



ATHLETIC TRAINING

THE JOURNAL OF THE NATIONAL ATHLETIC TRAINERS ASSOCIATION



VOLUME 12
NUMBER 3
FALL 1977

ON THE INSIDE:

The 1977 Schering Symposium on the Shoulder:

Functional Anatomy and Biomechanics of the Shoulder Joints

Comparative Stress Fracture Incidence in Males and Females in an Equal Training Environment

The Acquisition of Muscular Strength Through Constant and Variable Resistance Training

Minutes of the Meetings of the Board of Directors

A First For The National Athletic Trainers Association

The Proceedings of the Programs Directors Council Meeting

DEARBORN, MICHIGAN
June 11, 1977

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FROM THE PRESIDENT'S DESK

Dear N.A.T.A. Member,

I am sorry to inform you that Harriett Franklin, the Administrative Assistant of N.A.T.A. for many years, has passed away. The association owes a great deal to Mrs. Franklin and the Lafayette Mailing Service. They have been a major factor in this association and are responsible for a good deal of our growth and improved professional image. Mrs. Franklin dedicated her life to N.A.T.A. and we appreciate her efforts over the years. She was a wonderful woman and those of us who had an opportunity to work closely with her, realize how very much she contributed to the association. We extend our sympathies to her family.

The annual meeting in Dearborn was very well attended and was certainly a success. The business meeting was very well attended and the members actively participated in discussions. I am certain that this interest and participation will continue throughout the year and will make us a better association because of it. A direct result of the responses made in the business meeting has been a change in the method of conducting association business. All matters of substance will be presented to the membership by the District Directors prior to voting on these matters. This may slow the association business down by as much as six months, but in most cases that should not cause a hardship. The Board of Directors sincerely hopes that more members will become active in the administrative affairs of the association.

We will begin using a computer service in Greenville, North Carolina to facilitate some of the administration of the association. We will also begin to move most of the functions of the national office to Greenville. We have grown so large that using a computer will be more efficient. In the future, all membership applications will be obtained from and returned to the District Secretaries. Also, only student applications from these students, who are supervised by a certified athletic trainer, will be accepted. A new membership application has been developed and should assist the District Secretaries in processing them.

There have been a number of Code of Ethics violations reported. These involve the use of the N.A.T.A. Logo. This may only be used by association officers in the business of the association and in a very limited manner. The revised Code of Ethics will be published in this Journal, (see Announcements), and in the future will be published on an annual basis. It is very important that each member understand and abide by this code.

Our association continues to grow. Our scholarship fund has more than doubled this past year. We are an actively growing profession. We need the help and assistance of every N.A.T.A. member to insure that this growth continues. We need your assistance to insure a growth in quality as well as in size. Please contact your District Directors regarding any matter which you feel will help the N.A.T.A. continue to improve.

Sincerely,

Frank George

Frank George
President, N.A.T.A.



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Letters To The Editor

Dear Editor,

Sports Medicine Clubs can promote a better relationship between the athletic and medical communities.

To promote the betterment of sports medicine, student trainers at Ball State University have founded a Sports Medicine Club. Membership in the club is open to students and faculty from all academic areas.

Purposes of the club are to gain a working knowledge of sports medicine and to establish rapport among physicians, trainers and other members of the sports community.

To help achieve these goals, the club is currently conducting a bimonthly Sports Medicine Lecture Series. The series includes presentations by physicians, therapists, psychologists, professors and distributors.

Ball State's club hopes to later share sports medicine ideas and possibly a similar lecture series with other colleges and universities.

For further information, contact Sports Medicine Club, Athletic Training Department, Ball State University, Muncie, Indiana 47306.

Glen Porter
Vice President
Sports Medicine Club
Ball State University

Dear Editor,

I was appalled by a recent advertisement on a national television station. Dr. Scholls was advertising foot spray. It consisted of a man

dressed in a grey sweatshirt with the word **TRAINER** written across his chest in bold letters. The man was obese and showed perspiration stains on his shirt accompanied by an extremely moist face. To make matters worse the room he was in was supposed to be a training room. It appeared dirty and in disarray.

This image of the Athletic Trainer is a disgrace and could not go unnoticed. A written notice should be sent to such companies, who show negative images of the Athletic Trainer.

Dr. Scholls also advertised recently in our Athletic Training Journal, asking us to buy their tape product. In one way they request our support of their products and then downgrade us with this advertising image of our professionals.

Television has become an acknowledged tool for educating the general public. Images of a trainer that do not reflect our efforts and beliefs are not helping to inform the masses of our positive part in the field of sports medicine.

Earl Osborne A.T.C./L.A.T.
Athletic Trainer
Angleton High School
Angleton, Texas

Dear Editor,

We wish to thank the student trainers from District 3 & 4 for their assistance during the recent NATA convention at Dearborn, Michigan. We would like to single out the students from the University of Michigan, the University of Iowa, Michigan State University, Purdue University, Ohio State University and East Carolina University who gave of their time to help in the NATA Press Room and in setting-up the student trainers workshop: Continued participation by students will be of great benefit to the students themselves and to our Association.

Sincerely,

Dan Campbell, A.T.C.

Al Green, A.T.C.
University of Michigan
Student Coordinators

Dear Editor,

On the following page you will find a poem that I have written. I am submitting it to you for possible publication in the Journal. I know that articles and studies are usually what is published, however, I feel that my work would be of special interest to most trainers.

I feel that all too often, we as trainers, forget who we are and what our true purpose is. I hope my poem will remind us of that. I know it did me when I wrote it.

Sincerely,

Chris Mumaw, A.T.C.
Cal Poly Pomona

TO BE A PART

*Why must it be this way?
You give so much wanting to be a
part
And yet, they do not need you, so
they say.*

*The endless hours which are given
so freely
The countless days that fade into
memory
All of which they don't seem to care
about really.*

*When the time comes you are
always there
But they don't seem to notice
Except for the occasional few who
really care.*

*You see constant pain and sorrow
And with each tear of defeat
You cry inside and wait for
tomorrow.*

*And finally, you ask yourself, "Is it
really worth it all?"
Then you search the inside of your
mind
Trying to find the answer to that call.*

*But instead the answer comes from
within your heart
No matter what they think it doesn't
have to be this way
For in the hearts and minds of those
you touch, you will be a part.*

Chris Mumaw, A.T.C.
Cal Poly, Pomona

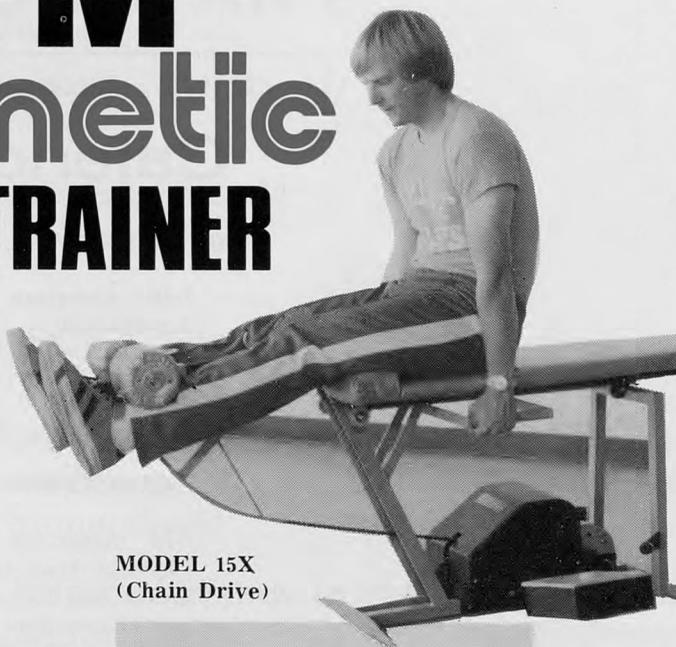
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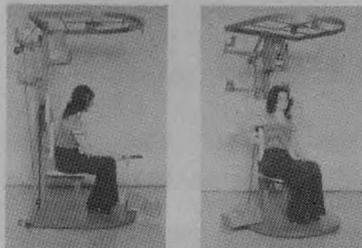


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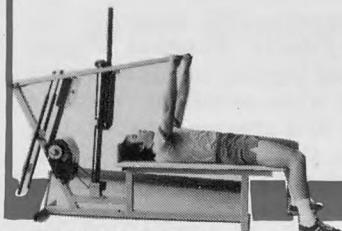


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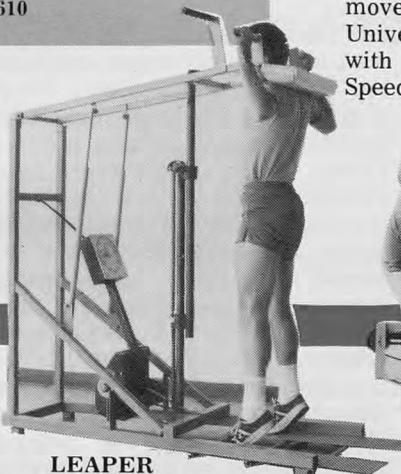
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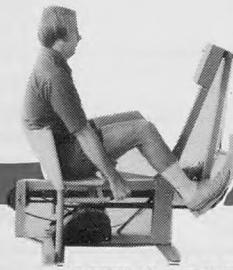
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Calendar of Events

OCTOBER, 1977

7-10 American School Health Association: New Orleans, Louisiana. Contact Executive Director S. J. Jerrick, P. O. Box 708, ASHA National Office Building, Kent, Ohio 44240.

NOVEMBER, 1977

7-12 American Academy of Physical Medicine and Rehabilitation: San Diego, California. Contact Executive Director C. C. Herold, 30 North Michigan Avenue, Suite 922, Chicago, Illinois 60602.

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.

Potpourri

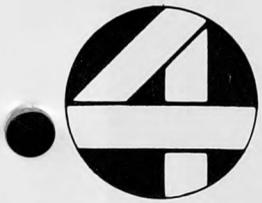
Train, Don't Strain

William Bowerman, track coach at the University of Oregon, emphasizes the phrase, "Train, Don't Strain." This can be a reminder regarding all conditioning and training programs. Today, more than ever before, athletic trainers are seeing increasing numbers of stress-related injuries. These injuries appear to be caused by either near maximal stresses over a long period of time or severe stresses that occur over a relatively short period of time to an area that has not been properly conditioned. This gives support to the idea that conditioning programs should start at submaximal levels and *slowly* progress to beyond the stress

levels actually demanded during competition. This may not always be possible, but we must realize that conditioning takes time. There are no short cuts. This is true in all phases of conditioning, strength flexibility, cardiovascular, stress, etc.

The January 1977 issue of the *Physical Fitness Research Digest* reports that jogging conditioning can take place when an athlete reaches a heart rate 60% greater than a resting heart rate. Optimum training effects were listed when heart rates reached 80% of maximum intensity. Literature fails to tell us optimum training for strength and flexibility; however, many programs are maintaining strength at 80% of maximum.

(Continued on page 118)



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It was also good to re-new old acquaintances and make new ones at the recent N.A.T.A. Convention in Dearborn, Michigan. We were pleased that so many of you were able to drop by our booth and talk.

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Jay W. Hearst

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Editor's Comments

Rod Compton, A.T.,C.
Editor-in-Chief
East Carolina University

Harriett Franklin

As you all know by this time, Harriett Franklin passed away just after the Convention in June. Harriett was a true friend to the NATA and its membership, handling much of the home office duties for many years. She was most helpful to me when I was appointed to take charge of our Journal. She knew a great many of the trainers across the nation personally and showed great personal interest in the NATA's growth. We will all miss her greatly.

*A Most
Successful Convention*

A sincere congratulations must go out to Ken Falb and the 1977 Con-

vention Committee for their fine efforts in Dearborn. The entire Convention was well balanced between education, business, and social opportunities.

Also the NATA membership attending the Convention should also be applauded. I have attended our annual meetings since 1965 and the members were more involved with events this year than ever before. The extremely long business meeting, exchanges of opinions, concern over ethics and decision-making powers and attendance to the clinical sessions reflected a positive, concerned membership. Let us just keep it going.

Be sure to read the minutes of the NATA Board Meetings in this issue to review some of the items that were covered. Keep in contact with your District Director and/or your District Secretary. Stay involved!

Setting the Record Straight

In the minutes of the Board of Director's Mid-year Meeting (published in the Summer 1977 issue) it does seem quite sad that all that was said about the Journal was "... as usual, it was getting out late." Also, the Journal Committee received some justified and much unjustified criticism at the June Convention.

I sincerely believe that if any complaining member(s) had to be responsible for one or two issues of the Journal that he or she would realize how difficult the project is and still maintain their fulltime position as trainer. Also it would develop a much greater appreciation for the Journal as it is.

The Journal Committee has been very cooperative in gathering their material and meeting deadlines. There are many sources of delay besides the Journal Committee. There can be a lack of good, high quality articles; key portions of articles can be lost in the mail; the printers can have a mechanical breakdowns; the minutes of the Board Meetings can be late arriving; and any of the above delays can cause the whole rough-draft to present itself to the Editor-in-Chief for processing right in the middle of football season or basketball season!

These are not excuses but rather reasons for the delays which can, and do, occur. The Board of Directors, the President and the Executive Director will be informed whenever a delay or the Journal's mailing is apparent and be given the reasons for the delay.

The membership can help out the Journal in a number of ways. Submit good articles to help develop a backlog of material. Send any announcements, short articles, Tips From The Field, Letters to The Editor, etc. well in advance of the desired issue. Don't hesitate to contribute any ideas or comments directly to the Journal which you feel can benefit our publication.

1977 Schering Symposium

This issue begins the papers from the 1977 Schering Symposium, "The Shoulder". The moderator, Vincent DiStefano, M.D., honors us with the first paper on anatomy and biomechanics. The next three Journals will each have one of the remaining papers.

Larry Schmeidler, Schering's Information Manager, announced that he will be stepping down as coordinator of the Symposium. I would like to thank Larry publicly for getting this most worthwhile project underway. I am sure the NATA membership has benefitted from his efforts!

Keep 'em healthy!



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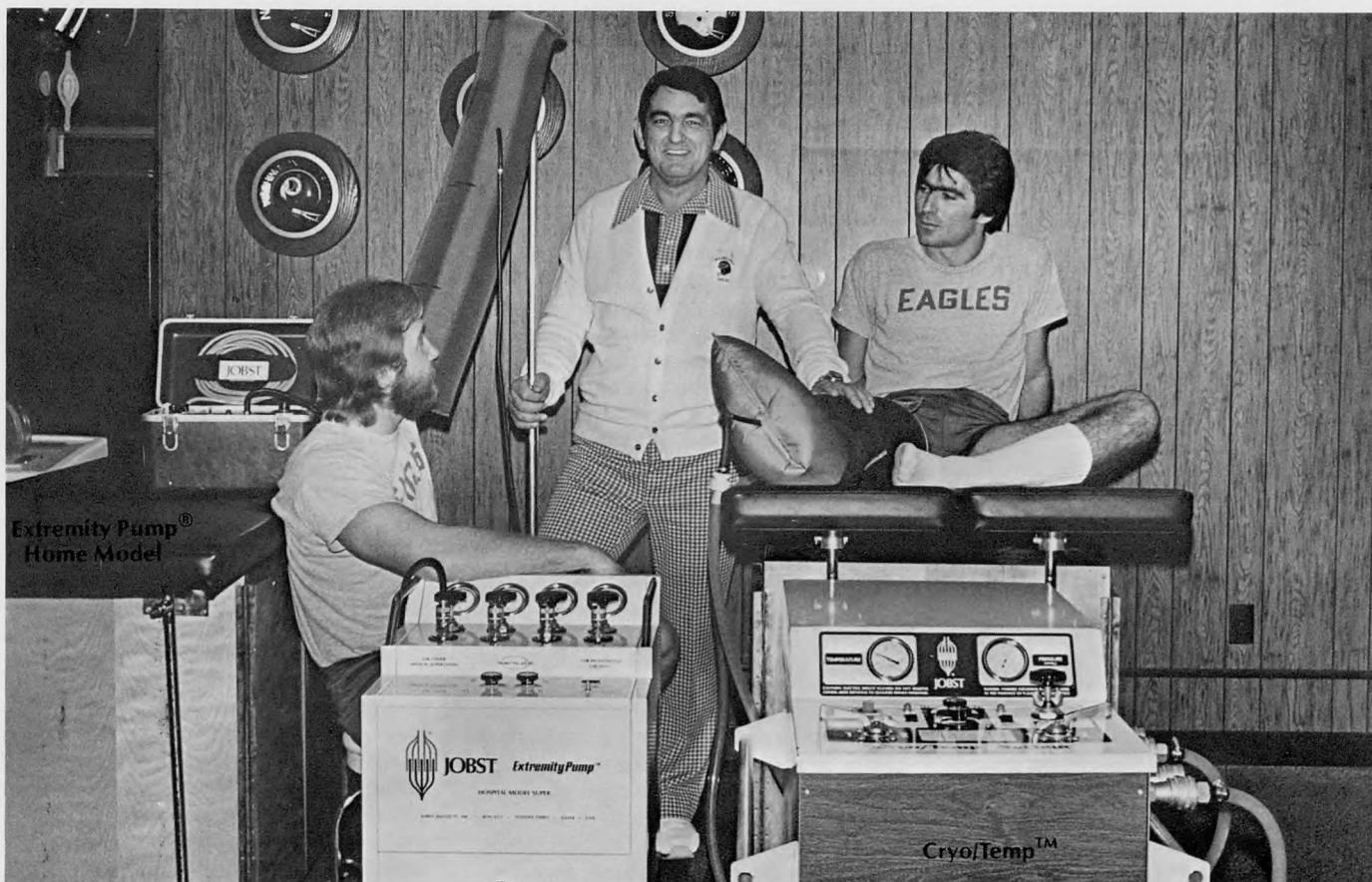
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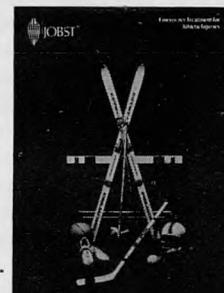
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Abstracts

Kasch, F. W. "What About Eating and Drinking Prior to Exercise?" The Physician and Sportsmedicine, 4:106, February, 1976.

In an article pertaining to exercise guidelines, Kasch made some recommendations pertaining to eating and drinking prior to participation. He noted that many people are unsure about food or liquid consumption prior to or following exercise. Kasch recommends for comfort and performance in vigorous activity the meal should precede the exercise by about four hours. It was also mentioned that no permanent harm would result if an athlete ate one or two hours prior to activity, as the body usually has an adequate reserve of glycogen in the liver and muscle to accommodate the activity. However in activities demanding strenuous abdominal contractions (ie. wrestling, running, gymnastics), meals shortly before participation are contraindicated. Fluid intake of small quantities at frequent intervals is recommended. When an athlete is going to be engaged in an activity of long duration, the process of "loading up" on water 15-20 minutes prior to the activity is recommended. The fluid which is ingested should include some sugar for energy and small amounts of salt and potassium, electrolyte replacements, and the temperature of the fluid should be cool, but not ice cold. The author also noted that trained men tolerate heat better than untrained men due to their superior cardiovascular systems.

William Musnicki

* * * *

Millar, Anthony P., "An Early Stretching Routine for Calf Muscle Strains." Medicine and Science in Sports, Vol. 8, Number 1, Spring, 1976, pp. 39-42.

Four hundred patients were seen for strains of calf muscles, with most common onset of symptoms one to

eight days before presenting for treatment. Treatment consisted of relief of pain, return of calf extensibility, maintenance of antagonistic power, and recovery of power of the injured calf muscles, in that order. Pain relief for the first forty-eight hours was accomplished through the application of ice for twenty minute periods. After two days, short wave diathermy was substituted for ice applications. This was followed by passive stretching of the calf muscles by the patient (tension applied through a bandage draped over the distal foot and pulling into dorsiflexion) for ten minutes, in ten second stretch/ten second rest sequences, within a pain-free range. Ultra-sound was then applied for seven minutes at intensity of 1.5 - 2.5 watts/square cm. to relieve any soreness stretching may have caused. Ultra-sound was followed by ten minutes of isotonic exercises for antagonists and affected calf muscles. This program would be repeated three or more times, each treatment session, as the patient's time allowed. Each session also included isotonic quadriceps exercises to maintain tone. In cases of extreme swelling and/or bruising, galvanic-like electrical stimulation was also applied for analgesia. Finally, all patients were instructed to wear shoes with low heels, and to maintain extensibility and strength, to prevent recurrence. Sixty-eight of the patients showed relief of pain, full calf muscle extension, equal strength in both legs, and full knee and ankle range of motion within one week. There was on recurrence within three months of treatment.

Greg Vergamini

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Ethanol-Induced Depletion of Cerebellar Guanosine 3',5' -Cyclic Monophosphate," James D. Redos; George N. Catravas; and Walter A. Hunt, Science Volume 193, Number 4247, pp. 58-59, July, 1976.

The role of 3',5' -cyclic monophosphate (cyclic GMP) in Neuronal function is just beginning to be understood. Cyclic GMP may be a mediator of the actions of

acetylcholine (ACH) in the superior cervical ganglion, cerebral cortex, and cerebellum and may play an additional role as antagonist of the actions of adenosine 3',5' cyclic monophosphate (cyclic AMP). Ethanol induces ataxia which is probably cerebellar in origin and cyclic GMP is involved in excitatory responses in the cerebellum. Male Sprague-Dawley rats (200-300g) that have been deprived of food overnight were given ethanol (2 to 6 g/kg.) as a 20 percent (weight to volume) aqueous solution by intragastric intubation. At intervals after treatment the animals were killed by focused microwave irradiation, the brains were excised, and the cerebellums were removed for analysis. A single dose of ethanol at 6g/kg decreased the cerebellar GMP by 80 percent at 2 hours after treatment. Ethanol is one of the most effective compounds capable of depleting cyclic GMP in the cerebellum. From the data it appears that when the concentration of ethanol in the blood reaches 100 to 150 mg/ml (as is encountered with moderate drinking) a significant reduction of cerebellar cyclic GMP occurs. A major neurological decrement of ethanol intake is lack of muscular coordination. Some insufficient excitatory input to Purkinje cells can lead to ataxia, disruption of the actions of cyclic GMP in its role as a possible mediator of excitatory influences might explain in part the ataxia observed after drinking alcoholic beverages.

John Wells

* * * *

McKethan, J. F. and Mayhow, J. L. "Effects of Isometrics, Isotonics, and Combined Isometrics-Isotonics on Quadriceps Strength and Vertical Jump," The Journal of Sports Medicine and Physical Fitness Vol. 14, Number 3, September, 1974.

Due to the controversy over the use of isotonics, isometrics, or a combination of both methods to increase quadriceps strength, the authors set out to compare all three, using cable tensiometer measure and vertical

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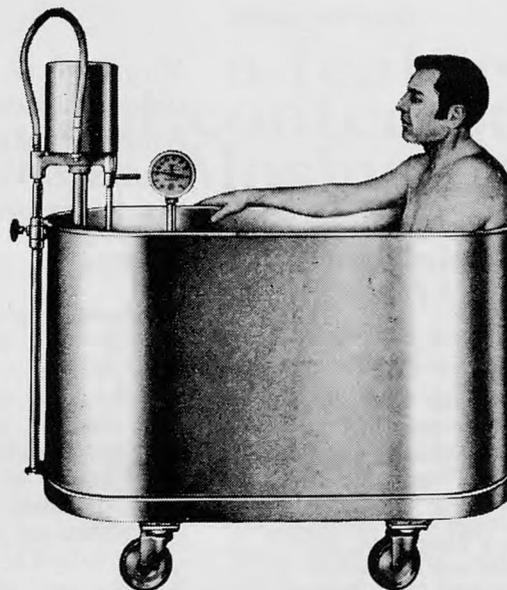
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jumping ability as parameters. Twenty-four men were assigned to isotonic (N- 5), isometric (N- 7), combined isometric-isotonic (N- 6) or control (N- 4) groups. Each groups was tested initially for quadriceps strength using a cable tensiometer (the knee being in 115 degrees of flexion) and by measuring vertical jump. In each measure, there were three trials, with the best trial recorded. The isometrics group performed three maximal six second knee extensions at 90, 110, and 130 degrees of extension (one minute rest between attempts). The isotonic group performed three sets of the six repetition-maximum (6R-M) in weighted boot extension, adding five pounds when able to complete three times the ten repetition maximum (3x10RM). The combination group used an Exer-Genic apparatus, the isometric load being at 90 degrees of flexion and ease in less than four seconds (one minute rest between attempts). All trained twice a week for nine weeks, except the controls, who participated only in the initial and final test periods.

Results showed a significant increase in the isotonic group quad-

riceps strength, no significant increase in the isometrics group (lack of visual stimulus and, thus, motivation from improvement was theorized as cause), and a greater increase in strength in those of the combination group who had a lower pretraining strength than those with a higher pre-training strength. In addition, the increased quadriceps strength did not correlate with increased vertical jumping ability.

Greg Vergamini

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Jackson, D. W.; Wiltse, L. C.; and Cirincione, R.J., "Spondyloysis in the Female Gymnast," *United States Gymnastic Federation, USGF NEWS*, Sept. - Oct., 1976, pp. 3-5.

With the number of young girls participating in gymnastics in the United States increasing, attention to

lumbar problems encountered in this sport ought also to receive more emphasis. In support of this, a study group of 100 young female gymnasts showed an incidence of pars interarticularis defects of four times the normal 2.3 percent reported of the general population. The group consisted of volunteers ranging in age from six to twenty-four years, with the average age being 14.0 years. Practice times ranged from twenty to forty hours a week during the summer and up to twenty hours a week during the school year. Each completed a questionnaire asking height, weight, hours of practice per week, years in competition. Any history of low back pain was documented. In addition a lumbosacral roentgenographic series was obtained. Results showed that eleven of the gymnasts had bilateral L-5 spondylolysis. Six of these eleven had first degree spondylolisthesis of L-5, on S - 1, of the remaining eighty nine. 23 percent had had an episode of low back pain significant enough to interfere with training. Three who sought medical attention for low back pain had negative roentgenographic evaluation, continued to train despite

their chronic pain and developed pars interarticularis defects. Thereel that a decrease in activity is preferable to ignoring the warning pain, since the latter may increase the risk of developing pars defects.

Greg Vergamini

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Nelson, C. M.
"Rehabilitation Emphasis Should be on Exercise",
The Physician and Sports-
medicine, 4:93-96, Sep-
tember, 1976.

The theme of this article was concerned with exercise as a rehabilitation technique. The goal of rehabilitation of an ankle injury should be the same for all who treat the athlete, that is, to secure a painless, stable, and mobile ankle that can withstand the stress of the athlete's sport. When an individual has suffered an ankle sprain the connecting ligaments have been overstretched or torn, blood, lymph, and synovial fluid rush into the injured area, thus causing the immediate swelling. To control the swelling, ice, compression, and elevation (ICE) should be administered to the injured area immediately. The compression wrap should extend above and below the injured site to disperse the swelling over a larger area and thereby speed the rate of reabsorption. Both cold and heat have proved to be effective in the treatment of injuries, after the acute phase. If swelling is still present cold will be a more effective treatment due to the anesthetic effect. However, the specific choice of treatment is contingent upon the preference of the particular trainer. Exercises should be performed in conjunction with the treatments. The exercises should incorporate all range of motion (ROM), plantar and dorsi flexion, inversion, and eversion of the ankle joint. These exercises can be accomplished by a wide variety of techniques, depending on what facilities the trainer has available to him. The exercises should strengthen both the surrounding musculature and ligaments, especially the lateral collateral ligaments of the ankle. Pain is a good indicator for the limits of the exercise program. Running should be incorporated in the program, but not until the athlete is able to run without a limp. The major emphasis of this

rehabilitation program is on exercise and treatments, which are trying to facilitate a rapid and complete healing process.

Myron Unzicker

* * *

Mayfield, G. W., "Popliteus tendon tenosynovitis," The American Journal of Sports Medicine. Volume 5, Number 1, January-February, 1977.

Following up on clinical experience leading to the suspicion that tenosynovitis of the Popliteus tendon is a frequent cause of lateral knee joint pain, report was made describing clinical manifestations and management of this condition in a series of thirty (30) patients. These manifestations are most commonly characterized by pain localized to the lateral aspect of the knee on weight bearing when the knee is in approximately 15-30 degrees of flexion. Occasionally a patient may experience pain in the early part of the swing phase of the involved extremity and/or when trying to arise from the cross-legged sitting position. Joint swelling, "giving away," and "locking" all of which are suggestive of internal derangement are not present in the majority of cases. The most important finding to conclude this condition is localized tenderness over the tendinous portion of the unit anterior to the proximal insertion of the Fibular Collateral Ligament. This examination is most accurately performed when the knee is flexed to 90 degrees and the hip is flexed, abducted, and externally rotated (as when the foot of the involved extremity is placed on the opposite knee). Less consistent symptoms include pain upon external rotation of the Tibia on a fixed Femur and/or pain accompanying full weight bearing when the knee is flexed 30 degrees and the Femur internally rotated on the Tibia. Lateral Meniscus lesion should be eliminated as a possible cause of pain by the lack of an acute traumatic episode, "giving away" or "locking," and tenderness of the meniscus at the joint line. Biceps femoris tendinitis and Ilio-tibial band friction syndrome are also differentiated by appropriate palpation of anatomical structures. Treatments for this condition varied, but the majority of cases were resolved when downhill running was eliminated and

the pace and distance of running in the flat were decreased, thus lessening the stress on the Popliteus as a Femoral stabilizer.

Greg Vergamini

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Huse, D. M., and R. A. Nelson, "Basic, Balanced Diet Meets Requirements of Athletes," The Physician and Sportsmedicine, 5:52-56, January 1977.

In this article Huse and Nelson discussed the diet and nutritional needs of an athlete. The daily calorie requirement of an athlete is calculated by adding together the basal metabolic, light work needs, and the amount of calories required to participate in the athletic event. If the daily caloric intake is exceeded, an increase in total body fat will follow, with a resultant decrease in quality of performance. A long term effect may be the establishment of eating habits that could result in obesity in later life. The National Academy of Sciences, Food and Nutrition Board stated that the daily protein requirement was .8 gm/kg of body weight. This can easily be met in the daily diet. It was also noted that exercise did not increase the requirements for protein. The author mentioned that currently there are no data to support the impression that vitamin supplementation enhances athletic performance. Further, they claimed that the optimal diet for an athlete was derived by obtaining 15 percent of the calories from protein, 35 percent from fat, and 50 percent from carbohydrates. If a diet needs to be adjusted, the distribution of fat, carbohydrates, and protein should be kept constant. It was recommended that the pre-game meal be well-balanced and eaten three hours before the event. A notation was made that fats delay the emptying of the stomach and that proteins were a source of fixed acids which would have to be eliminated by urinary excretion. The ingestion of game time fluids should be low in glucose and dextrose to prevent water from being drawn into the intestinal tract, which may produce a problem with dehydration. The authors concurred that if the athlete ate a varied diet, he need not take protein, vitamins, or mineral supplements.

