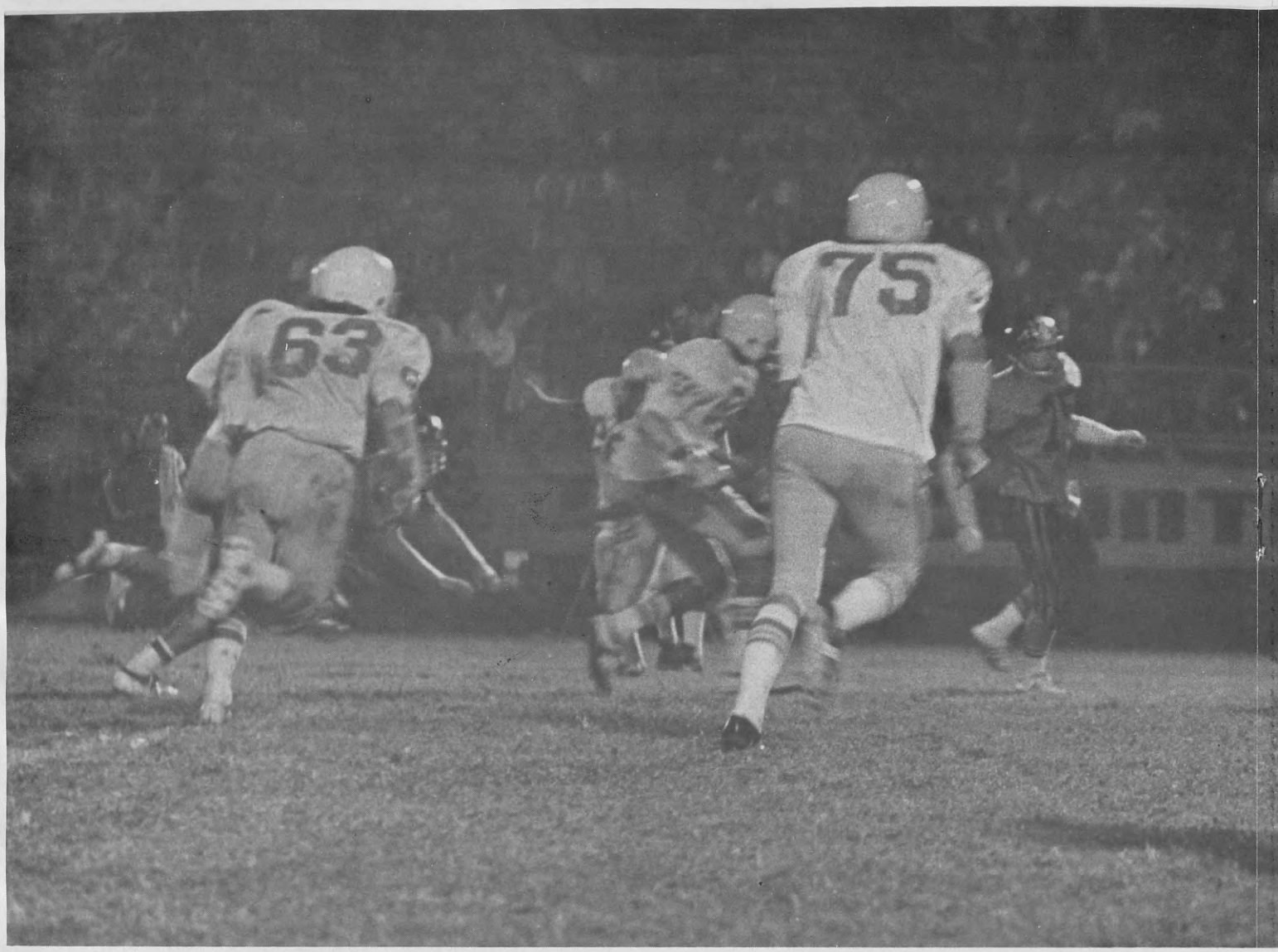
Encouragement for the development of graduate level programs in athletic training is based on the realization that an opportunity should be provided for advanced, in depth, and concentrated study beyond the bachelors degree level. The Graduate Certificate Program is predicated on sound undergraduate preparation in athletic training and should be considered an extension of professional preparation for those who have completed NATA undergraduate coursework and clinical experience requirements. With the tremendous breadth of knowledge and skills required of the contemporary athletic trainer, opportunities for advanced study seem to be clearly indicated.

It is also suggested that Graduate Certificate Programs be so designed as to lead to NATA recognition as a Certified Athletic Trainer for those who have not yet completed the necessary requirements at the undergraduate level. Numerous aspiring athletic trainers who have not had an opportunity to attend an NATA approved undergraduate school are seeking opportunities for formal coursework and supervised clinical experience leading to certification. Many of these students, however, have previously satisfied a number of NATA undergraduate course requirements because of undergraduate majors in physical education, health, pre-physical therapy, or biological science. Flexibility in the requirements for acceptance into Graduate Certificate Programs allows a college or university, at their discretion, to accept students with NATA deficiencies. Thus, through a combination of undergraduate and graduate level coursework and clinical experience, a student can be provided with an opportunity to satisfy NATA curriculum requirements and become eligible to take the National Certification Examination.

While flexibility does exist regarding the utilization of graduate level courses to satisfy basic NATA certification requirements, the integrity of the Graduate Certificate Program is maintained by calling for the completion of additional clinical experience and specific courses in athletic training and the basic sciences at the graduate level.

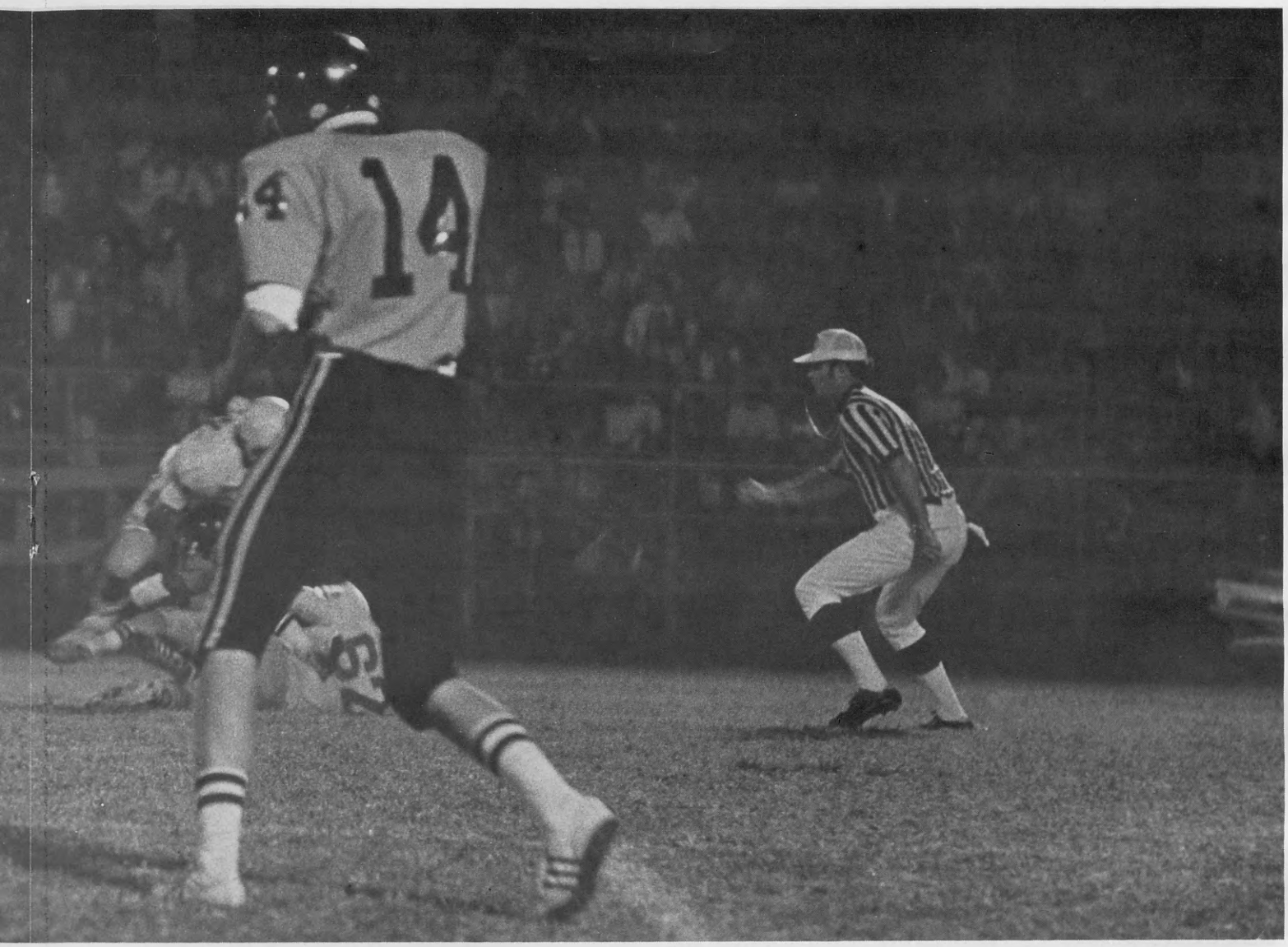
Further Information

To date, only two graduate curriculums in the United States have received official NATA approval. A total of fifteen graduate certificates have been awarded to graduates of Indiana State University and the University of Arizona. Approximately twelve additional graduate schools are currently developing Graduate Certificate Programs or have expressed an interest in doing so. Continued development of these programs is encouraged while the interest of additional schools is invited. Further information regarding Graduate Certificate Programs in Athletic Training and application forms for NATA approval can be obtained by writing to Gary Delforge, Chairman, NATA Sub-Committee on Graduate Education, Department of Health, Physical Education and Recreation, The University of Arizona, Tucson, Arizona, 85721, or to Sayers "Bud" Miller, Chairman, NATA Professional Education Committee, College of Health and Physical Education, The Pennsylvania State University, University Park, Pennsylvania, 16802.



The facts are:

- **Stretching** is required for flexibility.
- **Pre-stretching** is required for a high intensity of muscular contraction.
- Resistance must be provided in a position of full contraction for **full-range** exercise.
- **Only** Nautilus provides these basic requirements . . . without which full-range exercise is impossible.



NATIONAL ATHLETIC TRAINERS' ASSOCIATION

BOARD OF DIRECTORS MEETING

June 7-11, 1974

Crown Center Hotel

The first session of the Board of Directors Meeting was called to order at 7:05 p.m. by Mr. Robert Gun, President. The following were in attendance:

District 1	Frank George
District 2	Francis J. Sheridan
District 3	Craig J. Lewellyn
District 4	Kent Falb, representing Roland LaRue
District 5	William Flentje
District 6	Eddie Lane
District 7	Warren Lee
District 8	Lewis Crowl
District 9	Eugene Smith
District 10	Richard Melhart
President	Bobby Gunn
Executive director	Otho Davis
Parliamentarian	Bruce Melin

I. The meeting was opened with a prayer by Mr. Gunn.

II. The treasurers report was presented to the Board of Directors. A motion was made by Mr. Crowl and seconded by Mr. Lane to accept the report. Action: Approved.

III. The Audio-Visual Aids Committee budget request for $500.00 covering 1974-75 was discussed. A motion was made by Mr. George and seconded by Mr. Melhart to approve the request. Action: Approved.

IV. There was a lengthy discussion in reference to the Drug Education Committee and the NATA request of Dr. John Wells, Committee Chairman, not being accepted to the NCAA Drug Education Committee after the NCAA had requested NATA to make a recommendation. This discussion was tabled for a later date.

V. Mr. Fred Hoover, National Convention Chairman, appeared before the Board of Directors with a report on future sites and recommendations for consideration. The 1974 Convention was discussed.

VI. The Ethics Committee report was discussed. There was no budget request. Submitted for consideration were changes in the Code of Ethics. They are as follows: Article I. Section 1.—**Athletic in General**

An Athletic Trainer should do all in his power and ability to further develop and improve all branches of athletics and show no discrimination in his interests or efforts.

Article I. **Section 7.-Fellow Trainers**: Change Paragraph 2 to read: Any trainer who by his conduct or comments **publicly** discredits or lowers the dignity of members of his profession is guilty of a breach of ethics.

Section 8. Drugs—Add to Code The membership of the National Athletic Trainers Association takes a strong stand against the unauthorized use and non-therapeutic use of drugs. The National Athletic Trainers Association recognizes that the best and safest program is still comprised of good conditioning and athletic training principles. Furthermore, the National Athletic Trainers Association fees that it is important to keep in mind that the real feeling of worth and a person's true image of himself comes only when he accepts and works within reality. Any trainer who violates this stand of unauthorized and non-therapeutic use of drugs for himself or others is guilty of a breach of ethics.

Article II. **Section 6-Sportsmanship**: The athletic trainer is in a position to aid coaches in installing fair play and good sportsmanship in the players and fans. The harassment of the game officials is not considered good sportsmanship. Any athletic trainer who condones or defends unsportsmanlike practices shall be considered to have violated this CODE.

A motion was made by Mr. Sheridan and seconded by Mr. Lewellyn to approve the revisions to the Code of Ethics. Action: Approved.

VII. The Grants and Scholarship Committee report and request was discussed. The Committee has helped establish, with Board of Directors approval, two annual Scholarship Awards. The Award is based upon superior performance on the National Certification Examination during the preceding calendar year. The Award has been named in honor of the late Eddie Wojecki, Head Athletic Trainer and Hall of Fame recipient from Rice University. The sponsoring firm, Larson Laboratories, Inc., has agreed to include a cash Grant of $250.00 in addition to the Award itself to even further assist the winners in achieving their educational objectives in Athletic Training.

Protective Products, Division of Becton-Dickinson and Company, through the Association has established an annual Award to be given for outstanding contributions in Sports Medicine by a Doctor of Medicine or Osteopathy. The single award will include an extremely nice trophy, custom made for the doctor, so that he may display and always remember this Award. Another aspect of recognition to the honored individual is the privilege of selecting a worthy individual or institution as a recipient of a $1500.00 Grant for either research or education in Athletic Health Care.

The Committee has applied with the Internal Revenue Service for Tax exempt status by filing Form 10023 and is now awaiting their reply.

The following is a list of the recipients of the various N.A.T.A. Scholarship awards:

Eddie Wojecki Scholarship Awards—Mr. John P. Repsher, Athletic Trainer, North Adams State College, North Adams, Massachusetts; Linda Jo Hammett, Burke, Virginia

Undergraduate Scholarship Award—Donald Lee Kaverman, Michigan State University, East Lansing, Michigan

Post Graduate Scholarship—William Jack Amos, Furman University, Greenville, South Carolina

William E. Newell Scholarship—Douglas Keith Brand, University of Washington, Seattle, Washington.

President's Challenge Award—Donald L. Cooper, M.D., Director Student Health Center, Oklahoma State University, Stillwater, Oklahoma

A motion was made by Mr. Crowl and seconded by Mr. Flentje to approve the Grants and Scholarships Committee budget request. Action: Approved.

VIII. The History and Archives Committee report was discussed and the Board of Directors gave Chairman, Mike O'Shea a "Vote of Thanks" for the job well done on the history of NATA. This work was completed as a Masters Thesis at Kent State University titled "The History and Development of the National Athletic Trainers' Association."

VIII. A motion was made by Mr. Sheridan and seconded by Mr. Lane to instruct Mr. O'Shea to present a progress report in January, 1975, with more specifics in reference to publishing the history of NATA, permanent site for archives, and budget.

IX. The Honor Awards Committee report was discussed and previously approved. It is to be noted that the Helms Hall of Fame, which was changed to "United Savings" is now changed again. The new name is "Citizens Savings Hall of Fame." The following men will be accepted into the Hall of Fame on June 10, 1974 at the Honor Awards Banquet:

District 1: Anthony Dougal, Boston University
District 3: Edward Block, Baltimore Colts Football Club
District 5: Laurence "Porky" Morgan, Kansas State University
District 5: Wayne Rudy, Kansas City Chiefs Football Club
District 6: Ross Moore, University of Texas at El Paso
District 6: Wayne Rideout, Bryan High School, Bryan, Texas
District 8: Lincoln Kimura, San Francisco 49ers Football Club

The following athletic trainers will receive the Twenty-Five Year Award for their long tenure in the profession:

District 1: William Sanko, Worcester Academy
District 2: Edgar "Hal" Briggs, Buckness University
Kenneth Gearhart, Pough-Keepsie, New York
Fran Sheridan, Lafayette College
Charles Turner, N.J. American Basketball
District 4: Richard Iliano, Case Tech University
Thomas Monforti, Loyola Academy
District 6: Robert Gunn, Houston Oilers Football Club-
District 7: L.F. "Tow" Diehm, University of New Mexico
District 9: Grady Morgan, Southeastern Louisiana University
Joe Worden, Vanderbilt Uni-

versity

The following individuals will be received as Honorary members:

Mr. Walter Byers
Kansas City, Missouri

Dr. Martin Delaney, Jr.
Alexandria, Virginia

Mr. A.O. "Al" Duer
Kansas City, Missouri

Mr. Harold Mundy
Detroit, Michigan

Dr. Harvey O'Phelan
Minneapolis, Minnesota

IX. The budget request by the Honor Awards Committee was revised and increased to $176.00. A motion was made by Mr. Lewellyn and seconded by Mr. Lee to approve this request. Action: Approved.

