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
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ARTICLES

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


The 1977 Schering Symposium on the Shoulder:

141 Functional Anatomy and Biomechanics of the Shoulder Joints by Vincent Distefano, M.D.

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

146 by Thomas V. Pipes

Proceedings of the National Athletic Trainers Association

159

DEPARTMENTS

Letter from the President........ 106
Letters to the Editor.......... 108
Calendar of Events........... 110
Potpourri.................. 110
Editor’s Comments........... 112
Abstracts.................. 114
Tips From the Field......... 122
Current Literature.......... 124
Book Reviews............... 125
Announcements............. 152
The Finish Line........... 170
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 Distict 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,

[Signature]

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,

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.

Sincerely,

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


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)
AN OPEN LETTER: ALL MEMBERS N.A.T.A.

Thank you for your interest in and purchases of Tetra Elastic Wraps and Supports. When we initially wrote our letter we had no idea how widespread a response we would receive. It was tremendous!

We’re happy that we’ve been able to help our friends in the athletic training field. We’ve written this follow-up note for the fall issue of Athletic Training with the hope that even more trainers will take advantage of the quality, service and price of Tetra products.

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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Editor's Comments

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 Convention 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 breakdown; 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 publically 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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Abstracts


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 a reserve of carbohydrates in the liver and muscle to accommodate the activity. However, activities demanding strenuous abdominal contractions (i.e., 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


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 electric 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


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


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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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 isotonics group performed three sets of the six repetition-maximum (6RM) 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 isometrics group quadriceps strength, no significant increase in the isotonics 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


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 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. Therein 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

Nelson, C. M.

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, 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 ranges of motion (ROM), plantar and dorsiflexion, 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


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 an 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 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


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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By Guy S. Parcel, Ph.D.; with 16 contributors. June, 1977. 312 pages plus FM I-XXII, 6 1/2" x 9 1/2", 194 illustrations. Price, $12.50 (H); $6.95 (P).

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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.


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 (ATP) 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
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.

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**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 fo 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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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.

With this new approach to splinting/casting, the athlete is allowed to participate in his normal daily workout. The technique in his particular stroke suffers. The important question is how much would it suffer if he could not get into the pool at all.

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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**Book Reviews**

*The Strongest Shall Survive*

By: Bill Star
List Price - $14.95
206 Pages - Illustrated
Fitness Products, Ltd.
129 Severn Ave.
Annapolis, Md. 21403

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 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 athlete's nutritional needs. He emphasizes 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:

<table>
<thead>
<tr>
<th>Location</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metatarsal</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Calcaneus</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Fibula</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Tibia</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Femoral shaft</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Femoral neck</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

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.
(II 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 (II 2A and 2B). At this time the patient was returned to unrestricted activity. This case is illustrative of the typical small bone stress fracture case 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 (II 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 (II 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.

II13. 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 II13 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.

This case is illustrative of long bone stress fracture — the diagnosis is often more difficult (particularly true of 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 Blickenstaff for a more thorough discussion of femoral neck stress fractures.

Cont. on next page

ATHLETIC TRAINING • Volume 12 • Number Three • Fall 1977

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

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.
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 Gilbert. 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 common origin. The unequal 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. 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 track.

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 Goldsmith 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 or 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 men. 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 subjected 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)."
Muscle strains and pulls— Injuries that occur most frequently in cold or inclement weather—may be greatly reduced by using the Jenkins’ Hot Seat.

Through a system of forced heated air, the Jenkins’ Hot Seat provides warmth to critical muscle areas of the players. The Hot Seat itself becomes warm and special vents provide additional heat to the feet, knees, legs, groin and shoulders.

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During the four years that the Jenkins’ Hot Seat was in development, prototypes were tested at Pleasantville H.S. “It has been a definite factor in our three Cape-Atlantic League championships,” says coach Bostic, whose teams have been remarkably free of serious injuries in past seasons.

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A total of $5,500 in scholarship money, $1,250 for each division, will be awarded, not to the individuals, but to the school of the winner and to be used in furtherance of athletic training, by The Drackett Products Company of Cincinnati, Ohio. The scholarships will be donated by Drackett as NUTRAMENT - "Trainer of the Year".

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

Ballots will be sent out, through the N.A.T.A. mailing facilities using the list of Certified Trainers only. The mailing will be sent during the month of October. Ballots will be counted by Mizlou television network but the tabulations and original ballots will be delivered to the N.A.T.A. Executive Director. Only one ballot will be sent to each Certified Trainer.

This year's film will again feature four segments, which will be shown at the half-time of various bowl games, to be announced at a later date.

Drackett Company representatives; Doug Graham, Brand Manager, for Nutrament and Jane Wenning, Public Relations Manager as well as Dr. David Guy of Mead Johnson Company were present at this clinic and worked with Mary Edgerley of N.A.T.A. in conjunction with the "Trainer of the Year" award.

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 gigantic Silverdome which was concluded by a buffet dinner. A good time was had by all.

Conducting the grand tour of the Silverdome Facilities Mr. and Mrs. Tommy Hedgepeth (Head Coach of the Detroit Lions), flanked by Executive Director of the NATA, Otho Davis (right) and Frank George, President.
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Protein, as athletes know, provides the building blocks for most body tissue. However, "the old notion that athletic performance requires a diet high in protein is false."² Few, if any, athletes require more than 1.0 to 1.5 grams of protein per kilogram of body weight per day.² Like too many bricks at a building site, excess protein, although providing extra energy, must be eliminated... making unnecessary and expensive work for the kidneys.³

Balance is basic

Because their caloric intake notably exceeds the average, consuming a nutritionally balanced diet (protein, 10–20% of total calories; carbohydrate, 50–55%; fat, 30–35%) will provide most athletes with all the protein they can gainfully handle.²

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Fueling up is more than filling up

Perhaps the major concern with athletic diets is providing energy at levels sufficient to fuel peak achievement in both training and contest. It is not unusual for teenage athletes to burn 4000-5000 Calories daily—1000 to 2000 Calories more than their non-athlete counterparts.¹

One to two quarts of Ensure Plus (1420 Cal/quart) or Ensure (1000 Cal/quart) easily make up this difference... without "gorging" and with balanced nutrition that clears the stomach and is rapidly absorbed to help avoid "heaviness". Highly palatable, both convert the snacking instinct into a convenient nutritional plus. Also, to avoid the gastric distress caused by ner-
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Proper pre-meet nutrition can contribute to desired feelings of "lightness" and alertness.