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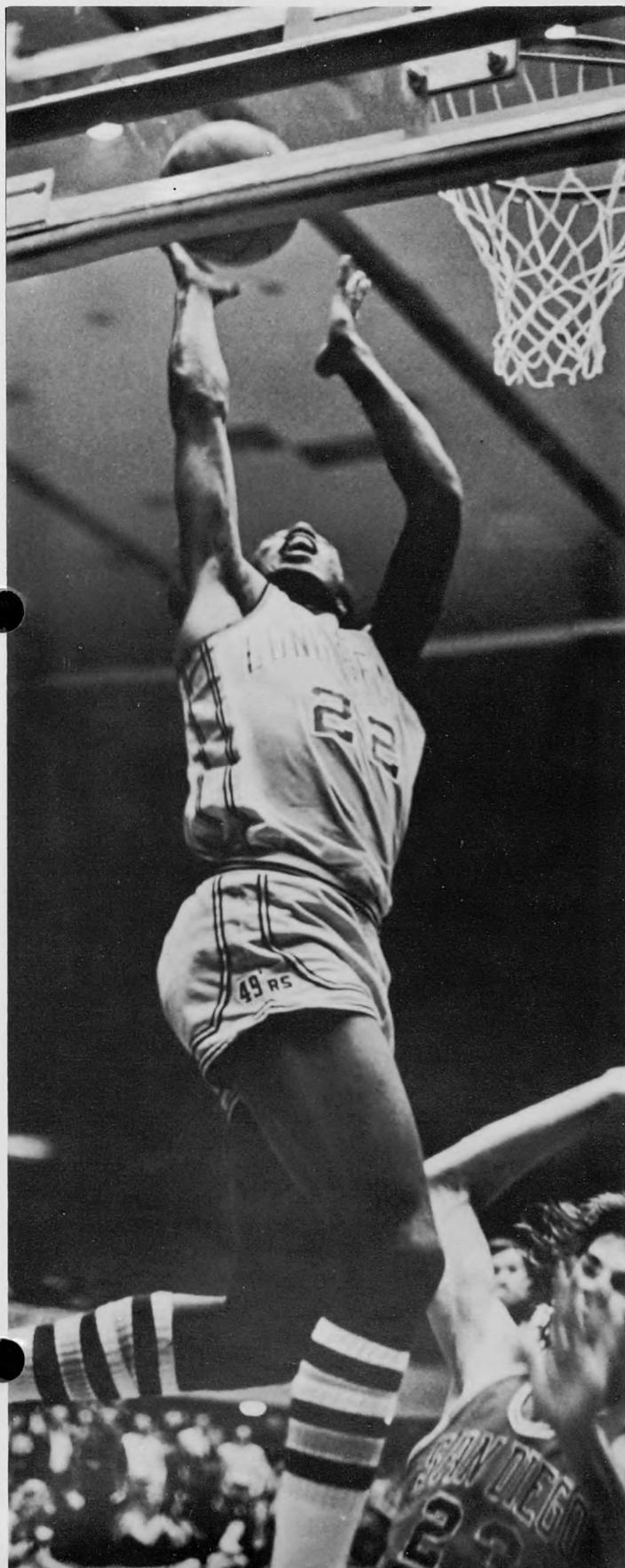
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Weight Loss in Wrestling

The American Medical Association has studied the problems of excessive and indiscriminate weight loss in young wrestlers, especially during periods of rapid growth. Questions regarding the "safe" amount of weight loss, desirable means of losing weight, and desirable weigh in procedures were discussed. The following is the official position of the AMA:

RESOLVED: The American Medical Association reaffirms the position of the AMA Committee on the Medical Aspects of Sports and the American College of Sports Medicine that rapid and significant weight loss or unrealistic weight maintenance over protracted periods in amateur wrestlers are practices detrimental to good health and induce potentially serious illnesses in younger athletes.

Factors in Physical Activity

The January issue of *Physical Fitness Research Digest* published a list of factors that affect physical work capacity. Several of these factors are very obvious, but might help put these total aspects into perspective. It is noted that factors important in one activity may be of lesser importance or even irrelevant in another.

a. Physical size and body proportions, including height, weight, body type, reach, girths, skinfolds, and similar factors. A discussion of "Individual Differences, Their Nature, Extent, and Significance" appears in the October 1973 *Physical Fitness Research Digest*.

b. Energy release process, the so-called aerobic and anaerobic metabolic processes. This prime factor is of prime concern to understanding the physiological involvements of jogging. Knuttgen provided an explanation of the metabolic interrelationships involved in adenosine triphosphate (ATEP) synthesis, which is generally accepted as the immediate source of energy for muscular contraction.

c. Energy sources available, which involves the availability of foodstuffs or substrates that contain potential energy.

d. Strengths of movement, which apply to the various muscles of the body in performing numerous

movements. The January 1973 *Physical Fitness Research Digest* was devoted to a "A Better Understanding of Strength." Strength of the leg muscles is particularly necessary in jogging.

e. Speed of movement, the speed at which isolated or correlated movements can be made.

f. Skills, the abilities to perform coordinated movements and, sometimes, at a minimum energy cost. Jogging, of course, is a relatively low skill activity.

g. Psychological factors, which involves motivation. Motivation is essential if the individual is to engage

in such physical activities as jogging as a way of life.

Academy of Orthopaedic Surgeons

Because of the importance placed on the need for well-trained allied health personnel to assist in the care of orthopaedic patients, the Academy continues its allied health personnel education activities, including the recently published "Emergency Care and Transportation of the Sick and Injured."

Also for allied health personnel is the 1977 series of continuing

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education courses, this year planned for RNs, LVNs, PNs, occupational and physical therapists, orthopaedic physician's assistants as well as persons interested in allied health training.

For information or to register for a course: American Academy of Orthopaedic Surgeons, Box 6310-A, Chicago, Illinois 60680.

Booklets Available

"The Asthmatic Athlete" was developed by the AMA Committee on Medical Aspects of Sports. It has

areas concerning diagnosis, exercise testing, drugs, medical complications, benefits of physical activity. Booklets can be purchased through the American Medical Association, 535 N. Dearborn St., Chicago, Illinois 60610.

The Chicago Heart Association Physical Fitness Subcommittee prepared the booklet "Go! An Exercise Program for the Healthy Individual." It is involved with warm up, strength, endurance, and cardiorespiratory exercise. These illustrated pamphlets can be purchased at \$15.00 per 100 copies from the Chicago Heart Association, 20 N. Wacker Dr., Chicago, Illinois 60606.

USOC Training Center

The U. S. Olympic Committee has recently developed its first national training center for sports at Squaw Valley, California. This training center will have a sports medicine department including general medicine, orthopedics, exercise physiology, biomechanics, sports psychology, nutrition, and athletic training.

According to the Executive Director of the U. S. Olympic Committee, this center is being opened because it will provide the serious athletes an opportunity to condition and train themselves with minimal outside distraction. The center will also provide a new area for sports medicine research. Athletes will have complete physical testing, availability of high speed photography to study skills, and psychological testing and consultation.

Athletes will be scheduled at the center for about three periods then sent home with training guidelines to help their coaches, trainers, and physicians.

The USOC hopes to open six more centers in the near future.

Jogging

Physiological manifestation resulting from jogging as reported in the January 1977 issue of the *Physical Fitness Research Digest* include:

- a) Lowered resting and exercise heart rates.
- b) More rapid heart rate recovery after exercise.
- c) Increased heart output and blood volume.
- d) Decrease in capillary blood hemoglobin.
- e) Increased score on Schneider cardiovascular test.
- f) Lactic acid tolerance enhanced.
- g) Improvement in the R and T waves of the electrocardiogram.
- h) Improved brachial pulse wave.
- i) Increased oxygen intake, oxygen pulse, carbon dioxide production, maximum lung ventilation, forced expiration volume, and respiratory-exchange ratio.
- j) Better mechanisms for contracting oxygen debt and more rapid debt repayment.
- k) Greater utilization of anaerobic energy reserves.
- l) Reduced time for specified distance runs.
- m) Reduction in diastolic blood pressure.

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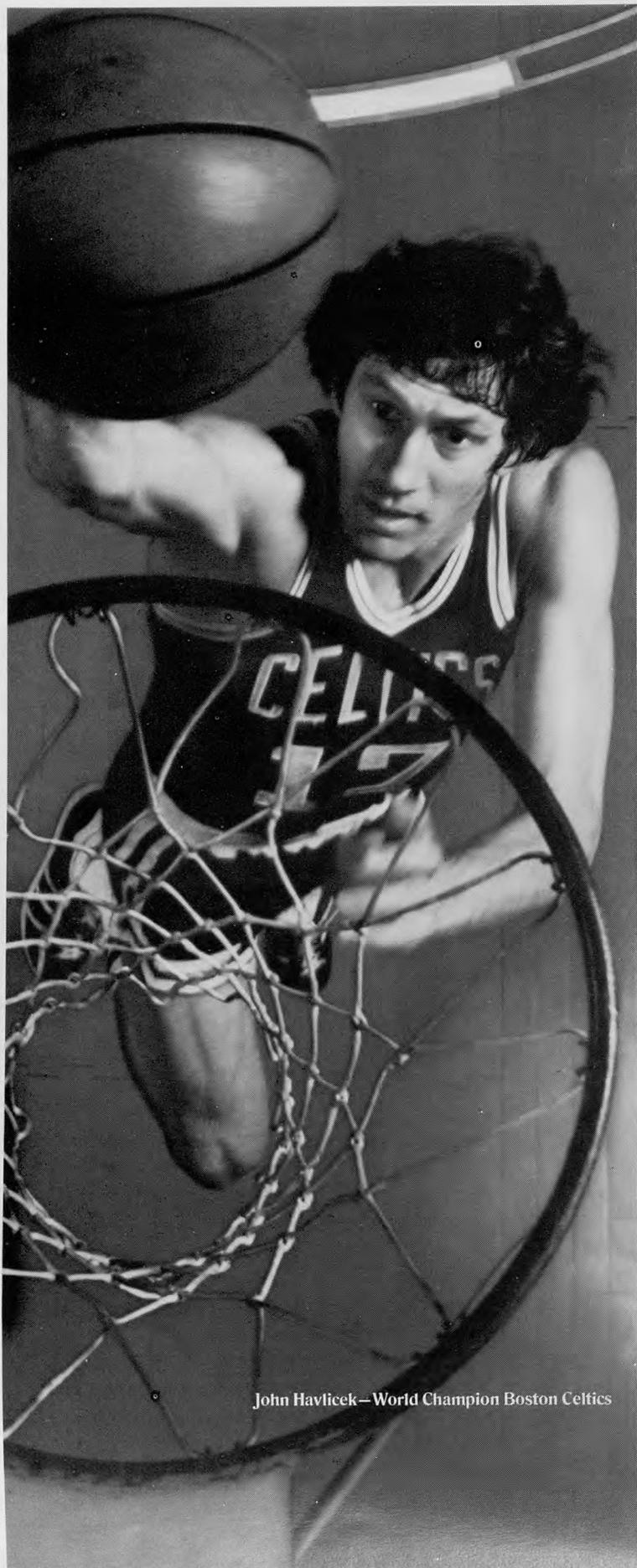
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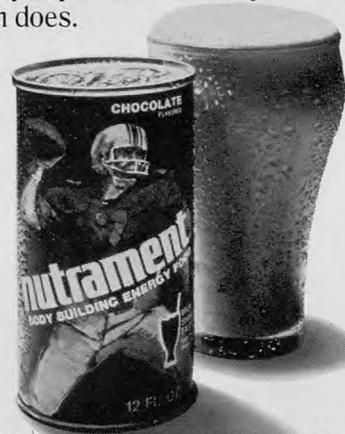
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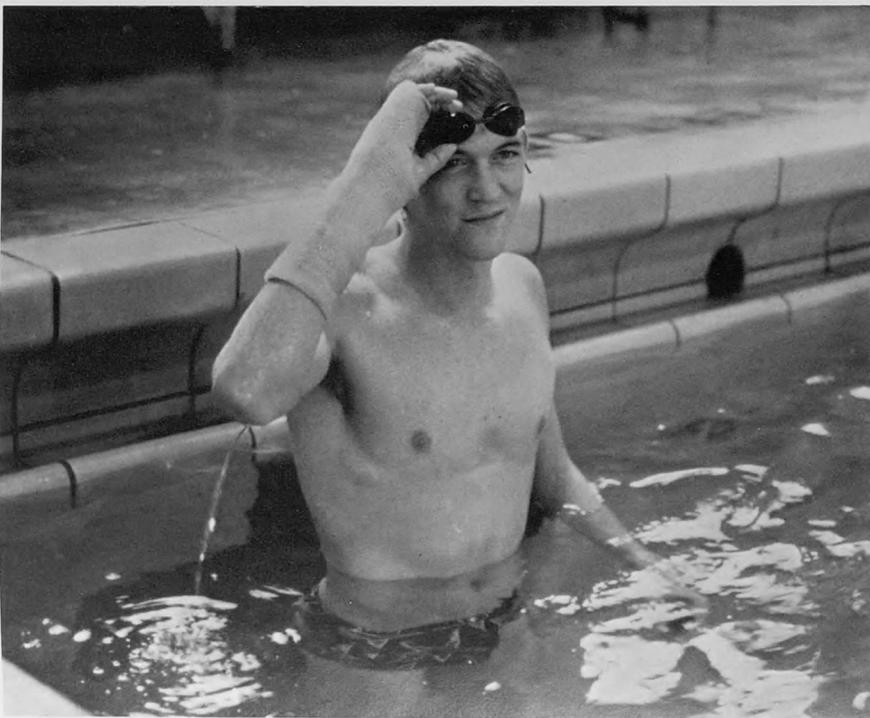
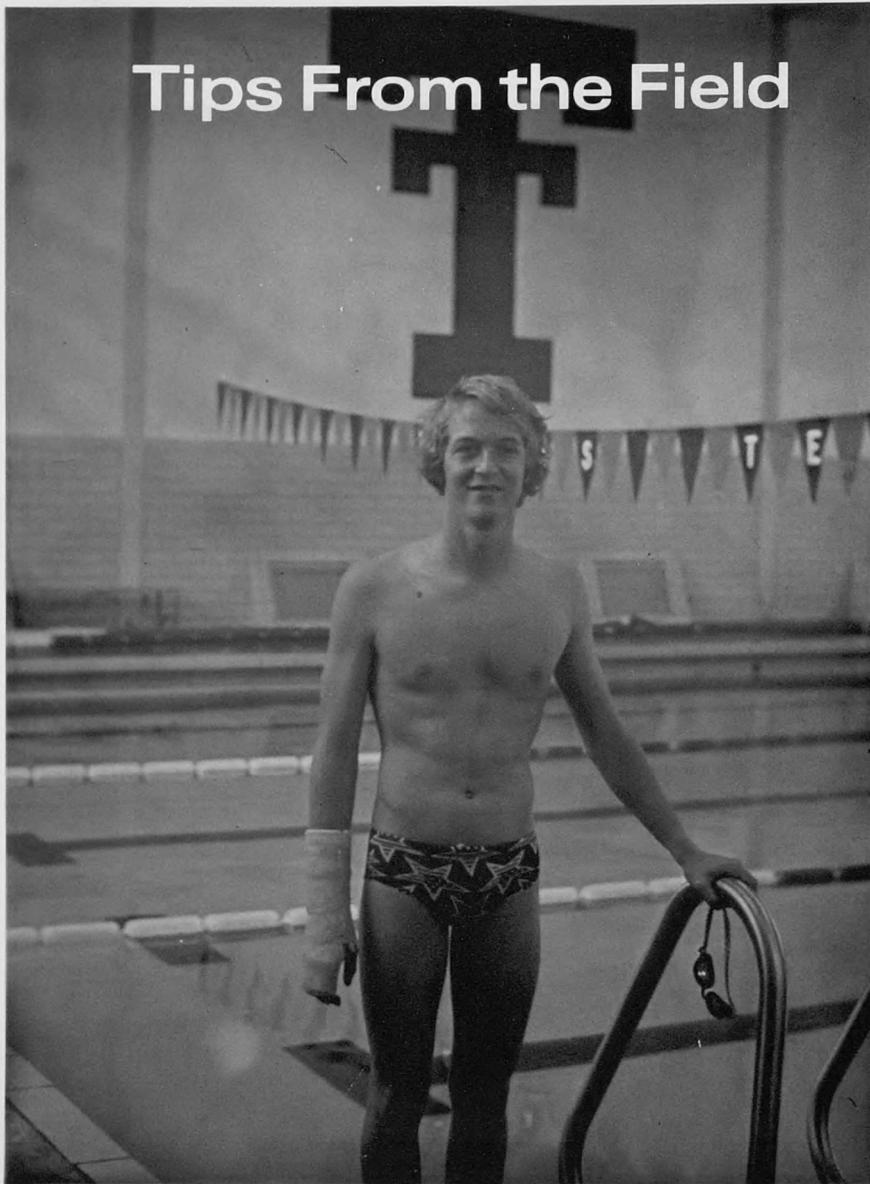
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Tips From the Field



Waterproof Cast For Swimmer's Fractured Metacarpal

By Robert Bissell, M.S., A.T.C.
Head Athletic Trainer
Texas Tech University

The fracture of the fourth metacarpal would usually require four to six weeks in a plaster cast to heal, resulting in very limited activity and absences from training. In the case of a swimmer with this type of fracture it means NO WATER. One might try to protect the heavy plaster cast by wrapping it in a plastic trash bag and taping it, in an attempt to keep it dry. The problem arises when water seeps in; the already heavy cast gets heavier, lap times slow down; the cast will begin to breakdown and no longer splint the fracture or protect the athlete from further injury. The answer to problems similar to these is a waterproof fiberglass cast.

Fiberglass has been around for a number of years with extensive use in industry, but now it is available for practical application in the field of sportsmedicine. The new fiberglass, called Lightcast II, offers the athlete a means of continual participation without risking further injury. Additional expense to the athletic department can be greatly reduced by eliminating the several plaster cast changes due to breakage. The new material is lighter and stronger than plaster. It is porous, does not break down in water, and is easy to apply; most of all, the athletes like it.

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This fiberglass system has many practical uses and does allow participation with injury, while fully protecting the injury as well as allowing for proper treatment. Whirlpool treatments or swimming pool exercise may be accomplished with little difficulty or problems that have been associated with getting a plaster cast wet. If it is the trainer's responsibility to keep athletes on the playing fields, then he might consider the possibilities that Lightcast II may have to offer.

Editor's Note: Anyone wishing to have an idea, technique, etc., considered for this section should send it to Rod Compton, Sports Medicine Division, East Carolina University, Greenville, N.C. 27834. Copy should be typewritten, brief and concise, using high quality photos and/or illustrations.●

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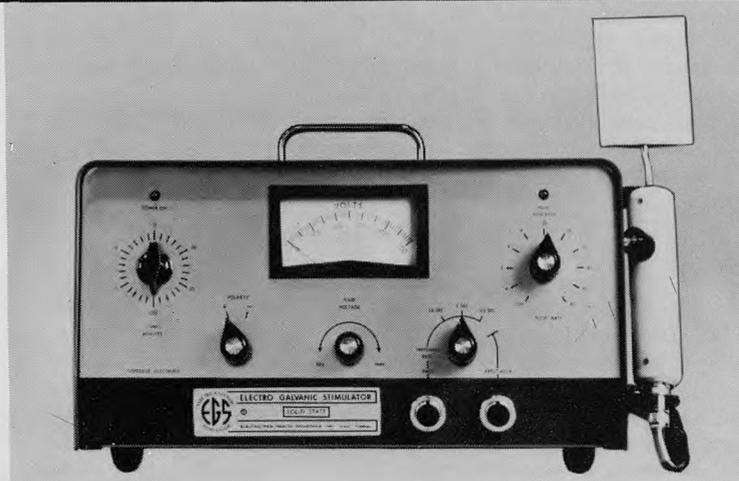
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Book Reviews

by Don Kaverman, A.T.,C.
Detroit Lions

The Strongest Shall Survive

By: Bill Star
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Fitness Products, Ltd.
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Strength training is an area where all sports practitioners should be well versed. This book represents one of the simplest, most complete texts on this topic currently available. It is written in a fashion understandable to most yet contains specific information relating to every facet of strength training. The book is directed to the junior high, senior high, or college coach who has to rely on his own intuitiveness in formulating a strength training program for his team. It can serve as a valuable reference for athletic trainers involved in the administration of

weight training programs.

The author has divided the text into three sections. Chapters one through seven comprise the weight training section. A discussion of human anatomy, physiology and Kinesiology early in the first section prepares the reader for a scientific yet practical review of the principles of strength training. The author then enters into a discussion of flexibility and warm-up exercises. He is careful to note the importance of warm-up prior to engaging in any work with weights. Finally, the big three of weight training are discussed - the bench press, the squat and the power clean. Their relationship to each other in programming strength training as well as a discussion of additional lifts comprises chapters five and six. Chapter seven concludes the first section with sample weight training programs and an extensive weight training reference list.

The second section of the text contains eight chapters and deals entirely with nutrition. The author dispels some fallacies concerning an athletic's nutritional needs. He em-

phasizes the need for daily nutritional supplementation and notes that the idea of "balanced diet" is outdated advice. Proper nutrition is identified as the extra edge in weight training and the role of carbohydrates, proteins and fats in the diet are discussed. The author concludes the second section with a few special nutritional situations and also includes a nutritional section reference list.

The final section of the text is an accumulation of related material. The author discusses principles of rehabilitating athletic injuries and includes some sample rehabilitation exercises. He comments on the relationship of drugs and sleep to strength training. Anabolic steroids are discussed in detail and the author offers some enlightened advice on how to deal with this problem among weight lifters.

This book contains the information necessary for any coach or athletic trainer to formulate an effective strength training program. It is oriented towards football but the techniques and information are adaptable to many athletic activities. ●

Comparative Stress Fracture Incidence In Males and Females in an Equal Training Environment

By Lieutenant Colonel
Robert R. Protzman
Medical Corps
and
Captain Curt C. Griffis, MSC,
United States Army

Introduction

The subject of stress fractures is one which has been extensively studied and written about by military orthopaedic surgeons. The military focus on this injury is due to age group concentration, clinical awareness of the syndrome, and intensive training is a situation in which the patient cannot treat himself by voluntarily reducing his level of activity when an extremity becomes painful. Clinical attention is forced.

The admission of women to the United States Military Academy has provided us with the opportunity to add another chapter to the stress fracture syndrome. Under the provisions of Public Law 94-106, West Point accepted young women with "...minimal essential adjustments...required because of physiological differences." The interpretation of this guideline was that females would complete all training required of the traditionally all male Corps of Cadets except for boxing, wrestling and other aggressive "one-on-one" skills. The integration of females into a training program which physically is extremely demanding for males has offered the opportunity to make many objective observations. One observation is the relative incidence of stress fracture.

Material

On 7 July, 1976, 1,485 New Cadets entered West Point. There were 119 women and 1,366 men ages 17 through 21. The New Cadet Training period ended on 1 September with 1,228 men and 102 women remaining.

As a result of New Cadet Training, twenty-two stress fractures were incurred by these 1,330 New Cadets. None of those who resigned prior to 1 September had incurred stress fracture or were sufficiently symptomatic to require follow-up. There were twelve stress fractures in the 1,228 men; an incidence of 1 per cent. There were ten stress fractures in the women; an incidence of 10 per cent. This difference in incidence is statistically significant at the .0001 level (Standard Normal Test for Equality of Proportions). The anatomic distribution of stress fractures is as follows:

	Men	Women
Metatarsal	3	2
Calcaneus	2	2
Fibula	2	1
Tibia	5	2
Femoral shaft	0	2
Femoral neck	0	1

The numbers for stress fracture location are too small to evaluate a possible variation in injury of individual bones of male vs female cadets. The overall difference in stress fracture incidence represents a male to female ratio of ten to one.

No correlation with type of activity could be ascertained. Because of the

vague onset of symptoms in the typical stress fracture, the morning runs could not be faulted more than the training marches or the physical training more than the field training.

Capt. Curtis C. Griffis received his B.A. from St. Louis University in 1968 and his DPM from the Illinois College of Podiatric Medicine in 1972. He is currently serving as Chief of Podiatry Section, USAH, USMA, West Point, N.Y.

Lt. Col. Robert R. Protzman received his B.S. from West Point, in 1961 and graduated from the University of Kansas School of Medicine in 1968. He is now the Chairman of the Dept. of Orthopaedic Surgery at West Point Military Academy.

Additionally, each new cadet was doing a mixture of each of these events over the total training day of sixteen and one-half hours.

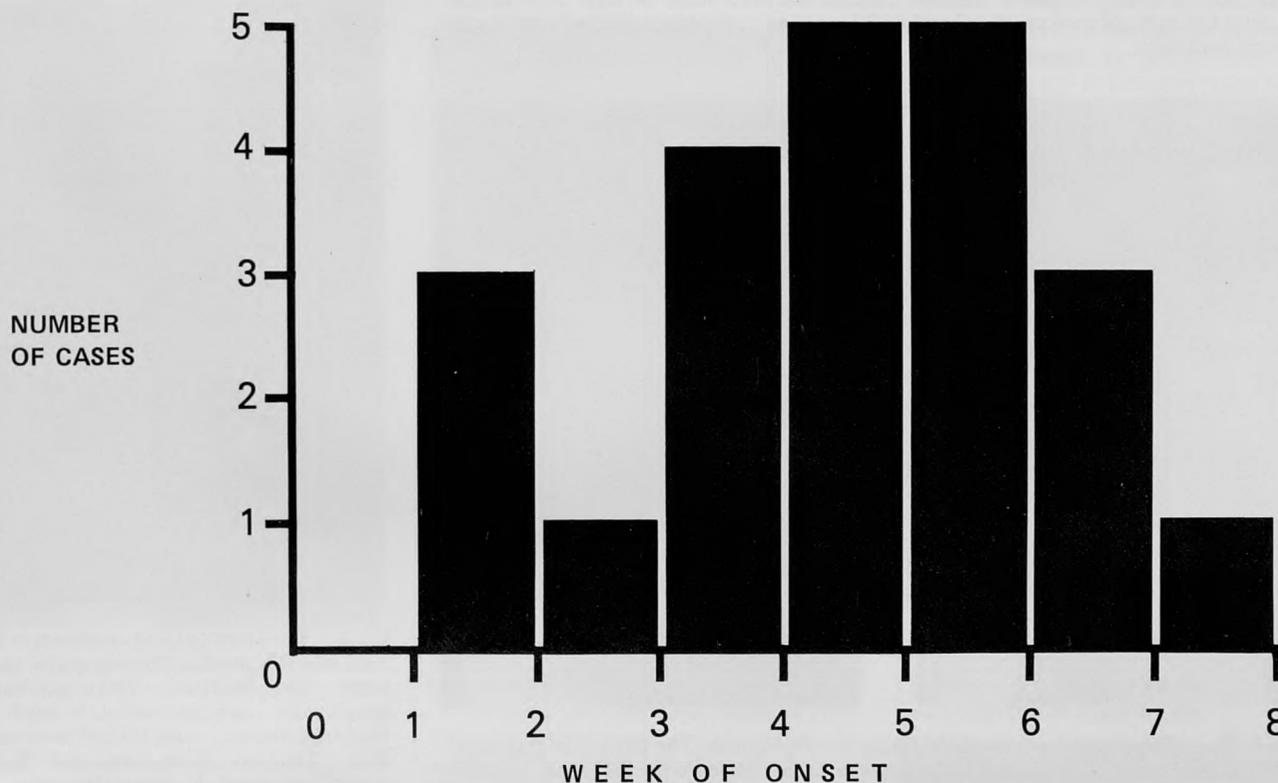
Figure 1 depicts the number of

cases vs week of onset of symptoms. All cases subsequently had a positive x-ray to four orthopaedic surgeons and to one radiologist (read independently). Any patient whose x-rays were read as normal or equivocal by *any one* of the five was not included in this series. Note the uniform onset of symptoms in weeks four through seven, a finding different from other series.

Case Histories

Case I. A.F. age eighteen was seen July 26, 1976 with a complaint of pain over the lateral side of the distal leg. The symptoms had been present for five to seven days and there was no specific time of onset or a specific injury recalled. The pain was relieved by rest and was exacerbated by ambulation, particularly running. Examination revealed point pain over the fibula three inches above the tip of the lateral malleolus and a moderate amount of focal swelling. The clinical diagnosis was stress fracture of the fibula although the x-ray at this time was normal. The patient was placed on crutches, and advised to return for repeat evaluation in ten days. On August 5th, the x-ray showed a stress fracture of the fibula

Stress Fractures - Onset Of Symptoms



(I11 1A and 1B). At this time the patient was instructed to remain on crutches for an additional ten days following which progressive ambulation was allowed. Final follow-up was accomplished ten weeks following onset of symptoms on September 21, 1976 (I11 2A and 2B). At this time the patient was returned to unrestricted activity. This case is illustrative of the typical small bone stress fracture — ease of diagnosis because of superficial edema and specific bone pain to palpation with minimal time loss in treatment.

Case 2. C.S. incurred the onset of vague knee and thigh pain approximately July 21, 1976. No trauma was recalled. Examination of knee, thigh and hip was normal. A diagnosis of muscle strain was made. Over the next four weeks, this patient was evaluated three additional times, was diagnosed as muscle strain, adductor tendonitis and chondromalacia, had two x-ray evaluations and was treated with crutches and limited ambulation. On August 18, 1976, the diagnosis was established: Stress fracture of the

femoral shaft (I11 3). By this time the symptoms were such that the patient wished to discard the crutches. Crutches were strongly advised and the patient was re-evaluated on September 3, 1976. The x-ray at this time revealed exuberant periosteal new bone (I11 4) with a definite fracture line in the cortex. Crutches were discontinued on September 24th and



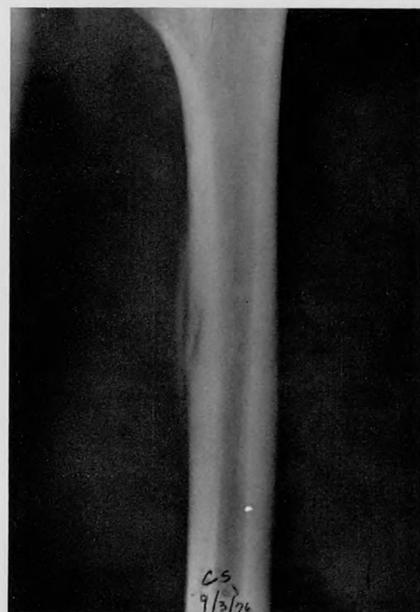
I11 1A & 1B. A clinical diagnosis of stress fracture had been made ten days prior to this x-ray. Note the minimal periosteal and endosteal reaction in the fibula 3" above the tip of the lateral malleolus.



I11 2A & 2B. The stress fracture of the fibula is now obvious. The patient at this time, nine weeks since onset of symptoms and six weeks since positive x-ray diagnosis, is ready to return to a moderate level of activity.



I11 3. C.S. had complained of vague thigh pain for four weeks. Examination was not helpful. The patient had been placed on crutches for control of symptoms. Note the periosteal reaction along the medial cortex of the femur.



I11 4. The same patient as shown in I113 was now six weeks since onset of symptoms. Her fracture, although radiographically more impressive, is much less likely to displace now than it was on 18 July. The new bone formation in the medullary canal is indicative of a circumferential injury.

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the patient was begun on limited ambulation. Unrestricted activity was not allowed until November 1, 1976.



I11 6. Two weeks following I115 this medial lesion was more clearly seen. This is a very dangerous stress fracture as noted by Blickenstaff.² The patient was treated with another four weeks of bed rest and two months of limited activity following hospitalization.

This case is illustrative of long bone stress fracture — the diagnosis is often more difficult (particularly true of



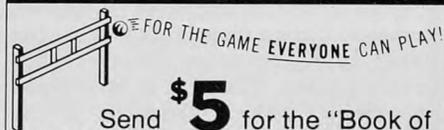
I11 5. This patient had vague hip, thigh, knee symptoms beginning four weeks prior to this x-ray. She had been placed on crutches for symptomatic relief. When the lesion of the medial cortex of the femoral neck was seen, the patient was placed at absolute bed rest.

femoral shaft or femoral neck) and the duration of disability is much longer.

Case 3. See captions accompanying I11 5 and I11 6. This case is presented as a reminder to all of the very serious nature of femoral neck stress fractures. Absolute bed rest or surgery are indicated because of the consequences attending displacement of this particular stress fracture. The reader is encouraged to refer to Blickenstaff² for a more thorough discussion of femoral neck stress fractures.

Cont. on next page

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Discussion

Detailed discussion on the profile of the stress fracture patient is not the intent of this paper. A few salient comments are necessary. He is most often obese, has led a sedentary life and has abruptly increased his level of activity. Although likely conditioned persons such as track athletes do incur stress fractures, the injury is rare and always attends a drastic change level of activity. (1,2,7,11,13) fracture. Each of these terms implies a structural failure of the skeleton to tolerate the distance/load requirements. The remarkable specificity of this mechanical failure is noted in a study by Gilbert⁷. He reported a marked difference in the incidence of calcaneus and metatarsal stress fractures in comparing Marine with Navy basic trainees in San Diego. The trainees' socio-economic, racial and geographic backgrounds were the same and their procurement was via a similar mechanism. The unusual difference in stress fracture frequency was finally found to be a result of an apparently minor difference in the conduct of training. Marines are taught to "dig their heels in" as they march and incur a vastly higher percentage of calcaneal stress fractures. The Navy trainee on the other hand was taught to maintain his marching cadence by slapping his left foot on every fourth or eighth beat. Navy trainees incurred metatarsal stress fractures much more frequently than calcaneus injury. Interestingly enough, they experienced fracture of the metatarsals of the left foot (the foot slap side) more frequently than on the right. This specificity is also present in animals. Racing grayhounds always incur stress fractures in the right hind limb because the animals run counterclockwise around the track¹¹.

A detailed discussion of bone physiology is not the intent of this paper but a few salient points need to be reviewed. The response of bone is much like that of muscle in that it hypertrophies in response to chronic demand. Unlike muscle, however, the hypertrophic response of bone occurs in two phases. The first is resorption of existing bone trabeculae in the lines of mechanical stress. The second phase is deposition of new bone trabeculae along the new lines of stress (2,7,13). Because of a lag time of several days in these two events, the bone is subject to mechanical failure during the resorption phase. A second point on physiology is the

work by Goldsmith⁸ who showed that there is a sex and race variation in bone density in similar age groups. Female bone density is less than that of males and the Caucasian bone density is less than that of the Negro. The Caucasian female will have the least dense bone and the Negro male the most dense.