X. The Twenty-Five Year Award recipients will receive a lapel pin with a diamond chip presented to NATA by Bike-Kendall.

XI. There was a lengthy discussion in reference to the International Games Committee with respect to the Olympic Games. Discussion will continue at a later time in the Board meeting.

XII. The Placement Committee report was discussed. The committee now functions with a committee member in each district for better coverage. This man is responsible for finding people in each city of his district to call on athletic directors, coaches, principals, booster clubs, board of education, etc. to promote the importance of the athletic trainer at the high school level. The committee assisted in filling sixty-eight (68) positions during the past year.

XIII. The Placement Committee requested that the Chairman attend the National Federation of State High School Association and the National Conference of High School Directors of Athletics.

A motion was made by Mr. George and seconded by Mr. Lee that the Placement Committee chairman given permission to go to the National Conference of High School Directors of Athletics in Hershey, Pennsylvania, December 8-11, 1974 provided that he is to appear on the program as a speaker and receive exhibit space at no charge. Action: Approved.

XIV. The Placement Committee request to print an additional 10,000 replacement brochures was put into a motion by Mr. Lewellyn and seconded by Mr. Smith to approve this request. Action: Approved.

XV. The Placement Committee request for a telephone credit card was discussed. A motion was made by Mr. Crowl and seconded by Mr. Sheridan to deny request for a Placement Committee telephone credit card. Action: Approved. (Request denied)

XVI. A motion was made by Mr. Sheridan and seconded by Mr. Smith to approve the $915.00 budget request by the Placement Committee. Action: Approved.

XVII. Mr. Lindsy McLean, Chairman of the Certification Committee, appeared before the Board to give his report.

XVIII. The Board of Certification requested permission to evaluate certain individuals who for one reason or another were not "grandfathered" into certification in 1970 but who would have been eligible had they been NATA members at that time. After evaluation by the entire Board of Certification, it is requested that such individuals be permitted to take the examination under Section III (formerly Section I) provided (a) they have been practicing athletic training a minimum of 10 years; (b) possess a minimum of two full years of college work (60 semester hours); (c) submit sufficient compelling evidence to the Board that they should be able to pass the examination; and (d) show mitigating reasons for not being confessed grandfather status in 1970. Therefore, it is requested that the Board of Certification be permitted to give special consideration to qualifying "grandfather" athletic trainers allowing them to take the examination provided a three-fourths (¾) majority of the Board feel they should be granted this consideration provided they meet all requirements as previously outlined.

A motion was made by Mr. Lane and seconded by Mr. Flentje to deny the request. Action: Unanimously carried; request denied.

XIX. The Certification Committee requested that the number of applicants taking the certification examination be limited to fifty (50) at future national convention sites and that more regional sites will be required. It is requested that regional site examination be in January, March and August be warrented and that the District Directors should approve the sites and dates in their respective areas.

A motion was made by Mr. George and seconded by Mr. Lee to accept the above request.

Action: Approved.

XX. The Certification Committee requested that the examination fee be increased from $40.00 t0 $50.00 per candidate effective July 1, 1975.

A motion was made by Mr. George and seconded by Mr. Lee to accept the above request.

Action: Approved.

XXI. The Certification Committee requested a $3,750.00 budget for the 1974-75 fiscal year.

A motion was made by Mr. Lee and seconded by Mr. Sheridan to accept the above request.

Action: Approved.

XXII. Mr. McLean, chairman of the Certification Committee, requested that the following members of the Board of Certification be retained for another two year term: Fred Behling, M.D., James Feresig, M.K., Russell Miller, Joe Altott, Edward J. Phillips, and James E. Dodson. It was also requested that the following persons be added to the committee: Michael C. Willie and Joe Gieck.

A motion was made by Mr. Lee and seconded by Mr. Sheridan to accept the above request.

Action: Approved.

XXIII. A motion was made by Mr. George and severally seconded to reappoint Otho Davis as Executive Director. Action: Approved.

XXIV. The Board of Directors recessed at twelve o'clock midnight with instructions to reconvene at nine o'clock the following morning, June 8, 1974.

XXV. The Public Relations Committee and public relations in general were discussed.

XXVI. The Recruitment Committee report was discussed. It was noted that approximately 30,000 brochures were distributed for the year.

XXVII. The Recruitment Committee requested a $1,700.00 budget for the 1974-75 fiscal year. A motion was made by Mr. George and seconded by Mr. Melhart to accept the above request.

Action: Approved.

XXVIII. Ted Quedenfeld (Temple University) chairman of the Research and Injury Committee submited the following names for approval on the committee.

District 1: James Laugh
District 2: John Sciera
District 3: John Spiker
District 4: J. Randall Ryan
District 4: Fred J. Turner
District 5: Richard Lyons
District 6: Herman Johnson
District 7: Marvin Roberson
District 8: Don Chu
District 9: Tracy Ladd
District 9: Tony Griffith
District 10: Sherry Kosak

A motion was made by Mr. Sheridan and seconded by Mr. Smith to accept the above request. Action: Approved.

XXIX. The Research and Injury Committee requested an $800.00 budget for athe 1974-75 fiscal year.

A motion was made by Mr. Cowl and seconded by Mr. Smith to accept the above request.

Action: Approved.

XXX. The NATA did not have representation at the American Academy of Pediatrics, therefore, no report was presented.

XXXI. The American Association of Health, Physical Education, and Recreation report was tabled until it could be presented by Mr. Sayers Miller.

XXXII. The American College Health Association, prepared by Mr. James Dodson was presented to the Board of Directors. It was noted that the A.C.J.A. Athletic Medicine Section has annually held a second meeting each year at the site of the N.C.A.A. meeting. The team physicians felt that they were not gaining what they desired at this meeting and voted unanimously to attend the annual NATA meetings. The A.C.H.A. has now made it possible for Certified Athletic Trainers to become members of their organization. NATA members would become a part of the Athletic Medicine Section if they so desired. The dues will be $20.00. A motion was made by Mr. Flentje and seconded by Mr. Melhart to accept the report. Action: Approved.

XXXIII. The American College of Sports Medicine liaison report by Mr. Gary Delforge was presented.

Past Liaison Activity with ACSM

For the past several year, the NATA has been represented at the ACSM Annual Meeting. I have represented the NATA for the past five years—1970 in Albuquerque, New Mexico; 1971 in Toronto, Canada; 1972 in Philadelphia, Pennsylvania; 1973 in Seattle, Washington; and 1974 in Knoxville, Tennessee.

During the 1973-74 academic year, your representative had the pleasure of serving on the ACSM Membership Committee. This appointment came about because of an interest on the part of the ACSM in recruiting Certified Athletic Trainers for membership in ACSM. Some success was made in recruiting athletic trainers for ACSM membership from the Western states.

Developments During the 1974 ACSM Meeting

Your NATA representative was invited to attend the 1974 Board Luncheon on Friday, May 10th, as a guest of the College. A complimentary registration was also provided. The luncheon provided your representative with an opportunity to meet the new members of the ACSM Board of Directors and officers. Discussions with various ACSM officers and committee chairman reflected a continual interest in (1) additional recruitment of new ACSM members from among Certified Athletic Trainers, (2) devotion of a greater portion of the ACSM Annual Meeting to the interests of the team physicians and the athletic tainers, and (3) further enhancement of liaison activities and professional relationships between the ACSM and allied organizations, including the NATA.

Clinical Program at ACSM Annual Meeting

Largely through the efforts of Dr. James Garrick, ACSM Vice-President for Medicine, a Symposium entitled "Sideline Decisions—A Practical Approach to Clinical Recognition and Immediate Management of Injuries in Athletics" was presented. Symposiums such as this are of direct interest to the athletic trainer as well as the team physician. Interest has been expressed in offering additional symposiums during the ACSM Meeting which will further meet the needs and interests of the athletic trainer. As Vice-President of the Medical Section, Dr. Garrick would like feedback from athletic trainers regarding their suggestions for program topics.

ACSM Membership Committee Appointment

Further efforts will be made during the 1974-75 academic year to recruit ACSM members from among athletic trainers. Athletic trainers will be encouraged to become actively involved in the programs and activities of the ACSM.

A motion was made by Mr. Melhart and seconded by Mr. Flentje to accept the report.

Action: Approved.

XXXIV. The American Corrective Therapy Association report by Frank Randall was presented. A motion was made by Mr. George and seconded by Mr. Sheridan to accept the report. Action: Approved.

XXXV. The American Medical Association, Committee on Medical Aspects of Sports was presented by Mr. Bobby Gunn at the Winter meeting.

XXXVI. The American Physical Therapy Association report by Mr. Frank George was presented. The liaison report is as follows.

Liaison Report of Frank George, Representative to The American Physical Therapy Association

This year the APTA will have their annual meeting in Canada, in conjunction with the World Confederation of Physical Therapy, June 14-22. The Sports Medicine Section of the APTA held their first meeting in Atlanta, March 1-2, 1974. This meeting was attended by 170 people. Approximately 25-30 NATA members were in attendance at this meeting. NATA members who spoke or presented papers at this meeting were, Frank George, Joe Gieck, Joe O'Toole, Ron Peyton, John Repsher, and Jack Rockwell. All but two of the speakers who were not physicians were NATA members. At the business meeting the following were elected officially; they had been serving on a temporary basis:

Ronald Peyton, Chairman
George McCluskey, Vice Chairman
Clem Eischen, Secretary
John Swanson, Treasurer
Bob Grant, Nominating Committee Chairman

Ron Peyton is a member of NATA, and Bob Grant is the APTA liaison representative to NATA. The meeting time and place for next year has not been announced yet.

Recently a questionnaire was sent to all APTA members regarding Clinical Specialization in Physical Therapy. The questions were:

1. Are you now practicing all or part time in a clinical specialization?
2. List the areas you do specialized work in.
3. Would you be personally interested in having APTA develop a program for evaluating and certifying individual therapists as clinical specialists?
4. Can you suggest any individuals whom you feel should be considered if the APTA were to appoint an advisory committee to do further study of certification for your area of specialization?

After corresponding with President Gunn our recommendations are that they should continue to call the area of specialization, Sports Medicine and not Athletic Training. Also to keep a close watch on how they plan to evaluate and certify individual therapists as clinical specialists. The names submitted for an advisory committee were Frank George and Joe Gieck.

Also included is an enclosure of an abstract of a Master's thesis entitled, "Physical Therapy Education for Athletic Trainers." It was written by William Eades, Boston University, Physical Therapy Graduate program. In his conclusion he states, "The literature reviewed and the results of this study indicate that a professional physical therapy education is not necessary for performance of the duties of an athletic trainer, but does enhance an individual's opportunities for employment in large athletic programs or with professional teams."

Recently I was asked to answer the following questions for the APTA Journal section "What's the Answer?".

1. I am interested in becoming an athletic trainer. What do I need to know?
2. How can a physical therapist become a Certified Athletic Trainer?
3. What are the responsibilities of an athletic trainer?
4. What are the placement opportunities for an athletic trainer?

I have enclosed a copy of my answers to these questions.

Board action needed on:

Should the NATA Education Committee develop a questionnaire to be sent to all certified members, asking if they would be willing to take a physical therapy student for a five to six week athletic training affiliating? This questionnaire should include type of program to be offered, time of year, housing arrangement, prerequisites, etc., etc. . .

A motion was made by Mr. Lewellyn and seconded by Mr. Melhart to not send the questionnaire developed by Mr. George and Mr. Gieck to the NATA Education Committee that the APTA should make their own arrangements.

XXXVII. A motion was made by Mr. Flentje and seconded by Mr. Smith to accept the report by Mr. George, except the part which was not allowed.

Action: Approved.

XXXVIII. Mr. George presented an abstract on "Physical Therapy Education For Athletic Trainers" by Mr. William Eades, Sargent College of Allied Health Professions, Boston University. It is as follows:

"One hundred nineteen athletic trainers were surveyed for the purpose of determining the need for a professional physical therapy education for athletic trainers. Conclusions were based on the importance of physical therapy duties performed by athletic trainers, identification of physical therapy modalities and exercises utilized by athletic trainers, and the identification of which of these modalities are most frequently used.

"The literature reviewed and the results of this study indicate that **a professional physical therapy education is not necessary for performance of the duties of an athletic trainer**, but does enhance an individual's opportunities for employment in large athletic programs or with professional teams.

XXXIX. The Joint Commission on Competitive Safeguards and Medical Aspects of Sports report was received by the Board of Directors. Copies can be obtained from Otho Davis, Executive Director.

A motion was made by Mr. Crowl and seconded by Mr. LaRue to accept the Report. Action: Approved.

XL. The NCAA Football Rules Committee report by Mr. Warren Morris is as follows:

The N.C.A.A. Football Rules Committee held its annual meeting on January 13 and 14, 1974 in Scottsdale, Arizona.

Enclosed is the 1974 Rule and Interpretation Changes. The N.A.T.A. and A.M.A. had a great deal of influence concerning the (4-1-2-F) **No Blocking Below the Waist on Free Kicks Rule**, which we have worked to get passed for many years in hopes of curtailing knee injuries. The other changes are attached. The Committee respects the N.A.T.A. and any well founded statistics concerning injuries and their causes.

The Committee has five basic guidelines in determining the rules. The **first** is **Player Safety**; **second**, rules that can be used by big schools and small schools; **third**, the rule must be coachable; **fourth**, rules that give a desirable balance between the offense of the defense; and **fifth**, the rule must be interesting to the people paying to see the game.

The N.A.T.A. Representative needs to keep in contact with the N.O.C.S.A.E. Committee and the N.A.T.A. Injury and Research Committee to keep up with any new evidence concerning injuries and equipment. The National Federation of High School Athletic Associations and the N.C.A.A. has adopted the policy that **all new helmets must have** N.O.C.S.A.E. approval in **1975** and all helmets must be N.O.C.S.A.E. approved by **1978**.

Dr. Kenneth Clarke is working on a National Athletic Injury Study which is backed by the National Federation of High School Athletic Association, N.C.A.A. and N.A.T.A. I feel this study will help us with some valid

statistics which will help the N.C.A.A. Football Rules Committee in determining the rules that are necessary for the game.

A motion was made by Mr. George and seconded by Mr. Smith to accept the report.
Action: Approved.

XLI. It has been requested that Mr. Morriss present to the Board of Directors a request from Mr. Mike Ritz, Athletic Trainer, Duke University, desiring that the NATA research a hand cast material used by Duke University and already ruled by the NCAA to be an illegal material.
Note: It must be so noted that the NATA has no intention of doing research on illegal materials and/or equipment.
A motion was made by Mr. George and seconded by Mr. Smith that NATA not study the requested materials.
Action: Approved.

XLII. The National Federation of State High Schools Athletic Association liaision report by Fred Hoover was received and approved by the Board of Directors.

XLIII. The National Operating Committee on Standards for Athletic Equipment presented by Mr. Tom Wall is as follows:

The N.O.C.S.A.E. Committee held its annual board meeting at Wayne State University in Detroit, Michigan on 28 January 1974. At this meeting, action was taken on the following:

1. Dr. Hodgson presented his report on research and testing to date. The standard that has been developed has had repeatable results in all phases of testing. Testing to date has been at room temperature only.

2. Dr. Hodgson has requested and is developing a round-robin testing system as a check of the validity of the test and to reinforce his findings. The participants in this round-robin test are to be:

a) Wayne State Laboratories

b) The Army Natick Laboratories at Natick, Mass.

c) Penn State biomechanics laboratories or if not possible, a laboratory in Toledo, Ohio.

3. Due to finances, the contract with Dr. Hodgson was extended for six months at a cost of $20,000. The remaining six months of 1974 will be contracted after funds are obtained, as the Committee felt it could not contract for more money than it had at the present time.

4. Officers of N.O.C.S.A.E. remain the same except for the vice president. These are:
President—David Arnold, NFSHAA
Vice President—Ken Butzen, Wilson Sporting Goods representing the SGMA
Secretary—Tom Combs, NCAA
Treasurer—Dr. Carl Blyth, University of North Carolina, representing NCAA

5. Discussion was carried out on the actual testing priorities and charges as to approval. It was decided that:

a. Manufacturers who have contributed to N.O.C.S.A.E. research in that year at a rate of $5,000. will be tested first and at no charge.

b. Those manufacturers who have not contributed will be charged by W.S.U. at the following rate:

1) first helmet—$1,000

2) each additional helmet—$750 up to a maximum of $5,000 annually

The $5,000 maximum was chosen as this was the highest amount that any one organization can contribute to N.O.C.S.A.E. as a tax write-off as stated in I.R.S. regulations.