Press tension, many trainers have found prepared liquids to be particularly helpful as pre-game meals.4

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Highlights of the 28th Annual

Dearborn, Michigan
June 9-14, 1977

Hall of Fame Inductees Robert White, Warren Ariail, John Rockwell, Edwin Lane, and Francis Sheridan (Not pictured John Lacy).

Typical scene of the clinical sessions: A full house!

Dennis Aten, AT.C. giving workshop on therapeutic exercise.

Cramer's Exhibit Booth

25-Year Award Recipients: “Porky” Morgan (Committee Chairman), Buddy Taylor, Walter Koch, Larry Harrington, (Not pictured Nicholas Mauriello, Ned Linta, Francis Poisson).
Business Meeting and Clinical Symposium

Frank George (left) introduces the 1977 Schering Symposium Panel (L to R) Gordon Stoddard, A.T.C.; Frank McCue, Ill, M.D.; Gerald O'Connor, M.D.; Vincent DiStefano, M.D. (Moderator).

Jenkin's Hot Seat Exhibit Booth

President Challenge Cup Award Winner, Joseph D. Godfrey, M.D. (center) accepts award from Frank George and Jim Cody.

NATA Scholarship Recipients
L-R Deborah Dean (NATA Undergraduate Award), Jeffrey Joseph Cilek (Del C. Humphrey Post Graduate Scholarship), Larry Lun Scheiderer (Rober H. Gunn Scholarship & Al Hart Memorial Scholarship), Terry Malone (Eddie Wojecik 1977 Scholarship), Mark Healy (Ernest R. Biggs Scholarship), Hilary Anne Ennis (William E. Newell Scholarship), Phillip William Samko (NATA Graduate Scholarship), Allison Lucile Pierce (NATA Post Graduate Scholarship).
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The shoulder girdle, or shoulder-arm complex, is comprised of three joints, namely: the glenohumeral, 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.
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 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 afforded 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 abductor 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 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 calf 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 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 the first 45 degrees the scapular 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 dyscoordinated scapulohumeral rhythm which should alert the examiner at once to underlying pathology.

**Acromioclavicular Joint**

The acromioclavicular joint is formed by the medical 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
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.

References


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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 three different categories, constant resistance, accommodating resistance and variable resistance. While each of the three is isometric 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 its 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 its 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), Variable Resistance (VR) and Control. The two training groups performed the following training patterns: leg press, pull-down, sitting military press and biceps curl. Training frequencies 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 maximums 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.
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) utilizing 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 fraction of body fat and total body weight from total body weight.

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.

### 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.

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.
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.

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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While strength increased in both training groups, the relative increases were dependent on the method in which relative strength was assessed, i.e. 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 increases when assessed by VR testing procedures. Berger (9) 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 4 SKINFOLD THICKNESS CHANGES WITH A 10-WEEK RESISTANCE TRAINING PROGRAM**

<table>
<thead>
<tr>
<th>Variables (mm)</th>
<th>Initial Mean (S.D.)</th>
<th>Final Mean (S.D.)</th>
<th>△</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biceps</td>
<td>9.1 (3.5)</td>
<td>8.2 (2.8)</td>
<td>-1.0</td>
</tr>
<tr>
<td>Midaxillary</td>
<td>11.0 (3.7)</td>
<td>10.3 (3.5)</td>
<td>-0.6</td>
</tr>
<tr>
<td>Triceps</td>
<td>9.9 (2.5)</td>
<td>8.5 (1.8)</td>
<td>-1.3</td>
</tr>
<tr>
<td>Subscapula</td>
<td>12.1 (3.6)</td>
<td>10.5 (1.5)</td>
<td>-1.6</td>
</tr>
<tr>
<td>Abdominal</td>
<td>18.1 (2.2)</td>
<td>15.2 (5.0)</td>
<td>-2.9</td>
</tr>
<tr>
<td>Suprailliac</td>
<td>20.9 (2.5)</td>
<td>17.3 (8.1)</td>
<td>-3.6</td>
</tr>
<tr>
<td>Thigh</td>
<td>15.4 (5.1)</td>
<td>13.8 (3.9)</td>
<td>-1.6</td>
</tr>
<tr>
<td>Total</td>
<td>97.6 (30.3)</td>
<td>84.5 (27.4)</td>
<td>-13.1</td>
</tr>
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</table>

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

<table>
<thead>
<tr>
<th>Variables</th>
<th>Initial Mean (S.D.)</th>
<th>Final Mean (S.D.)</th>
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<tbody>
<tr>
<td>Shoulder</td>
<td>116.1 (3.1)</td>
<td>118.6 (8.4)</td>
<td>2.5</td>
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<tr>
<td>Chest</td>
<td>99.9 (4.3)</td>
<td>102.3 (9.0)</td>
<td>2.4</td>
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<tr>
<td>Abdomen</td>
<td>85.9 (6.1)</td>
<td>88.2 (6.7)</td>
<td>-2.3</td>
</tr>
<tr>
<td>Hips</td>
<td>98.2 (6.6)</td>
<td>97.0 (5.6)</td>
<td>-1.2</td>
</tr>
<tr>
<td>Thigh</td>
<td>55.1 (4.2)</td>
<td>56.8 (2.0)</td>
<td>1.7</td>
</tr>
<tr>
<td>Calf</td>
<td>37.9 (1.5)</td>
<td>38.1 (2.1)</td>
<td>0.2</td>
</tr>
<tr>
<td>Deltoit</td>
<td>33.1 (2.0)</td>
<td>35.1 (3.9)</td>
<td>2.0</td>
</tr>
<tr>
<td>Extended</td>
<td>30.7 (3.1)</td>
<td>32.0 (3.3)</td>
<td>1.2</td>
</tr>
<tr>
<td>Biceps</td>
<td>33.8 (2.4)</td>
<td>34.8 (4.0)</td>
<td>1.0</td>
</tr>
<tr>
<td>Forearm</td>
<td>28.4 (3.7)</td>
<td>29.3 (3.6)</td>
<td>1.4</td>
</tr>
<tr>
<td>Shoulder</td>
<td>114.9 (9.0)</td>
<td>117.9 (8.6)</td>
<td>3.0</td>
</tr>
<tr>
<td>Chest</td>
<td>95.7 (8.5)</td>
<td>98.3 (9.9)</td>
<td>2.6</td>
</tr>
<tr>
<td>Abdomen</td>
<td>83.5 (8.4)</td>
<td>81.7 (8.9)</td>
<td>-1.8</td>
</tr>
<tr>
<td>Hips</td>
<td>96.7 (4.7)</td>
<td>95.8 (4.8)</td>
<td>-0.9</td>
</tr>
<tr>
<td>Thigh</td>
<td>53.5 (3.0)</td>
<td>55.3 (3.2)</td>
<td>1.8</td>
</tr>
<tr>
<td>Calf</td>
<td>36.4 (3.0)</td>
<td>36.9 (4.7)</td>
<td>0.5</td>
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<tr>
<td>Deltoit</td>
<td>36.4 (2.3)</td>
<td>36.3 (4.2)</td>
<td>1.9</td>
</tr>
<tr>
<td>Extended</td>
<td>29.5 (2.8)</td>
<td>31.7 (2.4)</td>
<td>2.2</td>
</tr>
<tr>
<td>Biceps</td>
<td>33.5 (2.6)</td>
<td>35.0 (3.6)</td>
<td>1.5</td>
</tr>
<tr>
<td>Forearm</td>
<td>28.6 (2.0)</td>
<td>29.7 (2.1)</td>
<td>1.1</td>
</tr>
</tbody>
</table>