Finally, it should be noted that all mathematical expressions of the mechanical of structural properties of bone are related to bone mass or to bone density (6,9,14).

The observed difference in stress fracture frequency between males and females we have presented can now be correlated with clinical observations and known physiological data. First of all, females have a greater percentage of body fat than males (12-15 per cent according to most studies). This fat represents a load which must be borne by the musculo skeletal system during physical activity. On a training march or run, the rough equivalent of an average 150 pound female is an average 130 pound male carrying a twenty pound pack. Structural failure is to be expected earlier based on an increased musculo skeletal load.

Secondly, 80 per cent of the West Point population of young males has earned at least one letter in high school athletics. While the female admitted to West Point was physically very much superior to the average high school female, a separate Physical Aptitude Examination had to be developed for female applicants as over 98 per cent could not meet minimum male standards. While West Point's New Cadet Training period represents an abrupt and dramatic change in the level of activity for most new cadets, the change represented physical shock for the young women. Earlier breakdown can be anticipated for the less well conditioned.

Thirdly, these young women are equipped with a less dense bony frame than are the young men⁸. This difference in bony density may be a reflection of the female level of activity in our society or it may be a hormonal sex related difference. The underlying reason or combination of reasons is immaterial at this time. It is sufficient to note that there is a measurable structural difference which will lead to an increased frequency of structural failure in the female.

Conclusions

There is an observed difference in stress fracture incidence when sub-

jected to equal stress. With the more active participation by females in sports, athletic trainers may expect to observe an increase in the stress fracture syndrome if the female participates on an equal basis. Our observation implies no recommendation other than:

- (1) Be aware of the clinical signs and symptoms of stress fractures at the various levels in the lower extremity.
- (2) Be aware of the complications of some untreated stress fractures (shaft of the tibia or femur and neck of the femur).
- (3) There are sound physiological reasons for an increased female stress fracture incidence.

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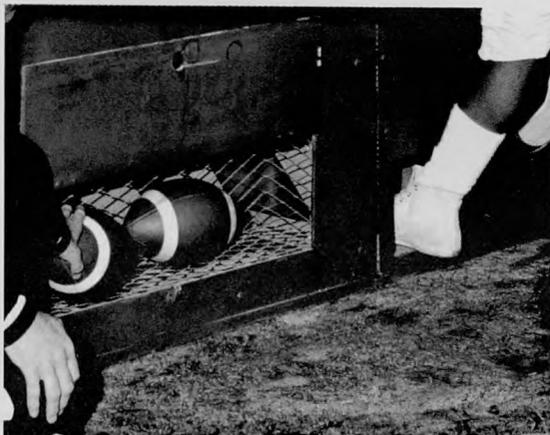
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Trainer of the Year Award



(Left to right) Bill Chambers of Fullerton Junior College in California was presented his Trainer of the Year award by Art Naylor, President of The Drackett Products Company, during half-time ceremonies at the Peach Bowl. Mizlou Television Network's Announcer Howard David and President Vic Piano were on hand for the presentation.

This year's Trainer of the Year awards will be presented in the form of scholarships to the following divisions:

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Junior College	Professional

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Winners of the awards will be flown to the bowl game to accept their awards.

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Last year recipients of the "Trainer of the Year", award were Tom Wilson, University of Houston and Bill Chambers, Fullerton Junior College.

Detroit Lions Host Tour

N.A.T.A. members boarded buses at the Hyatt-Regency Dearborn on Saturday, June 11, 1977, preceeding the Annual Meeting for a gala trip to Pontiac, Michigan - where the DETROIT LIONS hosted a tour of the facilities in the giantic Silverdome which was concluded by a buffet dinner. A good time was had by all.

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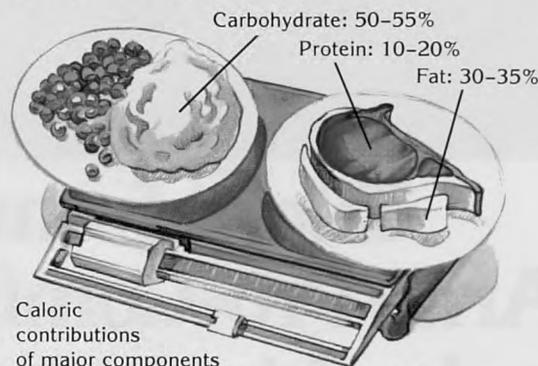
Balance is basic

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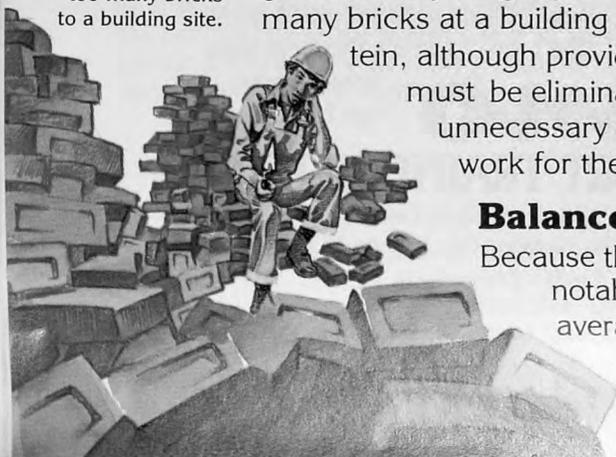
Caloric contributions of major components in a balanced diet recommended for athletes: a balance met by Ensure Plus and Ensure.

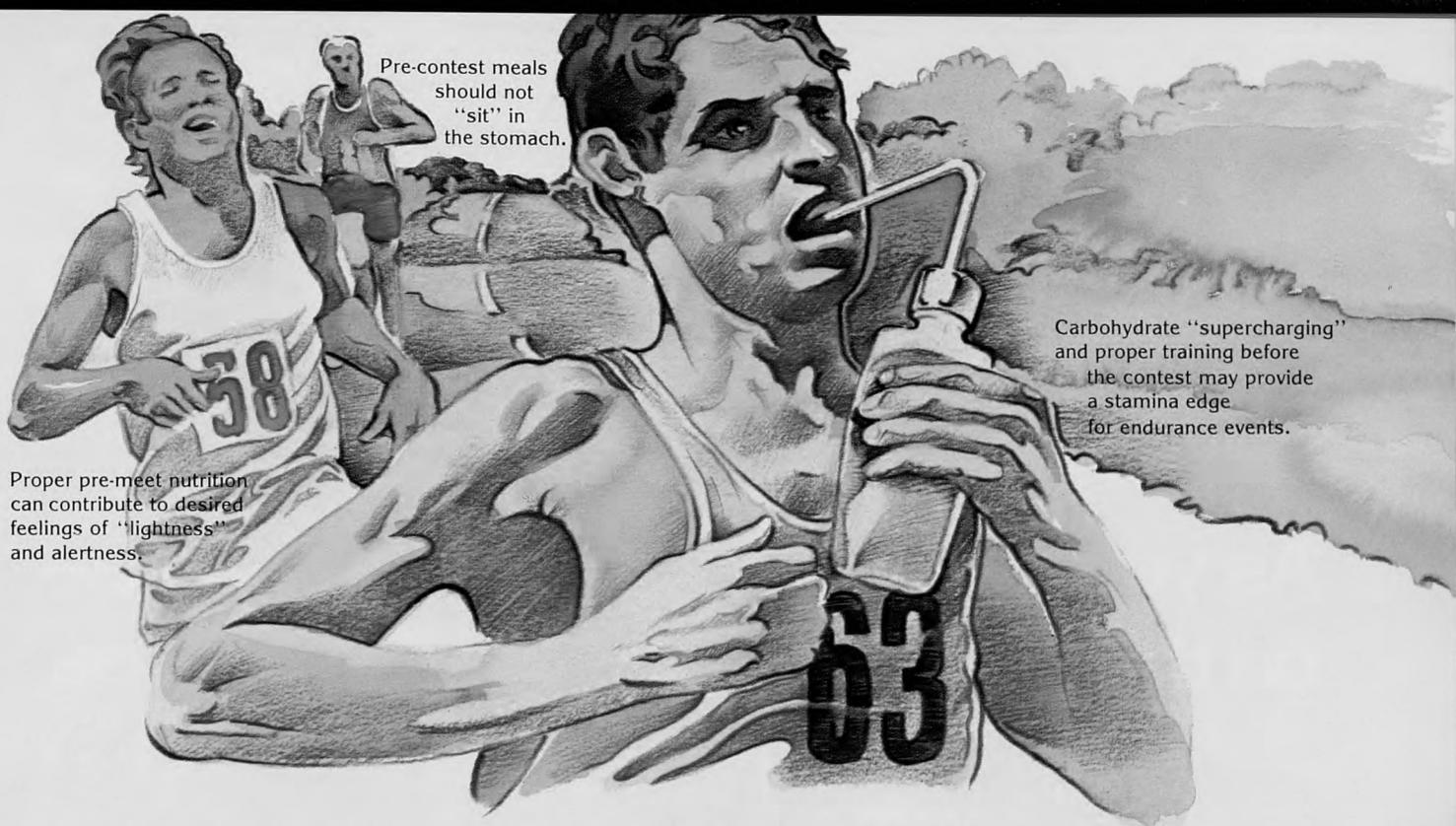
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References: 1. Nutrition for Athletes: A Handbook for Coaches, Washington, D.C., American Association for Health, Physical Education and Recreation, 1971. 2. Buskirk, L.R.: Diet and Athletic Performance, Postgrad. Med. 51, No. 1:229-236, 1977. 3. Smith, N.J.: Food for Sport. Bull Publishing Co., Palo Alto, 1976. 4. Rose, K.D.; Schneider, P.J., and Sullivan, G.F.: A Liquid Pre-game Meal for Athletes. JAMA 178, No. 1:130-138, 1961. 5. Bergstrom, J., and Hultman, E.: Nutrition for Maximal Sports Performance. JAMA 221, No. 9:999-1006, 1972.

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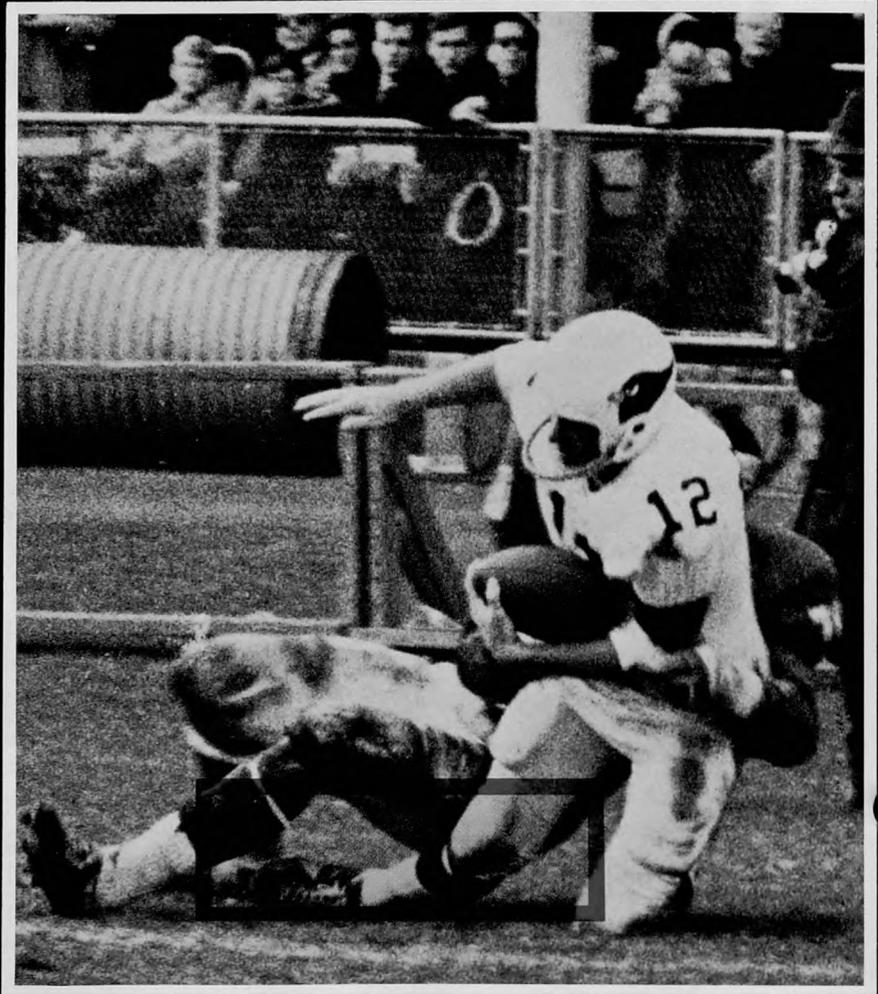
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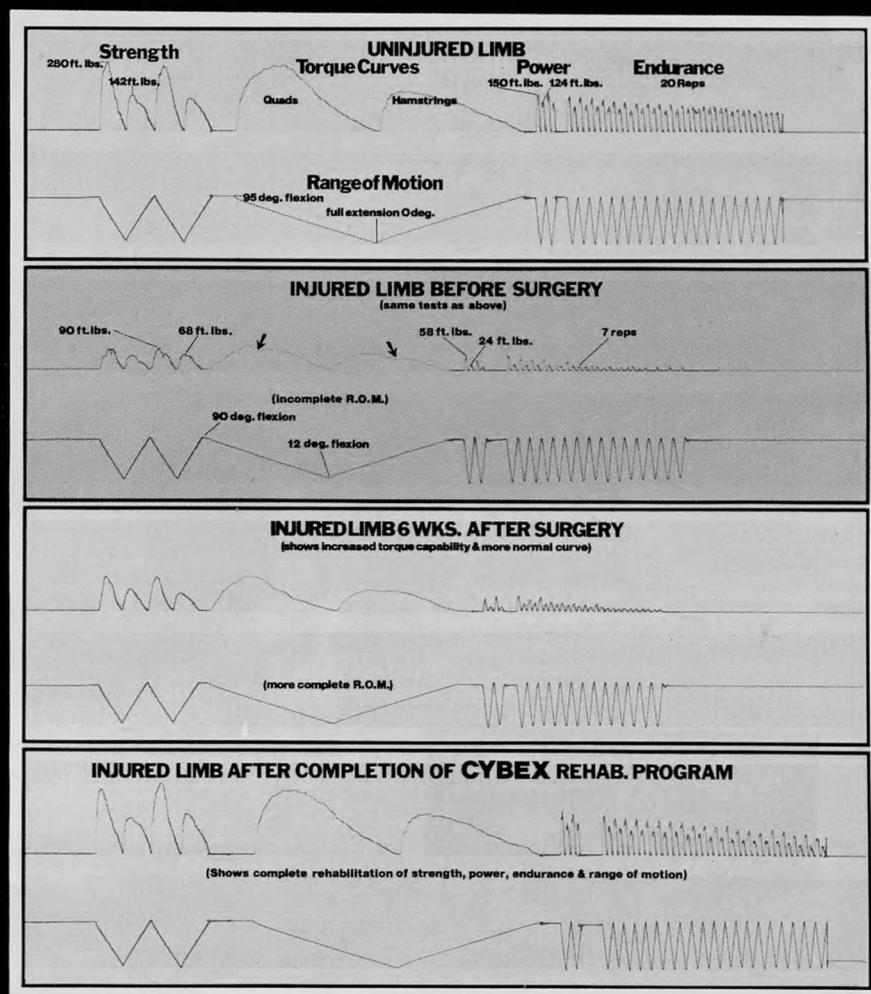
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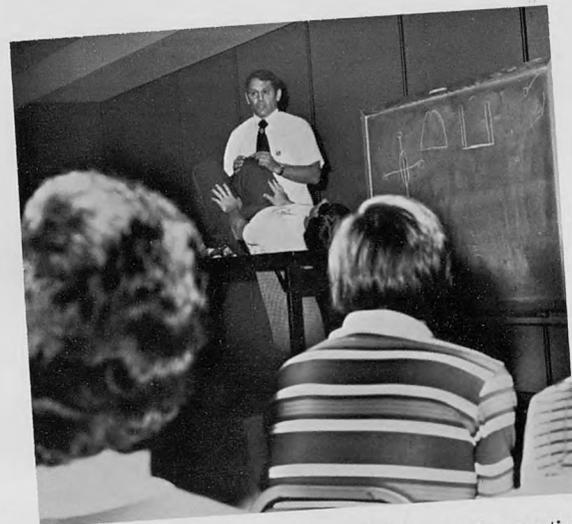
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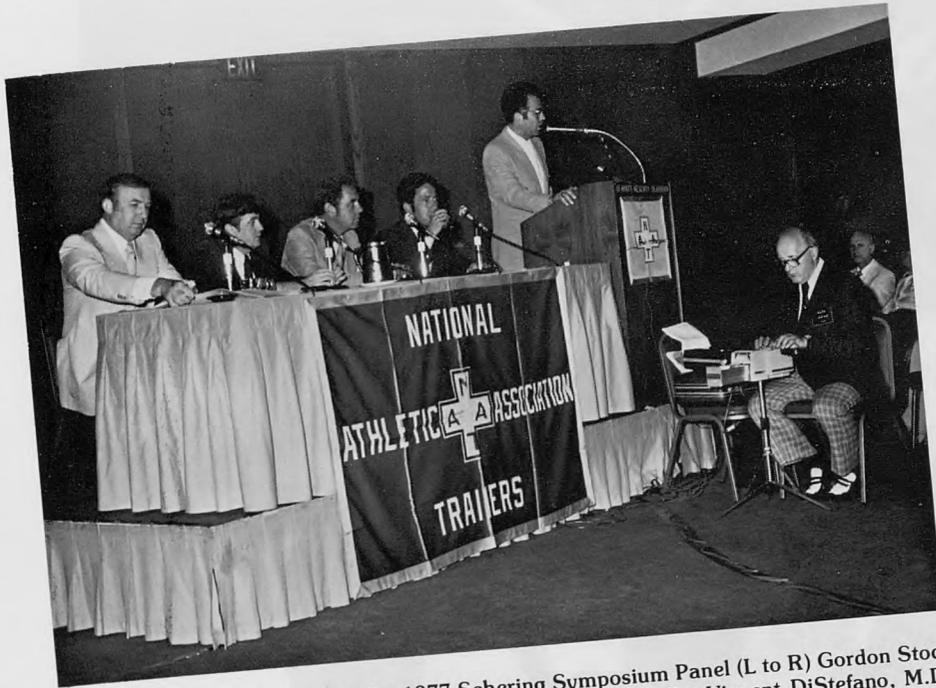


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The 1977 Schering Symposium on the Shoulder

Functional Anatomy and Biomechanics of the Shoulder Joints



BY
VINCENT DISTEFANO, M.D.

EDITED BY
ROD COMPTON A.T.,C.
EAST CAROLINA UNIVERSITY

The shoulder girdle, or shoulder-arm complex, is comprised of three joints, namely: the glenohumeral,

Dr. DiStefano was the moderator for the 1975 and 1976 Schering Symposiums. He is an Associate Orthopedic Surgeon at the hospital of the University of Pennsylvania and affiliated hospitals. He also serves as team physician for the Philadelphia Eagles, and physician for Villanova University. Dr. DiStefano received his M.D. from Hahnemann Medical College in 1963. He is a member of many committees and organizations dealing in sports medicine.

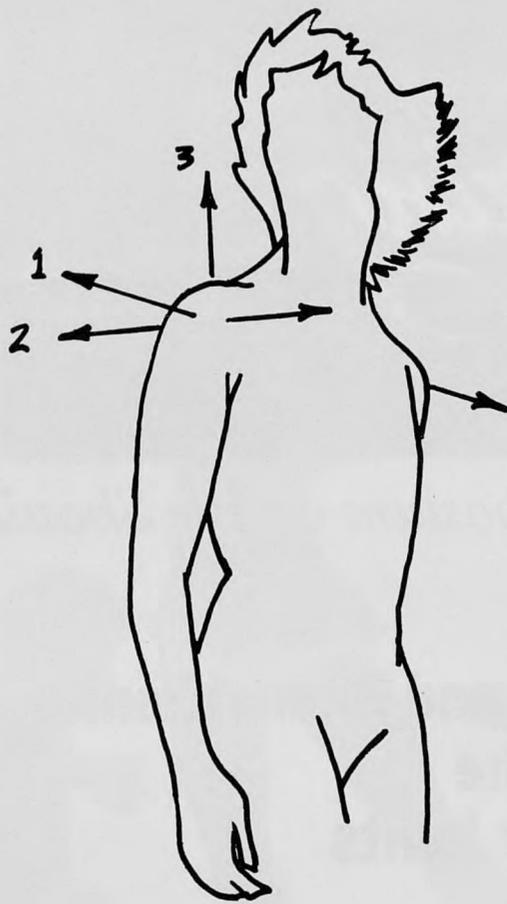
sternoclavicular, and acromioclavicular. The largest of these, the glenohumeral joint, which is often referred to as the shoulder joint, enjoys the distinction of being the most mobile joint in the human body. However, the general inverse relationship governing mobility and stability suggests a commensurate degree of instability which is often observed at the clinical level.

From a biomechanical standpoint the shoulder is a suspended joint which functions from a movable base, the scapula and from a yardarm, the clavicle. In quadrupeds the shoulder functions as a swinging pendulum,

but in bipeds it functions in the role of a lever arm which subjects the mechanism to added strain.

The position of reference with respect to shoulder motion is taken with the upper extremity hanging vertically at the side of the trunk with the palm against the thigh. (Figure 1.) This constitutes the neutral position from which all motion deviates. Motion is possible in three elemental planes and often is the product of various combinations about these axes.

(1) The transverse axis lies in a frontal plane and controls flexion and extension.



Legend - Figure #1

Elemental axes of motion. After Kapandji.

1. Tranverse axis
2. Anteroposterior axis
3. Vertical axis

(2) The anteroposterior axis lies in a sagittal plane, and controls abduction and adduction.

(3) The vertical axis runs through the intersection of sagittal and frontal planes and controls flexion and extension performed in a horizontal plane with the arm abducted to 90 degrees.

Glenohumeral Joint

The glenohumeral joint is a modified ball and socket joint comprised of the humeral head and the glenoid fossa. The humeral head in the adult is represented as a third of a sphere of 3 centimeters diameter which surmounts the shaft of the humerus at an angle of 45 degrees to the horizontal plane. The junction

thus formed is termed the anatomic neck of the humerus and is differentiated from the surgical neck more inferiorly located, so named because of the relative frequency of fracture at that site. As it sits on the shaft of the humerus, the humeral head is retroverted 30 degrees, that is, directed posteriorly with respect to the horizontal plane. It contains two tuberosities or bony prominences which receive the insertions of the periarticular muscles: the larger, or greater tuberosity, receives the supraspinatus, infraspinatus and teres minor components of the rotator cuff. The lesser tuberosity serves as the attachment for the important subscapularis muscle which helps guard the anterior aspect of the joint and is surgically plicated in procedures designed to correct recurrent anterior dislocation of the shoulder joint. The relative

depression formed by these two prominences is the bicipital groove. The bicipital tendon is constrained to this groove by a fascial thickening or ligament which connects the two tuberosities. Injury to this ligamentous structure at times in combination with a congenitally shallow groove is the basis for the clinically observed subluxation or dislocation of the long head of the biceps tendon.

The glenoid cavity is the small, shallow, irregular termination of the neck of the scapula. It is considerably smaller than the humeral head but the attachment on its periphery of the glenoid labrum, a fibrocartilaginous ring of triangular cross section serves to deepen the cavity, thus rendering the articular surfaces congruent. In cases of anterior dislocation of the shoulder joint the anterior portion of the glenoid labrum is often damaged in association with a small fracture of the subjacent bony glenoid constituting the Bankart lesion, a frequent explanation of chronic dislocations. The main function of the glenoid appears to be as a base against which the humeral head is stabilized during its circumduction movements (Figures 2, 3.).

Joints derive their stability from three basic elements, namely, the bony architecture, the static support of the capsular-ligamentous complexes and the dynamic protection offered by the periarticular musculature. Stability of the glenohumeral joint is but minimally enhanced by the bony anatomy and added emphasis is therefore placed on the capsular-ligamentous complexes and the periarticular musculature.

The capsule of the shoulder joint is somewhat redundant but is reinforced anteriorly by capsular thickenings which form a Z in front of the joint capsule and are often referred to as the superior, middle and inferior glenohumeral ligaments. Since another major factor in recurrent shoulder dislocations is residual laxity of the anterior capsular-ligamentous complex following initial dislocation, it is common practice following reduction of the joint to immobilize the limb in adduction and internal rotation, a posture which favors healing in a shortened, not lengthened or lax position.

Further stability of the shoulder joint is granted by the muscles of the rotator cuff which pass from the scapula to the tuberosities of the humerus forming a hood or cuff around the neck of the humerus. While these muscles are active abductors and rotators of the humerus their prime function appears to be

that of coaptation of the humeral head against the glenoid permitting the long muscles to move the humerus without subluxation of the humeral head downward. This relationship is best exemplified by exploration of the supraspinatus-deltoid force couple active in glenohumeral abduction (Figure 4). With the arm in the position of reference, the tangential component of the deltoid force vector is very small while the larger radial component acts outside the glenoid cavity and tends to displace the head superiorly. Thus the deltoid is mechanically a very inefficient ab-

taking over the chief role in abduction.

The entire hood of muscle and biceps tendon is roofed by a superficial layer consisting of the acromion process and the coraco-acromial ligament (Figure 3.). This protective shelf is extended laterally by the large and powerful deltoid cowl having a broad origin from the scapular spine, acromion and clavicle which converges to insert on the deltoid tubercle on the lateral shaft of the humerus. Insinuated between these two layers is the subdeltoid bursa often falsely incriminated in a

the first 45 degrees the scapula is "set" in position by the muscles of the shoulder girdle and does not rotate. The rotator cuff muscles coapt the head of the humerus to the glenoid and the supraspinatus muscle initiates abduction. Between 45 degrees and 90 degrees the scapula "unlocks" and begins to rotate counterclockwise 1 degree for every 2 degrees of humeral abduction. Concomitant lateral rotation of the humerus delays collision of the greater tuberosity with the superior ridge of the glenoid. This phase ends near 90 degrees when the greater tuberosity of the humerus impinges on the superior margin of the glenoid.

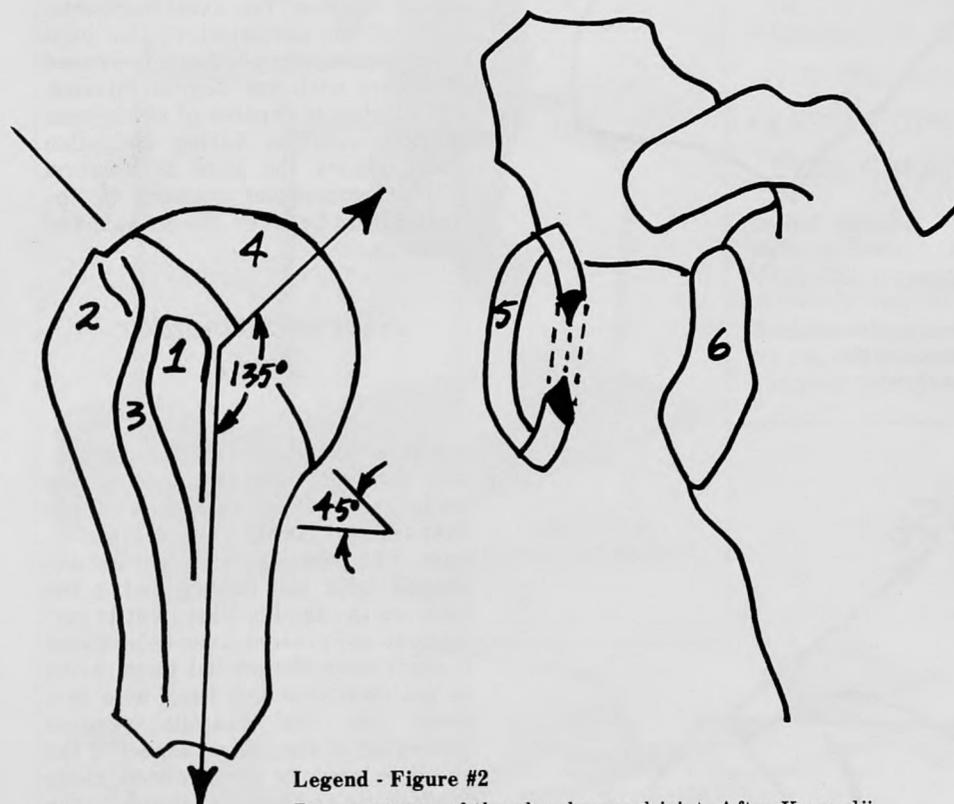
During the second phase from 90 degrees to 150 degrees the scapula continues its rotation upward and forward on the chest wall until the glenoid cavity faces superiorly and is under the head of the humerus. This degree of motion is made possible by axial rotation at the sternoclavicular and acromioclavicular joints. The main motors involved in this second phase are the trapezius and serratus anterior muscles acting as a force couple to cause scapular rotation.

During the third phase of abduction from 150 degrees to 180 degrees movement of the spinal column becomes necessary in order to allow the hand to reach the vertical position and this is accomplished by contraction of the contralateral paraspinae muscles which results in a slight lumbar lordosis and truncal list to the opposite side.

These three phases are not sharply separated but undergo a gradual transition from one to the other producing a smooth coordinated motion. Interference with the normal action of one or more of the various components produces a dyscoordinate scapulohumeral rhythm which should alert the examiner at once to underlying pathology.

Acromioclavicular Joint

The acromioclavicular joint is formed by the medial end of the acromion process and the distal or lateral end of the clavicle. The geometry of the joint is variable for the clavicular portion may slope up and over or down and under the acromion or the joint surfaces may be parallel and vertical to each other. The joint contains a meniscus 1/3 of the time and is surrounded by a capsule reinforced on its superior aspect by the strong acromioclavicular



Legend - Figure #2

Bony anatomy of the glenohumeral joint. After Kapandji.

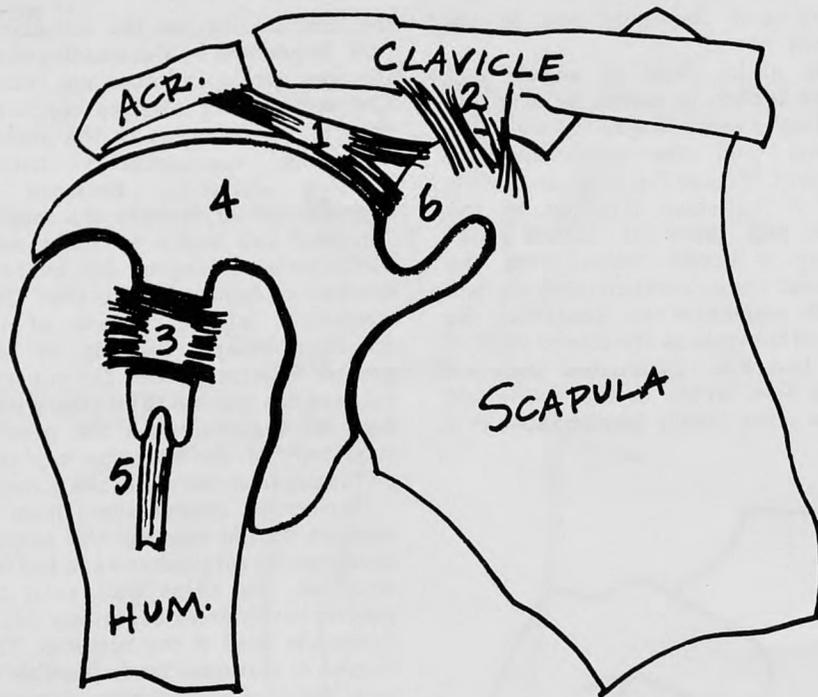
1. Lesser tuberosity
2. Greater tuberosity
3. Intertubercular groove
4. Head of the humerus
5. Glenoid Labrum (anterior section cut away)
6. Glenoid cavity

ductor in the rest or reference position. However, in this position the supraspinatus has a strong tangential force vector component to initiate abduction while its radial component is directed toward the inferior glenoid cavity negating the radial component of the deltoid and maintaining the humeral head against the glenoid. For this reason the supraspinatus is considered the starter muscle of abduction. Once motion is initiated, however, the situation becomes reversed with the deltoid becoming increasingly efficient and

diagnosis of "bursitis" in cases of shoulder pain which actually represent tendinitis of the rotator cuff, though the bursa may become secondarily affected.