6. Mr. Arnold reported that the National Federation of High School Athletic Associations has adopted the following policy:

All helmets purchased in 1975 must have N.O.C.S.A.E. approval and beginning in 1978, all helmets used must have N.O.C.S.A.E. approval.

Mr. Kermit Smith of N..J.C.A.A. reported that his organization has adopted the same requirements.

7. The N.O.C.S.A.E. Standard for Import Standards of Football Helmets has been presented to the PCS (President's Safety Commission) and hopefully will be accepted as the mandatory standard of the industry.

8. The monies collected from non-participating manufacturers for testing and approval will be used to defray research costs of further N.O.C.S.A.E. research with the priority placed on testing and approval with remaining funds to continue research.

A motion was made by Mr. Smith and seconded by Mr. LaRue to accept the report.
Action: Approved.

XLIV. The NCAA has issued a statement that helmet standards recommended by the National Operating Committee on Standards for Athletic Equipment have been approved by:

1. The NCAA Committee on Competitive Safeguards and Medical Aspects of Sports, and recommended to the NCAA membership.
2. The NCAA Council and adopted as a standing policy recommendation for all member institutions of the NCAA.
3. The NCAS Football Rules Committee on the basis that beginning in 1975, new helmets purchased must meet the standards of NOCSAE and in 1978, all helmets used must meet such standards.

XLV. The Olympic Committee liaison report by Mr. Charles "Chuck" Medlar is in a letter to Colonel F. Don Miller, Olympic House, which is as follows:

February 22, 1974

Colonel F. Don Miller
Executive Director, Olympic House
57 Park Avenue
New York, New York 10016

Dear Colonel:

Pertaining to our telephone conversations, I am sorry that we could not confirm a date at the present time that I could meet with you personally. However, as I stated I would write and explain the procedure that our National Athletic Trainers Association follows in nominating trainers for the Pan American, Winter, and Summer Games to the United States Olympic Committee for their consideration. We have always worked very closely with Dr. Hanley, and his guidance and help have been invaluable. As I stated, I am the National Athletic Trainers' representative to the United States Olympic Committee Quadrennial and Biennial Meetings and for the 1968 and 1972 Olympic Games I attended some of the United States Olympic Medical Services Committee Meetings.

The procedure is as follows: We have ten (10) districts in our National Athletic Trainers Association and each district canvasses their respective members for those who are interested in applying for the medical and training staff for the Pan American, Winter, and Summer Games. After their members make application for these Games, each district again sends a ballot to their membership to vote on these applicants. Each district then formulates a committee to tabulate these returning votes. The final nominees from each respective district are then sent to me as Chairman of our National Athletic Trainers Association International Games Trainer Nomination Committee. This committee, consisting of myself as Chairman and four (4) other National Athletic Trainers Association members, will meet at our National Athletic Trainers Association convention in Kansas City in early June and make the final selections. This procedure is now being carried through. The final recommendations from our National Athletic Trainers Association would be forwarded to the United States Olympic Committee by Mid-June for their consideration. This date is comparable to the schedule that was followed in the '68 and '72 Games for the United States Olympic Committee receiving the National Athletic Trainers Association nominations.

The National Athletic Trainers Association would greatly desire this relationship with the United States Olympic Committee. In selecting these trainers we attempt to select those with the best qualifications in experience, capability to work with the various sports that are included in the Games, dedication, etc. The National Athletic Trainers Association greatly appreciates the consideration the United States Olympic Committee has given us in the past.

I have talked to Dr. Hanley on the phone a number of times in the past month and he said that he would be in attendance at the March 3 meeting in Chicago.

I hope that this procedure by the National Athletic Trainers Association meets with approval. Thanks again, and I hope to meet with you personally in the near future.

Eddie Sulkowski sends his regards.

Sincerely yours,

Charles E. Medlar
Athletic Trainer
cc/ Dr. Hanley

A motion was made by Mr. Sheridan and seconded by Mr. Smith to accept the above letter as the committee report.
Action: Approved.

XLIV. Following discussion, a motion was made by Mr. George and seconded by Mr. Lane that the Board of Directors request from the International Games Selection Committee the list of names presented to it by the ten (10) NATA Districts and the list of names that they in turn submitted to the Medical and Training Services Committee of the USOC.
Action: Approved.:
Note: This was presented to Mr. Medlar as a request from the Board of Directors.

XLVII. Mr. Sayers "Bud" Miller appeared before the Board of Directors to give the report of the Committee on Professional Education.

XLVIII. It was recommended that the Board of Directors of the NATA approve the following athletic training curriculums:

1. East Carolina University
2. Slippery Rock State College
3. Eastern Illinois University
4. University of Iowa
5. California State University at Fullerton
6. California State University at Northridge
7. North Dakota State University

A motion was made by Mr. George and seconded by Mr. Lee to accept the above recommendation.
Action: Approved.

XLIV. It was recommended that the Board of Directors of NATA continue the approval of the following four (4) athletic training curriculums for one more year before re-evaluation:

1. Indiana State University
2. Lamar University
3. University of New Mexico
4. Mankato State College

A motion was made by Mr. George and seconded by Mr. Sheridan to accept the above recommendation.
Action: Approved.

L. Discussion was held on the reimbursement of expenses of curriculum visitations and the payment of an application fee for schools who wish to apply for NATA approval.
A motion was made by Mr. Crowl and seconded by Mr. George to charge a $50.00 non-refundable application fee to each school seeking NATA curriculum approval to develop a visitation expense escrow fund for use by the Professional Education Committee investigation team, and that a travel voucher be submitted after each visitation and the school be billed by the Professional Education Committee for payment of the voucher.
Action: Approved.

LI. It is recommended that the Board of Directors of the NATA approve the Behavorial Objectives/Compentencies for Athletic Training Education Programs and that they should be added to our present Basic Essentials of Athletic Training, as amended. A motion was made by Mr. Lane and seconded by Mr. LaRue to accept the above recommendation as amended.
Action: Approved.
Note: For a copy of the Behavioral Objectives/Compentencies for Athletic Training Education Programs, write to Sayers "Bud" Miller, Penn State University.

LII. It is recommended that the Board of Directors of the NATA approve the following change in Section I, National Athletic Trainers Association Procedure for Certification:
Number Four (4) now reads: Proof of Active or Student membership in NATA immediately prior to application for certification.
In addition it is recommended that the Board of Directors of the NATA approve a study for more expedient and standardized methods of handling membership application.
A motion was made by Mr. George and seconded by Mr. Flentje to not approve the above recommendation.
Action: Not approved.

LIII. It is recommended that the Board of Directors of the NATA recognize the Berkshire Sports Medicine Institute Program as an experimental program and that the NATA review of this program be limited to a four (4) year period. It is also recommended that the NATA approve athletic training curriculum in the state of Massachusetts be coordinated into this program and that some pre-requisite courses be considered in addition to the teaching credentials.
A motion was made by Mr. LaRue and seconded by Mr. Sheridan to accept the above recommendation.
Action: Approved.

LIV. It is recommended that the Board of Directors of the NATA approve the addition of a test and measurement course to the highly recommended list of courses listed in the requirements of the NATA Athletic Training undergraduate curriculum. A motion was made by Mr. Lane and seconded by Mr. Crowl to accept the above recommendation.
Action: Approved 9-1 (District 5 opposed).

LV. It is recommended that the Board of Directors of the NATA approve the recognition of graduates from an NATA approved athletic training curriculum upon the date of approval by the Professional Education Committee.
A motion was made by Mr. George and seconded by Mr. Lane to accept the above recommendation.
Action: Approved.

LVI. It is recommended that the Board of Directors of the NATA request the Placement Committee to automatically send each Educational Program Director of our NATA approved curriculums all listings of job availabilities and in turn the Professional Education Committee will provide the Placement Committee with their current list of approved curriculums and their directors.
A motion was made by Mr. Sheridan and seconded by Mr. Flentje to accept the above recommendation.
Action: Approved.

LX. It is recommended that the Board of Directors of the NATA approve the establishment of a liaison with the National Collegiate Athletic Directors Association, the National Junior College Athletic Association, and the National Association of Intercollegiate Athletics.

LX. A motion was made by Mr. Crowl and seconded by Mr. Lewellyn to accept the above recommendation.
Action: Approved.

LXI. It is recommended that the Board of Directors of the NATA approve the changes listed above in the Graduate Education Sub-Committee Report for the Guidelines For Development of National Athletic Trainers' Association Approved Graduate Level Programs in Athletic Training.
A motion was made by Mr. LaRue and seconded by Mr. Melhart to accept the above recommendation.
Action: Approved.
Note: Copies of this guideline may be received from Mr. Sayers Miller.

LXII. It is recommended that the Board of Directors of the NATA approve the changes and revisions in the Continuing Education Sub-Committee Report.
A motion was made by Mr. Sheridan and seconded by Mr. LaRue to accept the changes in the Continuing Education Sub-Committee Report.
Action: Approved 9-1 (District 1, Mr. George opposed.)
Note: Copies of the Continuing Education Sub-Committee Report may be obtained from Mr. Sayers Miller.

LXIII. A motion was made by Mr. Flentje to recommend that the Board of Directors of NATA approve the commendation of the Professional Education Committee Chairman Sayers "Bud" Miller at the NATA Business Meeting and that this be printed in **Athletic Training**. The motion was seconded by Mr. Melhart.
Action: Approved.

LXIV. The Professional Education Committee budget request was tabled until Tuesday.

LXV. Dr. Walter Schwank appeared before the Board representing a new organization within the American Alliance of Health, Physical Education and Recreation, the National Association of Sports and Physical Education (NASPE). Dr. Schwank requested the cooperation and support of the NATA in development of an Athletic Training Council under the new structure of NASPE. It is reported that in a recent survey by AAHPER, 5300 of its present members have an interest in athletic training. The basic need for this Athletic Training Council is to serve those 5300 people who indicated a need. This would serve a group which NATA does not reach or have the capability of reaching because of limitations.
Action: Approved.

LXVII. It is recommended that the Board of Directors of NATA approve the co-sponsorship of a drop-in center on athletic training for women, the Division of Girls and Women's Sports of the AAHPER at the Nineteenth Convention of the AAHPER in Atlantic City, on March 14-18j, 1975.
A motion was made by Mr. LaRue and seconded by Mr. Sheridan to accept the above recommendation.
Action: Approved.

LXVIII. It is recommended that the Board of Directors of NATA approve the sponsorship of presentation of a Professional Education Committee display and a drop-in center on Athletic Training at the AMA's Clinical Meeting to be held in Portland, Oregon, November 30, 1974.
A motion was made by Mr. Lane and seconded by Mr. Melhart to accept the above recommendation.
Action: Approved.

LXIX. The NATA Constitution changes were discussed again by the Board prior to being presented to the membership at the National Business Meeting.
The Schesing Symposium "Foot and Ankle Problems in Athletics" was discussed and the Board of Directors were encouraged to attend. From the materials presented, a slide package will be prepared for the Audio-Visual-Aids Committee.

LXXI. The NATA trademark is now registered in the United States Patent Office. The trademark registration number is 982,907, issued April 30, 1974.

LXIII. There was discussion in reference to legislation involving NATA. The Dellums Bill is still in committee with nothing being done and is considered dead. The Forsyth Amendment, by Congressman Ed Forsyth of New Jersey, is asking for $75,000 to study the need of athletic trainers and injuries is gaining support, including Congressman Jack Kemp of New York and Congressman Thomas Railsback of Illinois. The National Athletic Injury Illness Reporting System is seeking these funds to do the study through the Health, Education and Welfare Office.

LXXIII. The Athletic Equipment Managers' Association was

discussed in reference to their meeting being in Kansas City with NATA. As non-NATA members the AEMA members must pay $25.00 to visit the NATA exhibits.

LXXIV. The Jones Box Corporation of Philadelphia presented a proposal to the Board for the sale of a file box case to hold copies of **Athletic Training**. This would be sold to NATA members. A motion was made by Mr. George and seconded by Mr. Sheridan to have the Jones Box Corporation prepare a file box for NATA Journals and sell to NATA members.
Action: Approved.

LXXV. Mr. George and Mr. Davis presented reports that they are both continuing to work on a mal-practice professional liability insurance plan. To date a suitable plan has not been located.

LXXVI. There was a discussion on the increase of student member dues. A motion was made by Mr. George and seconded by Mr. Melhart to increase the student dues from $5.00 to $8.00 effective January 1, 1975.
Action: Approved.

Mr. LaRue discussed the "Absention" of voting. No action was taken.

LXXVIII. Mr. Lane discussed the need of the certification number roster. In the future on all new certified members the certification number will be included on the address plate. On present members the certification number will be added when a new plate is printed.

LXXIX. Mr. Crowl discussed the voting privileges of active members. This has been mentioned to the Board before and brought out that only Certified members are entitled to vote on the national level.

LXXX. Mr. Crowl discussed the payment of athletic trainers at NCAA, AAU, etc. events. It is pointed out that this is the prerogative of the host school to secure funds for the medical staff payment and also for supplies to cover the event. If you are having problems in this area, you should consult your director of athletics.

LXXXI. Mr. Melhart discussed Article III, Section 4, part number 12 of the By-Laws with no action being taken.

LXXXII. Mr. Bill Chambers appeared before the Board and discussed the 1975 convention in Anaheim, California.

LXXXIII. The Board adjourned at five-thirty-five o'clock on Saturday, with instructions to reconvene at nine o'clock a.m. on Tuesday.

LXXXIV. The business meeting of the NationalAthletic Trainers Association was convened at eleven-fifteen o'clock a.m. on Monday, June 10, 1974, with President Gunn presiding, who opened the meeting with a prayer.

LXXXV. A request was made by President Gunn to dispense with the roll call. It was severally moved, seconded and unanimously carried that the roll call be dispensed with.

LXXXVI. The minutes of the 1973 business meeting and the minutes of the 1974 winter board meeting were published in **Athletic Training, Journal of the National Athletic Trainers' Association**. A request was made to approve the minutes without their being read. It was severally moved, seconded and unanimously carried that the minutes be approved without being read.

LXXXVII. The Treasurer's Report was presented by Otho Davis, Executive Director. President Gunn requested for acceptance of the report, whereupon it was severally moved, seconded and unanimously carried that the Treasurer's Report be approved as presented.

LXXXVIII. The Executive Director presented the report covering the June 7 and 8, 1974 Board of Directors Meeting as reviewed in Section I to this report, whereupon it was severally moved, seconded and unanimously carried that the report as presented be accepted.

LXXXIX. Mailed on April 12, 1974, to all certified and certified retired members, was a copy of the Constitution changes. The wording of Article III of the Constitution shall be changed in its entirety to read as follows:

XC. "Article III, Membership: Section 1. There shall be eight classes of membership as follows.. certified, associate, student, affiliate, advisory, allied, honorary and retired and no individual shall be eligible for more than one class of membership at the same time."
Section 2. Qualifications for Membership: "The rights and obligations of members shall be as indicated in the By-Laws."
With a show of hands, the Amendments of the Constitution passed.

XCI. Memorial resolutions were presented and the Delegates passed in a moment of silent prayer.

XCII. Mr. Laurence "Porky" Morgan presented the Twenty-Five Year Award recipients. The 1974 recipients who will receive their certificate and diamond insert pins awarded by the BIKE division of the Kendall Company at the Awards Banquet are as follows:

Edgar H. "Hal" Biggs, Bucknell University
L.F. "Tow" Diehm, University of New Mexico
Kenneth D. Gearhart, Poughkeepsie, New York
Robert H. Gunn, Houston Oilers Football Club
Richard Iliano, John Carroll University
Thomas J. Monforti, Loyola Academy
Grady Morgan, Southeastern Louisiana University
William C. Samko, Worcester Academy
Francis J.Sheridan, Lafayette College
Charles Turner, New Jersey American Basketball Group
Joe Worden, Vanderbilt University

XCIII. Mr. George Finley Sullivan presented the Honorary Award Recipients. They are as follows:

Mr. Walter Byer
Dr. Martin Delany, Jr.
Mr. A.O. Duer
Mr. Harold Mundy
Dr. Harvey O'Phelan

XCIV. Mr. Sullivan presented the Citizens Savings Hall of Fame Recipients. They are as follows:

Anthony Dougal
Edward Block
Laurence "Porky" Morgan
Wayne Rudy
Ross Moore
Wayne Rideout
Lincoln Kimura

XCV. President Gunn announced that Douglas Keith Brand of the University of Washington is the recipient of the William E. Newell Scholarship presented to the NATA by Cramer Products Incorporated. This award will be presented at the Awards Banquet.

XCVI. President Gunn received for NATA the President's Challenge Award from Mr. Jim Cody of Protective Products. The recipient of this award will not be announced until the Awards Banquet.