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
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 gained. 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 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 increase 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.

References

Announcements

A Timely Reminder . . .

Your contributions and continuing support to the NATA Scholarship Fund are always welcome and are necessary so that the endowment goal of $500,000 can become a reality. Please remember that our program of financial assistance is a four-fold one that offers scholarships, loans, grants and part-time employment. Organizational support from the NATA to the Fund continues, but your individual contributions are vital to the Scholarship Fund’s ultimate success. All contributions are tax deductible. Won’t you consider now the importance of your participation in the NATA Scholarship Fund? Make your checks payable to Scholarship Program, and mail them to this address: NATA, Chairman - Grants & Scholarship, 3315 South State Street, Lafayette, Indiana, 47904.

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 Lindsy 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 principles 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, 1967.*

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.

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 I - 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 unsportsmanlike 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 or a breach of ethics.

ARTICLE II - ENFORCEMENT

Section I - 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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ATHLETIC TRAINING • Volume 12 • Number Three • Fall 1977

153
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 Directors

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-Lisser 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 an 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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ATHLETIC TRAINING • Volume 12 • Number Three • Fall 1977
Allied district dues per year, (effective Jan. 1, 1978)

Current certification in Basic (or higher) First Aid and Cardio-pulmonary 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 are $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 are $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 are $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 Arnhem)

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 (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)
<table>
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<th>State</th>
<th>University/College</th>
<th>Address</th>
<th>Contact</th>
</tr>
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<tr>
<td>MICHIGAN</td>
<td>Central Michigan University (1)</td>
<td>Physical Education Department, Mount Pleasant, Michigan 48859</td>
<td>Linda Treadway</td>
</tr>
<tr>
<td></td>
<td>Mankato State University (1)</td>
<td>Physical Education Department, Mankato, Minnesota 56001</td>
<td>Gordon Graham</td>
</tr>
<tr>
<td>MISSISSIPPI</td>
<td>University of Southern Mississippi (1)</td>
<td>Department of Athletic Administration &amp; Coaching, Hattiesburg, Mississippi 39401</td>
<td>E. L. Harrington</td>
</tr>
<tr>
<td>MONTANA</td>
<td>University of Montana (1)</td>
<td>Department of Health, Physical Education &amp; Recreation, Missoula, Montana 59801</td>
<td>Walter C. Schwank, or Naseby Rhinehart</td>
</tr>
<tr>
<td>NEBRASKA</td>
<td>University of Nebraska-Lincoln (1)</td>
<td>University Health Center, Lincoln, Nebraska 68508</td>
<td>Dennis Sealey</td>
</tr>
<tr>
<td>NEW MEXICO</td>
<td>University of New Mexico (1)</td>
<td>Department of Health, Physical Education &amp; Recreation, Albuquerque, New Mexico 87131</td>
<td>L. F. Diehm</td>
</tr>
<tr>
<td>NEW YORK</td>
<td>State University College at Cortland (1)</td>
<td>Division of Health, Physical Education &amp; Recreation, Cortland, New York 13045</td>
<td>John Sciera</td>
</tr>
<tr>
<td>NORTH CAROLINA</td>
<td>Appalachian State University (1)</td>
<td>Department of Health, Physical Education &amp; Recreation, Boone, North Carolina 28607</td>
<td>Ron Kanoy</td>
</tr>
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<td>East Carolina University (1)</td>
<td>Department of Health, Physical Education, Recreation &amp; Safety, Greenville, North Carolina 27834</td>
<td>(Dr. Edgar Hooks, Dr. Rick Barnes, or Rod Compton)</td>
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<td>Department of Health, Physical Education, Recreation &amp; Safety, Greenville, North Carolina 27834</td>
<td>(Dr. Edgar Hooks, Dr. Rick Barnes, or Rod Compton)</td>
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<tr>
<td></td>
<td>University of North Carolina (2)</td>
<td>Department of Physical Education, Chapel Hill, North Carolina 27514</td>
<td>Dan Hooker</td>
</tr>
<tr>
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<td>North Dakota State University (1)</td>
<td>Department of Physical Education and Athletics, Fargo, North Dakota 58102</td>
<td>Dr. Denis Isrow</td>
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<td></td>
<td>University of North Dakota (1)</td>
<td>Department of Health, Physical Education and Recreation, Grand Forks, North Dakota 58201</td>
<td>A. G. Edwards</td>
</tr>
<tr>
<td>OHIO</td>
<td>Ohio University (1)</td>
<td>School of Health, Physical Education and Recreation, Athens, Ohio 45701</td>
<td>Skip Vosler</td>
</tr>
<tr>
<td></td>
<td>Toledo University (1)</td>
<td>Department of Physical Education, Toledo, Ohio 43606</td>
<td>James D. Nice</td>
</tr>
<tr>
<td>OREGON</td>
<td>Oregon State University (1)</td>
<td>Physical Education Department, Corvallis, Oregon 97331</td>
<td>Richard F. Irvin</td>
</tr>
<tr>
<td></td>
<td>University of Oregon (1, 2)</td>
<td>Department of Physical Education, Eugene, Oregon 97403</td>
<td>Louis R. Osternig</td>
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<td>Department of Health and Physical Education, Portland, Oregon 97207</td>
<td>Leo Marteny</td>
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<td>PENNSYLVANIA</td>
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<td>Koeher Fieldhouse, East Stroudsburg, Pennsylvania 18301</td>
<td>John R. Thatcher</td>
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<td>School of Health, Physical Education &amp; Recreation, Lock Haven, Pennsylvania 17745</td>
<td>David J. Tomasi</td>
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<td>The Pennsylvania State University (1)</td>
<td>College of Health, Physical Education and Recreation, 131 White Building</td>
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<td>University of Pittsburgh (1)</td>
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<td>MICHIGAN</td>
<td>University of Michigan (1)</td>
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<td>Phillip Donley</td>
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<td>SOUTH DAKOTA</td>
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<td>Department of Health, Physical Education and Recreation, Brookings, South Dakota State University 57707</td>
<td>Jim Booher</td>
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<td>Texas Christian University (1)</td>
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<td>Brigham Young University (1)</td>
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<td>Marvin Roberson</td>
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<td>VIRGINIA</td>
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<td>Joe H. Gieck, Ed.D.</td>
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<td>WASHINGTON</td>
<td>Washington State University (1)</td>
<td>Department of Physical Education for Men, Pullman, Washington 99163</td>
<td>Dr. Roger Wiley, Chairperson, WPE</td>
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<td>Washington State University (1)</td>
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<td>Dick Melhart, Dr. Carol Gordon, Chairperson, WPE</td>
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<td>WEST VIRGINIA</td>
<td>West Virginia University (1)</td>
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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.