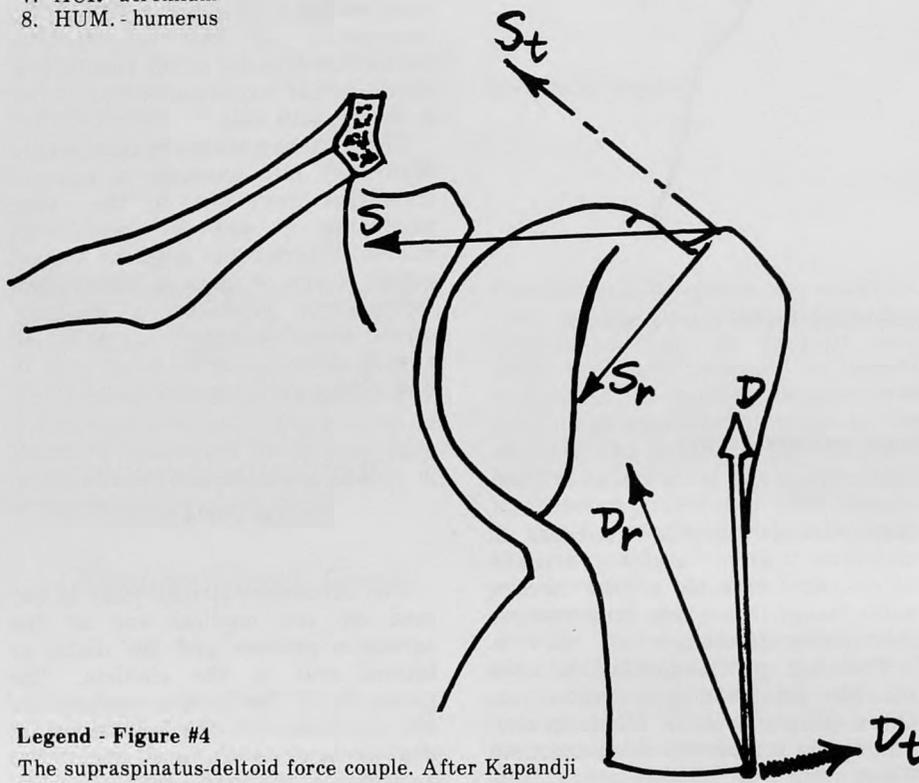
The act of abduction at the shoulder joint has been divided into three phases from a biomechanical standpoint and serves as an excellent illustration of coordinated, synchronous movement.

The first phase may be taken from 0 degree to 90 degrees. The motors involved are essentially the supraspinatus and deltoid. During



Legend - Figure #3

1. Coracoacromial ligament
2. Conoid and trapezoid (coracoclavicular) ligaments
3. Transverse humeral ligament
4. A capsule of the glenohumeral joint - note subscapularis bursa projection under coracoid process. Extension of the synovial sheath enveloping the biceps tendon shown beneath the transverse humeral ligament.
5. Biceps tendon
6. Coracoid process of the scapula
7. ACR - acromium
8. HUM. - humerus



Legend - Figure #4

- The supraspinatus-deltoid force couple. After Kapandji
- S. Supraspinatus force
 - St Tangential component of supraspinatus force
 - Sr Radial component of supraspinatus force
 - D Deltoid force
 - Dr Radial component of deltoid force
 - Dt Component of deltoid force

ligament and further supported by the attachments of the deltoid and trapezius muscles. The clavicular end of the joint is also stabilized by a strong syndesmosal union to the coracoid process of the scapula via the trapezoid and conoid ligaments, known collectively as the coracoclavicular ligament (Figure 3.). It is these ligaments that are ruptured in 3rd degree or complete acromioclavicular separations. The normal coracoclavicular distance as seen on x-ray is approximately 8mm. This assumes diagnostic relevance in cases of complete and incomplete acromioclavicular separation and is usually increased to 17-18mm in 3rd degree injuries. The usual horizontal width of the acromioclavicular joint space seen on x-ray is 3mm, increased to 8-9mm with 3rd degree injuries. The clavicle is capable of 30 degrees of axial rotation during abduction which allows the joint to conform with concomitant changes in the relationship between the scapula and humerus.

Sternoclavicular Joint

The sternoclavicular joint is formed through the articulation of the medial end of the clavicle with the first rib and manubrium of the sternum. The joint surfaces are saddle-shaped with the clavicle being the rider on the saddle. This joint is germane to our present topic only in that it represents the medial termination of the clavicle which itself acts as a strut for the scapula. Forces generated at the lateral aspect of the shoulder may be transmitted along the clavicle and result in injury to the sternoclavicular joint. Serious vascular complications may result from posterior dislocation of this joint.

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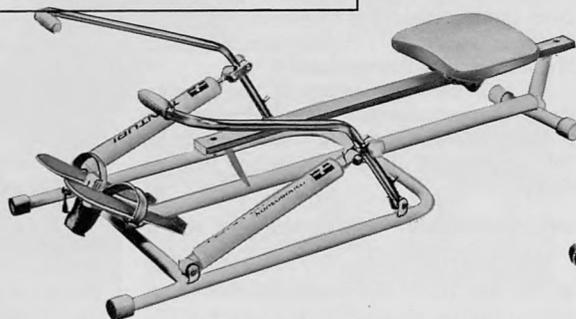
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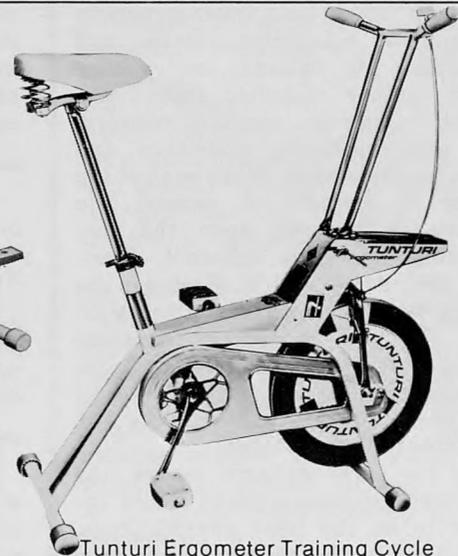
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The Acquisition of Muscular Strength Through Constant and Variable Resistance Strength Training

Thomas V. Pipes, Ph.D.
Department of Human Movement
Dominican College
San Rafael, California

The acquisition and maintenance of strength has long been recognized as a major factor of successful participation in many sports. Because of this, production of assistance training equipment for the improvement of strength has grown exponentially. While equipment varies, the strength training modes have fallen generally into two categories, static and dynamic. The dynamic modes have been further classified into 3 different categories, constant resistance, accommodating resistance and variable resistance. While each of the three is isotonic in nature, the resistance imposed upon the contracting muscle is different. Clark (10) in a review article, discusses the static mode of isometrics along with the dynamic modes of constant resistance and accommodating resistance (eg. isokinetics). There is, however, little data concerning the variable resistance mode.

Of the three dynamic modes, the constant resistance mode would appear to be the least advantageous. The load in the constant resistance contraction is always the same, ie. a fixed weight through the total range of movement, even through the strength of the muscle will vary considerably throughout this range of motion (15,16,22). In effect, the tension demand placed on the muscle during the constant resistance contraction is maximum only during a small portion of it's range of motion.

The accommodating resistance modes appear to be the most advantageous. By controlling the velocity at which a muscle contracts, maximum resistance may be imposed upon the contracting muscle. In a recent investigation, Pipes and Wilmore (11) found that the accommodating resistance mode was superior to the constant resistance mode in affecting changes in strength, body composition and specific motor performance tasks.

Thomas V. Pipes received his Ph.D. from the University of California, in Exercise Physiology, Cardiovascular and Neuromuscular Physiology.

He is presently working at the Human Performance Laboratory at the University of California dealing with subjects such as the relationship of aging to human fitness, etc.

The variable resistance training mode has been shown to be effective in producing strength gains over a 10-week training period (10). Theoretically, the variable resistance mode attempts to match the varying force capacities of muscle as it contracts through the range of motion. This is supposedly brought about by increasing the resistance to the muscle where the skeletal lever system has it's greatest mechanical advantage.

To date studies investigating

variable resistance training procedures have been few in number and limited in scope (10,12). The present study was designed to investigate the differences between constant resistance and variable resistance training procedures and their ability to affect changes in muscular strength, body composition and anthropometric measures.

Experimental Design

Thirty-six men between 18-26 years of age volunteered to participate in a 10-week weight training program. They were randomly assigned to one of three groups; Constant Resistance (CR)¹ Variable Resistance (VR)² and Control. The two training groups performed the following training patterns: leg press, pull-down, sitting military press and biceps curl. Training frequencs averaged three days per week with an average duration of 45 minutes per day. Subjects in the CR and VR groups trained initially at 75% of their 1 repetition maximums³ for 8 repetitions, for each of three sets. 1 repetition maximums were assessed every two weeks of training to enable the group to keep working at the 75% level of their maximum strength. This produced increased resistance throughout training rather than an increase in repetitions. The control group did no resistance training.

1 Constant Resistance equipment utilized in this study was manufactured by *Universal Gym Equipment*, 1328 North Sierra Vista, Fresno, CA.

2 Variable Resistance equipment utilized in this study was manufactured by *Nautilus Sports/Medical Industries*, P.O. Box 1783, Deland, Florida.

3 1 Repetition Maximum, the highest amount of weight lifted a single time for either constant or variable resistance.

Dynamic strength was assessed by two different modes. First, a one repetition maximum was determined through CR procedures as described by Berger (2), for the sitting military press, leg press, pull-down and biceps curl. Second, a one repetition maximum was determined through VR procedures which are similar to those described above for the sitting military press, leg press, pull-down and biceps curl. Strength was assessed twice at the beginning of the study to establish test reliability and

once at the conclusion of the study. Reliabilities for all movement patterns were above .96.

Body density, lean body weight and relative body fat were assessed twice at the beginning and once at the end of the training period by hydrostatic weighing (14) utilization oxygen dilution techniques (15) to assess residual lung volumes. Relative body fat was estimated from body density through the equation of Siri (13). Lean body mass has been derived by subtracting the product of the frac-

tion of body fat and total body weight from total body weight.

A series of anthropometric measurements were taken at the beginning and at the end of the training period, including seven skinfold thicknesses (mm) and 10 circumferences (cm). Sites of the specific measurements have been previously reported (15) and are listed in Tables 4 and 5. Skinfold thickness was assessed with a Harpenden caliper taking a minimum of two measurements at each site. If the two measures differed by more than one mm, a third measure was taken. A cloth tape was used in the assessment of circumferences, taking a minimum of two measurements at each site. If the first two differed by more than 1%, a third measurement was taken.

Training differences between the groups were analyzed by analysis of covariance techniques. The Scheffe' procedure was used to identify specific differences from adjusted final means when significant F values were identified.

Results

Initial and final strength values when assessed by constant resistance procedures are presented in Table 1. Significant increases were found for all training patterns for both the CR and VR groups. While both training groups had significant increases over the control group, the CR group had significantly greater increases in strength than the VR group when assessed by this procedure.

Initial and final strength values when assessed by variable resistance procedures are presented in Table 2. Both the CR and the VR groups increased strength significantly for all training patterns. The VR group had significantly greater increases than the CR group when assessed by this procedure.

Body composition changes occurred in both training groups (Table 3). Total body weight increased in all groups with no significant differences between them. Both training groups increased lean body weight significantly more than the control group but, these increases were significantly different between the two training groups. Both training groups had significant decreases in absolute body fat and relative body fat. These values did not differ significantly between the two training groups.

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TABLE 1. STRENGTH CHANGES ASSESSED THROUGH CONSTANT RESISTANCE TRAINING PROCEDURES

EXERCISE MOVEMENT	CONSTANT RESISTANCE		VARIABLE RESISTANCE		CONTROL	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Leg Press, Lbs.						
Initial	367.9	58.4	363.2	63.7	361.0	69.2
Final	474.2	62.4	390.6	61.2	361.4	68.2
Δ	106.3 ^{bc}		27.4 ^{ac}		.4 ^{ab}	
% Δ	28.9		7.5		.1	
Significance	.05		.05		---	
Pull-Down, Lbs.						
Initial	122.4	29.6	123.6	30.0	122.2	27.6
Final	153.5	31.2	135.4	30.4	122.4	28.4
Δ	31.1 ^{bc}		11.8 ^{ac}		.2 ^{ab}	
% Δ	25.4		9.5		.2	
Significance	.05		.05		---	
Military Press, Lbs.						
Initial	106.0	24.0	105.5	22.9	107.9	21.9
Final	129.2	25.9	115.4	24.0	108.0	22.1
Δ	23.2 ^{bc}		9.9 ^{ac}		.1 ^{ab}	
% Δ	21.9		9.4		.1	
Significance	.05		.05		---	
Biceps Curl, Lbs.						
Initial	87.8	19.9	86.5	20.8	87.9	19.0
Final	110.2	21.2	94.4	20.4	86.4	18.0
Δ	22.4 ^{bc}		7.9 ^{ac}		-1.5 ^{ab}	
% Δ	25.5		9.1		1.7	
Significance	.05		.05		---	

a Significantly different from Constant Resistance Group
 b Significantly different from Variable Resistance Group
 c Significantly different from Control Group
 d An F-Value of 3.32 needed for significance at the .05 level

TABLE 2. STRENGTH CHANGES ASSESSED THROUGH VARIABLE RESISTANCE TRAINING PROCEDURES

EXERCISE MOVEMENT	CONSTANT RESISTANCE		VARIABLE RESISTANCE		CONTROL	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Leg Press, Lbs						
Initial	320.4	60.2	321.2	60.5	320.7	59.7
Final	344.5	61.4	407.8	60.8	321.4	61.2
Δ	24.1 ^{bc}		86.6 ^{ac}		.7 ^{ab}	
% Δ	7.5		27.0		.2	
Significance	.05		.05		---	
Pull-Down, Lbs.						
Initial	109.7	28.3	109.5	27.4	110.5	28.1
Final	121.2	29.9	136.3	28.9	110.9	28.0
Δ	11.5 ^{bc}		26.8 ^{ac}		.4 ^{ab}	
% Δ	10.5		24.5		.3	
Significance	.05		.05		---	
Military Press, Lbs						
Initial	94.7	19.4	96.0	20.1	95.6	21.1
Final	106.4	21.2	122.2	21.9	93.2	20.2
Δ	11.7 ^{bc}		26.2 ^{ac}		-2.4 ^{ab}	
% Δ	12.3		27.3		-2.5	
Significance	.05		.05		---	
Biceps Curl, Lbs.						
Initial	74.4	17.5	74.9	17.7	75.1	16.6
Final	80.2	16.9	92.3	17.8	76.8	17.0
Δ	5.8 ^{bc}		17.4 ^{ac}		1.7 ^{ab}	
% Δ	7.8		23.2		2.3	
Significance	.05		.05		---	

a Significantly different from Constant Resistance Group
 b Significantly different from Variable Resistance Group
 c Significantly different from Control Group
 d An F-Value of 3.32 needed for significance at the .05 level

Changes in subcutaneous fat, as reflected by skinfold thicknesses paralleled the changes in absolute and relative body fat attained by both training groups (Table 4). The CR group had a significantly greater decrease in the thigh than the VR group. A significantly greater decrease at the subscapula site was found for the VR group than was found in the CR group.

Changes in limb circumferences are presented in Table 5. The CR group demonstrated significant increases in eight of the ten sites assessed, while the VR group exhibited significant increases in nine of the ten sites. The VR group also had a significantly greater increase for the extended biceps site than did the CR group

TABLE 3. BODY COMPOSITION CHANGES WITH A 10-WEEK RESISTANCE TRAINING PROGRAM

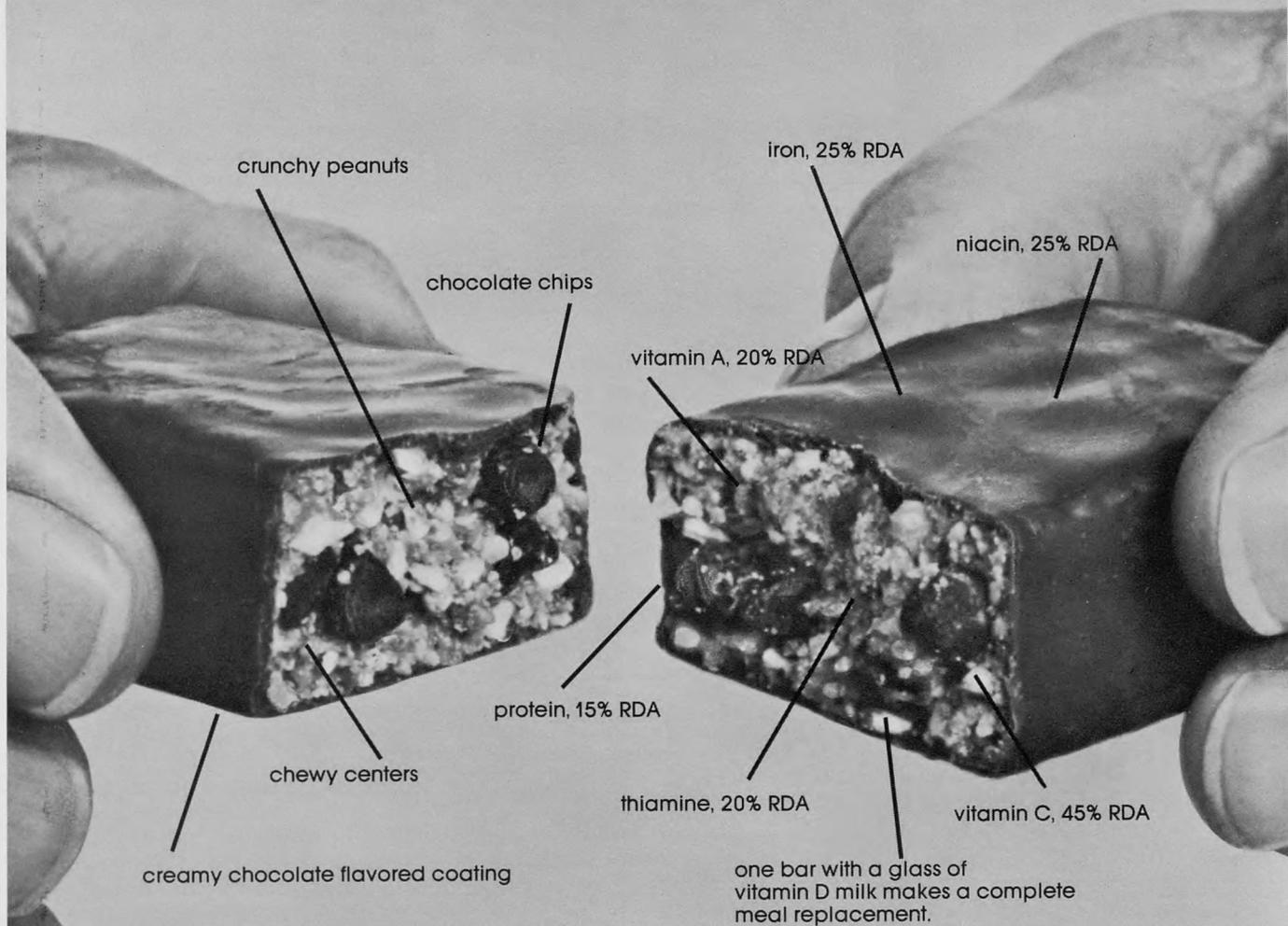
VARIABLES	CONSTANT RESISTANCE		VARIABLE RESISTANCE		CONTROL	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Body Weight, Kg.						
Initial	77.1	10.6	76.9	9.1	75.5	12.3
Final	78.7	9.1	79.2	6.8	77.1	10.4
Δ	1.6		2.3		1.5	
% Δ	2.1		3.0		2.0	
Significance	---		---		---	
Lean Body Weight, Kg						
Initial	65.2	8.1	66.1	6.1	63.5	7.4
Final	67.8	6.7	69.2	7.2	64.5	10.2
Δ	2.6 ^c		3.1 ^c		1.0 ^{ab}	
% Δ	4.0		4.7		1.5	
Significance	.05		.05		---	
Body Fat, Kg.						
Initial	11.9	7.0	10.8	8.3	12.1	5.2
Final	10.9	6.1	10.0	5.2	12.6	6.2
Δ	-1.0 ^c		-0.8 ^c		.5 ^{ab}	
% Δ	8.4		7.4		4.1	
Significance	.05		.05		---	
Relative Fat, %						
Initial	15.4	1.0	14.1	0.8	16.0	.6
Final	13.8	.9	12.6	1.1	16.4	.6
Δ	-1.6 ^c		-1.5 ^c		.4	
% Δ	10.4		10.6		2.5	
Significance	.05		.05		---	

a Significantly different from Constant Resistance Group
 b Significantly different from Variable Resistance Group
 c Significantly different from Control Group
 d An F-Value of 3.32 needed for significance at the .05 level

Discussion

Increases in relative strength assessed by CR procedures for the CR group are similar to those found by other authors (1,2,4,5,6) for comparable training. Changes found in CR group when assessed by CR procedures are in agreement with those values found by O'Shea for the quadriceps muscle group (9). Relative increases in the biceps curl are similar to those found by Chui (6) and greater than those found by Pipes and Wilmore (11). Plese (12) assessing a single subject, found a 110% increase after training on VR procedures even when strength was assessed by CR procedures. The values for leg press strength were much lower for those trained by VR procedures when assessed by CR procedures (7.5%). Increases in relative strength assessed by VR procedures for the VR training group are similar to other studies utilizing CR training (2,4,8). Peterson (10) found relative increases in strength which were much higher than the values found in this study for leg press strength (27% vs 58%). The procedures of training in the above study were somewhat different, which may account for such large differences.

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TABLE 4 SKINFOLD THICKNESS CHANGES WITH A 10-WEEK RESISTANCE TRAINING PROGRAM

Variables (mm)	CONSTANT RESISTANCE					△
	Initial Mean	S.D.	Final Mean	S.D.		
Chest	9.3	3.4	8.3	2.2	-1.0 ^c	
Midaxillary	11.9	4.9	10.9	4.9	-1.0 ^c	
Triceps	9.9	1.9	8.5	1.8	-1.3 ^c	
Subscapula	12.1	1.8	10.5	1.5	-1.6 ^{bc}	
Abdominal	18.1	4.2	15.2	5.0	-2.9 ^c	
Suprailliac	20.9	9.0	17.3	8.1	-3.6 ^c	
Thigh	15.4	5.1	13.8	3.9	-1.6 ^c	
Total	97.6	30.3	84.5	27.4	-13.1 ^c	

Variables (mm)	VARIABLE RESISTANCE					△
	Initial Mean	S.D.	Final Mean	S.D.		
Chest	9.4	7.2	8.6	3.7	-0.8 ^c	
Midaxillary	13.2	7.0	11.2	6.1	-2.0 ^c	
Triceps	10.9	6.0	9.0	5.2	-1.9 ^c	
Subscapula	13.1	5.8	9.9	5.5	-3.2 ^{ac}	
Abdominal	18.2	6.7	15.7	7.0	-2.5 ^c	
Suprailliac	21.2	10.0	17.9	8.9	-3.3 ^c	
Thigh	13.6	6.1	12.9	3.7	-0.9 ^{ac}	
Total	99.5	51.8	85.0	40.1	-14.5 ^c	

Variables (mm)	CONTROL					△
	Initial Mean	S.D.	Final Mean	S.D.		
Chest	10.1	4.0	10.4	4.1	0.3 ^{ab}	
Midaxillary	12.0	4.9	12.0	5.2	0.0 ^{ab}	
Triceps	10.3	3.4	10.7	3.8	0.4 ^{ab}	
Subscapula	14.5	3.6	15.2	4.9	4.9 ^{ab}	
Abdominal	19.3	5.9	21.1	7.0	1.8 ^{ab}	
Suprailliac	22.3	8.9	21.2	8.8	-1.1 ^{ab}	
Thigh	13.4	5.1	13.7	4.8	0.3 ^{ab}	

a Significantly different from the Constant Resistance group
 b Significantly different from the Variable Resistance group
 c Significantly different from the Control group
 d An F-value of 3.32 needed for significance at the .05 level

While strength increased in both training groups, the relative increases were dependant on the method in which relative strength was assessed, ie. VR or CR procedures. The concept of specificity of training suggests that the improvements should be greatest when tested with a device or procedure that approximates the training procedure. It was shown in the present study that the group training with CR procedures exhibited their greatest strength gains when assessed by CR testing procedures. Conversely, the group trained with VR had their greatest relative in-

creases when assessed by VR testing procedures. Berger (3) in a study comparing the effects of static and dynamic training, showed that this specificity concept held. Those that trained statically had their greatest relative increases in strength when

tested by static procedures. Those trained dynamically (CR procedures) had their greatest increases when tested by dynamic procedures. The same specificity effect held for the present study. Unlike Berger's study, there were significant increases in

TABLE 5. CIRCUMFERENCE CHANGES WITH A 10-WEEK RESISTANCE TRAINING PROGRAM

Variable	CONSTANT RESISTANCE					△
	Initial Mean	S.D.	Final Mean	S.D.		
Shoulder	116.1	3.1	118.6	8.4	2.5 ^c	
Chest	99.9	4.3	102.3	9.0	2.4 ^c	
Abdomen	89.9	6.1	88.2	6.7	-1.7 ^c	
Hips	98.2	6.6	97.0	5.6	-1.2 ^c	
Thigh	55.1	4.2	56.8	2.0	1.7	
Calf	37.9	1.5	38.1	2.1	0.2	
Deltoid	33.1	2.0	35.1	3.9	2.0 ^c	
Extended Biceps	30.7	3.1	32.0	3.3	1.2 ^{bc}	
Flexed Biceps	33.8	2.4	34.8	4.0	1.0 ^c	
Forearm	28.4	3.7	29.3	3.6	1.4 ^c	

Variable	VARIABLE RESISTANCE					△
	Initial Mean	S.D.	Final Mean	S.D.		
Shoulder	114.9	9.0	117.9	8.6	3.0 ^c	
Chest	95.7	8.5	98.3	9.9	2.6 ^c	
Abdomen	83.5	8.4	81.7	8.9	-1.8 ^c	
Hips	96.7	4.7	95.8	4.8	-0.9 ^c	
Thigh	53.5	3.0	55.3	3.2	1.8 ^c	
Calf	36.4	3.0	36.9	4.7	0.5	
Deltoid	34.4	2.3	36.3	4.2	1.9 ^c	
Extended Biceps	29.5	2.8	31.7	2.4	2.2 ^{ac}	
Flexed Biceps	33.5	2.6	35.0	3.6	1.5 ^c	
Forearm	28.6	2.0	29.7	2.1	1.1 ^c	

Variable	CONTROL					△
	Initial Mean	S.D.	Final Mean	S.D.		
Shoulder	117.9	10.0	118.1	9.8	0.2 ^{ab}	
Chest	101.4	9.9	101.1	8.6	-0.3 ^{ab}	
Abdomen	90.7	10.7	91.0	6.9	0.3 ^{ab}	
Hips	99.2	8.9	99.3	8.4	0.1 ^{ab}	
Thigh	55.1	6.8	54.8	5.1	-0.3 ^{ab}	
Calf	38.1	4.6	38.3	5.0	0.2	
Deltoid	32.6	4.1	33.0	2.9	0.4 ^{ab}	
Extended Biceps	29.8	3.8	30.5	3.1	0.7 ^{ab}	
Flexed Biceps	33.2	3.5	32.9	2.6	0.7 ^{ab}	
Forearm	27.7	2.2	27.5	2.1	-0.2 ^{ab}	

a Significantly different from Constant Resistance Group
 b Significantly different from Variable Resistance Group
 c Significantly different from Control Group
 d An F-Value of 3.32 needed for significance at the .05 level

strength even when assessed by different procedures. This may have occurred because both the CR and VR procedures are dynamic in nature and increases in strength would be more readily seen. It appears that both the CR and VR training procedures increase strength significantly.

Increases in lean body weight and reductions in body fat are reflected for both the training groups. All groups increased total body weight yet, neither group significantly differed from the other. Similar results were cited by Pipes and Wilmore (11) and Fahey and Brown (8). While both experimental groups had increases in lean body weight and decreases in fat weight and relative fat, neither group demonstrated significantly different values between the groups.

Alterations in skinfold thicknesses and circumferences reflected those values noted above for changes in body composition. Both the experimental groups had significant decreases in all seven of the sites assessed. These values are in agreement with those reported by Capen (5) for CR training and slightly better than those found by Pipes and Wilmore (11).

Increases in lean body weight and reductions of body fat are reflected in the circumference changes. Significant increases in lean body weight and reductions of body fat are reflected in the circumference changes. Significant increases were found in the shoulder, chest, deltoid, extended biceps, flexed biceps and forearm for the CR group with decreases in the abdomen and hips. The VR group produced significant increases at the shoulder, chest, thigh, deltoid, extended biceps, flexed biceps and forearm with decreases at the abdomen and hips.

Findings on body composition and anthropometric data suggest that while both the CR and VR groups exhibited significant changes in lean body weight and body fat, neither of those groups is significantly better than the other.

Conclusions

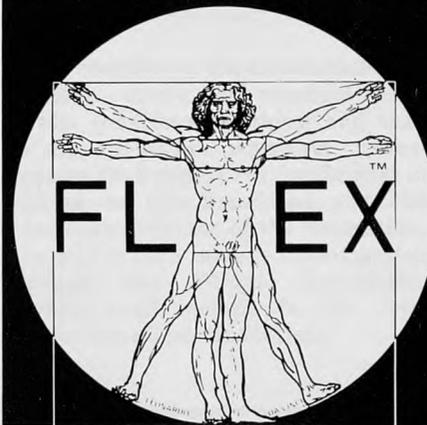
The present study has demonstrated that both CR and VR training procedures increase strength significantly. It has also been found that neither of the training groups demonstrated a clear superiority over the other for changes in body composition and anthropometric measures. Berger (unpublished research) in a critique of the variable resistance devices used in this study, cited several instances in which the in-

crease in resistance to the skeletal lever system was quite often inappropriate to actual force capabilities. While this study has demonstrated that VR procedures will increase strength, the question still remains: Does training with variable resistance procedures increase human performance more effectively than constant resistance procedures. The ultimate test of this type of question will be the human performance tasks which resistance training is utilized to improve.

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STRETCHING



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Announcements

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CERTIFICATION

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 four times yearly. It is administered one day prior to the annual convention in June at the convention site, the third Sunday of January (on a regional basis), the second Sunday of March (on a regional basis), and in early August, (applications are processed at the same time as for the annual convention).

Persons desiring to take the examination may obtain application materials from N.A.T.A. Board of Certification, Post Office Box X18, Ann Arbor, Mich. 48107 provided the

individual meets the membership requirement. The application must be requested in writing ninety (90) days prior to the date of the examination. No applications will be furnished to the 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. All August applications must be processed with the same deadlines as for the June annual convention site.

If further information is required, contact Lindsay McLean, Chairman, NATA Board of Certification, 1000 S. State Street, Ann Arbor, Michigan, 48104.

National Athletic Trainers Association Code of Ethics

Revision of January 1977

Preamble - Purpose - N.A.T.A. Objective

One outstanding characteristic of a profession is that its members are dedicated to rendering service to humanity. Also, they are committed to the improvement of standards of performance. In becoming a member of the athletic training profession, the individual assumes obligations and responsibilities to conduct himself in accordance with its ideals and standards. These are set forth in the Constitution and by-laws, and are emphasized in the CODE OF ETHICS. Any athletic trainer who does not feel that he/she can or does not deem it necessary to comply with the prin-

ciples set forth in the CODE should have no place in this profession.

The members of the athletic training profession must adhere to the highest standards of conduct in carrying out their significant role in athletic programs at all levels. It is for this reason that the Board of Directors of the National Athletic Trainers Association has continually revised the CODE which has been in effect since June, 1957.*

In approving this CODE, the Board of Directors recognizes and believes that unless the standards and principles that are set forth in this document are accepted in good faith and followed sincerely, it will not be effective in continuing to improve the contributions of the profession and its members to athletics and sports medicine.

Ethics is generally considered as conduct in keeping with moral duty, and making the right actions relative to ideal principles. Let it be understood that all members of the National Athletic Trainers Association will understand and apply the principles set forth in this CODE, and make every effort to do the right thing at the right time to the best of their ability and judgment.

PURPOSE

The purpose of this CODE is to clarify the ethical and approved professional practice as distinguished from those that might prove harmful or detrimental, and to instill into the members of the association the value and importance of the athletic trainers role.

OBJECTIVE

The stated objectives of the National Athletic Trainers Association in its constitution are:

1. The advancement, encouragement and improvement of the athletic training profession in all its phases, and to promote a better working relationship among those persons interested in the problems of training.
2. To develop further the ability of each of its members.
3. To better serve the common interest of its members by providing a means for free exchange of ideas within the profession.
4. To enable the members to become better acquainted personally through casual good fellowship.