XCVII. Mr. Lindsy McLean announced that the recipients of the First Annual Eddie Wojecki Scholarship Awards are Linda Jo Hammett and John P. Repsher. The award will be presented at the Awards Banquet. This is the first year this award is sponsored by Larson Laboratories of Erie, Pennsylvania for certification excellence during the preceding year. Eddie Wojecki was a native of Ernie, Pennsylvania which ties in with the sportsmanship of the award.

XCVIII. Mr. William E. Newell announced that the winner of the postgraduate scholarship is William Jack Amos of Furman University, Greenville, South Carolina. For the undergraduate scholarship the winner is Donald Lee Kaverman, Michigan State University at East Lansing, Michigan. The awards will be presented at the Awards Banquet.

XCIX. Executive Director Davis presented the NATA award to Fred Hoover, National Convention Director; William Flentje, Banquet Chairman; Joe Blankowitsch, National Registration Chairman; Al Ortolani, Program Chairman; Wayne Rudy, Entertainment Chairman for their work and efforts with the 1974 convention.

C. President Gunn read into the minutes a letter from one of our very first people. It is from Mr. Jack Heppinstall, dated on June 4, 1974, on the stationery of Michigan State University, East Lansing, Michigan and reads as follows:

"Sorry I cannot be at this meeting to help you celebrate the meeting, being one of the charter members and now an old retiree from the last fifteen years. I will never forget what Frank Cramer said to me as we were getting ready to leave for home twenty-five years ago—'well, Jack, I think we have started something that will be National'. I then said, 'maybe International'. I hope that the NATA will never forget the two Cramer Brothers, the two midwives of the organization. They gave freely of both their time and money to the organization."
"For weeks, Pinky and I worked on the Bylaws for our District. I had a copy of the old pre-war association and we used it to go by. I know it would an old gum-chewing retired trainer like me a lot of good to be at this meeting to shake hands with old and new members, and, of course, kiss their wives."
"It is sixty years ago this fall, 1914, since I started at Michigan Aggies as trainer and equipment man, where I worked forty-five years and now have been retired for fifteen year. I celebrated my 83rd birthday on May 11, 1974, but during the last three or four years my health has not been too good. I have emphysema. I take medication and have a Bennett Machine at Home and give myself three treatments a day. I also have eye trouble but I have had a good long life and when that old man with the scythe comes around, I will be ready to go.
"I hope all you members will have a very good meeting. Sorry I cannot be there.

With Best Wishes,
Jack Heppinstall

CI. Executive Director Davis presented awards to Mr. R.D. "Duke" LaRue, District 4; Mr. Byron Bird, District 5; and to Mr. Rodney Kimball, District 7, as the "outgoing" members of the Board of Directors.

CII. President Gunn thanked the Board of Directors for their cooperation.

CIII. President Gunn's "outgoing" message to the members is as follows:

"Fellow Trainers, I am not going to take much of your time but I do want a few moments."
"The past few years have seen many changes in the athletic trainers, for athletic trainers and athletic training. We now have a program of education which is accepted and recognized as excellent."
"Our number of approved schools is growing steadily."
"Our procedures for certification are accepted as valid."
"Our efforts toward satisfactory federal legislation are progressing as I believe you want it to."
"At times progress may seem slow and confusing but that is the way the legislative process proceeds and that is the way it should be, because a slow, careful procedure enables as certified athletic trainers to help build legislation that will benefit everyone."
"I realize that in my four years as your President I have many times done things or made decisions that were unpopular with some or all of you and I have lacked the tact that I should have had. If I have unjustly offended anyone in NATA, I do apologize to you. However, I cannot and will not back down from the principles I believe in and believe to be right."
"The greater majority of my life has been dedicated to working with and believing in trainers. I have had ulcers and diverticulitis and a heart attack, all of which has incurred to me along the way but I do not regret one day of my life as a trainer. I am proud to be one."
"I wish I had the time to thank all of you, all the men who have contributed so much to training but it is impossible to name them all. There are so many men who have unselfishly given of their time and effort to make your profession what it is today and who are presently working to improve its future."
"I particularly would like to thank and exercise the prerogative, our past Board of Directors, Pinky Newell, our committee chairmen and their committees, especially Bud Miller and Lindsy McLean and last but not least my close friend and one who has worked hardest of all, Otho Davis."
"Gentlemen, I thank you for letting me be a part of this organization. It has just begun to grow into what the founder of NATA dreamed it would be. The future is unlimited but not without untiring and dedicated effort on your part. God bless you all."

CIV. President Gunn presented Mr. Frank George to the membership as the new NATA President . . . the gavel was presented to Mr. George, newly elected President.

CV. President George stated: "I would like to thank the members of NATA for electing me President. I also have special thanks for Presidential Candidate Bud Miller for the many, many contributions he made to NATA and will continue to make, I am sure. I also would like to thank the members who have sent letters and cards and made calls of congratulations."
"Now, my first official act, speaking for the members of NATA, I know we want to express our appreciation to Bobby Gunn for the time, the effort and really a part of his life which he has given to NATA. We can never reimburse him. We only hope he realizes how much we appreciate his efforts."
"We should thank also, Otho Davis, our Executive Director, andBoard of Directors, the Committee Chairmen and their Committee Members for the time and effort spent in behalf of NATA."
"The strength of NATA depends upon how much work and contribution not just the Board of Directors and the Committee Chairmen and Committee Members make, but how much each and everyone in NATA is willing to do."
"I hope you all feel that you have something to contribute and I hope you will know that your suggestions and remarks will all be considered when the Board of Directors is making a decision."
"This is why every member must let the Director of his District know his opinion, know what his voting preference is in relation to any issue that may be before the NATA."
"Hopefully, in each issue of the Journal now, we will have a letter or message from the President letting you know what the issues are that are going to be voted on and asking for your opinions. Let your director know. If we work together, NATA will be a great professional association."
"Now, this is a sort of P.S., but in the last few days I have received many suggestions for changes in policy of the NATA—for resolutions to be made. Some of these are from very large groups within the NATA, some from smaller groups and some of them from even people outside of the NATA."
"There is a procedure to be followed. Your requests should go through a specific committee. Let the committee chairman know about. He will study it and make a recommendation to the Board. If it is something that should come through the Board of Directors, then give it to your District Director for the purpose of making a request to the Board and the Board, in turn, will then study it and we will come to some logical conclusions."
"Once again, I thank you for your confidence in me."

CVI. President George presented the 1974-75 Board of Directors to the membership as follows:

District 1	Wesley Jordan
District 2	Francis Sheridan
District 3	Craig Lewellyn
District 4	Robert White
District 5	Bill Flentje
District 6	Eddie Lane
District 7	Warren Lee
District 8	Lewis Crowl
District 9	Eugene Smith
District 10	Richard Melhart

CVII. New Business presented from the floor is as follows:
Mr. Joe Gieck, University of Virginia stated that in the last issue of the **NCAA News** an interpretation has been made in regard to football. Before, if you started practice on Friday, you were able to come in on Thursday for pictures, a physical and a physical fitness test. The new interpretation is to prevent the physcial fitness until the first day of actual practice.
District 3 has voted to contact the NCAA and recommend that the physical fitness test be allowed on the day the physical examinations are administered.
President George stated that the problem will be discussed in the Board of Directors meeting.

CVIII. There being no other business—whereupon, in accordance with regular motion, the Annual Meeting was, at twelve-twenty-five o'clock p.m., adjourned.

CIX. The Post-Convention Meeting of the Board of Directors of the National Athletic Traners' Association was convened at nine-fifteen o'clock a.m., Tuesday, June 11, 1974, Mr. Frank George, President, presiding.
Those in attendance were:

District 1	Wesley Jordan
District 2	Francis Sheridan
District 3	Craig Lewellyn
District 4	Robert White
District 5	Bill Flentje
District 6	Eddie Lane
District 7	Warren Lee
District 8	Lewis Crowl
District 9	Eugene Smith
District 10	Richard Melhart
President	Frank George
Executive Director	Otho Davis
Parliamentarian	Bruce Melin

CX. Mr. Bill Chambers reappeared before the Board with a more indepth presentation on the 1975 convention.

CXI. Mr. Fred Hoover, National Convention Committee chairman, appeared before the Board to discuss the growth of the convention and future plans. The need for a convention guideline was discussed and will be prepared.
The future sites, as approved by the Board of Directors are as follows:

1977	Detroit, Michigan
1978	Las Vagas, Nevada
1979	New Orleans, Louisiana
1980	Washington D.C.
1981	Houston or Dallas, Texas
1982	Seattle, Washington

CXII. The budget request for the National Convention Committee, exluding convention costs is $205,025.00
A motion was made by Mr. Sheridan and seconded by Mr. Melhart to accept the above budget.
Action: Approved.

CXIII. Miss Holly Wilson, Ad Hoc Committee Chairman for Women Athletic Trainers appeared before the Board with Marge Albaum, Joan Gillett, and Linda Hammett.
Miss Wilson presented the objectives of the committee and requested women liaisons appointed to three governing bodies in women's athletics.

CXIV. A motion was made by Mr. Sheridan and seconded by Mr. Lewellyn to accept the report of the women's Ad Hoc Committee.
Action: Approved.

CXV. A motion was made by Mr. White and seconded by Mr. Sheridan that the Board of Directors recommend each committee chairman to consider appointing women to their committees and that a list of certified women be made available to the committee chairmen.
Action: Approved.

CXVI. A motion was made by Mr. Crowl and seconded by Mr. Sheridan that NATA begin liaison

inquiries with organizations presented by Miss Wilson.
Action: Approved.

CXVII. A motion was made by Mr. Lane and seconded by Mr. Lee to continue the Women's Ad Hoc Committee.
Action: Approved.

CXVIII. Mr Sheridan presented a report to the Board of Directors following his conversation with Mr. Phil Donley in reference to the NCAA Drug Education Committee.

CXIX. Mr. Bruce Melin presented a report from the Membership Committee. No recommendations for changes in membership classes or related matters are made at this time.
A motion was made by Mr. Sheridan and severally seconded to accept the report by Mr. Melin.
Action: Approved.

CXX. Following the approval of the Constitution changes, the membership classes will be as follows:

Code 1—Certified
Code 2—Associate
Code 3—Retired
Code 4—Student
Code 5—Affiliate
Code 6—Advisory
Code 7—Allied
Code ——Honorary

A motion was made by Mr. Sheridan and seconded by Mr. Crowl to accept the coding change.
Acton: Approved.

CXXI. Following a lengthy discussion on the qualifications for membership in the Associate class, a motion was made by Mr. Sheridan and seconded by Mr. Crowl to make a By-Laws change of Article XXVI, Section 1, Number 2 to read as follows: "To be eligible for continuance of Associate Membership the person must accumulate every three years the same number of Continuing Professional Education Units required for maintaining certification."
Action: Approved.

CXXII. Dr. Sam Fuenning, representing the American College Health Association appeared before the Board to extend congratulations from ACHA to NATA on our 25th Anniversary. The ACHA is looking forward to a closer relationship with NATA and have developed an Athletic Medicine Section within ACHA. Athletic Trainers are eligible for membership in the ACHA.

CXXIII. Mr. L.F. "Tow" Diehm, Chairman of the Ethics Committee, presented the following recommendation from his committee to be included in the Code of Ethics, Article II, Section 2, Testimonials and Endorsements . . . "The NATA name, logo, trademark, and/or insignia may not be used in any endorsements or testimonials by individual members or groups of members of the Association."
A motion was made by Mr. Flentje and seconded by Mr. Crowl to accept the above recommendation.
Action: Approved 9-1 (District 6, Mr. Lane opposed)

CXXIV.The budget for the Professional Education Committee was discussed. A motion was made by Mr. Melhart and seconded by Mr. Sheridan to approve a budget of $8,000.00 for the Professional Education Committee.
Action: Approved.

CXXV. There was discussion in reference to the selection of the Pan-American, Winter Games, and Summer Games Olympic Trainers. It is noted that the head trainers of each Game are selected by the USOC and does not necessarily come from the NATA Olympic Trainer list. The board received names from the International Games Selection Committee of the NATA.
A motion was made by Mr. Crowl and seconded by Mr. Lane to not accept names which were not included in the original list sent to the NATA International Games Selection Committee; to instruct the International Games Selection Committee to replace these names with names from the lists submitted by the Districts; to instruct the Olympic Selection Committee to have the number of names submitted to the United States Olympic Medical and Training Services to be ten and four alternates for the Pan-American Games; for the Winter Games, four and two alternates; and for the Summer Games, ten and four alternates. The changes are to be re-submitted to the Board for Wednesday discussion.

CXXVI. Mr. A.G. Edwards resigned as Chairman of the Placement Committee and recommended Mr. Rod Poindexter, University of Nevada-Las Vegas as his replacement. A motion was made by Mr. Crowl and seconded by Mr. Melhart to accept the resignation of Mr. Edwards and to appoint Mr. Poindexter as chairman.
Action: Approved.

CXXVII. The Athletic Equipment Managers Association was again discussed. The Board of Directors request that the AEMA submit an official request seeking liaison representation to NATA is such is desired.

CXXVIII. The Board of Directors received a resolution from the National Basketball Association trainers, dated March 11, 1974, and is as follows:

"Trainer Qualifications"

"Be it resolved, that any trainer to be employed in the future by any National Basketball Association franchise meet the minimum requirements of being a Certified Athletic Trainer and certified by the NATA and/or a registered Physical Therapist licensed to practice in the State of said NBA franchise."

Following discussion, a motion was made by Mr. Jordan and seconded by Mr. Melhart to not approve the above resolution as written.
Action: Unanimously carried; resolution not approved.

CXXIX. District 3 of NATA submitted the following resolution:

"The NATA strongly recommends institutions of the NCAA be allowed to administer physical fitness test the day before actual football practice begins or on the same pictures and physical examinations are given. Physical fitness tests are extremely valuable to screen possible candidates of heat illness and injury."

Following discussion, a motion was made by Mr. Lee and seconded by Mr. Flentje to refer the above resolution to the Joint Commission on Competitive Safeguards and the Medical Aspects of Sports for study.
Action: Approved.

CXXX. The Certification Committee requested Board action on the following recommendation for the endorsement program:

"Be it known that after an individual has been endorsed as a secondary school athletic trainer that he be encouraged to continue to apply his efforts toward meeting the full requirements for recognition by the NATA. This endorsement is effective for a period of five years after the below listed date."

A motion was made by Mr. Lee and seconded by Mr. Crowl to table the above recognition for endorsement until a later date.
Action: Approved.

CXXX. The Certification Committee requested Board action on the following recommendation for the endorsement program:
"Be it known that after an individual has been endorsed as a secondary school athletic trainer that he be encouraged to continue to apply his efforts toward meeting the full requirements for recognition by the NATA. This endorsement is effective for a period of five years after the below listed date."

A motion was made by Mr. Lee and seconded by Mr. Crowl to table the above recognition for endorsement until a later date.
Action: Approved.
(Tabled)

CXXXI. Following discussion on a new certification certificate, a motion was made by Mr. Crowl and seconded by Mr. Jordan to table the matter until a later date.
Action: Approved (tabled)

CXXXII. The Certification Committee presented a new crest emblem for the Certified Athletic Trainers, using the present logo and having around "Certified" on the top and the words "Athletic Trainer" on the bottom.
A motion was made by Mr. Lee and seconded by Mr. Smith to accept the new Certified Athletic Trainer Crest and distribute them through the National Office.
Action: Approved 9-0-1 (Absention by District 5 Mr. Flentje).

CXXXIII. President George presented the following names as liaison representatives to allied organizations for 1974-75:

Allied Association for Health, Physical Education and Recreation —Sayers "Bud" Miller
American Academy of Pediatrics —Richard Malacrea
American College Health Association—James Dodson
American College of Sports Medicine—Gary Delforge
American Corrective Therapy Association—Larry Willock
American Medical Association, Committee on Medical Aspects of Sports—Bobby Gunn

American Physical Therapy Association—Frank George
Division for Girls and Women's Sports—Holly Wilson
Joint Commission on Competetive Safeguards and Medical Aspects of Sports—William Newell, Roy Don Wilson, Victor Recine, Otho Davis
NCAA Football Rules Committee —Warren Morris
National Federation of State High School Athletic Association—Fred Hoover
National Operating Committee on Standards for Athletc Equipment—Tom Wall
United States Olympic Committee —Charles "Chuck" Medlar

A motion was made by Mr. Melhart and seconded by Mr. Sheridan to accept the above appointments.
Action: Approved.

CXXXIV. A motion was made by Mr. Lewellyn, seconded by Mr. Melhart and moved by Mr. Crowl that nominations be closed and that Mr. Sheridan be declared Vice President of NATA; the motion was severally seconded, voted upon and declared to be unanimously carried.
Action: Approved; Fran Sheridan, Vice President.

CXXXV. Following discussion, it was decided that as a directive from the Board of Directors to the Board of Certification, names of certification examination candidates must be submitted to the Executive Director by the Certification Committee chairman one month prior to the examination for approval by the Board of Directors.
A motion was made by Mr. Melhart and seconded by Mr. Crowl to accept the above directive.
Action: Approved.