Harriett Franklin

It was indeed a sad occasion to have learned of the death of our Administrative Assistant - Harriet 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

Why were the saints, saints?

Because they were cheerful when it was difficult to be cheerful, 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 disagreeable. 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.

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

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-
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 Maurillo and Francis Poirier from District No. 1; NedLista from District No. 2; Buddy Taylor from Miller College from District No. 4 and Larry Harrington from District No. 9.

PRESIDENT GEORGE: Thank you, Porky.

George Sullivan, the NATA Awards and Awards Committee and he will now make announcements of the Citizen's Sports Athletic Foundation Hall of Fame for winner for 1977.

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

PRESIDENT GEORGE: Thank you very much.

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 had to kick me in the rear 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 ex­

I would think they would appreciate it if you would just say to them "thank you." Now, Jim Cody is a very special friend to the NATA. Really, this award is his idea and the large amount of money it takes to support his award has been given to us through the years.

He is now with the KWI Kale Division of the Kay Laboratories and this in a $1500 grant and also a fine original piece of recognition. I am sure most of you have seen at the booth which they have here, which costs almost $1000.

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

MR. CODY: Thank you, Mr. Chairman.

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

The recepient 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 of who we are through the medical journals and other means than any other award we have had.

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

MR. CODY: Thank you, Mr. Chairman.

I would like to announce the scholarship winner of the Eddie Wojcicki Award.

MR. MCLEAN: The 1977 recipient of the Eddie Wojcicki Achievement Award, which includes a $200 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 the work 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 undergraduate scholarship award went to Allison L. Peerce of Northern Arizona University.

The Del C. Humphrey postgraduate scholarship award went to Jeffrey J. Knapp, University of Miami, Oxford, Ohio.

The Robert L. Guene Scholarship Award went to Larry Lynn Schneider 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.

Mr. Falb:

MR. DAVIS: Thank you, Mr. Chairman.

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 this year.

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

Also present were Mr. Bruce Melin, Parliamentarian.

Note: The Minutes appear in the above report and will be read to you.

There were a couple of people, however, that deserve a thank-you to all of them. Therefore, as you see the announcements concerning the Twenty-Five Year Awards.

As you are bringing them forward, I would also like to put on a Convention but thank you, the Trainers, for the excellent bibliography of Audio Visual Aids which you all received in your Convention packet.

They are also working on a bibliography of periods...
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 statement by Lindy McLean, Chairman, Board of Certification. This year they will administer the NATAS certification examination to more than 500 applicants. They are all working and long-working committee. They have developed and will be publishing guidelines for development of NATAS 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 Dismas and his Ethics Committee have revised the Code of Ethics. We are all familiar with the new version that 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 regard of our colleagues. Now, let me also indicate that there have been a number of violations of the Code of Ethics. I don't know how many, if any, 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, conference, etc. and it is approved by the NATAS 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.

Now, the District Directors will be meeting 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 product, such as tape, for a profit.

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.

Foster them in your particular region, I am sure many more of you are going to have an opportunity to do this within the next few years.

Now, I am not an insurance salesman and the Association makes no money on this policy. This is essentially for your protection. You know for $200,000 worth of insurance and 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 stiffle 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 are 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 chairman of 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, I would like to have trainers coming in from all geographical areas relatively close to the Squaw Valley. On that basis, I would like very much to have you all be there the next month on the 15th. Further they will be there by six o'clock to pick up with a team.

Now, 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 get more and better trainers coming in from all geographical areas.

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 student trainers.

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

This is the first year of our training centers. I do not know whether our future will be fast others are going to happen 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 they can walk to a lot of people.

However, I would like to have trainers coming in from all parts of the country even as we are doing for myself within the past few weeks.

I can be in room 402 roughly two o'clock this afternoon on. I can stay until four o'clock, for anyone who wants to see me. Further, I have an appointment form 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 sports medicine professionals 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 18th they call up and say that they will be there on the 19th and then on the 19th they will call up and they will be there the next month on the 15th. Further they 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.

However, I am presently on the basis of having to plan a day at a time and, therefore, do not have the availability if all of you have questions, please get up there and speak, say what you have to say. We have heard from some of you people everyday 18 hours a day. Please do not anyone out there feel that you are going to have to get up and speak. We have heard from some of you people everyday 18 hours a day. Please do not anyone out there feel that you are going to have to get up and speak.
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 foreign visitors and therefore, I am very pleased to have you. Will Schuanchi Yoshimatsu of Tokyo, Japan and Emile Kunz of Geneve, Switzerland please introduce yourselves.

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 a motion, that so 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 room for 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, Nevada 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 again hear it clearly.