*1971, 1973, 1974, 1976, 1977.

ARTICLE I - BASIC PRINCIPLES

The essential basic principles of this CODE are Honesty, Integrity and Loyalty. Athletic trainers who reflect these characteristics will be a credit to the Association, the institution they represent and to themselves.

When a person becomes a member of this association he/she assumes certain obligations and responsibilities. A trainer whose conduct is not in accordance with the principles set forth in the following sections shall be considered in violation of the CODE.

Section 1 - Athletics in General

An athletic trainer shall show no discrimination in his/her efforts while performing his/her duties.

Section 2 - Drugs

The membership of the National Athletic Trainers Association does not condone the unauthorized and/or non-therapeutic use of drugs. The association recognizes that the best and safest program is comprised of good conditioning and athletic training principles.

Section 3 - Testimonials and Endorsements

In any endorsement in which the trainer's name and/or reference to the athletic training profession is included, the wording and illustration, including any implications of the endorsement shall be such that no discredit to the training profession may be construed. (Any endorsement that is not in keeping with the highest principles and standards of the athletic training profession shall be considered unethical). The N.A.T.A. name, logo, trademark and/or insignia may not be used in any testimonials and/or endorsement - service - products - programs - publications and facilities, by individual members or groups of members of the association.

Section 4 - National Representation

An N.A.T.A. member who wishes to be considered for assignment as an Olympic Games, Pan American Games, or to represent N.A.T.A. in any other responsibility, shall seek this consideration only through the N.A.T.A. officers and/or committees designated to handle such matters.

Section 5 - National Certification Examination

It is unethical to reproduce in written form, or to reveal any part of the written and oral practical questions

in any way, for the purpose of aiding certification candidates in passing the examinations.

Section 6 - Sportsmanship

Members of this association shall not condone, engage in or defend unsportsman like practices.

Section 7 - Fellow Trainers

Any trainers, who by his/her conduct or comments, publicly discredits or lowers the dignity of members of his profession, is guilty of a breach of ethics.

ARTICLE II - ENFORCEMENT

Section 1 - Reporting of Unethical Conduct

Any member of the association who becomes aware of conduct that he/she considers unethical and that he/she believes warrants investigation shall report the incident(s) in writing to the President and the Executive Director of the association, who will in turn initiate investigation through the Ethics Committee. He/she shall include in the communication all pertinent data.



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Section 2 - Investigation and Action

In accordance with the By-laws of the association, the Ethics Committee investigates reported incidents of unethical conduct and if, in the judgment of a majority of the committee members it finds that the accused person has violated the National Athletic Trainers Association Code of Ethics, it communicates its decision the accused and to the Board of Directors in writing and recommends to the Board one of the following disciplinary actions:

1. *Letter of Censure*
 - a) Copies to immediate supervisor and District Director.
2. *Period of Probation:* (This shall be determined by the Board of Directors).
During the period of probation the member shall not be eligible for any of the following:
 - a) Hold an office at any level in the association.
 - b) Represent N.A.T.A. in the capacity of liaison with another organization.
 - c) Accept an assignment or act as an Olympic Games, Pan American Games or National team trainer.
3. *Initiate Procedure for Cancellation of Membership.*

Section 3 - Action by the Board of Director

The decision of the Board of Directors in Code of Ethics is final, except that if the decision is to initiate cancellation of membership, this shall be done as prescribed in Article VI, Section 1 and 2 of the Constitution.

The National Operating Committee On Standards For Athletic Equipment

1. *NOCSAE Open Meeting.* The NOCSAE annual open meeting was held June 28 on the Wayne State University campus in Detroit, Michigan. Representatives from various athletic equipment manufacturing concerns, safety organizations and governmental agencies listened to talks and panel discussions on topics ranging from the NOCSAE Football Helmet Standard to knee injuries in high school and college football. Approximately 75 persons were in attendance at the open session.

2. *Printing of NOCSAE Football Helmet Standard.* An updated NOCSAE Football Helmet Standard will be printed and Distributed to member organizations of NOCSAE. Interested individuals and organizations should contact Dennis Poppe, NOCSAE secretary-treasurer, later this fall for copies.
3. *NOCSAE Baseball Helmet Task Force Meeting.* The NOCSAE Baseball Helmet Task Force will hold a meeting July 25 in Detroit, Michigan. The task force is finalizing the proposed NOCSAE Baseball Batting Helmet Standard.
4. *NOCSAE Round-Robin Test.* NOCSAE is preparing to conduct a round-robin test of the NOCSAE Football Helmet Standard. The purpose of the round-robin test is to show the reproducibility of the NOCSAE system. The testing should be completed by September 1.
5. *NOCSAE Ice Hockey Protective Headgear Standard.* NOCSAE is continuing its research on a possible standard for ice hockey protective headgear. Any comments or suggestions concerning the proposed hockey standard should be forwarded to Voigt Hodgson, Ph.D., Gurdjian-Lissner Biomechanics Laboratory, Wayne State University, Detroit, Michigan 48201.

Membership In The National Athletic Trainers Association

If you are interested in becoming a member of the N.A.T.A. you may obtain information from the secretary of the district in which you work or attend college. In writing to the district secretary, please indicate if you have a college degree, are presently an undergraduate or graduate student in college. Also, indicate if you are working as an athletic trainer or as a student athletic trainer.

The states and provinces included in each district are as follows and the names and addresses of the district secretaries are listed on the inside of the front cover:

- DISTRICT 1
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, Quebec

DISTRICT 2
Delaware, New Jersey
New York, Pennsylvania

DISTRICT 3
Maryland, North Carolina
South Carolina, Virginia,
West Virginia,
District of Columbia

DISTRICT 4
Illinois, Indiana, Michigan,
Minnesota,
Ohio, Wisconsin, University Iowa,
Manitoba Ontario

DISTRICT 5
Iowa, Kansas, Missouri, Nebraska,
North Dakota, Oklahoma,
South Dakota,
University of Colorado

DISTRICT 6
Arkansas, Texas

DISTRICT 7
Arizona, Colorado, New Mexico,
Utah, Wyoming

DISTRICT 8
California, Nevada, Hawaii

DISTRICT 9
Alabama, Florida, Georgia,
Kentucky,
Louisiana, Mississippi, Tennessee

DISTRICT 10
Alaska, Idaho, Montana, Oregon,
Washington,
Alberta, British Columbia, Saskatchewan

Classes of Membership

The Classes of membership for which a person may apply and the qualifications are described below.
Certified

A person must be a Certified Athletic Trainer to be eligible for this class of membership. Information on certification procedures may be obtained from the Board of Certification, P.O. Box X18, Ann Arbor, Mich., 48107.

Associate

For membership in this class a person's work or teaching should have as a major responsibility the performance of duties concerned with Athletic Training.

Specific Qualifications:

Bachelor's Degree from and accredited college or university.
Successful completion of an Athletic Training Course with a minimum credit of 2 semester hours or 3 quarter hours, from an

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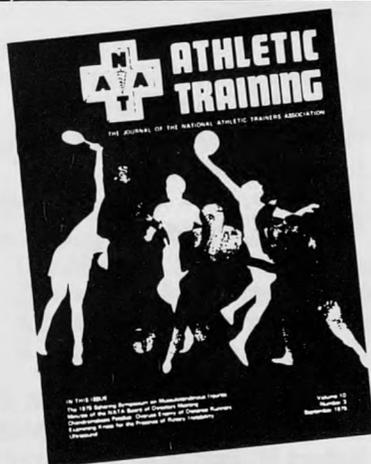
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Address

City

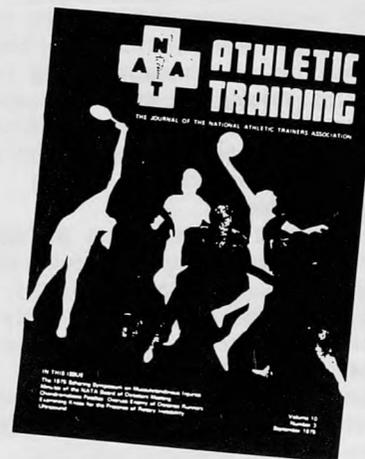
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Greenville, N.C. 27834

Name _____

Address _____

City _____

State _____ Zip _____

accredited college or university. Short courses taken at conventions or clinics shall not count.

Current certification in Basic (or higher) First Aid and Cardiopulmonary Resuscitation (Current certification as an Emergency Medical Technician can be substituted for First Aid and CPR.)

Dues are \$25.00 National plus current district dues per year.

Student

A person who is a full time college or university student, undergraduate or graduate, and who is performing the duties of a student athletic trainer under the direct supervision of a Certified Athletic Trainer and is preparing for the profession of athletic training is eligible for Student membership. The student must be recommended by the Certified Athletic Trainer under whom the student is working. A student who is enrolled in an approved N.A.T.A. curriculum and has not yet progressed to a clinical work may be approved by the Certified Athletic Trainer who is the program director. (effective July 1, 1977)

Dues are \$10.00 National plus current district dues per year

Affiliate

This membership class is open to persons who are interested in the relationships of athletic training to education, biological sciences, psychology, sports medicine or athletics but who at the time are not directly related to athletic training.

Qualifications:

Bachelor's degree from an accredited college or university or certification in physical therapy. Professionally working in education, medicine, physiology, or research.

Dues - \$25.00 National plus current district dues per year (effective Jan. 1, 1978)

Advisory

This class of membership is open to physicians (MD or DO) who are directly associated with a sports program and who are providing medical care and advice to members of the teams and advising the athletic trainer in regard to his/her duties.

Dues - \$25.00 National plus current district dues per year. (effective Jan. 1, 1978)

Allied

This is a business membership. It is open to persons whose business is related to athletic training or athletics in general.

Dues - \$25.00 National plus current district dues per year.

National Athletic Trainers Association Educational Programs Leading To Professional Certificate In Athletic Training

Programs listed here are approved by the National Athletic Trainers Association. For detailed information, write to the program director whose name is given in parentheses in the listing. Two basic plans of education for athletic training are listed in the following key:

- (1) Bachelor's degree level curriculum
- (2) Master's degree level curriculum

ARIZONA

University of Arizona (2)

Department of Physical Education
Tucson, Arizona 85721 (Gary Delforge)

Arizona State University (1)

Department of Health, Physical Education & Recreation
Tempe, Arizona 85281 (Troy Young)

CALIFORNIA

California State University, Fullerton (1)

Department of Health, Physical Education & Recreation
Fullerton, California 92634 (Jerry Lloyd)

California State University, Long Beach (1)

Department of Physical Education
Long Beach, California 90840 (Dr. Daniel Arnheim)

California State University, Northridge (1)

Department of Physical Education & Athletics
Northridge, California 91324 (Larry P. Krock)

California State University, Sacramento (1)

Men's Intercollegiate Athletics
Sacramento, California 95819 (Gerald W. Bell)

DELAWARE

University of Delaware (1)

Department of Physical Education
Newark, Delaware 19711 (Dr. C. Roy Rylander)

ILLINOIS

Eastern Illinois University (1)

School of Health, Physical Education & Recreation
Charleston, Illinois 61920 (Dennis Aten)

Western Illinois University (1)

College of Health, Physical Education & Recreation
Macomb, Illinois 61455 (Roland E. LaRue)

INDIANA

Ball State University (1)

Department of Men's Physical Education
Muncie, Indiana 47306 (James C. Dickerson)

Indiana University (1)

School of Health, Physical Education & Recreation
Bloomington, Indiana 47401 (John Schrader)

Indiana State University (1,2)

School of Health, Physical Education & Recreation
Terre Haute, Indiana 47809 (Mel Blickenstaff)

Purdue University (1)

Department of Physical Education, Health, and Recreation Studies
Lambert Building
West Lafayette, Indiana 47907 (Dennis Miller)

IOWA

University of Iowa (1)

Department of Physical Education for Men: Field House
Iowa City, Iowa 52240 (Dr. Louis E. Alley, Chairman)

KENTUCKY

Eastern Kentucky University (1)

School of Health, Physical Education, Recreation and Athletics
Richmond, Kentucky 40475 (Dr. Robert M. Barton or Ms. Darcy D. Shriver)

LOUISIANA

Louisiana State University (1)

123 Huey P. Long Fieldhouse
Department of Health, Physical Education and Recreation
Baton Rouge, Louisiana 70803 (Marty Broussard)

MASSACHUSETTS

Northeastern University (1)

Department of Physical Education
Boston-Bouve College
Boston, Massachusetts 02115 (Dr. Carl S. Christensen, Chairman or Kerkor Kassabian)

Springfield College (1)
Division of Health, Physical
Education & Recreation
Springfield, Massachusetts 01109
(Sherrod W. Shaw or Charles Red-
mond)

MICHIGAN

Central Michigan University (1)
Physical Education Department
Mount Pleasant, Michigan 48859
(Linda Treadway)

MINNESOTA

Mankato State University (1)
Physical Education Department
Mankato, Minnesota 56001 (Gor-
don Graham)

MISSISSIPPI

University of Southern Mississippi (1)
Department of Athletic
Administration & Coaching
Hattiesburg, Mississippi 39401
(Dr. E. L. Harrington)

MONTANA

University of Montana (1)
Department of Health, Physical
Education & Recreation
Missoula, Montana 59801 (Dr.
Walter C. Schwank, or Naseby
Rhinehart)

NEBRASKA

University of Nebraska-Lincoln (1)
University Health Center
Lincoln, Nebraska 68508 (Dennis
Sealey)

NEW MEXICO

University of New Mexico (1)
Department of Health, Physical
Education & Recreation
Albuquerque, New Mexico 87131
(L. F. Diehm)

NEW YORK

State University College at Cortland (1)
Division of Health, Physical
Education & Recreation
Cortland, New York 13045 (John
Sciera)

NORTH CAROLINA

Appalachian State University (1)
Department of Health, Physical
Education & Recreation
Boone, North Carolina 28607 (Ron
Kanoy)

East Carolina University (1)
Department of Health, Physical
Education, Recreation & Safety
Sports Medicine Program
Greenville, North Carolina 27834
(Dr. Edgar Hooks, Dr. Rick
Barnes, or Rod Compton)

University of North Carolina (2)
Department of Physical Education
Chapel Hill, North Carolina 27514
(Dan Hooker)

NORTH DAKOTA

North Dakota State University (1)
Department of Physical Education
and Athletics
Fargo, North Dakota 58102 (Dr.
Denis Isrow)

University of North Dakota (1)
Department of Health, Physical
Education and Recreation
Grand Forks, North Dakota 58201
(A. G. Edwards)

OHIO

Ohio University (1)
School of Health, Physical
Education and Recreation
Athens, Ohio 45701 (Skip Vosler)

Toledo University (1)
Department of Physical Education
Toledo, Ohio 43606 (James D.
Nice)

OREGON

Oregon State University (1)
Physical Education Department
Corvallis, Oregon 97331 (Richard
F. Irvin)

University of Oregon (1, 2)
Department of Physical Education
Eugene, Oregon 97403 (Dr. Louis
R. Osternig)

Portland State University (1)
Department of Health and
Physical Education
Portland, Oregon 97207 (Leo Mar-
ty)

PENNSYLVANIA

East Stroudsburg State College (1)
Koehler Fieldhouse
East Stroudsburg, Pennsylvania
18301 (Lois E. Wagner or John R.
Thatcher)

Lock Haven State College (1)
School of Health, Physical
Education & Recreation
Lock Haven, Pennsylvania 17745
(David J. Tomasi)

The Pennsylvania State University (1)

College of Health, Physical
Education and Recreation
131 White Building
University Park, Pennsylvania
16802 (Sayers J. Miller)

University of Pittsburgh (1)
Health, Physical Education and
Recreation
Pittsburgh, Pennsylvania 16057
(Dr. James R. Pennell)

West Chester State College (1)
Physical Education Department
School of Health & Physical
Education
West Chester, Pennsylvania 19380
(Phillip Donley)

SOUTH DAKOTA

South Dakota State University (1)
Department of Health, Physical
Education and Recreation
Brookings, South Dakota State
University (1)
Department of Health, Physical
Education and Education
Brookings, South Dakota 57707
(Dr. Jim Booher)

TEXAS

Lamar University (1)
Department of Intercollegiate
Athletics
P.O. Box 10066, Lamar Station
Beaumont, Texas 77710 (Paul
Zeek)

Southwest Texas State University (1)
Department of Health & Physical
Education
San Marcos, Texas 78666 (Dr. Bob-
by Patton)

Stephen F. Austin State University (1)
Department of Health and
Physical Education
Nacogdoches, Texas 75962 (Joe E.
Richardson)

Texas Christian University (1)
Department of Athletics
Fort Worth, Texas 76129 (Elmer
Brown)

UTAH

Brigham Young University (1)
Department of Physical Education
Provo, Utah 84602 (Marvin Rober-
son)

VIRGINIA

University of Virginia (2)
Athletic Department
Charlottesville, Virginia 22903
(Joe H. Gieck, Ed.D.)

WASHINGTON

Washington State University (1)
Department of Physical Education
for Men
Pullman, Washington 99163 (Dr.
Roger Wiley, Chairperson, MPE
or Dick Melhart, Dr. Carol Gordon,
Chairperson, WPE)

WEST VIRGINIA

West Virginia University (1)
Department of Professional
Physical Education
Morgantown, West Virginia 26506
(John Spiker)

In Memoriam



Harriett Franklin

It was indeed a sad occasion to have learned of the death of our Administrative Assistant - Harriett Franklin, on June 20, 1977. Mrs. Franklin - known to all of us as Harriett - had been serving in her position for the past fifteen years. She had made the National Athletic Trainers Association an important portion of her life.

Mrs. Franklin had been a lifelong resident of Lafayette, Indiana. Surviving with her husband Wendell are her daughter Jane Sedam who also is an employee of Lafayette Mailing Service where the National Athletic Trainers Association offices are headquartered. Two sons, John W. Franklin of Upper Marlboro, Maryland and Richard M. Franklin, Alexandria, Virginia; and one brother Robert Muinzer, and one sister Katheryn Taylor both of Lafayette.

Her service, devotion and dedication to our Association will not be forgotten.

Otho Davis
Executive Director

Vincent J. Catarello



Vincent J. Catarello, an athletic trainer for more than 30 years in Joliet, died after a lengthy illness.

Catarello, 62, began his career as a trainer at Joliet Township High School in 1947. He worked in a variety of sports positions throughout the area, as trainer at Central, Joliet Junior College, Lewis, Joliet Boys Club and YMCA, Joliet Explorers and Chargers football teams, coach of Catholic High's boxing team, amateur boxing official and director of boxing clinics. He was a health and education teacher at Central for 21 years.

The highlight of his career came when he was selected as one of the trainers for the U.S. Olympic team at the 1964 Olympic Games in Tokyo. He also was selected as a trainer for the U.S. Olympic Track and Field Trials in Los Angeles in 1964.

*Why were the saints,
saints?*

*Because they were
cheerful when it was
difficult to be cheer-
ful, patient when it
was difficult to be
patient; and because
they pushed on when
they wanted to stand
still, and kept silent
when they wanted to
talk, and were
agreeable when they
wanted to be dis-
agreeable. That was
all.*

*It was quite simple and
always will be.*



This year's proud recipients of the N.A.T.A. Hall of Fame Award (L-R) Warren Ariail, John Rockwell, Francis Sheridan, Edwin Lane and Robert White. Not pictured is award winner John Lacey.

PROCEEDINGS of the NATIONAL ATHLETIC TRAINERS ASSOCIATION

BUSINESS MEETING

June 13, 1977
Hyatt Regency
Dearborn, Michigan

MONDAY MORNING SESSION
June 13, 1977

The Annual Business Meeting of the National Athletic Trainers Association was convened in the Regency Ballroom, Hyatt Regency Hotel, Dearborn, Michigan, at

eleven o'clock a.m., Mr. Frank George, President, opening this meeting.

PRESIDENT GEORGE: Will you please take your seats.

I would like to begin this meeting with a prayer. Heavenly Father, we thank you for bringing us together today. Please send us guidance and help us make the decisions which will ensure the growth and ef-

fectiveness of our Association and please instill in us the ability to perform our duties. Amen.

Will you all stand while we say the Pledge of Allegiance.

... The Pledge of Allegiance ensured ...

PRESIDENT GEORGE: I would first like to ask for a motion to dispense with the roll call.

... It was severally moved, seconded and unanimously carried that the roll call be dispensed with.

PRESIDENT GEORGE: The minutes for the 1976 Business Meeting were published in the Journal of Athletic Training. I hope you have all had an opportunity to read them.

I would like to have a motion to dispense with the reading of those minutes.

... It was severally moved, seconded and unanimously carried that the reading of the minutes be dispensed with ...

PRESIDENT GEORGE: I would now like to have Mr. Otho Davis, the Executive Director, read the Treasurer's Report.

... Whereupon, Mr. Otho Davis presented the Treasurer's Report ...

General Funds Account	\$16,419.89
Certification Account	15,544.60
Journal Account - A	1,766.64
Journal Account - B	337.20
National Convention Account	12,641.00
Philadelphia Nat'l Bank Account #9-140-5213	40,000.00
Philadelphia Nat'l Bank Account #9-153-2570	10,000.00
Philadelphia Nat'l Bank Account #9-140-5221	10,000.00
Philadelphia Nat'l Bank Account #9-145-1236	5,000.00
Philadelphia Nat'l Bank Account # 503-2415	2,886.09
TOTAL	\$114,595.42

PRESIDENT GEORGE: May I have a motion to accept the Treasurer's Report as read?

... It was severally moved, seconded and unanimously carried that the Treasurer's Report as presented by Mr. Davis be accepted ...

PRESIDENT GEORGE: I would now like to have Mr. Davis read the minutes of the Board meetings held on June 9th, 10th and 11th.

The following actions were, by regular motion, adopted by the Board of Directors, NATA, at its various sessions at the Hyatt Regency Hotel, Dearborn, Michigan, commencing at seven p.m., Thursday June 9th, 1977 and terminating with the session held ending at four p.m., June 11th, 1977.

Present were Mr. Frank George (President); Mr. Otho Davis (Executive Director); Mr. Wesley Jordan (District No. 1); Mr. Richard Malacrea (District No. 2); Mr. Herman Bunch (District No. 3); Mr. Robert White (District No. 4); Mr. Gordon Stoddard (District No. 4); Mr. William Flentje (District No. 5); Mr. Casher Birdwell (District No. 6); Mr. Warren Lee (District No. 7); Mr. Troy Young (District No. 7); Mr. William Chambers (District No. 8); Mr. Robert Barton (District No. 9); Mr. Larry Sandifer (District No. 10).

Also present were Mr. Bruce Melin, Parliamentarian.

Note: The Minutes appear in the above report and will not be duplicated.

... Whereupon, the motion was severally made and seconded to accept the minutes.

There was discussion from the floor in reference to the certification examination fee increase. This was further discussed at the second Board Meeting.

There was discussion from the floor in reference to the Placement Committee which was continued at the second Board Meeting.

There was discussion from the floor in reference to having better communication from each District Director to the members. It was suggested that no important matters be acted upon until presented to the district members prior to board action. This was further discussed at the second Board Meeting.

... Whereupon at this point, the question was severally moved, the motion to accept the minutes as read by Mr. Davis was then voted upon and declared to be carried ...

PRESIDENT GEORGE: We will now go to Memorial Resolutions which are presented each year through your District Directors to be included in the official minutes and published in the Journal.

Now, I would like to have all of you arise for a moment of silence for those members and friends who have been deceased this past year.

... The Assembly rose in a moment of silence ...

PRESIDENT GEORGE: Now, if you have any additional resolutions, will you please bring those forward and make sure that your District Director gets them so that we can get them into the minutes of the meeting.

As you are bringing them forward, I would also like to ask Mr. Porky Morgan, who is Chairman of the Twenty-

Five Year Award Committee, to come forward and make the announcements concerning the Twenty-Five Year Awards.

Mr. Morgan: The Twenty-Five-Year Awards this year are Nicholas Mauriello and Francis Poisson from

District No. 1; Ned Linta from District No. 2; Buddy Taylor from District No. 3; Walter Coch from District No. 4 and Larry Harrington from District No. 9.

PRESIDENT GEORGE: Thank you, Porky.

George Sullivan is Chairman of the Honors and Awards Committee and he will now make announcements of the Citizen Savings Athletic Foundation Hall of Fame winner for 1977.

MR. GEORGE SULLIVAN: Mr. President, the Committee has elected the following candidates to the Hall of Fame: Mr. Francis Sheridan, District No. 2; Mr. Warren Atrial, District No. 3; Mr. John Lacey, District No. 3; Mr. Robert White, District No. 4; Mr. Eddie Lane, District No. 6; and Mr. Jack Rockwell, District No. 8.

PRESIDENT GEORGE: Thank you very much.

I would like to announce the scholarship winner of the William E. Newell Award. This is a \$500 award this year, \$250 coming from a donation of the Cramer Products Company and \$250 coming from the man whom this is named after.

The recipient is Hillary Ann Ennis from Muehlenberg College, and the award was made last night at the Student Awards Banquet.

The next award is very special and this is the President's Challenge Cup Award. This is the award which really gives the Association more publicity and more knowledge on a National level through medical journals and other means than any other award we have had.

Now, Jim Cody is a very special friend to the NATA. Really, this award has been his idea and the large amount of money it takes to support his award has been given to us through his efforts.

He is now with the KWIK Kare Division of the Kay Products Laboratories and this is a \$1500 grant and also a fine original piece of art, which I am sure most of you have seen at the booth which they have here, which costs almost \$1700.

Therefore, Jim, will you please come up and present that Award to the Association?

MR. CODY: Thank you, Mr. Chairman.

... Presentation of plaque to Mr. George and applause ensued ...

PRESIDENT GEORGE: I would now like to call upon Lindsay McLean to announce the winner of the Eddie Wojeki Award.

MR. McLEAN: The 1977 recipient of the Eddie Wojeki Achievement Award, which includes a \$250 scholarship award as presented by Larson Laboratories of Erie, Pennsylvania, is Terry Malone of Durham, North Carolina. (Applause)

PRESIDENT GEORGE: At this time I would like to have Pinky Newell come up and first to thank him for all he has done for the Scholarship Committee.

MR. PINKY NEWELL: Mr. President, this year the NATA undergraduate scholarships were awarded to Deborah L. Dean, Mankato University, and to Philip W. Samko, University of Connecticut.

The NATA postgraduate scholarship award went to Allison L. Peirce of Northern Arizona University.

The Del C. Humphrey postgraduate scholarship award went to Jeffrey Joseph Ciolek, Miami University, Oxford, Ohio.

The Robert L. Gunn Scholarship Award went to Larry Lynn Scheiderer of Ohio University.

Thank you very much.

PRESIDENT GEORGE: Thank you.

And now Mr. Davis has some individual awards to be presented in recognition of the work done by the members of the Convention Program Committee.

MR. DAVIS: I would like to have our Program Chairman, our Convention Chairman, Kent Falb come forward please. Please give this man a nice round of applause. (Applause)

I am going to turn it over to Kent and I will ask that he recognize his co-workers.

MR. KENT FALB: Thank you, Otho.

Ladies and gentlemen, first of all, welcome to Dearborn.

You must realize, of course, that it takes a lot of people to put on a Convention but thank you, the Trainers, for making this a very successful convention.

There are many people that have worked behind the scenes. They are too numerous to mention.

There are a couple of people, however, that deserve some recognition.

I would like to acknowledge them at this time.

First of all, Mr. Clint Thompson, has been our Program Chairman, and I draw your attention to the fact that this convention, the theme of this convention was "back to the basics". A lot of you asked for this and it is not that I am putting down the doctors, but you will notice there were not doctors on the program.

I would also like to acknowledge Ken Copke, our

Banquet Chairman.

Again, we did something a little different here.

There is no banquet speaker this year but, rather, we are "back to the basics" and those men we are honoring will be your speakers.

I would also like to thank Dick Milder, who has been our Entertainment Chairman, who has done a very fine job.

Also, if you will turn to the back page of your Convention Program, you can see there a listing there of those people who have worked and I think you owe, as a group, a thank-you to all of them. Therefore, as you see them around the Convention for the next couple of days, I would think they would appreciate it if you would just say to them "thank you".

Now, I would like to extend special thanks to our Host Trainer, Mr. Robert White, who has been a very stabilizing influence for me and has sometimes has to kick me in the seat of the pants a few times to get me going. To him, and I don't know where Bob is at this point, but I think he was to appear on a radio show, I extend to him a great big thank you.

Most important, there is one man who has been responsible for all of this.

A lot of you have seen this individual running around. I mean running, at least for several years now.

Now, you may have been critical of this man because there was something about his Convention or the past Conventions that maybe you just did not like. Well, ladies and gentlemen, until you have run one of these conventions, you really do not understand what is going on behind it and I don't think any of us appreciate that this man and that five-man gang that works up in that press room for him, don't appreciate everything they do.

Therefore, if Fred Hoover is here, I would like to publicly, in front of all of you, give him a standing ovation at this time.

Therefore, Fred Hoover, where are you, will you please stand?

... Rising applause ensued ...

MR. KENT FALB: Thank you very much, ladies and gentlemen.

PRESIDENT GEORGE: Thank you very much.

I would like to thank Otho Davis, the Executive Director of NATA, the Board of Directors which have been named to you and all the Committee Chairmen and their committee members, District Secretaries for the great deal of work they have done for NATA this past year.

The Association also, of course, appreciates the efforts of Fred Hoover and Kent Falb, the Dearborn Convention Chairman.

Clint Thompson, the Program Chairman and Ken Kopke, the Banquet Chairman.

Also, Jack Jones, the Student Banquet Chairman and Dick Milder, the Entertainment Chairman for this year's meeting.

As an Association, we feel we have been making great strides to improve the profession of athletic training.

After this meeting, we will have more than 1500 certified members and a total membership of almost 5,000.

We have tried to provide a number of different services to the membership.

The Journal of Athletic Training will now have its own Managing Director, Mary Edgerley. She will be responsible for all the business aspects of the Journal.

We, the members of NATA, you people out there, we up here, we are responsible for the editorial content and the scientific content of the Journal.

Please submit articles to the Journal - we need them.

Now, if your article is rejected, which many are, almost 19 out of 20 being sent back for rewriting, for revision, it is only natural to feel disappointed when an article is rejected.

However, please rewrite it and submit it.

I remember when I had my first article rejected. Well, I put it in a drawer and was never going to write another one again.

I thought, "who were they to make comments like that, namely, it was too folksy, did not belong here, those types of things".

Well, with that, it went back in the drawer. I was never going to submit that one again.

Well, as you may know, they write to you again and so, when they wrote to me again, I rewrote it and sent it back and, the second time, it came back with not so many bad comments on it. (Laughter)

However, after three re-writes, it finally was put into the Journal.

You have to do it. If we are going to have a Journal, you are going to have to put up with that kind of procedure or else we might just as well write like a newspaper article.

However, if you want a scientific Journal, then you have to expect to rewrite some of these articles.

Therefore, please submit those articles.

We also owe a special vote of thanks to Gordon Stoddard and his Audio Visual Committee, for the excellent bibliography of Audio Visual Aids which you all received in your Convention packet.

They are also working on a bibliography of periodicals,

books and periodicals, pertaining to athletic training.

This will be cross-indexed and have more than 3800 entries.

Therefore, you can really see from this that this Committee has been functioning well.

Also, a special thanks to Lindsay McLean, Chairman, Board of Certification. This year they will administer the NATA certification examination to more than 500 applicants. This is twice as many as we did in 1975 and twenty times as many as we did in 1970.

Therefore, you can see from this that we are not trying to discourage membership at all.

Efforts are being made, in fact, to revise the procedures of evaluating oral practical candidates and the administration of that portion of the examination. It is difficult to administer that portion of the examination.

Anyone who has been involved with that, understands it.

In relation to Bud Miller and his Professional Education Committee, I think that Otho read for five minutes on the things the Board had to decide on what this Committee comes to us with. They are a hard-working and long-working committee.

They have developed and will be publishing guidelines for development of NATA undergraduate and graduate curriculums. These will be put on film for anyone interested in these programs.

This Committee has also established more frequent surveillance of curricula to ensure that quality education is being maintained.

Tow Diehm and his Ethics Committee have revised the Code of Ethics and, as Otho reported, all new members will receive a copy of that. It will be in tear-out form once a year in the Journal, along with the Constitution and Bylaws.

Proper ethics are the foundation of any profession and we must therefore always conduct ourselves with only the highest ethical principles as our guidelines.

Now, let me also indicate that there have been a number of violations of the Code of Ethics.

I don't know, however, if it is because the membership does not know they are supposed to do these things or if they do them and just disregard what the Code of Ethics says.