CXXXVI. Mr. Ken Gardner, Ken Gardner and Associates, Greenville, South Carolina, requested Board permission to purchase the NATA mailing list to send out information on a "Tape of the Month" to NATA members.
A motion was made by Mr. Flentje and seconded by Mr. Melhart to accept the above request.
Action: Approved.

CXXXVII. The following recommendation was received from the Executive Council of the Eastern Athletic Trainers Association:

A Recommendation to the Board of Directors of the National Athletic Trainers Association From the Executive Council Of the Eastern Athletic Trainers Association

The following is a recommendation of the Executive Council of the Eastern Athletic Trainers Association.
The aforementioned association directs that the National Athletic Trainers Association recommend to the Rules Committee of the National Federation of State High School Associations, and to the National Collegiate Athletic Association Committee on Competitive Safeguards and the Medical Aspects of Sport to mandate on the type of footwear to be worn by athletes competing in the game of football on natural turf fields.
The evidence accumulated by various investigators over the past fifteen years strongly suggests, if not conclusively proves, that on natural turf fields the highest incidence of serious knee injury is sustained by those individuals wearing a standard football shoe.* The evidence also indicates that few injuries occur to those individuals who wear a modification of the standard football shoe or a soccer-style shoe.** When we look at the work and contributions of Hanley, Nedwide, Smith, McAuliffe, Rowe, Torq, Davis, and Cameron, we can, through the process of deductive reasoning, see that the implicating factor seems to be any mechanism which causes the heel to be more easily fixed to the ground and also allow the body weight to fall back on the heels.
The appropriate modification seems to be to remove the heel cleats and install one of several types of heel discs or bars. The soccer-style show that one has proven to be effective is one on which the cleat tip diameter is at least one-half inch with an overall cleat length of no more than one-half inch.
The logical deduction is that there is a minimum heel surface that is necessary to prevent the heel cleat (projections) from excessive penetration into the turf and allow forces that will cause significant damage to the supporting structures of the knee joint.

*The standard football show shall be described as one having seven removable conical cleats, five cleats on the forefoot and the remainder on the heel.
**A molded shoe of at least fifteen cleats with a length of cleat no more than one-half inch.

A soccer shoe having a cleat tip diameter of one-half inch and four to six cleats on the heel will provide a surface of 0.8 square inches and 1.2 square inches respectively. The disc heel provides a surface area of 5.3 square inches. It would seem, then, that any surface area between the limits of these two measures should be considered "safe" with consideration given to the body weight of the individual wearing the shoe.
Therefore, we propose that the N.A.T.A. recommend to the aforementioned committees that the rules regarding footwear for the game of football be amended. This amendment shall stipulate that the minimum heel surface area of the shoe worn by the competitor for both practices and games shall be no less than 1.2 square inches. This amendment should further stipulate that footwear with heel surfaces greater than the minimum allowed by used by those players having a greater-than-average body weight.

Following discussion, a motion was made by Mr. Sheridan and seconded by Mr. Flentje to refer the above recommendation to the NATA Research and Injury Committee.
Action: Approved.

CXXXVIII. A motion was made by Mr. Lane and seconded by Mr. Flentje that all committee reports and recommendations must be approved by the Board of Directors of NATA before becoming official NATA policy.
Action: Approved.

CXXXIX. The Board of Directors discussed the establishment of a Robert Gunn Scholarship in honor of the first NATA President. This will be an annual scholarship of $500.00 administered by the Grants and Scholarship Committee.
A motion was made by Mr. Lane and seconded by Mr. Sheridan to establish a "Robert Gunn Scholarship" to honor the first President of the NATA.
Action: Approved.

CXL. Otho Davis, NATA Executive Director, made a $500.00 personal pledge to the Grants and Scholarship Committee to draw interest for future scholarships. CXLI. President George directed the Board of Directors to meet at a special session on Wednesday to discuss the Olympic Selection Committee.

CXLII. A motion was made by Mr. Crowl and severally seconded voted upon and carried following which, the meeting was at five o'clock p.m. adjourned.

CXLIII. The Board of Directors met at eight-thirty a.m. Wednesday, June 12, 1974 to discuss the NATA International Games Committee report.
The Board of Directors did not accept the original list of names submitted because all names were not on the list received from each District. The Board of Directors requested the NATA International Games Committee to resubmit names from the NATA list and not from the USOC lists.
The names **which were approved** by the 1974 NATA Board of Directors to the various Games are as follows:

Pan-American Games
Charles Demers, Deerfield, Mass. Academy
Victor Recine, Sayerville, New Jersey High School
William "Spider" Fry, Univesity of Maryland
William Newell, Purdue University
Charles Vosler, Ohio University
William Flentje, University of Missouri—Rolla
Gary Delforge, University of Arizona
Ken Howard, Auburn University
Vernon Eschenfelder, Houston Baptist University

Alternates:
Steve Moore, Tennessee Tech University
James Ketcham, Andrews Texas High School

Winter Games
Tony Dougal, Boston University
Craig Lewellyn, West Virginia University
Lindsy McLean, University of Michigan
Alfred Ortolani, Kansas State University, Pittsburgh
Richard Melhart, Washington State University

Alternates:
Hal Biggs, Bucknell University
Anthony Jonaitis, University of South Florida

Summer Games
Frank George, Brown University
Edward Sulkowski, Penn State University
Roy Rylander, University of Delaware
Herman Bunch, North Carolina State University
Gordan Stoddard, University of Wisconsin
Willard Tice, Northwest Missouri College
Billy Pickard, Texas A&M University
Wayne Rideout, Bryan, Texas High School
William Chambers, Fullerton California Junior College
Sayers "Bud" Miller, University of Washington

Alternates:
Bob Hand, California Poly of Pomona
James Bible, University of Louisville
Holly Wilson, Indiana State University

The above names were sent to the USOC Medical and Training Services Committee as the official NATA selection list for the Olympic Games as approved by the 1974 NATA Board of Directors.
Note: It must be understood that the **names submitted by NATA to the USOC are not final**. The USOC will make its own selections. However, names not submitted by NATA and selected by the USOC will be reviewed by the Ethics Committee.

The Board of Directors adjourned at ten o'clock a.m., Wednesday, June 12, 1974.

NATA JOURNAL MEMBERSHIP SURVEY

Survey closing date is January 31, 1975. Please do not send in after this date.

Subject: Continuing Education

Please read the letter from your President in this issue of ATHLETIC TRAINING. Also read, "Continuing Education or Obsolescence in Athletic Training" by Bud Miller in the September 1974 issue of ATHLETIC TRAINING before completing the following questionnaire.

Circle appropriate response in left-hand column

A B C D E 1. Membership classification: A. Certified B. Active C. Associate D. Student E. Other (specify)

A B C D 2. Position level: A. High School B. College C. Pro (what sport) _____ D. Private

YES NO 3. Have you read the article "Continuing Education or Obsolescence in Athletic Training" by Bud Miller, ATHLETIC TRAINING, Volume 9, Number 3, September 1974?

YES NO 4. Do you understand what is meant by continuing education?

YES NO 5. Are you aware that beginning January 1976 to maintain NATA certification or associate membership all members must satisfy the continuing education requirement?

YES NO 6. Do you feel you will be able to obtain nine (9) continuing educations units every three years?

YES NO 7. Do you feel the NATA should require its members to meet a continuing education requirement in order to maintain certification?

YES NO 8. Do you feel as a member you have received sufficient information on continuing education?

&. List activities that you feel should be dropped or added to the continuing education program. Place a (D) in front of of those that should be dropped and an (A) for those that should be added:

_____

_____

_____

_____

10. Please list below continuing education activities and units that you earned from January 1, 1974 to December 31, 1974:

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HEAT VS. COLD THERAPY FOR THE TREATMENT OF MUSCLE INJURIES

by William M. Abraham
Department of Physiology
University of Rochester
School of Medicine and Dentistry
Rochester, New York 14642

The author was born on November 11, 1948 in Clifton Springs, New York. He received his primary and secondary education in Geneva, New York. From 1967-1971 the author attended Brown University where he received a Bachelor of Arts Cum Laude with a major in Political Science. In 1971 the author joined the Physiology Department of the University of Rochester. He received his Master of Science degree in November 1973. Currently the author is working towards his doctorate in Physiology.

The September, 1973 issue of **Athletic Training** contained an article concerning cold vasodilatation. This article provided evidence that by reducing the temperature locally, blood flow to that area could be increased. However, the question that still remains unanswered concerns the pathway of the blood through the treated area. That is, does the increased blood flow to an area subjected to cold or heat actually penetrate the muscle, or is the flow increase mostly confined to the skin? The physiological evidence on this point indicates that both cold and heat increase muscle blood flow. Yet, this answer does not tell us which method would be most beneficial in the treatment of certain athletic injuries (i.e. muscle injuries). The purpose of this article is to examine certain physiologic evidence which suggests cold therapy is more advantageous than heat treatment for the rehabilitation of muscle injuries.

Increasing blood flow to a muscle is necessary to supply nutrients for tissue repair (7). The best means of increasing blood flow through a muscle is to increase the metabolic rate of that muscle, ie. increasing the amount of oxygen that the muscle uses per minute. Heat has been shown to raise the body's resting metabolic rate. For a 1°C (14/5°F) increase in core temperature (as measured in the inner ear) the resting body oxygen consumption increases 13%. (4) Since 40% of the body mass is muscle, one would assume that part of the 13% increase was a result of increasing the muscle metabolism. It follows then that muscle blood flow should also increase.

Roddie et al. (6) measured blood oxygen content from a deep vein draining the muscles of the forearm and from a superficial vein which serves the skin vessels during body heating. When the participants were subjected to the heat stress, the total forearm blood flow increased. Concomitant with the increase in blood flow was a rise in oxygen content of the superficial venous blood towards arterial blood. These results indicte that with a constant or slightly increased metabolic rate and increased blood flow less oxygen is extracted per unit volume of blood. Meanwhile the oxygen content of the deep venous blood rose only slightly. These measurements indicate that the greatest proportion of the increased blood flow passed through the non-nutrient vessels of the skin. The average value of the blood flow increase through the muscles of the forearm was 10%. From these experiments and those by Craig it can be assumed that heat therapy can increase muscle blood flow by 10-13%.

Cold has also been shown to increase muscle blood flow. Pappenheimer et al. (5) cooled arterial blood from 40°C (104°F) to 5°C (41°F) in cat hindlimb. Below 25° (77°F) blood flow to the muscle increased progressively. Between 5 and 10°C (41 and 50°F) the muscle blood flow was greater than that at 40°C (104°F). Barcroft and Edholm (1) recorded deep muscle temperatures of 20°C (68°F) with the arm cooling in a 12°C (54 3/5°F) water bath. Therefore, one would expect the deep muscle temperature to be decreased further after ice treatment, and with each degree decrease a corresponding increase in blood flow through the muscle. (5).

From the evidence presented it would seem that both cold and heat can increase muscle blood flow, but it is suggested that cold may have the greater effect. To see why, one must recall that the best method of increasing muscle blood flow is by increasing the muscle metabolism, and the best means of increasing muscle metabolism is by exercise.

Cold has an anesthetic property, i.e. cold can dull peripheral pain sensations. Therefore, immediately after cold therapy (ice for 30 min.) an injured muscle will not feel as "sore" as before treatment. This anesthetic property then allows the muscle to be used in light exercise. Light exercise increases whole body metabolism 300% and this increase will be reflected by a rise in muscle metabolism. From the previous discussion it should be evident that this increase in muscle metabolism will result in increased blood flow and at a greater rate than with either heat or cold. Therefore, compared to heat therapy, cold is seen to provide a second means of increasing blood flow.

In conclusion it should be emphasized that for muscle injuries cold facilitates increased blood flow via two mechanisms. The first method being by cold vasodilatation and secondly, by allowing usage of the injured muscle. These two processes have a greater effect on increasing muscle blood flow than does heat. By allowing muscle usage cold eliminates the problems of disuse atrophy and muscle weakness which may result if the injury warrants prolonged inactivity.

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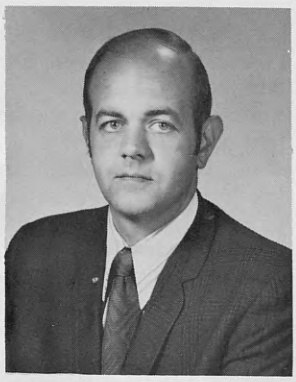
THE STUDENT TRAINER'S CORNER



Robert Samuel Behnke
Certified Athletic Trainer
University of Illinois

COLD THERAPY

The prime responsibility of any athletic trainer should be the prevention of athletic injuries. An old axion in athletic training states "it is much easier to prevent an injury than it is to treat one." Unfortunately, even after the best of efforts by the coach, athlete, equipment personnel, physician, and athletic trainer to prevent injury, accidents do happen.

Among the athlete's "Bilıof Rights" is the right to competent treatment of athletic injuries and the safe return to athletic participation. The competent physician and athletic trainer are always seeking treatment methods and procedures that will aid the injured athlete in returning safely and as soon as practical to full participation. Many methods, techniques, procedures, and devices have been developed over the years to help those individuals charged with the responsibility of the safe and rapid return to participation by the injured athlete. Within the past 10 years much has been written and many clinic and workshop presentations made about the use of cold as a therapeutic modality.

The use of cold (ice therapy, cryotherapy, cryokinetics) in combination with exercise has become an accepted method of treating common athletic injuries such as sprains and strains. The writer has collected a bibliography of over 300 articles investigating the clinical and physiological effects of cold. Without burdening the student trainers with vast amounts of technical jargon and an extensive amount of quotes from the abovementioned studies, the writer would like to present a rationale for the adoption of the technique of treating athletic injuries with the use of cold and exercise by the high school student trainer.

In varying degrees, depending upon the severity of the injury, athletic injuries can be classified into four stages: trauma, hematoma formation, hematoma absorption, and healing by scar tissue.

Trauma, the injury itself, can be any of a number of problems such as sprains, strains, contusions, lacerations, dislocations, subluxations, fractures, et cetera. The trainer's role regarding trauma is prevention. Common preventive considerations include certain wrapping and taping procedures, warm-up activities, pre, post, and in-season conditioning programs, inspection of facilities and equipment, properly fitted equipment, comprehensive medical examinations, proper coaching techniques, and many more routine procedures all designed to prevent athletic injury.

If an injury occurs despite all efforts to prevent it, the second stage of an athletic injury, hematoma formation (hemorrhage or bleeding), must be considered. This stage could be called the "first aid" stage where treatment consists of (I..C.E.), ice or cold

applications, compression (usually in the form of an elastic wrap), and elevation. This stage may last anywhere from a few minutes to 48 hours or more depending on factors such as the severity of the injury, promptness in applying I.C.E., and the length of time expired between the initial injury and the control of the resulting hemorrhage.

The third stage, hematoma absorption, involves the use of some form of therapy to break up and absorb the hematoma which has formed. To clarify the term "hematoma," a visual example of a common hematoma formation is a contusion, or more commonly called a bruise or black and blue mark. Many types of therapeutic modalities are available to the athletic trainer to aid in the promotion of blood flow to absorb the hematoma. Typical of these modalities are the whirlpool baths, steam packs, diathermy, ultrasound, counterirritant ointments, and massage. While there are many other modalities, it should be understood that the essential function of all is the promotion of circulation for the purposes of breaking up and carrying away the hematoma and bringing the nutrients essential for healing damaged tissue at the injury site.

Numerous research studies and articles have illustrated that promotion of blood flow to an area of the body is also possible by the application of cold. While this may seem contrary to the belief that cooling an area causes the blood vessels to constrict and thereby reduce blood flow in that area (a situation desirable during the hematoma formation stage), a phenomenon known as "cold vasodilatation" occurs after the source of cold is removed. Have you ever come in from the outside in very cold weather and felt your ears become very warm? Have you made snowballs with your bare hands and then gone inside to warm yourself and found your palms reddened and very warm? If you have, congratulations, you've experienced "cold vasodilatation."

Studies indicate that blood flow to a treated part after the application of cold can be increased above what it is under normal environmental conditions for a period lasting upwards of three hours. During the application of cold the blood flow to the tissues is decreased, but after the cold source is removed, there is the increase in blood flow to that part (cold vasodilatation). Without going into an extremely detailed physiological explanation, based upon the literature available, we can accept the above statements as proof that blood flow to a treated part can be increased through the application of cold.

The three most common techniques of cold application are: ice massage (ice cubes or water frozen in paper cups), cold packs (towels or plastic bags filled with ice), and an ice bath (a pail, pan, whirlpool, or other container filled with ice and cold water). Many physiological variables enter into the preferred length of time for treatment, but effective cold vasodilatation has been noted after each of the following types of cold application: ice massage on, above, below, and either side of the injured area for a period of from five to seven minutes; application of an ice pack of sufficient size to cover an area slightly larger than the injured area for a period of 20 minutes; immersion of the injured part in an ice bath (36°-40°F) for one to three minutes (excellent technique for providing an even distribution of cold to a bony, irregular shaped area such as the ankle joint).