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

PRESIDENT GEORGE: Let me say that I think that this 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, that if professional motions cannot be delivered as a motion to be voted upon at the Business Meeting then again, if it is to be corrected on Tuesday.

In other words, to hold this Association binding under our present Constitution the way it is now, suggestions, resolutions or motions like that can be made at this Business Meeting but for a motion to be voted upon 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 Business 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, staff, scholarships, and better committee funds. The NATA after a study was performed, could set approximately $300,000.00 during the next three years. This idea met with much disfavor because several members sell adhesive tape and are established for Certified Athletic Trainers and this does not mean that we are not, 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, you can see, we have a democracy, even among the minority. We strongly disagree on this particular point, very strongly.

Now, does anybody else have something else to say? Is there anything for our new business?

MR. JOHN ENGER (District No. 4): One thing that is concerning me is my understanding that if you have an approved athletic trainer, 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.

PRESIDENT GEORGE: Well, as I understand it, the Education Committee, in 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?

... Whereupon, in accordance with regular motion, the business meeting was, at twelve-o-five o'clock p.m., adjourned...
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., Tuesday, June 14, 1977, the first session being at 9:00 a.m., Tuesday, June 14, 1977 and adjourning at 3:30 p.m.

PRESENT WERE:
Frank George
Oto Davis
Wesley Jordan
Richard Malcom
Herman Bunch
Anday Clawson
Robert White
Gordon Stoddard
William Fletcher
Cashier Birdwell
Warren Lee
Troy Young
Ronald Barto
Larry Sandifer
Bruce Melin

AUDIO VISUAL AIDS
A. V. Committee
The resignation of Mr. Gordon Stoddard as Chairman of Audio Visual 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 upcoming 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 teasor 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, it was approved 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 $2,500.00. 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 2 and 10 - no, and carried)

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

HONOR AWARDS
Approved the recommendations concerning the twenty-five-year Hall of Fame award winners. MOVED (by District 3, seconded by District 6, 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 5, seconded by District 7, and carried)

DRUG EDUCATION
Tabled any further action on the following resolution as presented by bee pollen with the proviso that future copies of this be typed up and sent to the Directors for dissemination to the members of their Districts and their Athletic associations, that further consideration be given to this matter by the Board of Directors at the mid-year 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 Edsgerly as Managing Editor of the Journal at a salary on the basis of twenty percent of income generated from Journal advertising. MOVED (by District 5, 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 proposed proposal on annual meeting procedure as presented by Mr. Malarce as 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 discussion so that the membership can instruct the District Director on an eye - ball basis at the time.

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 two pamphlets; 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 being then rescinded so that this matter could be further discussed by the membership at the district level.

Approved the appointment 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 the Student dues remain as is. MOVED (by District 3, seconded by District 10, and carried).

Approved the proposal that the NATA go on record as supporting in principle the establishment of a National Information Center and that the Board appoint a representative to the AATU 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. MOVED (District 5, seconded by District 8, and carried).

Approved the recommendation that the continuing education requirement be six CEU's for the first three years, and the six CEU's should be increased to 10 CEU's for three years. MOVED (by District 1, seconded by District 3, and carried).

Approved the recommendation that the Professional Education Committee be responsible for the development of the Continuing Education Program. MOVED (by District 8, seconded by District 6, and carried).

Approved the recommendation that the President of NATA be appointed as the NATA representative to the Committee on the basis of twenty percent of income generated from the publication of the Journal of Athletic Training. MOVED (District 5, seconded by District 10, and carried).

Approved the recommendation that the continuing education requirement be six CEU's for the first three years, with the increase taking place at that time. MOVED (by District 5, seconded by District 10, and carried).

Approved the recommendation that the Continuing Education Committee and the National Convention Committee endorse the students for certificate through Section 1 only of the Procedures of Certification, except those students who have been in undergraduate school less than one year. MOVED (by District 8, seconded by District 6, and carried).

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

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

Approved the recommendation that the President of the Board of Directors be appointed as the National Convention Chairman. MOVED (by District 2, seconded by District 10, and carried).

Approved the recommendation that the Board appoint a representative to the AATU Sports Medicine Committee to act as liaison to the National Committee for the Annual Convention. MOVED (by District 3, seconded by District 8, and carried).

Approved the recommendation that the President of NATA be appointed as the Board of Directors. MOVED (by District 1, seconded by District 3, and carried).

Approved the recommendation that the Annual Convention be held on a biennial basis. MOVED (by District 8, seconded by District 6, and carried).

Approved the recommendation that the President of NATA be appointed as the Chairperson of the Board of Directors. MOVED (by District 5, seconded by District 10, and carried).

Approved the recommendation that the professional advisor to the Student-Athlete Advisory Committee be appointed as the NATA representative to the Committee. MOVED (by District 5, seconded by 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 Annual Meeting 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 reoccurrence 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 reflect the name of the Committee from National Convention Committee to Annual Meeting and Clinical Symposium Committee. MOVED (by District 6, seconded by District 10, and carried).

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

Approved Denver as the site for the 1983 Annual Convention. MOVED (District 5, seconded by District 10, and carried).

Approved complimentary seating of 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 (by District 2, seconded by District 9, and carried).

Approved the resignation of Fred Kelley as the committee chairman. MOVED (District 6, seconded by District 4, and carried).

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

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

CERTIFICATION
Approved the budget request of the committee in the amount of $5,000.00. MOVED (by District 2, seconded by District 9, and carried).
Efforts Within the AAHPER

Washington, D.C., at the AAHPER headquarters in order to their presentations. Approved the appointment of Steve Moore while Russ Miller in 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, with the financial responsibility falling on the members who are interested, a placement service involving O'Brien and O'Brien was voted against. MOVED (District 4, seconded District 10 and carried - 9, District 6 - No).

RESEARCH AND INJURY COMMITTEE

Approved the recommended names of committee members (District 2, seconded District 6, and moved). Approved the ad hoc committee appointed by me at the directors meeting.