One of them, for example, has to do with the use of the logo on the business card. That is against the Code of Ethics.

Another thing is for them to say they are running a workshop, clinic or short-term course, that it is approved by the NATA when, in fact, it has not been given approval.

Both of these are violations of the Code of Ethics. Pinky and the Grants and Scholarship Committee have really done a wonderful job, as I said, this year.

Our Endowment Scholarship Fund has more than doubled this past year and is now over \$7,000.

Be generous when you have opportunity to contribute to this fund. Our future depends on our students and now, while talking about the future, we should all be aware of the increase in malpractice and professional liability to litigation which has occurred during the past few years.

Protect the future and yourself by purchasing professional liability insurance.

Now, I am not an insurance salesman and the Association makes no money on this policy. This is essentially for you and for your protection. You know, for \$200,000 worth of insurance and at a premium of only \$53 a year, many employers are more than willing to pay this.

Therefore, look into it and make sure that you are properly covered.

Now, the District Directors will be meeting with you in relation to your individual District Meetings. Voice your opinions to them. Voice your opinions when I call for New Business. Please do not anyone out there feel that we are trying to stifle you or that you are going to get in hot water with anybody here for something you may say out there. This is your Association — it is not ours, not mine, not Otho's — it is your Association and, therefore, if you as a majority feel that something should be done, then speak up.

However, wait a moment, don't be just critical. I said that when I was on the Board of Directors and I got up and talked. We have heard from some of you people perhaps once every two years, maybe only once a year. However, are you the Bud Miller and the Lindsay McLean, those people who are with us everyday 18 hours a day? Do you want us to listen to you?

Well, don't just let it be here — stay in touch with us throughout the year.

You can be critical of us but, believe me, we can likewise be critical of you.

For example, in relation to articles for the Journal, when we send out a questionnaire and there is only a seven percent return on it, then we can likewise be critical.

Therefore, when we get to the item of new business, please get up there and speak, say what you have to say. We are going to listen to you but stay with us through the year because we do need you. There is a rather large

proposal that your District Directors are going to discuss with you and I think it is a very important proposal and it has to do with your opinion and how you feel about the NATA or any professional organization selling a product, such as tape, for a profit.

Now, you know, as well as I do, we all use tape and it is great — probably a major portion of our budget.

The Board has been presented with a proposal to sell tape at a price probably lower than many of our members can purchase it from a retailer.

There are advantages for the Association. We can, if approved, generate income to do many of the things we cannot presently do. We can generate, for example, income to have our own office, to hire full-time people — to do many of the things that these additional funds will do that we cannot presently do — to keep the cost of certification down, to keep the cost of dues down, etc.

Now, while we can see the advantages, there are likewise problems and the problems are, I think, ethical ones. For example, should a professional Association sell a product for profit. Is it a conflict of interest. You know, of course, we now sell patches and emblems, watches and things like that.

Will doing something like this hurt you professionally? Would it be unprofessional?

When I call for new business, perhaps you may speak up at that time, if you want the whole Association to hear you or, on the other hand, you may desire to wait until you get into your District Meetings and tell your District Directors how you feel.

Now, think about those sides of it. Discuss it at your District Meetings and let your Directors know how you want them to vote.

I purposely put that particular vote off until Tuesday because I wanted to know how you felt.

In relation to other things we voted on, to be honest with you, we have not had much response one way or the other through the year from the Association. However, on this particular item we wanted to wait, we wanted to get your feelings about this.

Now, that seems important but, on the other hand, I have not forgotten last year.

The most important issue facing us as trainers is State Licensure. We have to get our heads out of the sand.

God bless the trainers in Georgia. They failed last year, they failed the first time this year, but they convinced the State Legislature to resubmit it and it passed the second time around.

Therefore, Georgia now has a state license.

Don't be discouraged if this happens to you. You know the states that were really active in it this year — Rhode Island, New Hampshire, Connecticut, Idaho, Arkansas, Pennsylvania.

We failed this year but we are going to try again next year and hopefully we will win next year. There is absolutely no opposition at all in my particular state but we just ran out of time.

You know, we have learned many things about politics and this, in turn, should make it easier for the next year.

Everybody in this room should be working for and towards an athletic trainer's license in your state.

You just cannot say, for example, you do not have the time. You cannot say that because if you want a job, then you had better be doing it. Further, you cannot say you do not have the time because as busy as Otho is, this involved a major portion of his work last year, this matter of state licensure.

If you have questions, if you desire suggestions, then attend the session that we are going to have on Wednesday concerning the licensure.

Another big thing that is facing NATA and which many of you are asking questions about is the Olympic Committee. There have been many changes within the USOC and there will be changes in the method of selection of the trainers concerning the Olympics and Pan Am Games.

Bob Beeton is here today. He was the head trainer at the last Olympic Games. He is the Head Trainer and Medical Coordinator of the United States Olympic Committee. They now have a full-time trainer with that Committee.

He is here now to give a brief presentation of the new Sports Medicine Committee of the United States Olympic Committee and how it will affect us as Trainers.

I would ask you to refrain from asking Bob questions because we have set aside a special session this afternoon in the program. It will be at two-thirty this afternoon, after the Clinical Session and will be in room 402 and any discussions and questions you have regarding the Olympics, we would like to put off until that time.

Now, if it is perhaps something personal and you want to bring it up here, feel free to do so.

MR. ROBERT BEETON: I would like to thank the Association for inviting me here and welcome this opportunity to appear here before this group.

Let me open my remarks by saying it has finally happened. I think all of you know what I mean. The scope of the USOC has now been expanded in several areas, most of them important to all of us as athletic trainers is that athletic trainers are going to be an integral part of this new concept and new planning that is presently going on.

The USOC now plans to offer some reasonable training and testing sites throughout the United States, the first of which will be opening this Wednesday in Squaw Valley, California, the site of the 1960 winter games.

This is the first of what we hope to be six National sites throughout the country.

What we will be doing at this point is not only playing a role in athletic training but we will be offering a role in research, with information and ideas disseminated back to the athlete himself, to the coaches and to the professional journals from where they come.

In my mind, the concept of National Training Centers is perhaps the most exciting thing to happen at least in the last fifty years. We have overlooked a lot of kids in the past, we have overlooked a lot of people and it has been very selective. However, with the expansion of these training centers, it is not only possible to handle the elite athlete, but it will be possible to drop down to the junior, the novice and perhaps even eventually to the introductory level for processing, screening, and to give this particular person a profile of himself and how improvements can be made.

The Sports Medicine Division at Squaw Valley will bring together athletic trainers, people in biomechanics, exercise physiologists, podiatrists, physicians with various skills and from different specialty groups.

They will all be combined together at that point in a total team concept for the athlete.

We also hope to develop a plan for students and high school trainers on a selective basis which can be utilized at these training centers as well as college students training centers.

I think what we want to get into is not only an educational process for the athlete but an educational process that will feed information back to all levels as rapidly as possible.

This is the first year of our training centers. I do not know how fast others are going to evolve around the country. Of course, that is going to rely on funding, at least basically and foremost so that in this first year of our operation at Squaw Valley we have had to talk to a lot of people.

However, I would like to have trainers coming in from all parts of the country although I realize, of course that financially this will be an impossibility.

The staffing of these sites will be on a voluntary basis.

Consequently, in order to provide the services necessary to have them at the sites this year, we may draw from a geographical area relatively close to the site.

I hope by this time next year we can expand upon that geographical area and encompass more people and I know we will have the opportunity to have more people at our sites within the next few years, especially as they begin to open.

Further, as they open in your particular region, I am sure many more of you are going to have an opportunity to work within this program.

I hope it can be an educational process for those of you in this room, as well as it has been for myself within the past ten days.

I will be in room 402 roughly two o'clock this afternoon on. I can stay until four o'clock, for those of you who want to drop by. Further, I have application forms available if you have free time this summer and can get to Squaw Valley. On that basis, I would like very much to have you fill out one of those forms.

Our needs at the moment are not exactly well known but they will be better known as the various sports bodies submit their applications to the USOC for training.

Many of them have already done so but right at the moment what we are finding is they initially say that they are going to be there on May 14th and then on May 13th they call up and say that they will be there on the 19th and then on the 19th they will call up and say they will be there the next month on the 15th. Further they only initially say that they are bringing ten kids with them but, when the time actually comes, they will show up with as many as 125.

Therefore, as you can realize from this, the scope of our function is on a varied day to day basis and this places me, in turn, in a position that I do not particularly like because I like to plan ahead.

However, I am presently on the basis of having to plan a day at a time and, therefore, do not be surprised if I call some of you and ask not only can you be there tomorrow but can you be in your car within the next ten minutes and catch an airplane within the next fifteen and perhaps be here by six o'clock to pick up with a team.

I can visualize where this can conceivably happen to us.

I can make this statement and did so, before the Board, that I am the first trainer on a full-time basis with the USOC, which, in turn, pleases me immensely. We can have an on-going communication over a four-year basis rather than on a one-year basis, which is about what has transpired in the past.

I see myself as perhaps being a liaison from this group having a direct input into the Sports Medicine Program within the USOC.

Now, if I don't think I could do you some good in this position and benefit our athletes in this organization and if the program were not exciting I would not have taken a job.

So, let me close by merely saying that I think within the next three years you will be amazed at what can be done for the athletes of this country.

Thank you very much. (Applause)

PRESIDENT GEORGE: I would also like to welcome our two foreign visitors to our meeting, one from Geneva and the other one from Japan. This is the first time we have had such distinguished foreign visitors and we are very pleased to have you. Will Schunichi Yoshimastu of Toyko, Japan and Emile Kunz of Geneva, Switzerland please stand up.

And now, please don't feel inhibited, don't feel restrained.

Is there any new business?

MEMBER (Skip) Vosler: Mr. President, I would like to present the following motion so that the voice of the National membership can be better heard.

The Ohio Certified Trainers move that a special Committee be appointed by the President of NATA to investigate and implement a plan for reorganization of the NATA by establishing new districts or state boundaries and that these districts or states be represented through a national assembly of delegates based upon the number of certified members per district or state, which would create a move to a more equal representation of the National membership. A detailed Committee report must be presented to the National membership in the Spring of 1978 issue of the Journal to be voted upon by the membership at the National Business Meeting in Las Vegas in 1978.

PRESIDENT GEORGE: Will you please bring that up here, Skip.

Now, I have the resolution or motion before me and I am going to read once again so that all of you may again hear it clearly.

... Whereupon, the above-presented motion and/or resolution was again read ...

PRESIDENT GEORGE: Let me say that I think that that is a good motion. However, I might say one other thing at this point and that is that our parliamentarian presented to the Board of Directors, prior to any of this occurring, the information that motions cannot be delivered as a motion to be voted upon at the Business Meeting.

In other words, to hold this Association binding under our present Constitution the way it is now, suggestions, resolutions or anything like that can be made at this Business Meeting but for a motion to be voted on and to hold this Association binding, it must come through the Board of Directors.

Therefore, I am going to have District No. 4 present this, which is where Ohio is, at the next Board of Directors meeting and then we are going to discuss it there and vote on it.

Note: The above suggestion was presented to the Board at the second Board Meeting and died because of a lack of a second.

There was discussion on the floor in reference to the NATA selling adhesive tape to the consumer. Profits by the Association would be used to establish a permanent headquarters, full-time staff, scholarships, and better committee funds. The NATA after a study was performed, could net approximately \$300,000.00 during the next three years. This idea met with much disfavor during the business meeting and district meetings, therefore was not discussed in the second Board meeting.

Note: It has since been discovered that many were opposed because several members sell adhesive tape and because of personal favors from suppliers. It should also be noted that this idea could possibly be picked up by the N.C.A.A. and put into practice at a great profit to the N.C.A.A. as they have done on shoes and other items.

MR. HILL: We received a memorandum in the mail, I think, about three or four months ago, from Bud Miller and I don't know if he is here and maybe he can answer this, wherein it was indicated we are no longer sanctioning or approving student trainers workshops — that they are encouraging that we have continuing education for certified and associate trainers.

Now, I would like to know the reasoning behind this and, also, I am not in agreement with this at all. I think that we as a National body and as professional people, are always talking about helping the young trainer and there is only one way to do that and that is through student workshops and making the high school kids aware of careers and opportunities in athletic training.

Now, regarding these workshops, if we don't have the sanction and approval of our National Office then, of course, I think we are defeating our purpose.

I would just like some clarification on that particular issue.

PRESIDENT GEORGE: Well, to answer you, Bill, there are a half dozen different reasons why we did that.

I see Al Proctor coming up here. Are you going to comment on that?

Al is on our Education Committee and he is in charge of that particular phase of it.

However, before he gets to speak here, let me give you some of the easy reasons first.

The first concerns the mechanics of it, more than 100 people, for example, asking for workshop endorsements.

How in the world can we possibly say, on that basis, the NATA approves? How can we police that? We presently have no mechanism to do that. We could not hire somebody to do that because we did not have enough money to do that.

Further, we were not charging them anything for these workshop endorsements.

That is number one — the mechanics, just the mechanics of it alone.

The other is, of course, it involves a whole different philosophy. In other words, it is your philosophy, for example, of what a high school trainer is, what he should be, what the legalities are. Should there, in fact, be a student trainer working if he is not under the direction of a Certified Athletic Trainer?

Let me say that I have spoken to the Association about this before and my own opinion is that there should not be a student trainer unless he is under the supervision of a Certified Athletic Trainer. That, of course, is my own opinion.

MR. HILL: Then why do we have high school trainers here today at this Convention? Why do we bring them in?

PRESIDENT GEORGE: Well, Bill, anybody is allowed to come here as long as he pays the registration fee.

We cannot keep anybody out.

MR. HILL: That is not the point.

The point is that we are recognizing and even recognized them last night, the high school trainers.

PRESIDENT GEORGE: No, those were all college trainers. We, in fact, do not take into our membership high school trainers as of, I think, a year ago. However, it may be important.

We no longer take high school trainers into our membership. This is really a philosophy.

Now, there may be a kid in some high school who calls himself a trainer and it has even gotten so far that, from reports this year, it was indicated to us that some of them were using the NATA logo on their stationary and things like that. These are not members of the Association and have no supervision at all.

Their Supervisor, for example, is a coach. Very rarely are they under the supervision of a Certified Athletic Trainer.

Therefore, I think a whole philosophy is involved here. It is time for the Certified Trainer to be at the high school level; time for us to get someone who is going to teach class all day just like the coach does and then be a trainer in the afternoon. I think it is time for that.

MR. HILL: I would agree with that but, by the same token, I think the only way you are going to do that is through these workshops.

Now, we still push for Certified Trainers in the high schools but how are we going to continue to have workshops and bring these kids along if you don't get them out of the high schools?

PRESIDENT GEORGE: Well, let me ask you this — does the medical profession have workshops? Does the nursing profession have workshops?

How about physical therapy?

There are plenty of Associations already for people who are trainers, doctors, nurses, etc., who do really need further education.

In the final analysis, what we really need is continuing education.

MR. PROCTOR: I am the Chairman of the Short Course Subcommittee of the Professional Education Committee. Now, in answer to your question, Bill, there are a lot of members out there who have responded unfavorably to this move.

However, I want to assure you that we really did not intend, in any way, shape or form, to encourage you not to continue to conduct those types of programs for student trainers.

I disagree with Frank in some respects because our whole basic program, for example, in North Carolina, has centered around a feeder program of student trainers coming out of high school who may, in fact, have been supervised by a coach; others of whom may have been supervised by a trainer less than certified.

Now, the intent of the Professional Education Committee is to only approve those short-term courses that are established for Certified Athletic Trainers and this involved simply a matter of time and expediency. We do not, in fact, any longer have the time to approve all the numbers of courses, especially short-term courses, that are being sponsored by all of you members.

At the same time and simply because we are not approving those courses, this does not mean that we are necessarily not encouraging them because we are, in fact.

I particularly am encouraging those types of courses to be sponsored by those of you out there.

MR. HILL: Also, as I understand it, we are going on the computer system — will that take care of the paperwork?

MR. PROCTOR: No, not insofar as we are concerned.

PRESIDENT GEORGE: It is impossible to place all of this through a computer. As a matter of fact, those are some of the things the computer cannot do.

MR. PROCTOR: A great deal of this is very subjective and it requires examination on the part of the members on the Committee in relation to each of those courses sponsored and, therefore, we feel that the only thing that we can, in fact, approve hereafter are those programs that are specifically designed for the professional members of this Association and yet, at the same time, we are not necessarily trying to encourage you to disassociate yourselves with other student trainer programs.

As a personal example, at North Carolina we will have a Student Trainer Clinic in July. We will have approximately from 165 to 175 kids there. All of their instruction will be provided by Certified Athletic Trainers. Now, this is not approved by NATA and that doesn't matter, necessarily, to us but we are encouraging those student trainers to participate because they are, in fact, the future members of this Association, at least we feel so and, therefore, they are important to our program in North Carolina. I also think they are important to other programs throughout the United States.

PRESIDENT GEORGE: Well, as you can see, we are a democracy, even among our committees. We strongly disagree on this particular point, very strongly.

Now, does anybody else have something else to say?

Is there further new business?

MR. JOHN ENGER: (District No. 4) One thing that is concerning me is my understanding that if you have an approved athletic training curriculum you can no longer sign for any other method of becoming certified and we are in the process of trying to develop an approved curriculum.

We also have a PT program and there is no way we are going to develop an approved curriculum if we cannot sign for our PT students also.

PRESIDENT GEORGE: Well, as I understand it, the Education Committee, in relation to their proposal, made a mistake to the Board of Directors. Since then, Bud Miller has asked me to come in with another proposal to be reconsidered on Tuesday and I told him he could.

The original proposal from the Education Committee stated that if you were a Curriculum Director, you could not sign for Section No. 2 and Section No. 3 applicants concerning the procedures for certification. Section No. 2 and Section No. 3 applicants are apprenticeships and five years.

They did not mean to eliminate Section No. 4. When it went back for rewriting, the Education Committee omitted to include Section No. 4. It was a mistake and I expected to be corrected on Tuesday.

Now, does anybody else have anything new?

I think you are going to have some good District Meetings this afternoon and I again urge you to speak your thoughts there.

Let the Directors know what you want them to do. If there is not further business, may I have a motion to adjourn the meeting?

... Whereupon, in accordance with regular motion, the business meeting was, at twelve-o-five o'clock p.m., adjourned ...

PROCEEDINGS of the N.A.T.A. BOARD OF DIRECTORS SUMMARY OF ACTIONS

June 9-14, 1977
Hyatt Regency Hotel
Dearborn, Michigan

The following actions were, by regular motion, adopted by the Board of Directors, NATA, at its various

sessions held at the Hyatt Regency Hotel, Dearborn, Michigan, commencing at 7:00 p.m., Thursday, June 9, 1977 and terminating with the sessions held ending at 4:00 p.m., Saturday, June 11, 1977, convening again at 9:00 a.m., Tuesday, June 14, 1977 and adjourning at 3:30 p.m.

PRESENT WERE:

Frank George	President
Otho Davis	Executive Director
Wesley Jordan	District 1
Richard Malacrae	District 2
Herman Bunch	District 3
Andy Clawson	District 3
Robert White	District 4
Gordon Stoddard	District 4
William Flentje	District 5
Casher Birdwell	District 6
Warren Lee	District 7
Troy Young	District 7
William Chambers	District 8
Robert Barton	District 9
Larry Sandifer	District 10
Bruce Melin	Parliamentarian

AUDIO VISUAL AIDS

A. V. Committee

The resignation of Mr. Gordon Stoddard as Chairman of Audio Visual Aids Committee was accepted because of his replacing Mr. White on the Board of Directors. MOVED (by District 4, seconded by District 8, and carried)

The appointment of Mr. Bob Burkhart as the new Chairman of the Committee. MOVED (by District 4, seconded by District 10, and carried)

Because of the nature of the current bibliographic projects, it was recommended that the budget for the coming year for Audio Visual Aids would be increased from \$500.00 to \$750. MOVED (by District 2, seconded by District 10, and carried)

ETHICS COMMITTEE

The recommendation to furnish new members when they join a copy of the Code of Ethics, this to be furnished through the National Office to arrive simultaneously with the membership card. MOVED (by District 6, seconded by District 4, and carried)

It was approved that the publication annually in the Journal of the NATA, Athletic Training, of the Constitution, Bylaws and Code of Ethics in tearout form. MOVED (by District 2, seconded by District 7, and carried)

It was approved that the recommendation the Code of Ethics remain unchanged until June of 1979. MOVED (by District 7, seconded by District 6, and carried)

Concerning the request that each member receive a membership roster of the association in order to ascertain, when violations are presented to the committee members, whether or not the individual involved is a member of the association, approved the action that these rosters be sent to the Chairman and members of the Committee when available.

GRANTS AND SCHOLARSHIPS

Approved the committee's request for budget in the amount of \$2,150. MOVED (by District 4, seconded by District 3, and carried)

Approved the dropping of the 3.0 qualification from the National Scholarship application. MOVED (District 5, seconded District, District 2 and 10 - no, and carried)

Approved the recommendations that press releases be on NATA stationery. MOVED (by District 5, seconded by District 6, and carried)

HONOR AWARDS

Approved the recommendations concerning the twenty-five-year Hall of Fame award winners. MOVED (by District 2, seconded by District 5, and carried)

Approved that the Trainer of the Year Nutrament Award will be considered a special award under the auspices of the Board of Directors. MOVED (by District 8, seconded by District 7, and carried)

DRUG EDUCATION

Tabled any further action on the following resolution as presented on bee pollen with the proviso that copies of this be typed up and sent to the Directors for dissemination to the members of their Districts and their input and with further consideration to be given to this matter by the Board of Directors at the mid-winter meeting. MOVED (by District 6, seconded by District 3, and carried)

Whereas, a significant controversy exists in the sports and athletic community on the value of bee pollen and ergogenic aids; and

Whereas, the Drug Education Committee of NATA has participated in scientific research into the efficacy of bee pollen and ergogenic aids in sports; and

Whereas, the conclusion of these two studies conducted at Louisiana State University indicate no significant benefit to the athlete through the use of bee pollen; therefore

Be It Resolved, NATA is on record that it opposes the promotion of bee pollen as a significant factor in the improvement of athletic performance.

JOURNAL COMMITTEE

Approved the recommendation to appoint Mary Edgerley as Managing Editor of the Journal at a salary on the basis of twenty percent of income generated from Journal advertising. MOVED (by District 3, seconded by District 4, and carried)

Approved an increase in rate sheet rates by twenty-five percent. MOVED (by District 5, seconded by District 2, and carried)

Approved the requested budget. MOVED (by District 10, seconded by District 5, and carried)

ANNUAL MEETING PROCEDURE

Tabled action on the below indicated proposal on annual meeting procedure as presented by Mr. Malacrae until the mid-winter board meeting with the proviso that this be typed up and sent to the Directors for their further study and comment at that time. The proposal is:

1. Meeting of the Board prior to the district meetings, during which time substantive matters are discussed but not acted upon.

2. District meetings, at which time substantive matters are brought to the membership and discussed so that the membership can instruct the District Director on an aye or nay vote on these matters.

3. Second meeting of the Board of Directors so that further discussion may ensure and vote on business matters of the association.

4. A general business meeting between the initial and final board meetings.

5. It is recommended that a strong effort be exerted by all board members to provide agenda items in sufficient time to allow the items to be brought to the membership prior to the annual and midyear meetings.

PLACEMENT AND CAREERS INFORMATION BULLETINS

Following discussion as to the advantages and problems involved in relation to combining these two pamphlets, it was approved that the respective chairmen of these committees work together concerning the consolidation of these brochures, with the Directors to present any suggestions or comments to the committee chairmen by July 1, 1977 and with a revised brochure to be sent to Otho Davis for distribution to the Board by September 1, 1977 for approval and subsequent printing.

MEMBERSHIP COMMITTEE

Discussed and approved a definition for the term "actively engaged" and other forms of Code 2 membership, this action, as a subsequent meeting being then rescinded so that this matter could be further discussed by the membership at the District level.

Approved the recommendation of raising Affiliate Dues to \$25.00. MOVED (District 1, seconded by District 5, carried)

Approved the raising of Advisory dues to \$25.00. MOVED (District 8, seconded by District 6, and carried)

Approved having the Student dues remain as is. MOVED (District 8, seconded by District 3, and carried)

Approved the proposal that the NATA go on record as supporting in principle the development of a National Information Center and that the Board appoint a representative to the AAU Sports Medicine Committee for active involvement in the planning and establishment of such a center. MOVED (District 3, seconded by District 2, and carried)

Approved the President of NATA be appointed as the NATA representative to this committee. MOVED (District 5, seconded by District 8, and carried)

NATIONAL ASSOCIATION OF COLLEGIATE DIRECTORS OF ATHLETICS

Approved the recommendation that the President of NATA investigate the possibility of establishing liaison with the National Association of Collegiate Directors of Athletics.

PROFESSIONAL EDUCATION

Approved the appointment of David Knoepfel, University of Oregon, to the Professional Education Committee.

Approved the committee's budget request in the amount of \$9,900.00.

Approved the recommendation that there be a \$10 fee for the short term course application. MOVED (District 3, seconded District 6, and carried)

Approved one year extension of the NATA's approval of the athletic training educational programs at the following schools so that the reevaluation procedures can be carried out by the Professional Education Committee: Oregon State University; Texas Christian University;

Northeastern University; Ball State University; Washington State University and Indiana State University, with a final report to be made to the Board of Directors prior to its June 1978 meeting.

Approved the educational program at South Dakota State University at Brookings. MOVED (District 10, seconded District 8, District 5 abstained, and carried)

Approved the program at East Carolina University via the Health Education Route. MOVED (District 4, seconded by District 9, and carried)

Approved a one-year probationary period in relation to Long Beach State University. MOVED (District 6, seconded by District 2, and carried)

Approved the University of Arizona graduate program. MOVED (District 5, seconded District 8, and carried)

Approved the dropping of the Berkshire Sports Medicine Institute experimental program. MOVED (District 6, seconded District 5, and carried)

Approved the appointment of Jack Redgrin from Vanderbilt University to the Committee. MOVED (District 9, seconded District 4, and carried)

Approved the reinstatement of the athletic training program at Slippery Rock State College to full approval status. MOVED (District 2, seconded District 10, and carried)

Approved the use of one unit equals ten contact hours as presently defined in the continuing education units using the decimal system. MOVED (District 2, seconded District 10, and carried)

Approved the recommendation that the continuing education requirement be six CEU's for the first three years, with reevaluation to be made at that time. MOVED (District 2, seconded District 10, and carried)

Approved the recommendation that NATA Education Program Directors and Clinical Instructors may endorse students for certificate through Section 1 only of the Procedures of Certification, except those students who have one year in under the apprenticeship, this to be effective immediately. MOVED (District 5, seconded District 8, and carried)

NATIONAL CONVENTION COMMITTEE

Approved the appointment of a National Convention Program Chairman, with this individual to have the following duties and responsibilities:

1. Responsible to the National Meeting Chairman for coordination of the National Symposium program each year.

2. Will coordinate the selection of topics, courses and workshops for each annual clinical meeting.

3. Will maintain a file on topics and speakers so that recurrence is at a minimum.

4. Once the program theme, subjects and topics are finalized, the responsibility of speaker selection is by the local program chairman.

5. Coordinate selection of workshop topics with Educational Committee to satisfy the needs of the membership.

6. Determine the funding for the annual clinical symposium.

Approved the change of name of the convention from "Annual Convention to "Annual Meeting and Clinical Symposium". It was likewise approved to make the necessary bylaws changes to likewise change the name of the Committee from National Convention Committee to Annual Meeting and Clinical Symposium Committee. MOVED (District 6, seconded District 10, and carried)

Approved the budget request of the committee in the amount of \$4,125.00. MOVED (District 3, seconded District 8, and carried)

Approved Denver as the site for the 1983 Annual Convention. MOVED (District 8, seconded District 10, and carried 7-3, District 1, 4, 9 voted no)

Tabled consideration of the Columbus, Ohio bid until the mid-winter Board meeting.

Approved the recommendation of complimenting Kent Falb and his committee for the work performed at the 1977 convention.

CAREER INFORMATION AND SERVICES

Approved the financial report of the committee together with the recommendation that a sample of this form be sent to the other committee chairmen to be used as a guide toward uniformity. MOVED (District 2, seconded District 9, and carried)

Approved the resignation of Fred Kelley the Committee Chairman. MOVED (District 6, seconded District 4, and carried)

Approved the appointment of Chuck Demers as the new committee chairman. MOVED (District 5, seconded District 10, and carried)

Approved removal of one of the members of the committee (Willie Moore) for being delinquent in dues. MOVED (District 6, seconded District 5 and carried)

CERTIFICATION

Approved the budget request of the committee in the amount of \$2,000. MOVED (District 2, seconded District 9, and carried)

Approved raising of the application fee to \$75.00 effective as of July 1, 1978 effective as of July 1, 1978. At a subsequent session, following comments:

Approved that funding for Secretarial help for the Board of Certification be continued during the 1977 - 1978 fiscal year and that this funding be increased by 10% which would increase the amount needed to \$3,850.00. MOVED (District 4, seconded District 5, and carried).

Approved the request of \$2,000.00 for a mid-winter Committee Meeting with the Education Committee in January 1978 in Nashville, Tenn. MOVED (District 2, seconded District 9, and carried) by the various directors concerning the feelings of their respective districts relative to this matter and upon further consideration and discussion, it was moved, seconded and carried that the certification fee by \$70.00 effective July 1, 1978. MOVED (District 5, seconded District 6, and carried 7 - 3 Districts 1, 3, 9 voted No).

Approved the appointment of Rod Moore to the Committee and the interim appointment of Steve Moore while Russ Miller is on leave. MOVED (District 2, seconded District 9, and carried).

Approved a budget for the construction of a new examination. MOVED (District 2, seconded District 1, and carried).

PLACEMENT COMMITTEE

A lengthy discussion ensued relative to the present procedure concerning position vacancies and the idea of running the placement procedure through O'Brien and O'Brien. A motion whether NATA should provide to its members, at their expense, with the financial responsibility falling on the members who are interested, a placement service involving O'Brien and O'Brien was voted upon and lost. MOVED (District 4, seconded District 10 and carried 9 - 1, District 6 - No).

RESEARCH AND INJURY COMMITTEE

Approved the recommended names as committee members. Gerald Bell, Dan Libera, Robert Moore, and Brad Taylor; as submitted by Committee Chairman John Powell. MOVED (District 10, seconded District 9, and carried).

AAHPER American Alliance of Health, Physical Education and Recreation

Approved the name of Bud Miller as NATA representative to this group for an additional year. MOVED (District 3, seconded District 6, and moved).

AAHPER Liaison Report

Athletic Training Drop-In Center for Women

At the AAHPER Convention held in Seattle, Washington, from March 24-29, 1977, the National Athletic Trainers Association co-sponsored, with the National Association of Girls and Women's Sports, a Drop-In Center in Athletic Training for Women for the fourth consecutive year. The center included the Professional Education Committee's educational display and handout materials concerned with NATA membership educational programs, certification, and athletic training in general. Holly Wilson directed this project.

NATA Participation on the AAHPER's National Program

The only members of the NATA participating in the AAHPER's National Convention in Seattle were Sherry Josek, Stanford University, and Sayers "Bud" Miller, Penn State University. Presentations specifically concerned with athletic training and athletic injuries were drastically reduced from the previous National Program in Milwaukee.

Eastern Regional Athletic Training Conference

The Athletic Training Council within the structure of the National Association of Sport and Physical Education sponsored the Eastern Regional Athletic Training Conference held at the Cherry Hill Hyatt House in Cherry Hill, New Jersey, on March 21-22, 1977. This program was planned in cooperation with the NATA. Mr. Joe Godek, A.T.C., West Chester State College, was the program director and one of the primary athletic trainer presenters. Mrs. Patti Whiteside, A.T.C., Penn State University, was another primary athletic trainer lecturer. The program was well-attended and highly successful. The lecturers were given high marks in regards to their presentations.

Consolidation of Athletic Training Interest Groups and Efforts Within the AAHPER

On April 25-26, 1977, a meeting was held in Washington, D.C., at the AAHPER headquarters in order to bring the NASPE Athletic Training Council representatives together with the NAGWS Athletic Training Council representatives to coordinate their efforts within AAHPER. This action was taken primarily in response to Frank George's letter asking that the AAHPER not allow splinter groups (concerned with the field of athletic training) form within the Alliance. This

meeting was attended by Holly Wilson, A.T.C., Marge Albohm, A.T.C., and Karen Johnson representing NAGWS; Ira Silver Stein, A.T.C., Joe Godek, A.T.C., Ross Merrick, and Gordon Jeppson representing NASPE; and Sayers "Bud" Miller, A.T.C., representing the NATA.