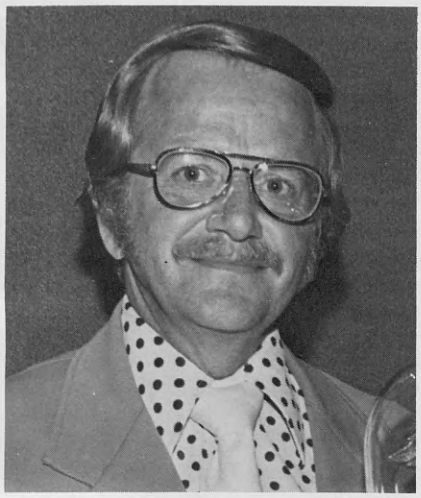
Healing by scar tissue, fibroblastic formation, is the fourth stage of an athletic injury. Next to preventing injury, the trainer's function involving this fourth stage should be considered a prime responsibility. Application of some form of therapeutic modality to increase blood flow is considered standard procedure in helping an athletic injury heal. Restrictive taping, wrapping, padding, or other such procedures are considered necessary to prevent aggravation to the injured part. Unfortunately, the application of a therapeutic modality followed by some form of restriction all too often concludes the treatment procedure followed in caring for an athletic injury. Promoting circulation to a part and restricting its use may allow the injured area to heal, but nothing was done to make the part stronger. As trainers, the only way we can increase the strength of an area is by strengthening the muscles which cross the injured area. Alienation of the injured part through use of a cast, crutches, tape, or such defense mechanisms as walking with a limp, will cause muscle atrophy (wasting away) about the injured area thereby weakening the part and making it prone to re-injury once the athlete is returned to participation. A program of exercises specific in nature for the muscles involved in the injured area must be followed based upon sound principles of anatomy and kinesiology for the purposes of developing strength, flexibility, and joint range-of-motion. The second phase of cryotherapy, or cold therapy, that which immediately follows the application of cold, is exercise. In addition to increasing strength, flexibility, and joint range-of-motion, exercise helps prevent the build-up of adhesions which are fibrotic structures which are formed in and around muscle, tendon, and ligamentous tissue following trauma and are responsible for much of the disability of an athlete following injuries such as sprains, strains, dislocations, and fractures. Active exercise helps prevent these adhesions from forming by increasing local blood flow and stretching the scar tissue.

Exercise techniques used following the cold application are performed actively by the athlete through his or her pain-free range-of-motion. Pain is nature's alarm system and it should not be ignored during exercises for fear that we could do further damage to the already injured tissues. The rotatory components and the range-of-motion, depending upon the tolerance of the athlete, of the joints and muscle groups are stressed in each exercise routine. Progressive resistive exercises are not initiated until the athlete exhibits full range-of-motion of the injured area.

Several advantages of cold therapy are evident particularly for the student trainer. Compared to other modalities, the application of cold is an extremely safe form of therapy. While it is possible to cause damage to the skin using chemical coolants, it is extremely unlikely that damage will occur using the massage, pack, or bath techniques. Another advantage is the cost. From an economical standpoint, cold therapy is very inexpensive. A used refrigerator, either donated or purchased in a second-hand or junk yard, water, electricity, and paper cups or reusable metal cans provide a ready supply of ice. Once the athlete has received instruction in the proper application of the cold source and has been given the basic principles of the exercise techniques, the self-application advantage of cold therapy is very evident. Treatment at home, on the road, and at times convenient to the athlete for self-treatment provide the trainer with additional time to care for more individuals.

It is the writer's opinion that much of the success attributed to cold therapy must be credited to the use of proper exercise techniques. The offset of atrophy and reduction of adhesions following injury achieved through exercise result in an early return to athletic participation on a more permanent basis. To promote healing and prevent aggravation to an injury is not enough. The qualified trainer realizes that strengthening the part through exercise will return the athlete to full participation sooner and will reduce the likelihood of re-injury.

PSYCHOLOGY, SUPERSTITIONS, AND MYTHS IN SPORTS



by
Donald L. Cooper, M.D.
Director
Oklahoma State University
Hospital and Clinic
Stillwater, Oklahoma

In this day and age of enlightened minds, the question often comes up as to the why of the obviously increasing popularity of most sports. We see a continuous string of records in attendance being set almost every year in almost every sport. Part of this is due to the simple increase in the population. Still there are some older fundamental questions as to the role of sports in our society. I sincerely feel there is a basic "aggressive life force" in all of us that has to be mastered and controlled or we could not have a functioning society or maintain our "veneer of civilization." Man has only really two ways to handle this "agressive life force"; one being inhibition and the other by partial gratification in substitute activities. Sports activities can allow a real healthy partial gratification and thus make a very positive contribution to positive mental health. Sports provide a means of raising self-esteem, emphasizing some reality in place of illusion or dreams, and in many ways help bring people in closer contact with each other in a controlled fashion; being able to express aggression.

Basically we need to understand some fundamental truths about the nature of man. I don't know how many have had the opportunity to read **The Naked Ape** by Desmond Morris, but I would certainly recommend it strongly to anyone who wishes to know more about himself and the world he lives in.

There are many who see man as basically a real nice creature if all of his needs could be met. That fundamentally, man is a "good guy," only having problems because of social deprivations. According to this concept, it is slums, lack of work opportunities, prejudice, discrimination, poverty and lack of more principled living that makes bad people, that really people are good if given a chance.

I personally don't believe that for a minute. I may have a somewhat old fashioned "religious" view of the "sinful" nature of man, but I sincerely believe it is an honest view. There is an old saying that selfishness, greed and lust are gifts of nature, but generosity, unselfishness and love are accomplishments. These are the things we have to work at so very hard or we will lose the very thin, but very nexessary "veneer of civilization" that we do have. This view I am presenting may help us develop more tolerance and more understanding, but I am only hoping we can weave this back and relate it to the importance of sports in this process.

When a newborn baby enters this world he or she is a bundle of energy directed toward being relieved of its tension. This relief will come following feeding, being held, kept warm, comfortable and is then followed by sleep. As the need for gratification is overwhelming to the baby, any frustration is met by rage. Gradually the infant perceives others about him, first as shadows, then as a smile, a caress, or on occasions a stiff and unfriendly manner.

Upon this slowly emerging figure of his parents, he now will focus his unsatiable grasping, sucking, devouring wishes and his totally destructive rages. Very little evidence of the noble nature of man is seen here.

As his awareness of the "not me" world becomes more mature, he learns that his demands may be met more completely if he is willing to compromise. Smiling at mother in response to her smile, not throwing dishes on the floor, and agreeing to a time and place for bowel movements result in a new kind of pleasure in approval and love from parents. Failure will result in an angry look, physical punishment, or withdrawal of love. The child learns to delay his demand for immediate pleasure for the sake of a long range pleasure. The child can plan ahead and realize the consequences of doing what he would really like to do.

A more mature aspect of control begins its development at around the age of four. Because a child's internal wishes are so destructive and self-gratifying, he is in ever-present danger of bringing the wrath of his powerful parents down upon him. To aid himself in the struggle to control his impulses, the child forms a strong identification with his parents' rules of living, saying, "These are now my rules also." It is almost like the parents' voices now being in the child's mind, the voice of conscience. This voice can be so terrible in its punishment—usually more harsh than the parents themselves—that the demand for conformity and forsaking of impulsive pleasures is powerful.

When we observe the "civilized" product of this struggle, we may not remember what devouring, possessive and destructive urges remain under tight control. In fact our not remembering is actually a part of the control itself. Most humans will purposefully not be aware of these negative feelings and will recall "the happy days of childhood." Many times these were really days of terror from dangers within and without, interspersed with those good days of transcendental joy. As we observe children we are often struck by their up and down moods, their night terrors, nightmares, prolonged weeping spells, their sudden giving into parental punishment to be given proof of love and at other times their persistent sullen defiance, as if to give in would mean to lose their own seperateness from the parents.

To assist in maintaining control over our infantile strivings, certain social institutions have been developed. These can be divided generally into those that control by inhibition and those that control by partial gratification.

The former are the most obvious as controls. Our police, the laws, and the courts represent the "you cannot" controls. They could be an extension of the earlier controls of the parent over the child. Here the certainty of immediate punishment is essential. One could view our judicial system as a moral drama. The lesson here is if you break a rule you should expect immedi-

ate pain. We have to be careful and not attempt to be too considerate of the rule-breaker for fear we may weaken the impact of this drama.

In addition there is the system of "you should not" controls. This is an extension of "the voice of conscience" of the parents. Breaking these rules may not cause immediate pain or incarceration, but may be associated with a fear of loss of love. The importance of religious faith, political beliefs and the ideas of what is generally "the right thing" to do enter in. These two systems can get in conflict and cause anxiety.

Now we turn to the control systems based on partial gratification. I imagine every man has his price. The church elder devoted to a life of upstanding citizenship may forget to count one of those swings in a sand trap—if he was sure no one saw it. Partial gratification of impulsive desires is a type of bribery. It is easier for me to deny my basic animal desires if I am allowed to give vent to them in a small way, especially since I can erect a system of rational explanation for my actions that hides their essential nature from me.

In the field of entertainment we find a form of partial gratification. How popular are war stories (Patton!), stories of grand adventure, the surmounting of great obstacles, and how contrasted these are with most of our daily drab routines of existence. These vicarious pleasures are enjoyed by most humans.

Sports do provide an exceptional opportunity for expression in a limited way of aggressive and sadistic impulses. Different sports will satisfy different personalities depending upon their feelings. For the more openly aggressive person, direct competition in a physical contact sport provides a health saving outlet. For some this will be directed at one opponent, where the object of rage is obvious and win versus lose is apparent. Others will prefer a more anonymous sport such as football or basketball where the target may be one of several people and the win-lose factor is diffused over the entire team. Still others prefer to maintain more "civilization" over their naked aggression and will be inclined to more "gentlemen's type" games like tennis or golf.

When children are left to themselves and finish playing "war," they will many times play competitive sports, but they will know when they have had enough and go from this type competitive play to cooperative type play activities. This is a possible danger in over-organizing the younger children into competitive teams. Very quickly you will see the parents wishes for how much is enough interposed on to the children and many little league boys are burned out or bored by mid-season or sooner. Especially at the younger ages the parents and coaches are almost always much more concerned with winning than the kids are.

At puberty and adolescence however this problem will diminish if the boy is still around and interested. At this age sports can also act as a valuable escape outlet for frightening and confusing sexual aggression.

As we grow older the spectators can enjoy the "animal delight" of competition by watching his favorite linebacker "red dog" or his favorite hockey player slam someone with a body check. We do gain release and get vicarious satisfactions this way. If you doubt our basic "animal desires" go to a boxing match and observe the spectators scream for blood. The "animal" is out in the open for a short while and even in certain situations spectators can get so carried away they will actually do battle and riot in the stands as we have seen in England and South America as well as in certain basketball games in the U.S.

Of what psychological importance is all this? Our mental stability as individuals and as a nation requires a frank appraisal of what we are really like. By so doing we can learn to accept ourselves and accept others by recognizing the compromises we all must make to enable us to get along and exist with each other. Sports, particularly to participants when younger and to spectators when older, provide us with a necessary "bribe" to our unconscious aggressive desires. We are satisfied for the moment and can turn to more productive and creative pursuits. The individual who doesn't use sports this way will have to expend greater amounts of his energies to maintain control over himself; wasted energy in a sense that could be put to more useful activities. I think we need sports for socialization as well as to maintain our "veneer of civilization." As thin as it is, we need all the help we can get.

To go from this rather deep and more serious vein I want to move to a lighter and equally fascinating explanation into some of the superstitions and myths that come along with sports and sports figures. From here on I will sort of ramble. There are probably more of these superstitions among baseball players than any other group, but almost every sport or sportsman can give you some interesting insights into how the human being operates at this level of conduct; for instance: You never put the bats away until the very last out.

On the way to the ball park if a player finds a hair pin, it is a sure hit that day.

If a player sees a white horse on the way to the game it is also good for a hit.

If a player sees a pregnant woman on the way to the game, that is good for a home run!

Willy Mays never goes to center field without touching second base.

The pitcher always gets the ball from the third baseman. Why?

Babe Ruth always took short choppy steps because he felt long strides slowed you down. Also he had a "magic" eye wash he kept locked in his locker at all times and would put into his eyes before playing. One time one of his team mates dumped out the drops and just put in tap water, but waited for three or four days to tell him. When he did, Ruth took after him with a bat.

A four leaf clover will bring any sportsman good luck.

Never step on a chalk line going to the field or coming off the field—bad luck for sure.

John McGraw was very superstitious when he had the Giants. They wore black uniforms for luck as he was told to do by a man named Charley "Victory" Feltz, who came to him one day and told McGraw that if he didn't take him along on the squad McGraw would lose. He carried "Victory" Feltz with the team at home and away for four years. And the Giants did win the pennant all four years. Feltz died and the Giants didn't win and in fact, lost the pennant that very next year.

There is no end to the superstitions about clothes. When Adolph Rupp was on a winning streak he always wore a brown suit. In fact he became known as the "man in the brown suit."

You never put a hat or a cap on a bed, bound to lose if you do that.

Mr. Henry Iba at Oklahoma State says if you find a penny and the head is up, you are going to have good luck. Also before every tough game he used to flip a coin and if it came up heads he knew he would win and have a good night, if it came up tails, he knew it would be close and be a hard-fought battle.

Also if he had a winning streak he would do everything the same, eat the same thing, at the same time, go to the gym at the same time, warm up at the same time, go in at the same time and follow the exact ritual. When Mr. Iba coached in high school he had a certain tree he always walked under on his way to the gym. He says he wouldn't think of going to a game there without walking under that tree. In the 1940's,

Mr. Iba had a winning streak going and he wore the same green suit week in and week out. Mr. Iba says, "I'd rather be lucky than smart."

Black cats are bad news to some sports buffs.

Never walk under a ladder if you are going to be competing, cause it will bring bad luck.

At Oklahoma State University, wrestling is a big sport, young wrestlers say they never sleep any way but on their stomach—you get pinned on your back.

Hockey players always go by and hit the goalie on the leg with their stick before a game starts.

Bowlers will have various rituals they go through—one always blows in his thumb hole before bowling. You should never pick up your ball with your fingers or thumbs in the holes, wait til you get the ball up to belt or chest level.

Some players would never change a shoestring during the season, I saw one guy with 10 knots in his shoestring.

Otis Wile, retired sports information director at Oklahoma State University always puts his left foot in the sock first then the left shoe on first and left leg of his pants on first. He was told this was good luck 50 years ago and he hasn't changed since. Otis used to travel with O.S.U. to the N.I.T. and in 1946 he was walking in snow in New York on the way to Madison Square Garden and found a penny. Mr. Iba said put that penny in your left shoe and of course they won. They didn't go the next year but a friend of Mr. Iba's, Coach Peterson of Utah University took his team and Otis sent the penny to him for his left shoe and, you guessed it, Utah won.

In the early days of the Texas league they called it the "square cap league," because so many pitchers threw at the heads and they didn't have hard hats in those days, so with all the "knobs" on the corners of their heads, the players had to get square caps so they would fit the contour of their heads.

There was a player down in Texas back in those days named John King who hit around .500 off of right handers and around .100 off of left handers—he hated left handers with a passion. He is quoted as saying 22,000 left handers went to Europe in World War II and every damn one of them came back.

Ball players are very superstitious about passing up a blind man, beggar or pencil seller on the street. The story goes that one day John King was walking past a blind man and dropped a quarter in his cup, got a few feet past and happened to see out of the corner of his eye the blind man reach into the cup with his left hand to take the coin, whereupon King whirled around, ran back and jerked the quarter out of the blind man's left hand and took it back—he really did hate left handers.

Our former baseball coach, Toby Green, was always given a dandelion before each game by his wife who wouldn't fix her hair on the day of the game either. Once there was a minor league hitter who was on a home game stand and made love to his wife every night before going to play and he got on a consecutive game hitting streak. He made her travel to the next towns on the road trip so he could keep up his consecutive game hitting streak. It finally ran out at the end of three weeks when he could hardly lift the bat to his shoulders.

Many ball players put the glove in exactly the same place between innings and some will lay it in a special way—palm up, palm down, folded on its side, flattened out and in even certain areas of the dugout or playing field.

Al Rosen always worked an "X" in the dirt on the opposite side of home plate before he batted. He used the big end in his hand and marked the "X" with the small end of the bat.

One year Danny Litwhiler was batting over .400 late in July when another player ran up to his back, placed both hands at his shoulders and made a quick rub toward the ground and told Danny he had just rubbed off his luck. Danny then went 0 for 18 the next 18 times at bat—the other guy started a long standing hitting streak.

In golf Gary Player always wears black. Some golfers always drive to the course in exactly the same way, always following the same streets and not going on another street except the ones traveled the first time.