AAHPER American Alliance of Health, Physical Education and Recreation

Approved the name of Bud Miller as NATA representative 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 and handout materials concerning NATA membership, 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 National Program in Seattle were Dr. Richard Malacrae, Dr. Jack Jones, 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 Athletic Trainers Association sponsored the Eastern Regional Athletic Training Conference held in Boston, Massachusetts, on October 19-20, 1977. This program was in cooperation with the NATA. Dr. Joe Godek, Professor of Physical Education, 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

On April 25-26, 1977, a meeting was held in Washington, D.C., at the AAHPER headquarters in order to discuss the consolidation of Athletic Training Council representatives together with the NASPE Athletic Training Council representatives to coordinate their efforts within the NATA. This was taken in response to Frank George's letter asking that the AAHPER and NATA splinter groups (concerned with the field of athletic training) within the Alliances. This meeting was attended by Holly Wilson, A.T.C., Marge Albohm, A.T.C., Tom Shaffer, the representative NAGWS, Iras Silver, A.T.C., Joe Godek, A.T.C., Russ 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 all the councils proposed to carry out the following joint projects:

I. The development of an official AAHPER statement regarding the nature of athletic training and the efforts of the NATA in 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 available to the attending members. The space limitations will not allow for this program slot so that they could have their separate Athletic Training Council Meeting.

III. Both the NASPE and NAGWS have agreed to provide their exhibits at slots for 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 NASPE were reluctant to give up this program slot so that they could have their separate Athletic Training Council Meeting.

IV. NASPE also agreed to share their sponsorship of athletic training regional conferences with NAGWS. It is planned to offer 2-2 day programs. One to be offered in Reno, Nevada, on November 18-20 and the other program to be offered in Chicago on dates to be selected.

V. NASPE and NAGWS will make a proposal to their respective executive boards that their athletic training councils be developed into a joint council. 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 NASPE; and Tom Shaffer, which in reality would only be to NASPE; and Marge Albohm would serve as AAHPER 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 in both organizations for the other professional organizations. Why can't one of these individuals serve in a liaison capacity? I would recommend that Marge Albohm serve both as the AAHPER liaison to 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 Academy approve the 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 liaison to the AAHPER to prevent duplication of efforts and for 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 be developed into 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 carried).

Annual Report

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

The committee has not yet been scheduled for the annual meeting. As I indicated in my mid-year report, the final program for the 1978 meetings has been resolved, however, delays and rescheduling have been the natural result of the situation.

The ad hoc committee, 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 help.

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 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 "magazine" 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 physicians are 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 Forshe and likewise accepted the verbal report, with liaison to be continued.

EXECUTIVE DIRECTOR AND TREASURER

Approved the report presented by Mr. Davis and approved this reappointment as Executive Director for the ensuing year. MOVED (District 4, seconded District 8, 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 cover 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, South Carolina, and having the Executive Director make arrangements for the use of computer facilities in that locality, the office at Lafayette to be phased out and 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, SC 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. Private 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.

Balloons will be sent out, as last year, to Certified Trainers, through the N.A.T.A. mailing list, but only for those individuals who have agreed to participate. The same mailing list, and additional balloon returns will be delivered to the N.A.T.A. Executive Director. Only one balloon will be sent per Certified Trainer.

Mr. Doug Graham, the Drackett Company and Mr. Bill Schwing, Minus Television Network represented their respective companies at the Directors meeting.
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. has met and our people are very concerned with all of us as Athletic Trainers and their 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. 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
Executive Director
National Athletic Trainers Association

March 24, 1977
MEMORANDUM
TO: Sam McCottery, 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 Roton Hotel at Boston on 16, 17, 18 & 19 June. The attendance and participation was excellent. The total attendance was over 1,200 people with nearly 800 trainers and staff present. The total membership of all classifications of N.A.T.A. is approximately 3,700.

There were merel 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 membership. Scientific sessions than by any other organization I have ever been associated with. They are a very dedicated group of professionals who work hard in order 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 quality training 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 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 problem. Each state has been asked to work on getting a licensure set up for the trainers that practice in it.

In cooperation with the Schering Corporation, the N.A.T.A. has put on excellent topical athletic medicine clinics, which are well attended and well received. 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 restructing, 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. could 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 attend 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 members, the two associations most directly concerned with sports medicine I believe, will be represented at the U.S.O.C.

President of the N.A.T.A. will be a member of the U.S.O.C. Board of Directors. The N.A.T.A. continue its liaison function with the 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. could be much improved.

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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 sport participation and college athletics. I have always held the view that the reasonable risk of injury to obtain these benefits, and I assume that those who govern and conduct sports programs and the coaches, officials, and policies of the governing bodies of the various sports are accountable for establishing reasonable competence, however, in not including the establishment of what constitutes a fair method for keeping the risk reasonable. Having approached their tasks within these issues, I am most pleased to attest to the credibility of this assumption.

However, expertise on sport-related injuries is of paramount importance. I can attest from personal experience that those who share responsibility for the defensible conduct of sports in our schools and communities have failed and are currently continuing to face a myriad of controversies concerning the nature and extent of health and safety problems in sport, and concerning the mechanisms for providing for the health, safety, and security of our youth by threatening the economic capabilities of the businesses that enable sport, and that they stem largely from the failure of the governing bodies to maintain 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.

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 trial involving an athlete who suffered a severe burn from a gymnastics programming system of most states, was eliminated from the girl's gymnastics program in Iowa recently because of the lack of schools to obtain liability insurance coverage. Vaunting was discontinued from the girl's gymnastics program of the Waterloo, Iowa school for the same reason the ability to obtain liability insurance coverage.

Gymnastics is in a punting situation because the main issue is tired of paying increased insurance premiums which have resulted from multi-million dollar judgements against them. Division III was nearly dropped from the intercollegiate swimming programs of several states over a question of the liability of administrators and coaches who scheduled and conducted practices and competition in pools which do not meet the minimum depth standard, even though they have done so for years in such pools.

The statement continues by asserting that the risk in professional and product liability litigation does not correspond to the risk in practices of athletes. The main issue in the quality of coaching or equipment. But before I turn to data analysis, allow me to introduce for perspective the following: In 1975, about $70 million to $100 million to suit a helmet manufacturer while these same manufacturers look forward collectively to only $12 million from guitars annually. The other comes from the National Sporting Goods Association: One sporting goods dealer..."...in the current in the midst of a 16 million dollar lawsuit against his store last August. Since I was able to determine an increasing difference in the number of head/neck-related fatalities occurs in high school and college football for every five million helmet collisions as an accident. A recent proposal has been prepared to get the same 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-colleges sponsored in football in 1975-76 yielded an estimated average annual incidence of 3-4 cases per 100,000 varsity football players. This survey utilized the services of the National Operating Committee for Standards for Athletic Equipment (NOCSAE) and 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, which the University and members, encouraging them to cooperate, Montessoro Corporation awarded us a grant to defray the remaining costs. Review of the data and compare this with, but authorities estimate that 50% of all spinal cord injuries stem from auto accidents, and that less than 10% come from multi-million dollar judgements against them.

