

THE JOURNAL OF THE NATIONAL **ATHLETIC** ASSOCIATION
TRAINERS

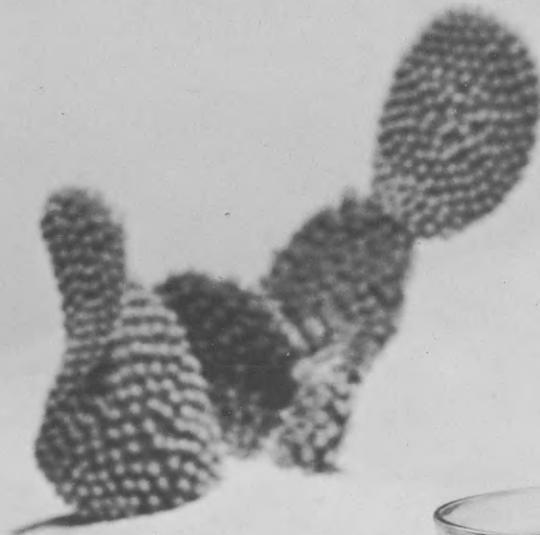
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NUMBER 2

SUMMER 1970



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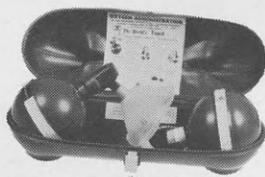
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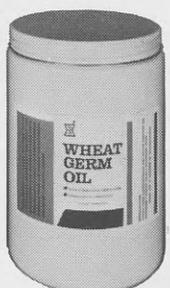

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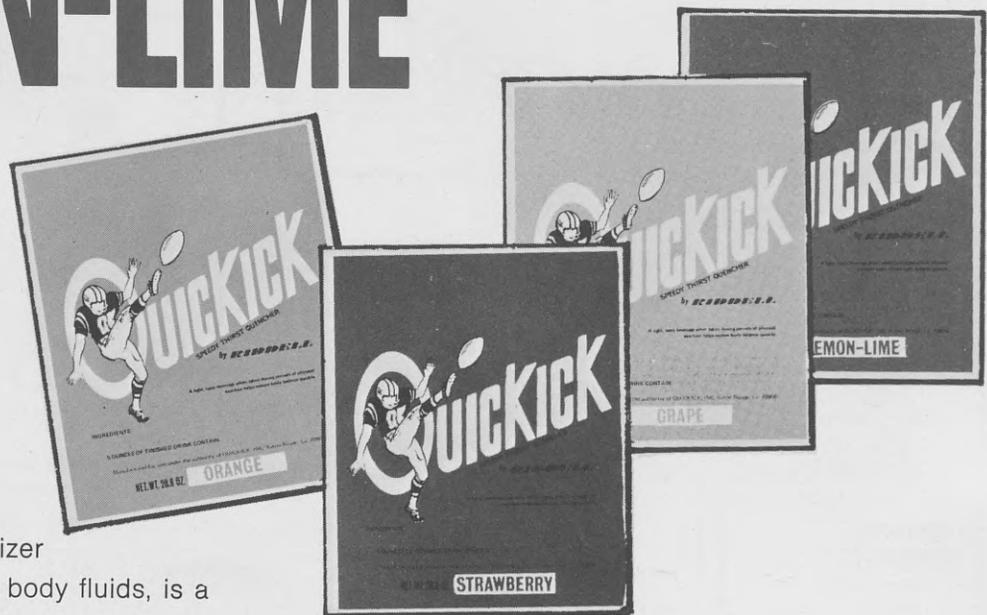
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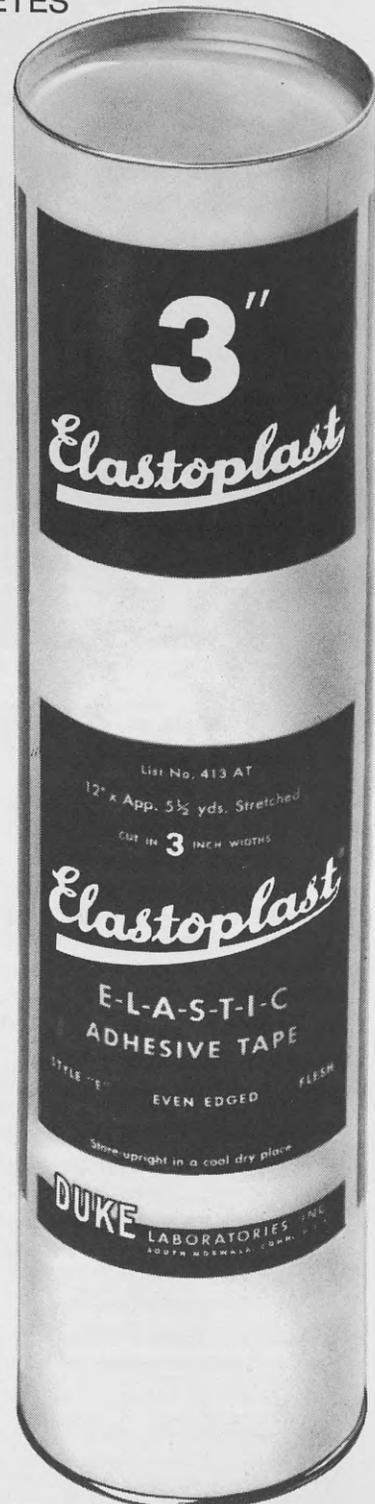
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The views and opinions expressed in the articles in the *Journal* of the National Athletic