We had a basketball player that came to us from Kentucky by the name of Gary Hassman, who brought along an old towel from his high school days that whenever he was on the bench he would sit with it over his head and peek out to watch the game—sort of like a security blanket.

When Dick Soergel was our star quarterback in the late '50's and the team went out to warm up he always wanted to throw that first pass to the same man every week.

Phil Lentz of the New York Yankees feels he can run faster in real tight clothes. Joe Pepitone feels his clothes have to be skin tight or he can't play well, hit well or run well.

Jim Bouton states he had to be scared to pitch well and that even back in high school he would have to make up stories and use fantasy so he could get fired up enough to pitch well.

When things are going well most coaches won't change a thing. Don Parham who is a baseball coach at Southeastern in Oklahoma wouldn't change his underwear when a winning streak was going. He did wash it out by hand each night, but wouldn't think of wearing any other underwear.

One coach in Oconto, Wisconsin won't let anyone turn out the light in his office—if the janitor or anyone forgets and he notices he runs in and turns it on and makes it clear everyone has to leave that office light on whether the game is at home or away.

In De Forest, Wisconsin, they have a wrestling uniform that has been to the state finals three years in a row and already, the poor faded uniforms are being fought over who gets to wear them next year.

Many athletes would never let their uniform go into a machine. They want it washed out by hand. If it is done in a machine they will lose.

One of the wildest stories I have heard occurred to a collegiate wrestling team from Iowa State back in the 1930's that was on an eastern road trip to wrestle Rochester University, Syracuse University and West Point on a Thursday, Friday and Saturday night all in a row. They won the Rochester meet so as a group they decided not to take showers until they lost, they all won again at Syracuse the next night, so again no showers. On the third night at West Point they had seven out of eight pins because the West Point boys wanted off the mat and away from them because they smelled so bad. Never had thought of using B.O. as a weapon in wrestling.

The stories could probably go on forever and I know all of you have your own personal superstitions and practices. Really sub-consciously there may be a reason for all of this and all superstitions bring into operation a concept called "self fulfilling prophecy." If the person allows himself to believe too deeply in these myths and superstitions when put to a test or put to competition without doing that which is believed, he will fail just to prove the superstition correct.

To what extent this works is not always known. I do have a closing story that probably demonstrates about as well as possible the real truth in all of this.

It seems a man was at the prize fights seated next to a priest. One of the fighters crossed himself in his corner before he came out at the beginning of the round so the man turned to the priest and asked "Does that really help, Father?" The priest answered back, "It does if you're a damn good fighter!!!"

ANNOUNCEMENTS

CERTIFICATION INFORMATION

Persons wishing to be certified as an athletic trainer by the N.A.T.A. must fully qualify under the Procedures for Certification prior to taking the certification examination.

The examination is given one day prior to the annual convention in June at the convention site, and on the third Sunday of January on a regional basis. In certain rare instances other dates may be announced on the district level by newsletter.

Persons desiring to take the examination may obtain application materials from N.A.T.A., 3315 South Street, Lafayette, Indiana 47904, provided the individual meets the membership requirement. The application must be requested in writing ninety (90) days prior to the date of examination. No applications will be furnished to applicants less than sixty (60) days prior to the examination date in order to assure that the application deadline of six weeks prior to the examination may be met.

If further information is required, contact Lindsy McLean, Chairman, N.A.T.A., Board of Certification, 1000 South Street, Ann Arbor, Michigan 48105.

N.A.T.A. WORKSHOP APPROVAL

N.A.T.A. approved clinics and workshops will be listed in the **Athletic Training**. Application forms and guidelines for N.A.T.A. approval may be obtained from Sayers Miller, University of Washington, Seattle, Washington 98105, or Kerkor Kassabian, Boston-Bouve College, Northeastern University, Boston, Massachusetts 02115. All program approvals by the N.A.T.A. are only on a year basis and all 1974 approved programs if offered in 1975 must seek reapproval.

N.A.T.A. CURRICULUM DEADLINES

All institutions desiring N.A.T.A. approval of their curriculums must submit their applications to Sayers Miller at the University of Washington, Seattle, Washington 98105 prior to September 1st for the final action at the Board's Meeting in January and prior to February 1st for final action at the Annual Meeting. If applications are received after the above listed dates they will be carried over to the next evaluation period.

Page 1

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The editor of **Athletic Training,** the Journal of the National Athletic Trainers Association, welcomes the submission or articles 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 articles:

1. All manuscripts should be typewritten on one side of 8½ x 11 inch typing paper, triple-spaced with one inch margins.
2. Photographs should be glossy black and white prints. Graphs, charts, or figures should be clearly drawn on white paper with black ink, in a form which will be legible when reduced for publication.
3. The list of references should be as follows: a) books: author, title, publisher with city and state of publication, year; b) articles: family names and initials of all authors, title of authors, title of article, journal title (abbreviations accepted as per Index Medicus), volume, page, year.
5. It is requested that each submiting author include with the manuscript a brief biographical sketch and photograph of himself in coat and tie.
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Clinton Thompson
Department of Athletics
Michigan State University
East Lansing, Michigan 48823

NORTHERN ILLINOIS UNIVERSITY ATHLETIC INJURY REPORTING SYSTEM

by

Alfred C. Kranz
Head Athletic Trainer
Northern Illinois University

Jack Hall
Assistant Director
Computer Science
University of South Florida

Harold H. Morris
Associate Professor
Ithaca College

William Tessendorf
Assistant Trainer
Cleveland Browns Professional
Football Team

J. Randall Ryan
Assistant Trainer
Northern Illinois University

Most athletic trainers today would agree that there is a crucial need for valid data on athletic injuries. Because of this, in the future the athletic trainer will be called upon frequently to provide the researcher with specific and detailed information concerning athletic injuries. Although accurate recordkeeping is a difficult task it is necessary it be done for insurance reasons, protection against civil suits and criminal actions, and/or to keep abreast of the individual athletes' progress while he is injured. However, because of lack of time the trainer usually records only the bare minimum facts. If athletic trainers are going to provide data that will enable researchers to make sports safer, then they must be more efficient and complete in their recordkeeping.

With this in mind, Northern Illinois University instigated research into finding a more effective method of compiling athletic injury data. It was thought that a standardized reporting system would enable the trainer to have adequate records and also enable him to compile injury data banks. After having wrestled with this problem for about five years, Northern's staff has produced an effective and easy method for compiling injury information by the use of a computerized athletic injury reporting system.

The process of collecting and breaking down data is a mundane task which is very time consuming if attempted manually. However, the computer can and will perform this analysis with extreme accuracy and unbelievable speed. The trainer and his staff no longer will need to spend many hours of manual processing to produce reports of their activities. As stated before; these manual reports, at best, just scratched the surface of producing useful information. The use of the computer in the analysis process will allow a greater number of data items to be considered and yet require less personnel time to analyze them.

The procedure used at Northern Illinois University this past year and adopted as a pilot study in a modified form by eight universities in the Mid-American Conference is based on the collection of injury data through the use of an optical mark sense readable sheet. (OMR) (See Figures #1 and #2.) This sheet is used in the training room and data is collected for each athlete requiring the trainer's attention. The sheet is filled in on both sides by using a number two soft lead pencil and takes approximately two minutes to complete. Specific data items collected about the injury can be seen by looking at figures one and two. Side one of the sheet contains the classification of injury, anatomical position of the injury, tissue involved, type of treatment required, body part involved, etc. Side two contains such items as the sport the athlete is involved in at the time of the injury, playing surface, days lost from practice, examined by, surface conditions, weather conditions, player position, etc. In addition, there are two items on each side of the sheet that are unrelated to the injury itself, but absolutely required to machine process the sheets. These two items are the athlete's social security number and the injury number which is merely a sequence number denoting how many injuries the individual athlete has

acquired throughout the entire year. Each of these two elements is of use on its own, but is required on both sides of the sheet to insure the mechanical process of matching the information on the two sides of the collection sheet into a single machine processible record.

It is obvious by looking at the sheet that the process of recording the data is not an insignificant task. And indeed, a good bit of the time formerly spent on reducing injury data manually can be used now in recording the data on the collection sheet. There are probably several justifications and rationalizations for reinvesting this time. First of all, the sheet has the capability of recording a significantly larger number of data items than are recorded under a manual system. The more data collected, obviously the more depth of analysis on injuries and their treatments is possible. The time spent coding the collection sheets is spread through the entire season, whereas the manual compilation of an injury report at the end of the season would concentrate a great deal of time within a few days or weeks. Also, after using the collection sheets for several weeks, the process of recording then became increasingly faster and easier.

After the sheets are completed, analysis of data contained on the sheets requires several steps by the computer. These steps are: (1) Processing of completed forms through the OMR reading device and converting the data to computer processible form. (2) The execution of several computer programs which match the two sides of the injury form's data produced in the previous step and the creation of a single computer record for each injury sheet. (3) One or more computer runs to analyze the records produced through a generalized statistical package.

Specifically, Northern Illinois University uses a digitels 100 OMR mark sense reader with a magnetic tape unit to record the data in machine readable form. A utility program is then used to order the records for each side of the sheet in social security and injury number order. A Fortran program is then run to combine the records for each side of the sheet and will produce an error report for the sheets which do not have matching sides.

The statistical package for the social sciences (SPSS) is then used by the computer to break the data into usuable information. SPSS is very convenient to use in that very little computer expertise is necessary in its uses. With two or three hours of training anyone can learn enough about the SPSS program to set up the control cards for any analysis that may be of assistance to the trainer. The ability of SPSS to combine data elements in cross-tabulating is just one of the more popular uses for "taking a picture" of the injury data. An example of the kinds of reports available might be a cross-tabulation of injuries by sport and of how the injury occurred cross-tabulated with the days of the week.

It will be possible to collect all of this data and to save a complete injury file for each competition year. With this then an individual injury profile can be produced for each athlete at the end of his eligibility, showing each injury and treatment of the injury from his first practice through his last game. This will be of immeasurable assistance in helping the trainer to advise professional scouts about a player.

In addition, it is entirely conceivable that the availability of this data can lead to some very significant research into the study and prevention of athletic injuries. Should the collection and synthesis of this data help in reducing the quantity and severity of athletic injuries, it certainly will have been worth the investment of time and energy involved in its implementation.

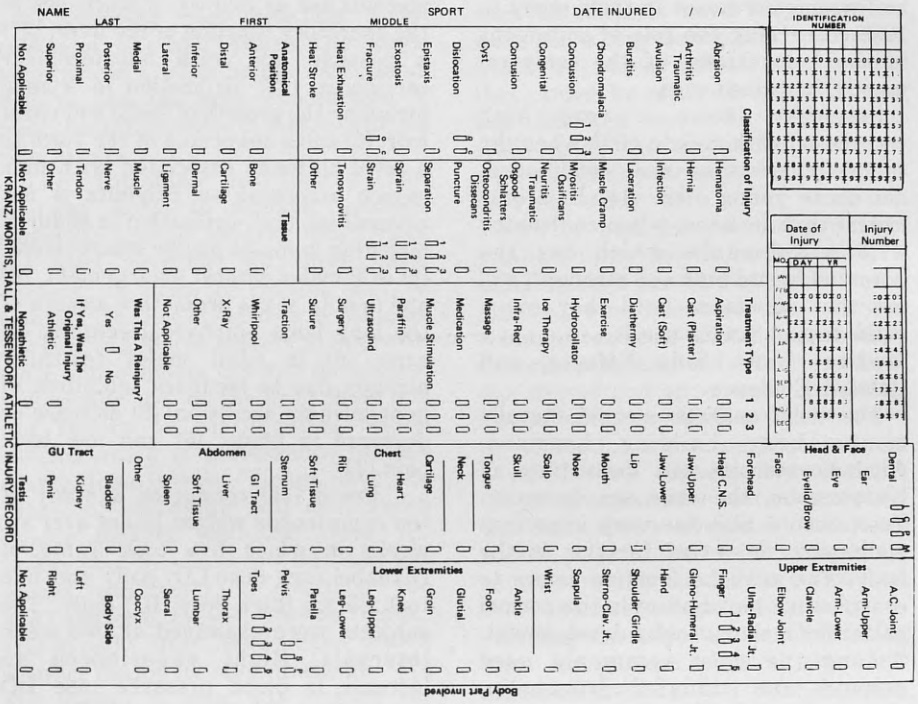


Figure 1

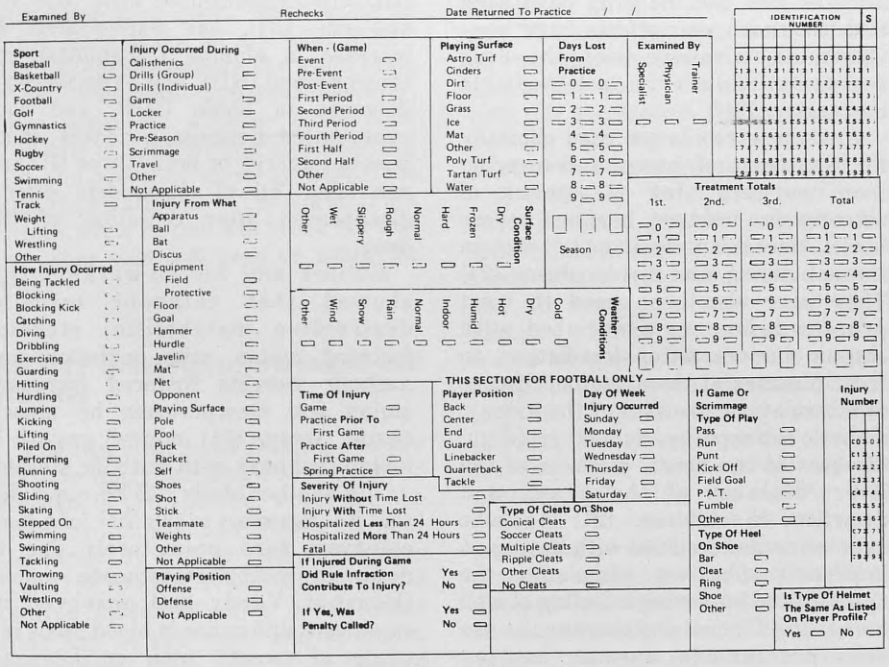
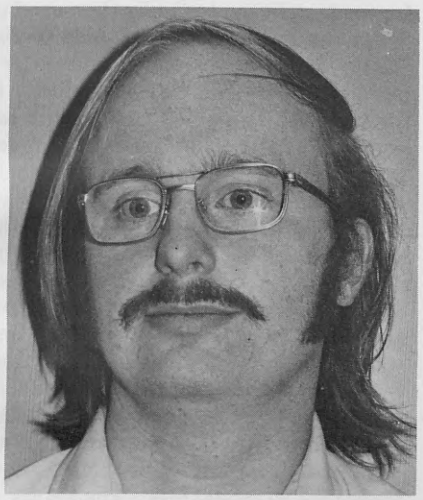


Figure 2

ANABOLIC STEROIDS

A Review of Current Literature

by James Rankin



James Rankin earned his Bachelor of Science in Education at the University of Michigan in 1972 with a double major in physical education and English. He then earned his Master of Science at Western Michigan University in 1974 in physical education. He is currently working on his doctorate at Michigan State University.

By nature athletes are more conscious of the physical state of their bodies and general health than most non-athletes. As the pressure to win mounts on an athlete, he seeks ways to improve his performance. It seems every major or minor medical problem today involves drug therapy. The work of Kochakian and Murlin (26) in 1935 began the use of steroids for their anabolic effect. Papanicolaou and Falk (30) demonstrated the anabolic effect of androgenic hormones in their study in 1938 concerning the role of androgens in the hypertrophy of the temporal muscle in guinea pigs.

Strenght shows a very high correlation with muscle girth when the sample consists of well conditioned, non-obese young men. (14) It is only logical that athletes, when confronted with a substance which has the potential to add bulk and strenght, will use that substance until they see a valid reason not to use it.

Medical Uses, Side Effects, and Related Evidence

The term anabolic steroid literally means body building hormone. Anabolic steroids are derivatives of testosterone, the male sex hormone. Testosterone also has very important androgenic or sexual function in the body. The anabolic function refers to constructive metabolism in the normal pattern of male muscular development. Among the most commonly used steroids are Dianabol, Durabolin, Decadurabolin, Maxibolin, Anavar, Nilevar, and Winstrol. (19) Most athletes who use the drug have been told the androgenic effects have been eliminated, a fallacy even the drug companies admit is not possible currently. (19)

Anabolic steroids are used clinically for treatment of patients recovering from surgery, for treatment of osteoporsis, fracture healing, severe burns, muscular dystrophy, protein tissue building, and myotrophism. (24) They have also been used to treat protein deficiency associated with chronic tumors, after irradiation, to treat diseases of the skeleton, disease of musculature, diseases of the kidney, diabetic retinopathy, hyperthyroidism, diseases of the heart, diseases of the liver, diseases of the blood, and dwarfism in children. (21) Anabolic agents are also credited with having an important effect on stimulating the appetite and imparting a feeling of well being. (24) Clinical and therapeutic use does not include normal, healthy human beings.