It is neither sufficient to rationalize away severe injuries because they are infrequent nor to diminish one's attention only to the severe injuries. Searches for other patterns of injury of less obvious or dramatic nature must be encouraged as well. For example, the National Athletic Injury/Injuries 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 as a project of the NCAA's National Interdisciplinary workshops funded by Penn State University and the American Football Association (AFC) 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 school and colleges have piloted the reporting on football.

In the NAIRS system, a reportable concussion is any sideline decision by the coach that does not include any of the circumstances that a significant concussion. I understand, resulted in severe brain damage.

We have the input and retrieval capability of assessing any of these data and thus derive information about helmet and body and other intervening variables as well. We have too few numbers of concussions, too few schools, and colleges under threat, and too few years thus far to generalize from the relative frequency of these serious events, but a cursory review of the data to date would not support anyone's isolation of a particular product as a foreseeable cause of head or neck injury.

Considering that the tremendous frequency of violent collisions in football, it appears from our data that these data are not discerning or dissimulating these forces. A small percentage suffer a reportable concussion and about nine-tenths of these players suffer no significant injury or disability and are then subjected to this problem that would implicate a particular manufacturer's product.

We attempted to follow-up epidemiological perspective of 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, Massasoit 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 thereafter. In fact, members of the industry knew about NAIRES, however, the concept was conceptualized via the workshop process. It was at that point that they voluntarily enabled us to collect the primary data and collected data without requiring the CPSC contract provided the computerized means to edit and retrieve the data in efficient manner.

Now it is time for the directional results seem to take us was the advent of the National Operating Committee for Standards for Athletic Equipment (NOCSAE) in the early 1970s. This structure of representatives of sport and the industry to support independent engineering analysis of selected products. By this structure, this networking of means for uniform laboratory examination of qualities of these sports products and determined development of uniform voluntary safety standards based on the recommendations of performance requirements and the laboratory findings. With some success, the statement continues by asserting that the necessary progress has been made by 1975 that both the high school and college rules committees adopted the NOCSAE Standards for Eye Protection for Standard for football.

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 make presentations. At the college level, an NCAA Committee on Competitive Safeguards and Medical Aspects of Sports serves as the forum for the entire process and forwards their comments to the particular rules committee for their consideration. A Joint Committee 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 at least one a year to produce a forum and communication mechanism commercial products, rules, and professional 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 pierced 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, which had an interest in penetrating glass to take. In addition, our Committee prepared for distribution a position statement on the distinction between protective lenses for contact and protective lenses for other sports such as lacrosse.

In summary, organized sport has both the sensitivity and the capacity to apply appropriate safety standards to projects that athletes and sport. What has been lacking is funds, competitive allocation of these funds, and therefore the need to institutionalize the performance of sport safety concerns. Without such funds, there is a paucity of legitimate investigators who will devote significant effort to valid committees, and the lack of isolated reports from investigators of varying credibility who found some local money to pursue a particular interest.
It is very possible that few plaintiffs truly believe that the rules alone can accomplish this end. Only the continued best efforts of coaches, players, officials and all friends of the game can ensure that the public has a right to expect in America's foremost collegiate sport.

The football player who intentionally violates a rule is guilty of 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.

1-15

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.

2-1-0-1

No player, substitute, coach, authorized attendant, or other persons subject to the rules shall use abusive or insulting language to players or officials in such a manner as to provoke ill will—swinging a hand or arm and missing an opponent or kicking and missing an opponent.

b.

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

2-2-5

The Referee may enforce any penalty he considers equitable (including the awarding of a score if the play is interfered with by an obviously unfair act not specifically covered by rules).

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 maintain 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 following report was submitted by: A. Orlandi, 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 is over.

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

Next year (1978) we still sponsor a symposium for A.D.'s on Drugs in Athletics & Their Implications. Dr. Donald Spence, 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 employed by our 582 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.T.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.

Approach to accept NATA report. MOVED (District 10, second District 6, and carried).

THE NATIONAL COLLEGIATE ATHLETIC ASSOCIATION

February 16, 1977

TO: Collegiate Commissioners Association

Rules Committee

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 steps to eliminate all forms of unnecessary roughness, unfair tactics, and unsportsmanlike conduct. But rules alone cannot accomplish this end.

Throughout the years the Rules Committee has endeavored to develop a Code that permits all forms of unnecessary roughness, unfair tactics, and unsportsmanlike conduct. But rules alone cannot accomplish this end. Therefore 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 language, 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 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.

1-15

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.

2-2-5-6

The Referee may enforce any penalty he considers equitable (including the awarding of a score if the play is interfered with by an obviously unfair act not specifically covered by rules).

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 maintain its position as one of America's leading social institutions.

NCAA Football Rules Committee
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, and I am writing to bring you up to date on an important meeting and their reactions to an idea for a new AAHPER publication.

At the short meeting there were no action items, and only two were mentioned. I am sending a copy of the N.C.A.A. rule changes for 1977 and a copy of any report to the N.C.A.A. Rules Committee.

The Committee agreed to reemphasize against the use of tissue paper in the high school and college football programs. The Committee also agreed to stress the rules of the National Athletic Trainers' Association, the NATA, 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

END OF COMMITTEE CHARGE

SPEAKING OF INJURY PREVENTION

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

OPEN BUSINESS MEETING
Monday, January 10, 1977

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 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 task of reviewing the recommendations of the NAIRES. With that change, Dr. Sharra moved and was seconded by Wayne Morris, A.T.C., N.C.A.A. Football Rules Committee Meeting. Moved (district 8, seconded district 5, and carried).

3. Art Stevens gave a treasurers report which was unchanged since our June meeting. Our cash on hand is $182.88. Before next June, Art said he would bill each full member organization $100.00

4. Chairman Trickett reviewed the agenda and called for an executive session at the close of today's business meeting.

5. The report by Joe Zabliti 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. High guards were made mandatory.

b. Offensive players are now permitted to use their hands when their helmet which should prevent head, neck and facial injuries.

3. When a foul by the legs is made 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 was back to full strength.

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 recommendations will be that the individual states follow up on health supervision.