After two days of discussion and proposals the representatives of the two athletic training councils proposed to carry out the following joint projects:

- I. The development of an official AAHPER statement supporting the field of athletic training and the efforts of the NATA incorporating the AMA's Bill of Rights within this statement.
- II. Arrange and set-up an educational display at the NATA Annual Meeting in Dearborn relating the educational materials available through the AAHPER. These arrangements have been confirmed and a limited exhibit will be displayed since there are space limitations. Both the NASPE and NAGWS have agreed to provide two of their program slots at the 1978 AAHPER Convention for athletic training presentations. These presentations will be developed as a joint project with the exception of one of the NAGWS slots. The representatives from the NAGWS were reluctant to give up this program slot so that they could have their separate Athletic Training Council Meeting.
- III. NASPE and NAGWS also agreed to work jointly in developing athletic training articles for the Journal of Health, Physical Education and Recreation.
- IV. NASPE also agreed to share their sponsorship of athletic training regional conferences with the NAGWS. It is planned to offer 2 two-day programs. One to be offered in Reno, Nevada, on November 18-20 and the other program to be held in Chicago on dates to be selected.
- V. In addition, the representatives from both NASPE and NAGWS will make a proposal to their respective executive boards that their athletic training councils be developed into a joint structure. The executive board meetings of these two associations will not be held until this fall.

In the meantime, Marge Albohm would still serve as the NATA liaison to AIAW; Holly Wilson would serve in the capacity of NATA liaison to NAGWS; Sayers "Bud" Miller would serve as NATA liaison to AAHPER, which in reality would only be to NASPE; and Marge Albohm would serve as AAHPER's liaison to NATA. This is very confusing and I feel a great deal of duplication of effort. I personally don't understand why we have two different members of the NATA and the AAHPER serving in the capacity of liaison to one of his or her organizations for the other professional organization. Why can't one of these individuals serve in a dual capacity? I would recommend that Marge Albohm serve both as the AAHPER liaison to the NATA and the NATA liaison to the AAHPER. I make this recommendation since I don't think the NAGWS or AIAW will ever accept me as the liaison to the AAHPER.

Recommendations

It is recommended that the Board of Directors of the NATA approve continued liaison representation with the AAHPER since this organization has supported our certification, licensure, and educational efforts.

It is also recommended that the Board of Directors accept Marge Albohm as the AAHPER liaison to the NATA and at the same time appoint her NATA liaison to the AAHPER to prevent duplication of efforts and for the other reasons mentioned in this report.

Finally, it is recommended that the Board of Directors encourage the new NATA liaison to strongly recommend that the two athletic training councils within the structure of the AAHPER become a joint body combining their efforts for the field of athletic training.

MOVED (District 3, seconded District 6, and carried).

AMERICAN ACADEMY OF PEDIATRICS

Approved continued liaison with this group. MOVED (District 10, seconded District 2, and seconded, and carried).

Annual Report

Liaison - American Academy of Pediatrics, Committee on the pediatric aspects of Physical Education, Recreation, and Sports.

The committee has not yet been scheduled for the annual meeting. As I indicated in my mid-year report, the fiscal problems affecting the Academy seem to have been resolved, however, delays and rescheduling have been the natural result of the situation.

The ad hoc committee appointed, by me at the direction of the Board, to cooperate with the joint booklet is now standing by waiting for the Academy to determine their approach to the optimum size and scope of the

booklet. In a recent telephone conversation with Dr. Thomas Shaffer, the work and comments of the ad hoc committee received substantial praise. I assured Dr. Shaffer that we would continue to cooperate with this project in any manner that would be helpful.

In March of this year I had the privilege of being invited to be a program participant in the annual meeting of the New Jersey Chapter of the Academy. The presentations were well received and a majority of the conferees were quite stimulated about the prospect of becoming more involved and better informed about sports medicine. As a spin-off of this meeting, I have been invited to come before the Delaware Chapter and deliver a similar presentation.

At the present time there are no formal plans for a sports medicine segment at the Annual Meeting of the Academy which will be held this coming fall in the city of New York. There had been a proposal made at an earlier meeting to provide a "Sports Medicine Extravaganza" at that meeting. I will follow this up and report on the outcome of this meeting in the next mid-year report.

It seems to me that this groups of physicians is becoming more aware of their potential role in the primary care of many individuals involved at the various levels of athletic activity. I recommend that the District Director or officers of the state societies take the opportunity to address these groups. Aside from the obvious benefit to the athletes cared for, these groups are potential voices of support for our legislative efforts.

Report accepted. MOVED (District 10, seconded District 2, and carried).

AMERICAN COLLEGE OF SPORTS MEDICINE

Accept the resignation of Gary Del Forge and likewise accepted the verbal report, with liaison to be continued. MOVED (District 7, seconded District 5, and carried).

EXECUTIVE DIRECTOR AND TREASURER

Accepted the report of the Treasurer as presented by Mr. Davis and approved this reappointment as Executive Director for the ensuing year. MOVED (District 4, seconded District 3, and carried).

ELECTION OF VICE PRESIDENT

Approved, by unanimous decision, the election of Richard Malacrae to the position of Vice President. MOVED (District 1, seconded District 6, and carried).

BAD CHECKS

Adopted as a policy statement that a charge of ten dollars be made for the additional handling concerning bad checks, this information to be disseminated to the membership through the Journal. MOVED (District 6, seconded District 10, and carried).

REINSTATEMENT FEE

Approved a ten dollar reinstatement fee if the desire was a continuing membership within that year, this to be effective January 1, 1978 and to apply to all categories of membership. MOVED (District 3, seconded District 4, and carried).

MOVING OF NATIONAL OFFICE

Approved the moving of the National Office from Lafayette, Indiana to Greenville, North Carolina and to have the Executive Director make arrangements for the use of computer facilities in that locality, the office at Lafayette to be phased out and moved with the least amount of disruption to NATA administrative activities as possible. It was indicated that the new address would be Post Office Drawer 1865, Greenville, NC 27834; Telephone number (919) 752-1725. MOVED (District 3, seconded District 8, and carried District 4 abstained).

TRAINER OF THE YEAR

Approved this year's Trainer of the Year awards will be presented in the form of scholarships to the following divisions:

- a. High School
- b. Junior College
- c. College
- d. Professional

As a total of \$5,500 in scholarship money, \$1,250 for each division, will be awarded, not to individuals, but to the school of the winner and to be used in furtherance of athletic training.

Winners of the awards will be flown to the bowl game to accept their awards.

Ballots will be sent out, as last year, to Certified Trainers, through the N.A.T.A. mailing house and with the N.A.T.A. mailing list. The mailing will be publicized in the N.A.T.A. Journal's Fall Issue and will be sent out on September 26. Ballots will be counted by Mizlou, but the tabulations and original ballot returns will be delivered to the N.A.T.A. Executive Director. Only one ballot will be sent per Certified Trainer.

MOVED (District 9, seconded District 5, and carried). Mr. Doug Graham, The Drackett Company and Mr. Bill Schwing, Mizlou Television Network represented their respective companies at the Directors meeting.

May 3, 1977

Mr. Otho Davis
Executive Director
National Athletic Trainer Association
3315 South Street
Lafayette, Indiana 47904

Dear Mr. Davis:

I noted with special interest and appreciation the \$2,000 check you sent from the National Athletic Trainer Association, to provide athletic scholarships here in recognition of our Tom Wilson's selection as Athletic Trainer of the Year.

You are aware, I am certain, that Tom Wilson is a legend at this institution, in terms of the inspiration and guidance he has provided our athletes over the years, and of the vital importance, he has come to have in our intercollegiate sports program.

We appreciate very much this meaningful contribution to our scholarship funds, and especially the honor you do a find man and effective leader in his profession.

Sincerely yours,
Patrick J. Nicholson
Vice President,
University Development

March 28, 1977

National Athletic Trainer Association
Mr. Otho Davis
Executive Director
3315 South Street
Lafayette, Indiana 47904

Dear Mr. Davis:

On behalf of the Department of Athletics, we say thanks for the gracious support you have given through your loyalty and contributions to our academic and athletic grant-in-aid scholarship program. The Cougars are most fortunate to have quality individuals interested in accomplishing our present and future goals.

We are extremely pleased with our athletic program and feel confident you share our pride. We continuously strive to develop our overall program to the high quality level you desire, and so richly deserve.

As you well know, the National Cougar Club is the foundation from which our entire athletic program is built. Any success it has achieved has been the result of your support, and we are confident it will continue to keep moving at a high competitive pace.

You should take justifiable pride in having provided such a fine award within one of our best departments.

Our entire staff joins me in thanking you again for the tremendous support you have given our program.

Sincerely,
Bill T. Swanson
Special Assistant Athletic Director

**AMERICAN COLLEGE HEALTH ASSOCIATION
REPORT ON A.C.H.A. MEETING
Philadelphia, PA.**

April 19, 20, 21 and 22, 1977

The Fifty-fifth Annual Meeting of the American College Health Association was held in Philadelphia, PA, at the Marriott Hotel on April 19, 20, 21, 22, 1977.

Richard B. Shaara, M.D., director of University Health Services, University Florida, Gainesville, FL, presided as chairman of the Athletic Medicine Section Meeting.

Ralph W. Alexander, M.D., director of Gannett Medical Clinic, Cornell University, Ithaca, NY, discussed "Evaluation of Athletes and Disqualifying Conditions." Dr. Alexander stated that "each college or university must be satisfied that the athlete is physically fit unless he and his parents will take full responsibility."

Alexander D. Brickler, M.D., director of Student Health Clinic, Florida A&M University, Tallahassee, FL, stressed that there was not a great difference in the injuries of male and female and that female joints are more elastic, thus the reason for their being loose-jointed.

Major P. Gladden, M.D., university physician, Athletics, Howard University, Washington, D.C., chairman-to-be of the Athletic Medicine Section, served as program chairman for the second year. Again for the second year, many compliments were heard concerning the outstanding job that Dr. Gladden did in putting the program together.

The luncheon on Wednesday, April 20, was most enjoyable with an attorney with Washington, D.C., discussing the "Major Legal Responsibilities of Team Physicians at Sports Events."

Donald Cooper, M.D., director of Student Hospital and Clinic, Oklahoma State University, Stillwater, OK, discussed "The Importance of Flexibility in the Training of Athletes." Dr. Cooper stated that "increased flexibility does prevent injuries." Dr. Cooper spoke before a filled room and delighted all of us with his paper and stories.

The attendance at each of the sessions was very good. Attendance at the Athletic Medicine Section continues to grow and is one of the best attended of all the sections.

As always, the Athletic Medicine Section of the A.C.H.A. meeting was great. These people are very concerned with all of us as Athletic Trainers and our situations. It is always a pleasure to visit with this group and to represent the NATA to the A.C.H.A. The NATA should always keep a good relationship with the A.C.H.A. because, without the support of our Team Physicians, who make up the Athletic Medicine Section, we, as Athletic Trainers, could find our jobs in jeopardy.

James E. Dodson
NATA Representative
to the A.C.H.A.

March 24, 1977

MEMORANDUM

TO: Sam McCottry, M.D., Vice President for Liaison Activity; A.C.H.A.

FROM: Don Cooper, M.D., Liaison Representative to the National Athletic Trainers Association

SUBJECT: Liaison Report for Year 1976 from National Athletic Trainers Association

The 27th Annual Meeting of the National Athletic Trainers Association was held at the Sheraton Boston Hotel at Boston, Massachusetts on 13, 14, 15 & 16 June 1976. The attendance and participation was excellent. The total attendance was over 1,200 people with nearly 800 trainers and student trainers present. The total national membership of all classifications of N.A.T.A. is approximately 3,700.

There were many excellent papers in the field of Sports Medicine presented at the sessions by both physicians and trainers. The N.A.T.A. continues to get better participation by its members at their scientific sessions than by any other organization I have ever been associated with. They are a very dedicated group of professionals who work hard at improving their ability to give service to their schools and to their athletes. It remains a refreshing experience to have the opportunity to attend the N.A.T.A. National Meetings.

Again, the number of women who were actively involved in the program increased, and the opportunities for qualified women trainers getting jobs is still very good. There has developed some problems in job placement for both student trainers and for certified trainers.

One part of the problem in placement has been brought about by inflation and less funding at various levels of education. It is hoped by some that an increasing number of states will pass laws on requiring certified athletic trainers to be available for every school that competes in interscholastic athletics. At the present time, it is my understanding that there are about eight states that are now providing licensure for athletic trainers. As this spreads to more and more states, it will soon help solve the employment problems. Each state has been asked to work on getting a licensure set up for the trainers that practice there.

In cooperation with the Schering Corporation, the N.A.T.A. has put on excellent topical athletic medicine symposiums on the Sunday before the actual convention starts. These are well attended and well received.

The number of colleges and universities with a degree program for athletic training is still around 40. Continuing education will be a new part of their overall program in the future.

The N.A.T.A. continues to work with H.E.W. in trying to become the recognized national accrediting agency for the field of athletic training. By remaining an independent group of professional people that have established sound criteria for their profession, they will gain the recognition they deserve. At their annual banquet they gave their President's Challenge Award to Dr. Dan Hanley of Brunswick, Maine. They also award several scholarships each year to deserving student trainers.

As always, the trainers work for the increased safety of the individual athlete. They have been the backbone for the collection of meaningful national data for the N.A.I.R.A. project headed by Dr. Casey Clark at Penn. State.

Frank George of Brown University in Providence, Rhode Island continues as president of the N.A.T.A., and Mr. Otho Davis of the Philadelphia Eagles remains the Executive Director. Mr. Jim Dodson of Midland, Texas continues to represent the N.A.T.A. to the A.C.H.A. as their liaison person.

The Journal of the N.A.T.A. has gotten stronger and does publish many good articles on Sports Medicine and athletic training.

It continues to be a delight and joy to have the honor of being the liaison representative to the N.A.T.A. from

the A.C.H.A. The next Annual Meeting of the N.A.T.A. will be held on 12, 13, 14, & 15 June 1977 at the Hyatt Regency Dearborn in Dearborn, Michigan.

Signed
Donald L. Cooper, M.D.

**UNITED STATES OLYMPIC COMMITTEE
QUADRENNIAL MEETING**

Report from Frank George:

I appreciate having had the opportunity to represent N.A.T.A. at this very important U.S.O.C. meeting. There were a number of matters acted upon which directly included a number of restructuring and legislative changes. The majority of these changes were brought about because of the recommendations of the President's Commission on Olympic Sports (P.C.O.S.). The U.S.O.C. constitution was amended for the simplification of the U.S.O.C. governance structure from a four tier tea three tier pattern. The U.S.O.C. is now governed by a House of Delegates, and Executive Board, and an Administrative Committee. (See amendment No. 4).

A major change which has a direct effect upon N.A.T.A. is a change in the basic structure of the U.S.O.C. All Group E and F organizations have been deleted from the U.S.O.C. and may be represented through affiliation elsewhere. (See No. 3 - A Basic Structure). This was a proposal of the P.C.O.S. As liaison representative of N.A.T.A., I spoke against this motion when it was proposed. My rationale was that both the P.C.O.S. and the Athletes Advisory Council had called for an improvement in the area of Sports Medicine. I indicated to the U.S.O.C. that by deleting Group E and F members, the two associations most directly concerned with sports medicine were being deleted, that is, the N.A.T.A. and the A.C.S.M.

A new committee has been formed by U.S.O.C., it is the Olympic Sports Medicine Committee. (See Amendment No. 23). The formation of this committee was a recommendation of the P.C.O.S. Irvin Dardik, M.D. is the chairman of this committee. N.A.T.A. will be represented to U.S.O.C. through this committee. Dr. Dardik indicated to me that with the restructuring, N.A.T.A. would now have direct input into U.S.O.C. through the Olympic Sports Medicine Committee. He indicated in fact that the N.A.T.A. situation with U.S.O.C. would be much improved.

The President of N.A.T.A. will be a standing member of the Olympic Sports Medicine Committee. The N.A.T.A. President has been invited to the next Sports Medicine Meeting at the Olympic House. The N.A.T.A. Board of Directors may wish to designate someone other than the President of N.A.T.A. to this position. I had the opportunity to address the U.S.O.C. again and indicated that N.A.T.A. was in favor of restructuring, if N.A.T.A. would then have more input into U.S.O.C. as it pertains to athletic training. Also, all Group E and F organizations may be maintained within U.S.O.C. on an honorary membership basis. However, this policy has not been defined or established.

There will be eventually six regional Training centers: two have now been established, that is, Squaw Valley and Colorado Springs. Each center will have five departments pertaining to Sports Medicine:

1. Exercise Physiology
2. Biomechanics
3. Nutrition
4. Sports Psychology
5. Medical Services
 - a. M.D.
 - b. Dentist
 - c. Trainer
 - d. Pediatricist
 - e. Nurses.

The regional training centers may also be used for athletic training and sports medicine types of seminars.

New U.S.O.C. officers have been elected and Robert Kane is the new President of U.S.O.C. Tenley Albright, M.D., is the new secretary of U.S.O.C. The date of the next games are:

- Pan American - Aug. 4-14, 1979, San Juan
- Winter Olympics - Feb. 4-13, 1980, Lake Placid
- Summer Olympics - July 19- Aug. 3, 1980, Moscow

**U.S. SENATE SELECT COMMITTEE ON SMALL
BUSINESS HEARINGS ON PRODUCT LIABILITY**

A STATEMENT

Kenneth S. Clarke, Ph.D., Professor and Chairman of Health Education, Director, National Athletic Injury Illness Reporting System The Pennsylvania State University, University Park, Pennsylvania

Senator Culver and distinguished committee members, it is a privilege to have been invited to appear today to offer comment on the relevance of your concerns

to the world of sport. That part of my professional background which is related to this discussion is appended to this statement for your review.

Since 1963, I have been involved nationally in various sports medicine and injury control issues in the interest of promoting the health and educational benefits of sports participation. Millions of Americans are accepting a reasonable risk of injury to obtain these benefits, and they assume that those who govern and conduct sports programs are using defensible methods for keeping the govern and conduct sports programs are using defensible methods for keeping the risk reasonable. Having experienced the school & college sports governance bodies, the medical and athletic trainer professional societies, and more recently the sporting goods industry as they approached their tasks within these issues, I am most pleased to attest to the credibility of that assumption.

However, *everyone* is an expert on sport matters. I can attest from personal experience that those who share responsibility for the defensible conduct of sports in our schools and colleges have faced and are continuing to face a myriad of contentions concerning the nature and extent of health and safety problems in sport, and concerning the solutions to these problems, without sufficient data to verify or refute the invariable conflicting contentions. To some, this vulnerability has led to a healthy respect for the requirements of meaningful research which would bring objective discernment to these incredibly complex issues. To others, this has led to high award litigation on behalf of stricken athletes that is on the brink of establishing a series of precedents for what constitutes standards, cause-effect relationships, and thereby liability in sport. It is my opportunity today to register my opinion that these developments are seriously threatening the future of organized sport for our youth by threatening the economic capabilities of the businesses that enable sport, and that they stem largely from unwarranted claims.

Consider the following excerpt from a recent National Federation of State High School Associations statement (National Federal Press Service, March 1977):

"... Two gymnastics events are in jeopardy because of personal and product liability litigation. The trampoline, which has already been dropped from gymnastics programs of most states, was eliminated from the girls gymnastics program in Iowa recently because of the inability of schools to obtain liability insurance coverage. Vaulting was discontinued from the girls gymnastics program of the Waterloo, Iowa schools for the same reason - the ability to obtain liability insurance coverage.

Football is in a punting situation because the manufacturers of helmets are tired of paying increased insurance premiums which have resulted from multi-million dollar judgements against them. Diving was nearly dropped from the interscholastic swimming programs of several states over a question of the liability of administrators and coaches who schedule and conduct practices and competition in pools which do not meet the minimum depth standard, even though they have done so for years without injury and without worry."

The statement continues by asserting that the rise in personal and product liability does not correspond to a rise in injuries or a decline in the quality of coaching or equipment. But before I turn to data analysis, allow me to introduce for perspective two other reflections of the problem. One comes from a helmet manufacturer who circulated a letter publicly this Spring announcing that there was pending at that time over \$76 million in suits to helmet manufacturers while these same manufacturers look forward collectively to only \$12 million gross sales annually. The other comes from the National Sporting Goods Association: One sporting goods dealer "... is currently in the midst of a \$16 million lawsuit filed against his store last August." The plaintiff allegedly complained that a serious injury he had suffered in football was due to the helmet he was wearing which had been purchased from that store. Apparently, retailers share responsibilities and vulnerabilities with manufacturers concerning product liability in sport.

Regardless of my personal opinion, my expertise does not include the establishment of what constitutes a fair compensation for a victim of negligence. I have established reasonable competence, however, in analyzing the credibility of claims of cause and effect in sport. Further, for nearly six years I was professionally employed at work with physically disabled youth, especially those with spinal cord injury. In fact, my doctoral dissertation concerned the health of the paraplegic, and one of my lifelong cherished memories was as Head Coach of the first wheelchair athletic team that represented the U.S. in the world "Paralympics" (in Rome, 1960, immediately following the Olympics). Currently, I am a member of the Pennsylvania Department of Health's Committee on Spinal Cord Injury.

Consequently, I am most aware of the profound nature of paraplegia and quadriplegia and the impact of these

permanent disabilities on the young boy or girl who is suddenly and irreversibly stricken while living the full life. If by staying involved as an independent investigator or as a member of a duly constituted committee to advise rules committees on health matters I can locate causes of such injuries which lend themselves to controls, I will not be reticent. I was actively involved with others in the successful clarification in the football rules of defensible blocking and tackling techniques in high school and college football (1976) and in the unnecessary and thereby unreasonable risk of serious head/neck injury in football (1976).

Nor should I be reticent if I cannot find substantiation behind the assertions of others who are not accountable for the results of their assertions. To illustrate, the allegations currently circulating concerning football helmets, according to the January 1977 issue of TRIAL magazine, apparently relate to general product failure or to a specific mechanism associated with the design of a particular helmet. If there is indeed a valid cause-effect mechanism operating related to a product and if there are indeed many occasions for the mechanism to operate (i.e., considering the number of head contacts in football), there should be a distinguishable number of the effects being experienced associated with the identified cause. At this point, allow me to introduce data available to me that attend to this premise of epidemiological surveillance.

First, fatalities. There is no question but that most football fatalities stem from head or neck injuries. This persistence is accompanied, however, by a relative infrequency. In 1966, I published an article in the *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION* to demonstrate the steps required to evaluate the actuarial question of death in football. The statistical exercise accompanying the rationale yielded a one-to-one ratio, controlled for hours of exposure, of the fatality rate among football players and the fatality rate among all males in that age group from all accidental causes. I also yielded a ratio, again controlled for hours of exposure, of one football related fatality for every nine auto-related fatalities among males in that age group. Being prepared for publication is an update ten years later of that exercise using current data. The football-auto fatality ratio now appears to be 1:30. Deaths in football have gone down over the past decade while both participation and auto deaths have risen.

For further perspective in this regard, I have tentatively (and I believe conservatively) calculated an estimate that a head/neck-related fatality occurs in high school and college football for every five million helmet collisions as another index of performance effectiveness. A proposal has been prepared to get the game films and the film analysis which would properly determine this ratio.

Equivalent figures are not readily available for permanent spinal cord injuries, but our national survey of such injuries in school/college-sponsored football in 1973-75 yielded an estimated average annual incidence of 3 to 4 cases per 100,000 varsity football players. This survey utilized the active assistance of the National Federation of State High School Associations, The National Collegiate Athletic Association, the National Junior College Association, and the National Association for Intercollegiate Athletics. They distributed the survey form at their expense to all their members, encouraging them to cooperate. Monsanto Corporation awarded us a grant to defray the remaining costs. Review of the literature found little to compare this with, but authorities estimate that 50% of all spinal cord injuries stem from auto accidents, and that less than 10% come from recreational activities.

It is neither sufficient to reactualize away severe injuries because they are infrequent nor to delimit one's attention only to the severe injury. Searches for other patterns of injury of less obvious or dramatic nature must be encouraged as well. For example, the National Athletic Injury/Illness Reporting System (NAIRS) has been following whatever goes wrong to an athlete in various sports, including football, over the past two years. NAIRS was conceived three years ago out of three national interdisciplinary workshops (funded by Penn State University and the National Collegiate Athletic Association) that yielded the best possible compromise of input/output expectations for data analysis. Customary products are included, and type and brand of these products are recorded along with the other circumstances associated with injuries experienced. About 50-odd school and colleges have piloted the reporting on football.

In the NAIRS system, a reportable concussion is any disorientation caused by trauma which required cessation of play to examine the athlete, no matter how momentary the symptoms. The rate of game-related reportable concussions in 1975 and 1976 was very stable, about 5 for every 100 football players.

Further, NAIRS is able to retrieve injury data by different degrees of severity. For the significant concussions, i.e. those keeping the athlete out of participation for at least one week, the rate for 1975 and 1976 again was stable, about 6 per 1000 athletes. None of

the significant concussions, I understand, resulted in severe brain damage.

We have the input and retrieval capability of associating any of these experiences with type and brand of helmet and turf and other intervening variables as well. We have too few numbers of concussions, too few schools and colleges utilizing the system thus far, and too few years thus far to generalize from the relative frequency of concussions by product-relatedness, but a cursory review of the data to date would not support anyone's isolation of a particular product as a foreseeable cause of a head or neck injury.

Considering again the tremendous frequency of violent collisions in football, it appears from our data that helmets are doing their job of attenuating or dissipating these forces. A small percentage suffer a reportable concussion and about nine-tenths of these prove to be of no consequence. Further, no pattern is adhering thus far to these injuries which would implicate a particular manufacturer's product.

This system for following in epidemiological perspective the frequency and patterns of injuries and illnesses in sport, it should be noted, was launched by grants from the National Sporting Goods Association, Sporting Goods Manufacturers Association, Schutt Manufacturing Company, Monsanto Corporation and the Consumer Product Safety Commission as well as the National Federation, NCAA, and the Amateur Hockey Association. Except for the CPSC contract, these grants were received *before* the data collection retrieval system was operating. In fact, members of the industry knew nothing about NAIRS until after the total design had been conceptualized via the workshop process. It was at that point that they voluntarily enabled us to collect the product-related data with no strings attached. The CPSC contract provided the computerized means to edit and retrieve the data in efficient manner.

One reason for the direction our results seem to take us was the advent of the National Operating Committee for Standards for Athletic Equipment (NOCSAE) in the early 1970's. This structure combines representatives of sport and the industry to support independent engineering analysis of selected products. By this structure, the sporting goods industry found the means for uniform laboratory examination of qualities of these sports products and the development of uniform voluntary safety standards based on assumptions of performance requirements and the laboratory findings. While more refinements and applications are warranted, sufficient progress had been made by 1975 that both the high school and college rules committees adopted the NOCSAE Standards for football helmets.

Beyond NOCSAE is the tradition of communication between rules committees and the portion of the industry affecting or affected by the rules. At the high school level, rules deliberations are open to manufacturers, and if the occasion warrants they are given the opportunity to share a consideration or clarify an implication. At the college level, an NCAA Committee on Competitive Safeguards and Medical Aspects of Sports serves to screen product-related contentions and forwards their comments to the particular rules committee for their consideration. A Joint Commission on Competitive Safeguards and Medical Aspects of Sports, composed of representatives of high school, junior college, and college sports organizations, plus those responsible for the health supervision of sport, meets at least one a year to provide a forum and communication mechanism concerning new developments in athletic safety.

A recent illustration of this process may be of interest. As Chairman of the NCAA Committee several years ago, I received a letter referred to me by Mr. Walter Byers, the executive of NCAA, which concerned an incident in which a lacrosse player's eye was severely damaged when a ball penetrated the lacrosse mask, broke the lens of the glasses the boy was wearing, and then the shattered lens penetrated the eyeball. A cursory check determined that the ball was known to penetrate from time to time, albeit rarely. On behalf of my Committee, I referred this information to the NCAA Lacrosse Committee expressing an interest in the action they intended to take. In addition, our Committee prepared for distribution a position statement on the distinction between FDA safety standards and industrial quality standard for eyeglasses. Within a year, the Lacrosse Committee informed us that with the assistance of associated manufacturers, new standards for the lacrosse mask had been adopted including but exceeding the consideration of ball penetration. These actions were then shared with the Joint Commission.

In summary, organized sport has both the sensitivity to, and structures for, applying appropriate safety standards that protect athlete and sport. What has been lacking is funds, competitive allocation of these funds, and confidence in the prerogative of self-governance of sport safety concerns. Without such funds, there is a paucity of legitimate investigators who will devote consistent attention to valid concerns and no paucity of isolated reports from investigators of varying credibility who found some local money to pursue a particular interest.

What also has been lacking is an appreciation of the interdependency of those sharing in the benefits and hazards of sport. Whether a business firm or a coach or a school corporate body is threatened with accusations of negligence and chooses to or is forced to forego continuing involvement in sport, the others are threatened as well.

It is very possible that few plaintiffs truly believe their cause-effect allegations, but they have no other means of paying the enormous bills which are presented to a spinal cord injury victim. Until some form of catastrophic injury insurance or foundation is available, litigation and the rhetoric adhering to litigation will continue.

It should be noted that my assignment today approaches a typical consumer concern. In sport, man is to be protected not so that he can survive but so that he can live. In other words, to gain health, one must risk it. "Safety first" is neither a warranted nor an effective slogan in influencing risktaking behavior in recreational domains; it makes safety the end instead of the means to a desired end or task. The products and activities associated with recreation should be evaluated likewise.

This is no quarrel with one's opinion as to causes of problems in sport. Consumers and providers alike cannot make decisions without opinion. This is a concern, however, with the inference advanced by some spokesmen for cause and effect that their beliefs are research findings that the world cannot ignore; a concern with the presumptiveness of some using research reports as an editorial on profound sports medicine issues beyond the constraints of the research design; a concern with the hazard of influencing prematurely and perhaps spuriously the positions people take on serious issues. Thank you for this opportunity to share these thoughts with you.

NATIONAL ASSOCIATION OF INTERCOLLEGIATE ATHLETICS (NAIA)

The following report was submitted by: Al Ortolani, Chairman of N.A.I.A. Sports Medicine Committee

At our N.A.I.A. sports medicine meeting on March 10, 1977 in Kansas City our Committee adopted an Athletic Physical form to be used by our member institutions since we've found that many schools are delinquent in offering a complete physical to its athletes. We are attempting to upgrade what many N.A.I.A. schools are doing in hopes of eliminating possible liable suits after the season progresses on.

We just completed a symposium on legal aspects of sports which was primarily attended by Athletic Directors and coaches. This program was well received by those that attended.

Next year (1978) we still sponsor a symposium for A.D.'s on Drugs in Athletics & Their Implications. Dr. Donald Spencer, Kansas City orthopedic surgeon will chair this program.

We are still awaiting results from a questionnaire which I hope will give us an idea of how many certified Trainers are now being employed by our 535 N.A.I.A. schools! I'm sure the results will be alarming.

This is an outstanding reason why N.A.I.A. needs N.A.T.A. to try and educate our A.D.'s as to the reason each school must have a certified Trainer on Staff. We (N.A.I.A.) will also need help and direction in developing more symposiums on topics which are current in our field and also important to A.D.'s, coaches and the small college trainer.

Approved to accept NAIA report. MOVED (District 10, seconded District 6, and carried).

THE NATIONAL COLLEGIATE ATHLETIC ASSOCIATION

February 16, 1977

TO: Collegiate Commissioners Association
Rules Supervisors
Football Officials

SUBJECT: Unsportsmanlike Conduct

The NCAA Football Rules Committee, the communications media, athletic administrators and the public are distressed with the unsportsmanlike conduct and tactics humiliating college football. The Football Code and rules governing unsportsmanlike conduct are being ignored by players, coaches and officials. Unless all three parties, who equally share the responsibility, immediately take action to fulfill their obligations to the Code and the rules, the game could deteriorate into a major crisis.

The football Code, the preamble to the rules, is very clear on the subject:

Traditionally, football is the game of the schools and colleges. Therefore, only the highest standards of sportsmanship and conduct are expected of players, coaches and others associated with the game.

Football is and should be an aggressive, rugged, con-

tact sport. However, there is no place in the game for unfair tactics, unsportsmanlike conduct or maneuvers deliberately designed to inflict injury. Through the years the Rules Committee has endeavored by rule and appropriate penalty to prohibit all forms of unnecessary roughness, unfair tactics, and unsportsmanlike conduct. But rules alone cannot accomplish this end. Only the continued best efforts of coaches, players, officials and all friends of the game can preserve the high ethical standards which the public has a right to expect in America's foremost collegiate sport.

Talking to opponents, if it falls short of being abusive or insulting, is not prohibited by the rules, but no good sportsman is ever guilty of cheap talk to his opponents.