The major problem in the use of anabolic steroids is the side effects. Some of the side effects attributed to steroids are as follows: disturbance of the excretory function of the liver, (27) a possible link with hepatocellular carcinoma, (23) virilization in women including the growth of facial and chest hair, (6) and a deepening of the voice to a level normally associated with men (which according to Brodnitz is **not** reversible), (10) virilization in children including in males phallic enlargement, (8) in females clitoral enlargement, (6) and in both sexes premature closure of the long bone epiphyseal centers, (5) acne, (6) in adult males testicular atrohpy due to feedback inhibition of gonadotropin secretion, (8) increase or decrease in libido, (6) and low back pain.(24)

Freed (18) conducted a study of ten experienced weight lifters over six weeks in which five took 5 mg of Dianabol (low dose-LD) daily and five took 25 mg (high dose-HD) daily. The subjects were examined at two week intervals. Eight experienced an increase in blood pressure (one LD went from 120/70 to 160/90), one experienced some prostate problem (HD), two experienced acne (one HD and one LD), one experienced an increase in alanine transminase six times normal (HD), one experienced a decrease in libldo (HD), and four experienced dizziness, headache, faintness or lethargy or both (three HD and one LD). All of these side effects disappeared after cessation of the drug.

Bullock and his co-workers (11) showed that catabolic (causing destructive metabolism) steroids fostered amino acid depletion and anabolic steroids fostered increased amino acid incorporation by muscle tissue. Greene (21) induced growth in undersized boys with anabolic steroids . . . In another study (22 he concluded that it is incorrect to say that long bone epiphyses fuse prematurely due to doses of methyltestosterone and/or Dianabol. Verdy (34) observed no significant difference in blood lipids in a study of twenty men on Dianabol (mean age 69 years). Albanese (1)

developed a steroid-protein activity index for eleven anabolic steroids and seven catabolic steroids. Wewalke (37) stated Dianabol was the most efficient anabolic steroid in managing six chronic wasting diseases. Barnes (7) used Mesterolone to treat hypogonadal patients. He noted an increase in hair growth and a decrease in apathy, but also a decrease in testosterone production in three of nine patients in the study. In the other six patients the testosterone level remained the same, but the treatment did not combat infertility. Gogate (20) used Norbolethone to treat sixteen boys and sixteen girls suffering from dwarfism. Over two and one-half years the boys experienced a mean height increase of 3.25 in and the girls experienced a mean height increase of 3.16 in with no side effects.

The Russians introduced the sporting world to anabolic steroids sometime around 1954-56. (35) Drugs are used medically for three basic reasons: to cure, to control, and to comfort. The use of setroids by athletes introduces a fourth reason: to improve. Once improvement is noted the athlete will usually stay on the drug so he will not return to his former, lesser self.According to professional football player John Brodie, "Drugs have the effect of lessening self confidence among players who use them ... before long, as you throw well and win games (wth them) ... you think you can't perform as well without them." (15) Weight lifter Randy Starr stated another reason for steroid usuage, "We are usually a long way behind the Russions in drug use. They make a scientific study of it. If they come up with something good, their teams all get it. Here, it is a hit and miss thing." (19) Europeans believe the same thing about American athletes, however, since American athletes come from "the land of the towering pill factories," (19) and are thus most assuredly the most doped athletes in the world. It is a vicious circle no one will break for fear the other side will keep on using the drugs.

Studies Relating to Strenght and Athletes

The two most cited studies, one pro and one con, regarding use of anabolic steroids in the sporting world are the study by Johnson and O'Shea (25) and the study by Fowler and co-workers (16). The O'Shea study (25) involved twelve matched pairs of subjects according to age, size, and strength, one subject per pair on 5 mg of Dianabol twice daily and the other subject on no steroid or placebo. The group was trained for six weeks before steroid use was begun. The steroid use was for a period of three weeks. Throughout the study all subjects received protein supplements to their diet. O'Shea noted significant strenght gain, a mean weight gain of 2.48 kg, no change in skinfold thickness, an increase in oxygen uptake and an increase in nitrogen retention. This study has been criticized for two major reasons: first, the Astrand method of measuring oxygen uptake was used, a method of proven low reliability, (17) and second, the sample was invalid since all subjects knew they were or were not taking the steroid in advance which introduces outside the factors that cannot be controlled. (35) O'Shea has repeated essentially the same study using the double blind design with essentially the same results as the previous study. (29)

Fowler and his co-workers (16) studied forty-seven men during a sexteen week peroid. Eight received a placebo, nine received the steroid, Nibal, fifteen received a placebo and an exercise program, and fifteen received the steroid and an exercise program. Fowler noted no significant differences in strength, motor performance, or physical work capacity between the control group and the steroid group. Of the forty-seven subjects, ten were rugby players (athletes) and thirty-seven were untrained college students. The exercise program consisted of enrolling the subjects in a conditioning class for general physical education students meeting five days a week, thirty minutes a day. There was a noticeable gain in weight which Fowler attributed to increased water retention. This study has also been criticized for two major reasons: first, the steroid was withdrawn from the market in 1968 (12) and second, the exercise load was far too light to produce any marked increases in strenght. (17,35)

A study by Ariel and Saville (2) showed that a placebo can give the same effect as taking a steroid. In this study fifteen subjects began training and six were randomly selected to continue. These six were told they would be given the anabolic steroid, Dianabol, but were given a placebo instead. They all showed significant increase in strength while on the placebo. This study points up the necessity of using the double blind researh design to eliminate the psychological effect of taking the drug. Another study by Ariel and Saville (3) showed that three subjects on Dianabol had significantly faster reflex arc times in the knee jerk reflex than did three control subjects. For four months the subjects were trained for five days a week and performed test trials on the sixth and seventh days. The study period lasted the following eight weeks. During the second, third, and fourth weeks all subjects were given a placebo and told it was Dianabol. At the fifth week a double blind study was begun with three subjects receiving 10 mg of Dianabol and three subjects continuing to receive the placebo. The anabolic steroid had a significant effect upon the reflex components but the authors also stressed the need for further study to elucidate the specific biochemical changes that facilitate this faster motor time. Another study by Ariel (4) investigated the effects of Dianabol upon skeletal muscle contractile force. This study used the identical design of the previous study. The author concluded the steroid fostered a greater contractile force than was possible during the training period and the rate of progress was higher during the anabolic period. None of Ariel's studies made use of protein supplements to the diet.

Detection of Users

An important problem which has contributed to the continued use of anabolic steroids is the sporting world's inability to detect users. A survey by Silvester (32) at the Munich Olympics concluded that 65% of the athletes in the weight events in track and field would be in favor of banning steroids if a reliable, inexpensive method of detection could be found. Gas chromatography can be used to detect steroid metabolites in urine (28) but the cost is about $1000 per test and a series must be run to establish validity. (32) There is hope in this area, however. On October 31, 1973, Dr. Roger Bannister, chairman of the Sports Council, announced in London that a research team headed by Professor Raymond Brooks had developed a test which was extremely accurate and inexpensive. (9) The test involves reacting a specimen of blood or urine with a antibody produced by combining an unspecified steroid (s) with protein. Dr. Bannister hoped the test would be functional enough to permit spot use at the Commonwealth Games in Christchurch, New Zealand, in February, 1974. He stated the test would definitely be ready for the Montreal Olympics.

Ethical Considerations

The primary ethical consideration aganst steroid (and any other drug) usuage is sports is voiced by Prokop (31) as follows:

(continued on p. 190)

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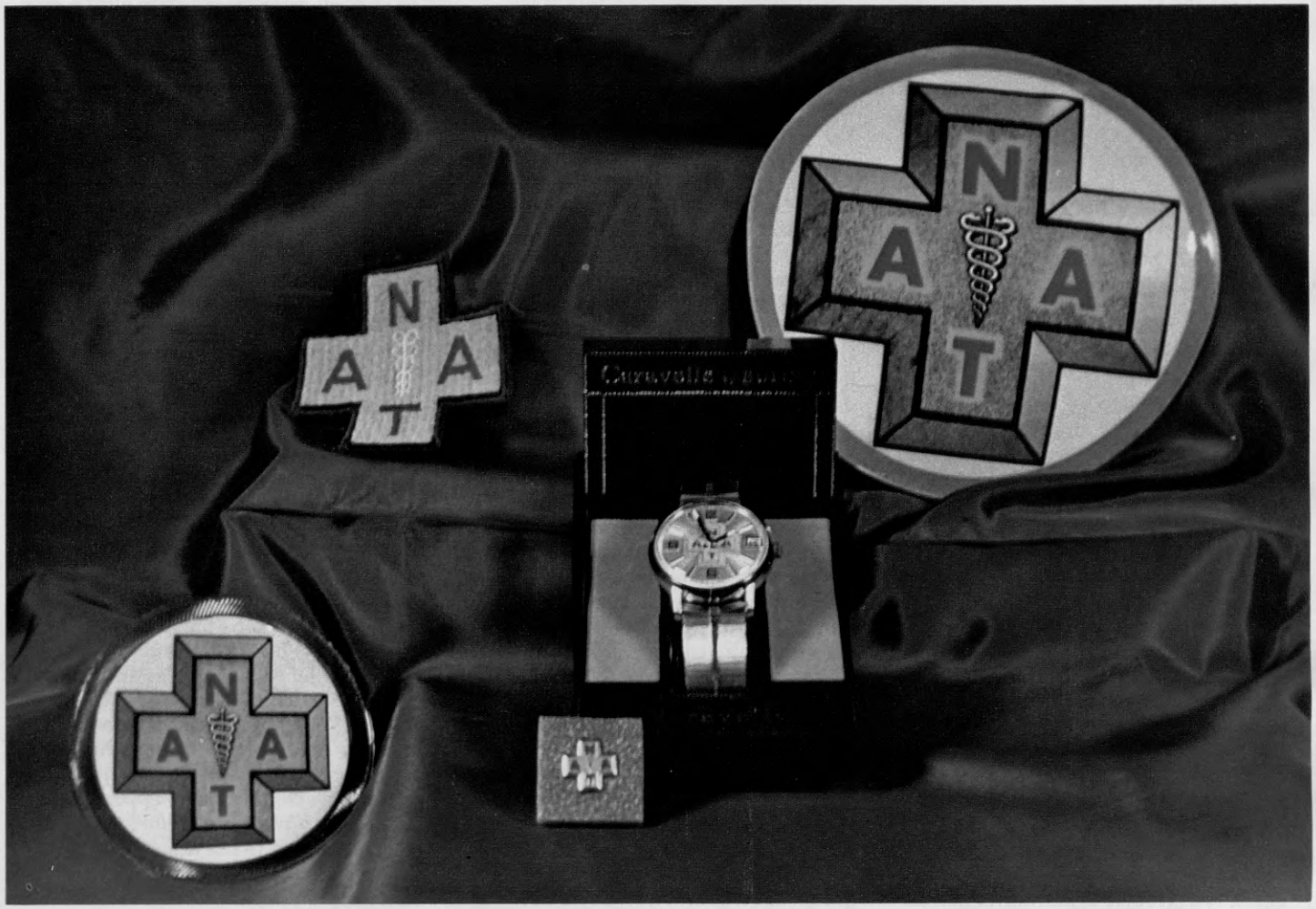

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The drug companies put the warning, "Anabolic steroids do not enhance athletic ability," (6) in the literature about their steroids. An FDA official told **Science** editors that the warning was required because the drug manufactors had failed to provide evidence that anabolic steroids are effective for athletes. (35) Thus the "do not enhance" in the package means only "has not been proven to enhance by drug company research." CIBA states the company has never conducted experiments testing the effects of Dianabol on athletes. (35) The only study dealing with athletes indentified as sponsered by a drug company was the study of Fowler. (16 What is needed is research by the medical profession, particularly on long term side effects and the effects of large doses, as some athletes have been taking up to 200 mg per dose of some steroids. (19)

Casner and his co-workers (12) studied the effects of Stanozolol on the body weight, body compostion, and strength of normal young men. Twenty-seven men were assigned to one of four groups: 1) steroid, 2) steroid and a progressive resistance weight training program, 3) placebo, and 4) placebo and a progressive resistance weight training program. Analysis of data indicated the supervised weight training program played no part in influencing recorded anabolic steroid effects. Those on the steroid gained significantly more weight than controls but the lack of significant differences between those on the steroid and the controls in the areas of strength and specific gravity suggested that the weight gain may be mostly fluid retention and not muscle hypertrophy.

A study by Ward (36) investigated the effects of Dianabol on strength and lean body mass in sixteen normal, healthy males. Each subject was tested for strenght, and body composition was determined before and after a five week weight training and drug or placebo period in a double blind study. the author concluded there was a significant gain within both groups in strenght and lean body mass. Further, the experimental group made significant strength gains over the control group. Fahey and Brown (17) used Deca-durabolin in a study using the double blind design to determine the effects of an anabolic steroid plus progressive resistance training on strength, body composition, anthropometric measurements, and aerobic capacity of a group of college age males. They used twenty-eight male college students who volunteered for the study. They chose a steroid that is injectable intramuscularly to give the researcher greater control of the effective dose than is possible with oral steroids. No dietary supplements were given. The results showed no significant effect of the steroid on body composition, strength, or maximal oxygen consumption. The authors felt that positive strength gains obtained by other investigators may have been due to differences in drug dosage, treatment duration, training intensity, or the use of dietary protein supplements.

A study by Johnson and his co-workers (24) tested the effects of Dianabol on strenght, body wieght, oxygen uptake, and spermatogenesis in thrity-one male subjects in a double blind design. Seven subjects were placed in a control group, twelve subjects were randomly given the steroid, and twelve were given a placebo. The latter two groups were also given a dietary protein supplement. The results indicated no increase in oxygen uptake, no decrease in spermatogenesis and a great increase in strength by the steroid group over the control and the placebo group. Among the side effects noted by the study were a noticeable increase in urine output for the first five to eight days on the steroid: a majority on the steroid felt nervous tension: one subject experienced a decrease in sex drive and one an increase; several experienced a gain in appetite and generally all experienced a feeling of being bigger and stronger. This study concluded that the anabolic steroid treatment is successful when accompanied by a high protein diet and severe muscular stress.

In summing up the studies he had reviewed, Wade (35) stated it is critical to O'Shea's treatment that the athletes are fed high protein diets and are made to train intensely during the anabolic treatment. This also holds true for O'Shea's disciples (Johnson, et al). Wade see anabolic steroids as beneficial in the hands of O'Shea and free of side effects while in the studies cited by "official sports doctors" the drugs are ineffective. It would seem that O'Shea's studies need to be duplicated by others not associated with him before the effectiveness of steroids can be proven. Golding (33) also cites studies which suggest that gains occur only when workouts are near maximum and when accompanied by a high protein diet. One of the problems with steroid/athletic research is that it is almost all being done by physical educators; little is being done by the medical profession and none by the drug companies. There is definite need for further research.

Coopers (33) states,

> Hope always springs eternal that someone will find something that will make the weak stronger, the slow faster, and the dull brighter. But there's one overriding fact I think should be continually reemphasized: To our knowledge, a normal, well-fed human being can never be **safely** improved upon by any drug.

The athlete, unlike the escapist drop-out, is task oriented in his drug seeking activity. The use of androgens as anabolic steroids, although of wide potential, is still in the stage of exploration. Many years will have to pass before the long term effects of steroid use (both qualitatively and quantitively) by thletes will be known.

There is no question that an underground market for steroids exists. (13) What must be remembered is that a market which has no customers does not exist. As long as an athlete feels that his opponent is getting an advantage from a drug, he will be tempted to use the drug as well, and probably more of it.

Summary

The evidence on anabolic steroids is inconclusive regarding their strenght building potential; it does lean toward a judgement that they do build strength when used correctly. Steroids seem to enable the user to gain more strength than would otherwise be possible when accompanied by protein dietary supplements and severe work loads. Anabolic steroids are still in the judgement phase of their existence, however the evidence is by no means conclusive. The evidence is strikingly conclusive, however, regarding possible side effects from short term use. The studies of Freed and Johnson definitely showed side effects as a result of steroid use. While they claim the side effects cleared up when the steroid was discontinued, they can make no judgement at the present time about the long term effects of steroid use.

The known short term side effects, particulalry in regards to women and children, raise many moral and ethical questions about indiscriminate use. While steroids have been used to treat dwarfism, they can also be responsible for a child not reaching his full height potential by artificially inducing the pubertal growth spurt and accompanying closure of the growth canters

before the body is actually ready. A permanently enlarged clitoris and a permanently lowered voice are also possible in girls who indiscriminately use steroids for athletic purposes over relatively short peroids (less than one year).

To date, no one has found an anabolic steroid which is only anabolic and not some part androgenic. When one is found, then the question of side effects will clear; however, there will always be the ethical consideration of all competitors starting under equal circumstances. After all, sport is the act of two human beings in competition with one another based on their innate skills and not on which one has the best druggist.

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