8. NAIRES Status - Casey Clarke

As of December 9, 1976 NAIRES had completed Phase II of its development. Phase I was the conception of NAIRES and Phase II was pilot testing a system. NAIRES is ready to meet with CPSC for 12 more months of financing. Casey said he is pleased with what NAIRES has become and that its use will make it a worthwhile system.


The purpose of the survey was to obtain three years experience inside the program problem in sport. It involved the NCAA, N.C.A.A. and the NFHSAA. There was a to 90% compliance nationally. The study showed that 20% of the spinal cord injuries are at the cervical level. The only trend was in high school football; they exist, which puts the safety of the player in jeopardy. (One official stated that two hand-flags could be called but 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 player's uniform?)

3. When a foul by the legs is made on a play where the offense scores, the penalty will be stepped off on the next kick-off.

We also reported that there were no deaths from cervical spine injuries in the past year.
denied the petition because of data supplied by the NFL and NAIRS. A copy of the Federal Register concerning this ruling is included in these minutes.

10. NOCSAE Actions - Carl Blyth
Carl Blyth read a very informative pamphlet which explained what NOCSAE is and its actions. Carl announced the NOCSAE meeting times this week and invited Joint Commission members to the open meetings.

Carl said he could not, at this time, give format data but that there were 13 significant injuries to the kicking squad per season in games.

0.25% of injuries during the 1975-76 season were during kickoff’s.
The diagnosis was as follows:

1.3 significant injuries to the kicking squad per season in games.

Of the game injuries:
- 13% of injuries to the head & neck spine
- 29% to the knee
- 22% to the hip & leg
- 50% of the practice injuries to the head & neck spine.
These figures were taken from 40 participating college football teams and significant injuries refer 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 follow up.

13. Chairman Trickett called on the membership to present items of interest.
   a. ACHA - Arthur Stevens
      This interest is still alive and is continuing and abstracts of their program on April 19th-22nd can be obtained by writing to Art. FTC
   b. NATA - Obie 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 line injuries.
      Vic Recie briefly discussed the NATA and the high school trainers.

OPEN MEETING
January 11, 1977

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 Club 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 different injury studies the NCAA is doing, e.g. injuries in spring football practices and the upcoming football 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 the NAIRS.

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. NFSHSSA - 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 fall 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 Recie asked Dave to have the NFSHSSA look into protective equipment for women's field hockey.

4. NAIRS - Kermit Smith
Kermit briefly mentioned the negative side of what the NAIRS is doing about safety in sports. The major points that he mentioned are the lack of trainers, physical exams, and travel rules.

On the positive side he felt that the way the junior colleges have developed and promoted athletic programs for women is exceptional.

5. AMA - Don Cooper
The AMA is involved in all of their standing committees and councils including medical aspects of sports. In their place they created several large councils which will direct or recommend ad hoc committees whose life will be two years.

The Medical Aspects of Sports committee has been submitted to the ADA for approval. 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 also want to write a pamphlet on "Diabetes 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. Neintz began by distributing a very informative progress report from the ADA, concerning developments in protection against mouth injuries in athletics.

Bill then made a few brief comments. He said the ADA now has an interest in 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 football. (Included is a copy of the BIDHE progress report).

The Chairman requested each organization present a one page report similar to the one Dr. Neintz prepared. Art Stevens will request each organization in writing prior to our next meeting.

7. Art Stevens 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 on Intercollegiate Athletics, the ACE is going to appoint a Commission on Collegiate Sports to look into intercollegiate athletics.

Art said he felt the importance of this is that the Commission on Collegiate Sports in 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, Council of presidents, and university 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 the 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 Arnold and Art Stevens is to write and ask them to speak to us in June. Schering put up the money to get this organization started.

9. Dick Sharrs 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, et cetera.

Chairman Trickett adjourned the meeting for lunch.

OPEN MEETING (Cont.)
2:45 p.m. January 12, 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, Fred Kalinowsky
Sam gave a very interesting talk on the Montreal Olympics and its effects on amateur sports in Canada. Before the Olympics, Canada had ranked 21st in athletics among the nations of the world - and following the Olympics they had moved up for 11th.

He then explained "Game 1980," which is a comprehensive program to upgrade the 20 Olympic sports in Canada.

11. Canadian Amateur Football Association - Ted Purwett
Ted first talked about rules and said that they had copied our NCAA rules and had modified them. 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 definitely 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 intramural sports.

Canadian are also trying to set helmet standards and plan to look closely at the work done by NOCSAE and ASTM. Ted said he will bring a film to the June meeting to show on the fitting of equipment.

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 budgets 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 that 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 for 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, M.D., American College Health Association
Kermit Smith, National Junior College Athletic Association
Arthur Stevens, American College Health Association (Stanford) NCAA Medical Services Branch
Victor D. Recie, National Athletic Trainers Association
Kenneth S. Clarke, Ph.D., National Collegiate Athletic Association
Paul C. Trickett, M.D., American College Health Association
Don 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
Sam Kalinowsky, NCAA Medical Services Branch
Obie Davis, National Athletic Trainers Association
Dr. William D. Heintz, American Dental Association
Dr. Martin Kaltwasser, National Collegiate Athletic Association
Donald Cooper, M.D., American College Health Association
Michael J. Welch, American College Health Association
Richard B. Sharra, M.D., American College Health Association
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 cut 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 in your information. It is apparent that some of those complaining the loudest have not read the minutes as published in the Journal.

Trainee of the Year

Only Certified Trainees will receive ballots to vote for the Trainee 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 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 8½ 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

ADVERTISER'S INDEX

Armo Adhesives ............................ 133
Beiersdorf ................................ 107
Carnation ................................ 149
Cramer Products ............................. OBC
C.V. Mosby Co............................. 117
Cybex-Lumex .............................. 136,137
Dakon Corporation ......................... 115
Dracket Co................................ 120,121
Electro-Med Health ......................... 125
Flex-Wedge.............................. 151
General Medical Corp........................ 112
Jenkins Hot Seat.......................... 131
Jobst Institute........................... 113,123
Kwik-Kare................................ 118,119
Mac Levy.................................. 145
Market Forge................................ 129
MHP Manufacturing........................ 103
Mini-Gym ................................ 109
Mueller .................................... 153
Patwin .................................... 147
Ross Laboratories ....................... 134,135
Schering Corp............................ 140
Sports Tigers............................. 129
The Tetra Co................................ 111
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