The football player who intentionally violates a rule is guilty of unfair play and unsportsmanlike conduct, and whether or not he escapes being penalized he brings discredit to the good name of the game, which it is his duty as a player to uphold.

The rules are explicit:

1-1-5

Each team shall designate, to the Referee, one or more players as its Field Captains and one player at a time shall speak for his team in all dealings with the officials.

9-2-1-a-1

No player, substitute, coach, authorized attendant, or other persons subject to the rules shall use abusive or insulting language to players or officials or gestures or acts that provoke ill will including swinging a hand or arm and missing an opponent or kicking and missing an opponent.

9-2-1-a-5

After a score or any other play, the player in possession must return the ball to an official immediately.

9-2-3-b

The Referee may enforce any penalty he considers equitable, including the awarding of a score:

b. If play is interfered with by an obviously unfair act not specifically covered by rule.

The prestige, integrity and future of college football are in jeopardy and only with the complete cooperation of coaches, players and officials, supported by the Code and rules, will college football retain its position as one of America's leading social institutions.

NCAA Football Rules Committee

February 16, 1977

TO: American Football Coaches Association
William Murray, Executive Director

SUBJECT: Unsportsmanlike Conduct

The NCAA Football Rules Committee, the communications media, athletic administrators and the public are distressed with the unsportsmanlike conduct and tactics humiliating college football. The Football Code and rules governing unsportsmanlike conduct are being ignored by players, coaches and officials. Unless all three parties, who equally share the responsibility, immediately take action to fulfill their obligations to the Code and the rules, the game could deteriorate into a major crisis.

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Traditionally, football is the game of the schools and colleges. Therefore, only the highest standards of sportsmanship and conduct are expected of players, coaches and others associated with the game.

Football is and should be an aggressive, rugged, contact sport. However, there is no place in the game for unfair tactics, unsportsmanlike conduct or maneuvers deliberately designed to inflict injury.

Through the years the Rules Committee has endeavored by rule and appropriate penalty to prohibit all forms of unnecessary roughness, unfair tactics, and unsportsmanlike conduct. But rules alone cannot accomplish this end. Only the continued best efforts of coaches, players, officials and all friends of the game can preserve the high ethical standards which the public has a right to expect in America's foremost collegiate sport.

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NCAA Football Rules Committee

National Association for Girls & Women in Sport

The National Association for Girls and Women in Sport (NAGWS) representing over 13,000 professionals in sport, has been formed out of recognition of the need to develop, encourage, foster and support quality sport programs for girls and women. Since its development from the first basketball committee for girls and women in 1899, it has been the only national professional organization devoted exclusively to providing opportunities for girls and women in sport. To effectuate its purposes the NAGWS functions through eight structures, among which are the Association for Intercollegiate Athletics for Women (AIAW), the only governing organization in the United States for Women's intercollegiate athletics serving two-year and four-year accredited institutions (representing some 787 members during 1976-77); the Affiliated Boards of Officials (ABO), the only nationally-based organization which rates and trains officials for girls and women's sport (over 12,000 officials are currently rated); the National Coaches Council, which provides services to coaches through its 10 member sport academies (approximately 1,000 coaches have joined in the last year); the GWS State Chairpersons, a nationally based network of persons dedicated to promotion of sport programs at the state and local levels (each of 50 states represented); and the National Intramural Sports Council (NISC), which promotes sport opportunities for all who desire to participate. NISC is a joint structure of the NAGWS and the National Association for Sport and Physical Education (NASPE). A student representing the interest of all NAGWS student members sits with vote and voice on the Board of Directors.

Two interest groups, previously committees, have now gained structure status: The Athletic Training Council and the Organization of Athletic Administrators. The Athletic Training Council utilizes the standards established by the National Athletic Trainers Association and provides a summer workshop schedule for athletic training. (Seven workshops were scheduled during 1976.) The Organization of Athletic Administrators is concerned with providing inservice training for administrators of girls and women's athletics at the high school, junior college and four-year college levels. (National conferences are scheduled for 1977.)

Not only does NAGWS provide for direct program services through structures to individuals in the elementary, secondary, junior college and four-year college education levels, the Association also provides direct voice through an elected member-at-large for each of the elementary, secondary and junior/community college members.

The National Riding Committee is a joint structure of NAGWS and NASPE and was established to organize standards by which rising might be rated. Since its organization in 1936, the National Riding Committee has sponsored clinics and rating centers throughout the country. In Spring of 1977, the NRC will host the first National Intercollegiate Riding Competition for both forward and western.

The concept of a total program for girls and women in sport is rounded off through other NAGWS services: writing of sport rules; publishing of rules and teaching and coaching articles in 11 sport guides for 23 sports; providing for liaison efforts with other sport governing bodies or related interest groups; developing and funding research on girls and women in sport; sponsoring national conferences for coaching (five held in 1976 reaching approximately 1,100 coaches), athletic training and other program thrusts; and effectuating affirmative action thrusts.

NATA Liaison Report

On March 24, 1977, I represented the NATA at the spring Board Meeting of the National Association for Girls and Women in Sport (GWS). At that meeting I also served as Chairperson of the NAGWS Athletic Training Council.

At the short meeting there were no action items discussed that were relevant to the NATA. However, a summary of items presented by the ATC is presented below.

3. A request for funds to hold a face-to-face meeting of the new ATC Executive Committee was denied.

2. Marge Albohm, ATC at Indiana University, was elected to the office of Chairperson-elect.

3. Tentative plans were made for a meeting in late April for representatives of NASPE-ATC, NAGWS-ATC, and NATA to discuss the purposes and priorities of both councils. (At the meeting the possibility of merging the two councils was discussed. However, it was decided to attempt some joint projects first. Recommendations will be made to the two Boards, NASPE and NAGWS, once the outcome of the projects is evaluated. Among the projects planned are two intermediate level athletic training workshops and three athletic training sessions at the National AAHPER Convention.)

Respectfully submitted,
Holly Wilson, ATC
NATA Liaison to NAGWS

May 23, 1977

TO: Members of the ATC Education Committee

FROM: Holly Wilson, Chairperson ATC

RE: Committee Charge

Now that the spring sports have concluded, I assume you have a little more free time. I must apologize for not getting back to you sooner about the ATC Education Committee, but I had to attend an important meeting on the future of the council late in April. At that meeting representatives from the two athletic training interest groups, NAGWS and NASPE, met to discuss the purposes and priorities of each group. It was decided that the two groups should work on several joint projects — two intermediate level athletic training work shops and three training sessions at the next National AAHPER Convention which will be in Kansas City. Hopefully, these additional projects will not interfere with those that have been planned for the ATC this year.

The charge for the Education Committee involves three tasks in an attempt to provide coaches with pertinent information about the female competitor and realistic athletic training knowledges and skills. First, the workbook for the Cramer-NAGWS Summer Athletic Training Workshops needs to be reviewed. Is the information being covered in the workbook suitable for the high school or college coach who does not have the services of a trainer? If not, what are your recommendations? The workbooks will be mailed from Gardner, Kansas, sometime this summer. All recommendations need to be to me by the 1st of September so I may send them on to Hugh Grubiss by mid-September. Second, a slide series on the role of the trainer was developed for the 1976 Drop-in-Center at the National AAHPER Convention (Milwaukee). Although three copies of the series are currently circulating around the United States, I think the series would be more effective if a cassette accompanied it. As soon as one of the series is returned I will circulate it among the committee members. What are your reactions to the series? If such a project appears to be feasible, let me know. Members of the Public Relations Committee will assist in writing the script. Third, it has been suggested this committee work on an annotated bibliography of athletic training articles relative to the coach/trainer Reactions?

Enclosed you will find a copy of the "Dear Prospective Athletic Trainer" letter. Does it need to be changed or up-dated in anyway?

I have asked the members of the ATC Competition Committee for their reactions to an idea for a new AAHPER publication "WHAT Research Tells the Coach About the Female Athlete." There are several "What Research Tells the Coach" books available from AAHPER, but each focuses on a specific sport.

I have a master list of all the certified women trainers in the country. I am thinking of using this master list as a list of suggested clinicians for athletic training workshops/clinics around the country. The Education Committee would be the contact for groups seeking to develop such workshops. I am hoping we can develop some guidelines to assist these groups in their planning. Not only helping them locate a qualified clinician, but suggest contacts for donation of supplies, literature, etc.

Finally, I have enclosed AAHPER propaganda. For the fall Board of Directors Meeting each chairperson has been asked to bring recommendations on membership requirements for their structure. It appears that many trainers are not AAHPER members. Yet, the proposed operating code of the ATC calls for membership in AAHPER. In addition, if the ATC member desires to hold an office or committee appointment, she must also be a member of the NATA. What are your reactions? Are we being realistic? Would you help me identify advantages of a trainer being a member of AAHPER?

Hope you have a refreshing summer. Please keep in touch. I need your input by the 1st of September. Thanks for your help.

Take Care.
Holly Wilson, ATC
Chairperson, NAGWS
Athletic Training Council

NCAA Football Rules Committee Meeting

Enclosed is a copy of the N.C.A.A. rule changes for 1977 and a copy of my report to the N.C.A.A. Rules Committee.

A lot of discussion was done, but there are not many rule changes this year.

The Committee would like for the trainers to complete the N.C.A.A. injury reports and give any comment that they might have at the end of each season. Also, more input is needed from more schools for the NAIRS Report.

The sports manufacturers believe that this will be a critical year for football as they have over \$100,000,000.00 worth of litigation against them this year and if we don't have helmets and equipment to play in, then we'll have to find something else to play. The insurance companies have raised their premiums so that the cost to insure a helmet will make the cost prohibitive. Three helmet companies have already dropped their line, with the remaining companies seriously considering the possibility of dropping out of the football business.

Riddell has done extensive studies on the padded helmet and the results are conclusive that the amount of pressure put on the cervical spine is doubled, etc.; with just one heard helmet versus one padded helmet. The results of two padded helmets puts even more stress on the cervical spine. Riddell has stated that at no price will it pay any helmet.

The Committee agreed to repemphasize against the teaching of using the head as a primary point of blocking and tackling. The Committee also agreed to stress the rules of the game to the officials for the safety of the players. If the rules are followed and called by the officials, we'll continue to have a great game.

Report to N.C.A.A. Football Rules Committee From National Athletic Association

Safety for the players is our primary concern and the National Athletic Trainers Association through the observation and surveillance of athletic injuries hopes to improve the reduction of injuries.

We would like to make the following recommendations:

1. The enforcement of the present rules that exist, which are for the safety of the players. The mandatory mouthpiece rule has helped, but it needs to be enforced. The torn jersey, which puts the safety of the player in jeopardy, is not enforced. Knee pads, worn over the knee. Hip and thigh pads need to be defined and enforced for the safety of the player. (One official stated that two band-aids could be called hip pads.) The four point chin strap being snapped is not being enforced.
2. We would like the face mask and helmet to be defined in reference to the blocking rule. (Does the face mask become part of the helmet or is it a separate piece of equipment?) (Is face blocking legal?) We recommend that all face masks be the cut away type.
3. We would like to see some studies on the exterior padding of the helmet by NOCSAE.
4. The size of the football squads are limited and is putting more stress on the trailers to keep the quality players on the field. We would like to recommend that a player who can play with a cast on his hand or arm be allowed to wear it providing the team doctor certifies the injury and a 3/8" foam padding cover the cast. A copy of the letter certifying the injury should go to the visiting team and the officials.
5. Specialty teams seem to have a high incidence of injury and we would like for the kickoff and punting be examined as to the safety for the players. (Possibly only two players allowed to cover a punt before the ball is kicked.) Protection of the kicker on kickoffs.)
6. The game of football is a collision type sport, but we need to control what the players have collisions with, as there is no excuse for various objects: benches, tables, yard markers, steel stakes, fences, T.V. equipment, and etc. causing injuries off the field of play. The 1/2" cleat has helped the incidence of knee and ankle injuries but when a field is left with grass too tall the player can pull muscles and also not be able to protect himself.
7. We were pleased to hear that no neck and head fatalities were recorded for 1976.

Spearing and late hits are still the most common complaint by trainers. Several trainers have said that no spearing calls were made all season. One player was indirectly killed by a late hit and another ended his career. We would like the officials to call the spearing and late hits, especially when a helmet, elbow or knife is involved.

Injury prevention is very important to each coach, player and team. The rules are there to protect the players and the officials need to do their part in this great game of football.

The N.A.T.A. wishes to commend this committee for its sincere concern in the prevention of injuries.

Justification why N.A.T.A. should continue liaison with N.C.A.A. Football Rules Committee

The N.A.T.A. has been a very important factor in helping make the N.C.A.A. football rules. The Trainers are the safety conscience of the Committee.

The N.C.A.A. Committee also has the Trainer on the Injury and Equipment Committee. This Committee meets with the manufacturers to discuss any problems which affect the game of football.

Approved the report submitted by Wayne Morris, A.T.C., N.C.A.A. Football Rules Committee Meeting. MOVED (District 8, seconded District 5, and carried).

OPEN BUSINESS MEETING

Monday, January 10, 1977

1:00 p.m.

1. The meeting was called to order at the Hotel Fontainebleau, Miami Beach, Florida, by Chairman Paul Trickett with an introduction of members and guests.

2. The minutes of the previous meeting held in Boston were reviewed. Item number 8 of the June, 1976 minutes should have read that John Powell, a doctoral candidate, has been delegated the operation responsibilities of NAIRS. With that one change, Dr. Sharra moved and Kermit Smith seconded that the minutes be approved. Motion carried.

3. Art Stevens gave a treasurers report which was unchanged since our June meeting. Our cash on hand is still \$182.88. Before next June Art said he would bill each full member organization \$100.00

4. Chairman Trickett reviewed the agenda and called an executive session at the close of today's open business meeting.

5. The report by Joe Zabalski of the Football Rules Committee had to be postponed because Joe was in another meeting.

6. Dave Arnold, Associate Executive Secretary of the National Federation of State High School Athletics Associations, reported on his organization's new rules and rule changes that pertain to safety:

- a. Thigh guards were made mandatory
- b. Offensive players are now permitted to use their hands when blocking, which should prevent head, neck and facial injuries.
- c. When a foul by the defense occurs on a play where the offense scores; the penalty will be stepped off on the next kick-off.

He also reported that there were no deaths from cervical spine injuries in the past year.

Vic Recine gave a report on his son Bob's progress and we were pleased that he is still improving.

7. HEW Study Status - Casey Clarke

The study was concluded July 1, 1976 as far as data collection is concerned. Information will be sent to Washington by January 15th. The tables will then be returned to Casey for recommendations to HEW who will in turn report to Congress. Casey said his recommendation will be that the individual states follow up on health supervision.

8. NAIRS Status - Casey Clarke

As of December 9, 1976 NAIRS had completed Phase II of its development. Phase I was the conception of NAIRS and Phase II was piloting such a system. NAIRS is ready to meet with CPSC to try and obtain 12 more months of financing. Casey said he is pleased with what NAIRS has become and that its use will make it a worthwhile system.

9. National Spinal Cord Injury Survey - Casey Clarke

The purpose of the survey was to obtain three years experience into the paralysis problem in sport. It involved the NCAA, NJCAA and the NFSHSA. There was a 40 to 50% compliance nationally. The study showed that permanent spinal cord injuries are low but persistent. The only trend was in high school football; they are on their way up. In relative frequency, the sports with the most spinal cord injuries are: 1) gymnastics, 2) football, 3) wrestling. These were at the high school level.

At this time, Chairman Trickett asked Ed Milner of Monsanto about the NFL Players Association petition regarding artificial turf. The petition asked CPSC to rule against artificial turf because it was unsafe. CPSC

denied the petition because of data supplied by the NFL and NAIRS. A copy of the Federal Registry concerning this ruling is included in these minutes.

10. NOCSAE Actions - Carl Blyth

Carl distributed a very informative pamphlet which explained what NOCSAE is and their actions. Carl announced the NOCSAE meeting times this week and invited Joint Commission members to the open meetings.

11. Football Fatality Report-1976 - Carl Blyth

Carl said he could not, at this time, give format data but they were improving. There have been no neck fatalities this year, the first year in a long time. He feels like we are making progress and there was improvement in both direct and indirect fatalities. Carl said he would bring copies of the report to the June meeting.

12. Following a break, Dr. Trickett took the chairs perogative and moved to item 13a since he wanted Casey Clarke to be present when it was discussed.

Pinky Newell led the discussion and said he was concerned about the number of injuries occurring on kickoffs and that he had recommended to the football rules committee, through his conference commissioner, that we do away with kickoffs, since wedgblocking is being taught as a technique.

Casey then commented that after Pinky asked NAIRS to study injury frequency on kickoffs, they began a study that will take until mid spring to complete.

Casey did give some preliminary figures.

Team ratio:

1.3 significant injuries to the kicking squad per season in games.

0.2 significant injuries during kickoffs in practice per season.

Of the game injuries:

13% - head & neck spine

29% - knee

22% - hip & leg

Of the practice injuries:

50% - knee

5% - neck & spine

These figures were taken from 40 participating college football teams and significant injuries refers to any injury that keeps a kid out for at least a week.

A good discussion followed and Casey was asked to bring the study results to the June meeting for further discussion and possible action.

13. Chairman Trickett called on the membership to present items of interest.

a. ACHA - Arthur Stevens - This interest in athletic medicine is continuing and abstracts of their program on April 19th - 22nd can be obtained by writing to Art.

b. NATA - Otho Davis gave dates of the June meeting and talked about the basic program. Joint Commission is to meet all day Saturday and Sunday morning so members can attend the Schering Symposium. Greatest interest in NATA this year has been state licensure.

Vic Racine briefly discussed the NATA and the high school trainers.

OPEN MEETING

January 11, 1977

9:20 a.m.

1. Chairman Trickett opened the meeting, covered the agenda and introduced Casey Conrad. He was a welcomed guest from Washington, D.C., representing the President's Council on Physical Fitness.

Next we continued with brief reports from our member organizations.

2. NCAA - Carl Blyth & Dennis Poppe

Carl and Dennis told us of the differend injury studies the NCAA is doing, e.g. injuries in spring football practice and the spinal cord injury study. The studies also used NAIRS and were published in the NCAA news.

NCAA is also going to monitor catastrophic injuries as well as fatalities.

A discussion followed on spring football practice and its necessity. A majority of the members were in favor of doing away with spring practice but felt we not make a statement at this time.

3. NFSHSA - Dave Arnold

Dave distributed pamphlets published by his organization, one on butt blocking and tackling and one on safety in football. A film was also produced on why butt blocking and tackling in high school football are dangerous. A brochure was also produced for the baseball umpires dealing with care of protective equipment.

Dave covered the baseball rule changes dealing with safety.

Vic Racine asked Dave to have the NFSHSA look in to protective equipment for women's field hockey.

4. NJCAA - Kermit Smith

Kermit began with the negative side of what the NJCAA is doing about safety in sports. The major points he mentioned are the lack of trainers, physical exams, and transfer rules.

On the positive side he felt that the way the Junior Colleges have cooperated and promoted athletic programs for women is exceptional.

5. AMA - Don Cooper

The AMA abolished all of their standing committees and councils including medical aspects of sports. In their place they created several large councils who will direct or recommend ad hoc committees whose life will be two years.

The Medical Aspects of Sports committee has been submitted to the council for reestablishment. One of its goals is to revise the book *Nomenclature of Sports Medicine*.

Before going out of business, the committee did get on the market a pamphlet entitled "Asthma and the Athlete." It was written for coaches and P.E. teachers.

They want also to write a pamphlet on "Diabetics and the Athlete."

Finally, Dr. Cooper got carried away and gave a very informative lecture on vestibulum and how it relates to sky-jacking. Ninety percent of the sky-jackers interviewed talked before they walked.

6. American Dental Association - Bill Neintz

Dr. Heintz began by distributing a very informative progress report from the ADA concerning developments in protection against mouth injuries in athletes.

Bill then made a few brief comments. He said the ADA now has one committee for mouth protectors for all sports. Canadians now have manditory helmets and as soon as standards are written, mouth and face guards will be manditory also for hockey. (Included is a copy of the BDHE progress report).

The Chairman requested each organization present a one page report similar to the one Dr. Heintz presented. Art Stevens will request each organization in writing prior to our next meeting.

7. Art Stevens was asked to give a report on the American Council on Education's study on intercollegiate athletics.

Based on a report to the ACE two years ago, entitled "The Need for and Feasibility of a National Study of Intercollegiate Athletics", the ACE is going to appoint a Commission on Collegiate Sports to look at intercollegiate athletics.

Art said he felt the importance of this is that the Commission on Collegiate Sports is a reality and we can have a direct impact on their functions if we can make closer ties with the commission and have input from the beginning.

Art will invite Mr. Spence, the director of the commission, to our June meeting.

Paul Trickett gave a further explanation about who and what ACE is, and the importance of the group. It is Presidents Club, made up of university and college presidents, and probably the most powerful group in higher education.

Our concern is where they are getting, or will get, the information for their studies, and this concern shows our need to redefine our own direction and goals.

8. Don Cooper presented a brochure introducing a new organization called Sports Safety and Health Care Society. Its purpose is to get information to high schools and junior high schools throughout the country. Its President is Bud Miller. Art Stevens is to write and ask him to speak to us in June. Schering put up the money to get this organization started.

9. Dick Sharra briefly presented what the Florida Medical Association is doing to educate trainers, coaches and high school programs. He showed part of a slide program available to schools, coaches, team physicians, etc.

Chairman Trickett adjourned the meeting for lunch.

OPEN MEETING (Cont.)

2:45 p.m.

January 11, 1977

The meeting began with a discussion of football tackling techniques and ended with the topic of job security of athletic trainers. No action was taken on either topic.

10. Fitness and Amateur Sports Branch, National Health & Welfare, Canada - Sam Kalinowsky

Sam gave a very interesting talk on the Montreal Olympics and its effects on amateur sports in Canada. Before the Olympic, Canada was ranked 21st athletically among the nations of the world - and following the Olympics they had moved up for 11th.

He then explained "Game Plan 1980", which is a comprehensive program to upgrade the 20 Olympic sports in Canada.

11. Canadian Amateur Football Association - Ted Purnell

Ted first talked about rules and said they had copied our NCAA rules on butt blocking and mouthpieces. The butt blocking rule was not used by universities. They are also going to try to utilize NAIRS in their rule making. He said they are definately using material gained at the Joint Commission meetings.

The trend in Canada, Ted felt, is moving away from intercollegiate football and heading towards club or intramurals.

Canadians are also trying to set helmet standards and plan to look closely at the work done by NOSCAE and ASTM. Ted said he will bring a film to the June meeting to show on the fitting of equipment.

12. Chairman Trickett asked Dennis Poppe to comment on agenda item 13b, experience with the mouth protector in NCAA hockey.

Dennis said he did not have anything specific to report at this time, but the mouth protector in NCAA hockey is a big concern of the rules committee.

12. Chairman Trickett read a letter from the American Academy of Pediatrics saying they were unable to participate as an associate member of the Joint Commission because their budget would not allow them to send a representative to all the meetings.

It was a consensus of the membership that Paul should write and ask them not to withdraw, but remain members and participate or attend as often as possible.

14. Dr. Trickett asked for new business and there was none.

15. Kermit Smith spoke briefly about a paper distributed to the membership, entitled "Social Changes in Athletics for Women."

In an addendum to his paper, Kermit suggested that the Joint Commission study the five player full court basketball for women and make a statement of position as to whether it is too strenuous, harmful or an acceptable form of athletics from a health standpoint.

The Commission agreed there was probably no physiological reason to prohibit females from playing full court basketball, but Dr. Cooper recommended Kermit should use the AMA's statement on women's participation in athletics.

16. Paul asked Dennis Poppe to see if the Commission members could be registered at the next NCAA meeting. Members were also reminded to bring their reports in writing to the next meeting and come to the meeting with their ideas as to where the Joint Commission is headed.

Chairman Trickett adjourned the meeting.

Respectfully submitted:

Roy Don Wilson

Secretary

Pinky Newell briefly discussed the NATA's grants and scholarships committee, of which he is chairman. This committee is significant in influencing young men to go into the athletic training profession.

Minutes of the Joint Commission on

Competitive Safeguards and the

Medical Aspects of Sports

January 10, 1977

Members present included:

Paul C. Trickett, MD., American College Health Association

Kermit Smith, National Junior College Athletic Association

Dave Arnold, National Federation State High School Association

Victor D. Racine, National Athletic Trainers Association

Kenneth S. Clarke, Ph.D., National Collegiate Athletic Association

Carl Blythe, Ph.D., National Collegiate Athletic Association

William E. Newell, National Athletic Trainers Association

Roy Don Wilson, National Athletic Trainers Association

Donald Cooper, M.D., American College Health Association

Richard B. Sharra, M.D., American College Health Association

Fred Miller, National Collegiate Athletic Association

Ex-Officio Members present:

Arthur Stevens, American College Health Association

Dennis Poppe, National Collegiate Athletic Association

Otho Davis, National Athletic Trainers Association

Associate Members present:

Dr. William D. Heintz, American Dental Association

Sam Kalinowsky, Ph.D., Fitness & Amateur Sports Branch of Health & Welfare, Canada

Ted Purnell, Canadian Amateur Football Association

Guests of the Joint Commission:

Fred Behling, M.D., (Stanford) NCAA Medical Aspects of Sports Committee

Ed Milner, Director Product Technology, Monsanto

Val Schneider, (University of Saskatchewan)

Casey Conrad, President's Council on Physical Fitness

The Finish Line

Student Membership Classification

On July 19, 1977 - forms were sent to all Student Members of N.A.T.A. The information compiled from these forms will enable the National Office to update student member classification and furnish us the necessary data needed for our computer system. If you are a *Student Member* and did not receive your membership classification form, please contact the N.A.T.A. office at Post Office Drawer 1865, Greenville, NC 27834 and one will be sent to you immediately. Let's update our records. If you are receiving Student Information and should be classified otherwise also bring us up to date.

Change of Address

Be certain that you send your address change to Athletic Training, Post Office Box 1865, Greenville, NC 27834. If your address isn't changed the Postal Department cuts off the label, sends it to us and throws away the rest of the Journal - this label is sent to N.A.T.A. and a fee of 25¢ is charged because of an incorrect address. You want your Journal; we don't want any cutt off corners of - same.

Bad Checks

Anyone submitting a check which for any reason is returned worthless to either the National Office or the Journal Office will from now on be charged a fee of ten-dollars (\$10.00). The minutes of the Directors Meeting and Business Meeting will disclose information regarding this newly adopted policy.

Regional Allied Health Organization Meetings

Anyone knowing of an Allied Health Organization Meeting held in your area please notify Jeff Fair at Oklahoma State University or mail directly to ATHLETIC TRAINING -

As CEU's go into effect this will allow more opportunities for our members to get the necessary points, without having to travel long distances at great personal expense. They will be listed for your assistance in the CALENDAR OF EVENTS

Minutes of Directors - and Business Meeting

The Minutes of the Directors Meeting as well as the Annual Business Meeting are published in the Fall Issue (Convention Meetings) and Spring Issue (Mid-Year Meeting) for your information. It is apparent that some of those complaining the loudest have not read the minutes as published in the Journal.

Trainer of the Year

Only Certified Trainers will receive ballots to vote for the Trainer of The Year award. If you have not received your ballot by the end of October contact - Post Office Box 1865 - Greenville, NC 27834 and one will be sent to you. (Note: TRAINER OF THE YEAR - featured in this Issue)

District Meetings

District 5 will be holding it's Mid-year meeting this year March 19, 20, 1978 in Kansas City - you might want to make sure that you mark your new 1978 calendar of this important date. Also if you have any new suppliers who would care to exhibit their products at this meeting - remind them of the fantastic media they can reach - and have them contact your District Director - District 5 - the above meeting - contact Bill Flentje at Iowa State University - Ames, Iowa.

Special Thanks

Dan Steuer, Athletic Sales Division of the Tetra Company extended a special thanks to N.A.T.A. for the participation as an exhibitor at the recent annual meeting. The feeling was mutual Tetra - we're glad to have you there. See you in Las Vegas.

Eddie Block

Our friend who is Head Trainer of the Baltimore Colts, Eddie Block, suffered a heart attack - in July as the

Colts were preparing to head for training camp. His recovery has been slow but if you know Eddie - he'll be out there on the field - as soon as his physicians will permit. It would be great if each and everyone of NATA could write a note or send a card to him and let him know we wish him a speedy recovery. Just send you cards and letters to EDDIE BLOCK - 13 Dendron Court, Baltimore, MD 21234 (While Eddie was in the hospital he received a letter from the NASA (Eddie has worked in training our Astronauts) and a model of the newest - space vessel - the note read "Get well soon Eddie so we can give you a ride".

Dr. Joseph Codfrey Honored for Contribution To Sports Medicine

Dr. Joseph D. Codfrey, M.D., team physician of the Buffalo Bills Professional Football Team since 1960, was honored for his contribution to Sports Medicine when he became the 1977 recipient of the President's Challenge Award presented by Kwik Kare Products, a division of Kay Laboratories, Inc. This presentation was made at the N.A.T.A., 28th Anniversary Awards Banquet held in Dearborn on June 14, 1977.

In addition, a grant of \$1,500 was awarded by Kwik Kare Products of Grand Prairie, Texas, marketer of trainers supplies, to the National Athletic Trainers Association Grants and Scholarship Fund, in the name of Dr. Codfrey. The grant is earmarked for student training and/or research in athletic training.

Dr. Codfrey, a leading orthopaedic surgeon for over forty years, is nationally reknown for his endeavors in children's orthopaedics, adult orthopaedics, reconstructive orthopaedics, and the major thrusts he has made in sports medicine over the last fifteen years.

As a team physician of the Buffalo Bills for seventeen years. Dr. Codfrey has made significant contributions in the area of both medical and surgical care, developing new modes of treatments and innovations for rehabilitation programs.

This is YOUR Journal and being the one and only publication of the National Athletic Trainers' Association we want to hear from you. Keep in touch with us as to great things which are happening in your Districts - let us know so that we can pass it on. Just contact - M.E.

Guide to Contributors

Athletic Training, the Journal of the National Athletic Trainers Association, welcomes the submission of manuscripts which may be of interest to persons engaged in or concerned with the progress of the athletic training profession. The following recommendations are offered to those submitting manuscripts:

1. Eight copies of the manuscript should be forwarded to the editor and each page typewritten on one side of 8 1/2 x 11 inch plain paper, triple spaced with one inch margins.

2. Good quality color photography is acceptable for accompanying graphics as well as glossy black and white prints. Graphs, charts, or figures should be of good quality and clearly presented on white paper with black ink, in a form which will be legible if reduced for publication.

3. The list of references and citations should be in the following form: a) books: author, title, publisher with city and state of publication, year; b) articles: family names, initials and titles of all authors, title of article, journal title, with abbreviations accepted as per Index Medicus, volume, page year. Citations in the text of the manuscript will take the form of a number in parenthesis, (7), directly after the reference or name of author being cited,

indicating the number assigned to the citation in the bibliography.

4. It is the understanding of the editor of *Athletic Training* that manuscripts submitted will not have been either previously published nor simultaneously submitted to another journal. The author accepts responsibility for any major corrections of the manuscript as suggested by the editor.

5. It is requested that each submitting author include a brief biographical sketch and acceptable photograph of themselves. Please refrain from putting paper clips on any photograph.

6. For reprints, authors are authorized to reproduce their material for their own use or reprints can be reproduced at time of initial printing if the desired number of reprints is known.

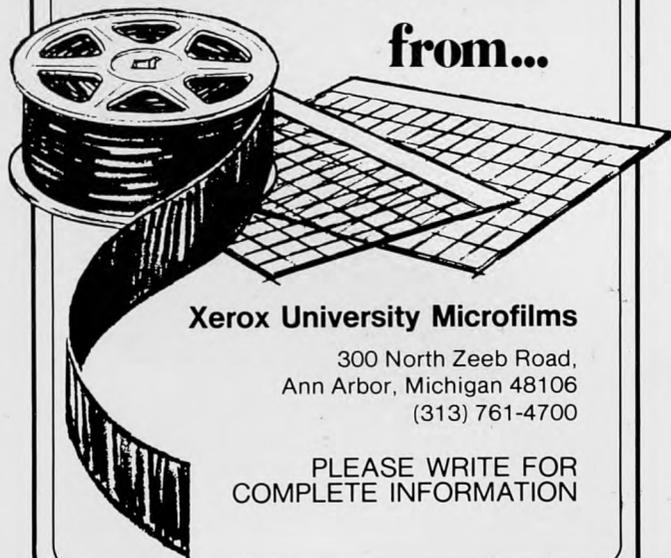
7. Unused manuscripts will be returned, when accompanied by a stamped, self-addressed envelope.

Address all manuscripts to:

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

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