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The *NATA Journal* editors welcome the submission of articles which may be of interest to persons engaged in or concerned with the progress of the athletic training profession. The following suggestions are offered to those submitting articles for consideration:

1. All manuscripts should be typewritten, double-spaced, on ordinary typing paper, 1500-2000 words.

2. When references are made to other published works the list of references should be in the following order: books; author, title, publisher with city and state of publication, year, page.—articles: family names and ini-

tials of all authors, title of article, journal title abbreviated as listed in the latest edition of List of Journals Indexed in Index Medicus, volume, inclusive pages, year.

3. Photographs must be black-and-white prints, preferably on glossy paper. Graphs, charts, or figures should be clearly drawn on white paper, in a form which will be readable when reduced for publication.

4. It is the understanding of the *Journal* editors that any manuscripts submitted will not have been published previously.

5. An author's biographical data sheet should be sent with the submission.

Unused manuscripts will be returned when accompanied by a stamped, self-addressed envelope. Please address contributions to the Editor.

The Changing Scene Of Our National Convention

It wasn't too many years ago that a few interested athletic trainers gathered in Kansas City for the first annual meeting of The National Athletic Trainers Association. Many of these men are still attending our meetings; others have since passed on or retired. Then there was the favorite meeting of all, the fun in Jay Colville's backyard, and the dormitories of Miami University in Oxford, Ohio. Not many attended these meetings, possibly 100 or so. But it was always crowded, because everyone seemed to be close.

If you come to a National meeting now, you can still hear many of our fine trainers and their families talk of those wonderful meetings. The big difference is that they are not in a backyard anymore; they are usually in the lobby of one of the major hotels in a very large city. This, then, is the evolution of our National Convention in the 70's. The big change occurred at the Conrad Hilton Hotel in Chicago in 1965, and we have been growing ever since.

The Hotel industry has classified NATA as a major convention. We are solicited by hotels for their business and, due to our size and needs, must commit ourselves to a hotel three years in advance of our meetings. For example, we have just signed with a hotel in Atlanta for our 1973 Convention. In order to give our members and their families the best service and convenience, we must select and choose from the large downtown hotels in major cities. The following are a few of the considerations in setting up our annual meeting:

Exhibit Space: The average number of exhibits for a hotel convention is 35-40. Due to Warren Ariail's hard work, we are now at 65-70, and must have adequate space.

Traffic Patterns: Easy access to lecture area, exhibits area, and registration desk are very important. We must move our people quickly and quietly.

Room Rates and Parking: Anyone who travels with athletic teams knows that room rates are constantly going up. Our latest rates are on an average of \$14.00 for a single and \$22.00 for a double. There is no way we can get by for less. In some hotels parking is free to hotel guests. If there is a charge, it is usually minimal, and less than a cab fare from the airport to the hotel.

Meeting Rooms: During the course of our Convention, we have many meetings going on besides the clinical sessions. For this, we need at least five separate rooms seating 15-20 people, plus an association office to channel NATA business.

The NATA Banquet: This requires a room that will serve a sit down dinner to 300-350 people. Many have questioned the price of the banquet ticket. You must consider that besides the meal, this is an official NATA Awards Banquet and we are honoring many of our fellow trainers. Also, please understand that we must add a 15 percent gratuity and usually 5 percent state tax to the price of the meal. Fifty cents is usually added to cover the overhead expenses for NATA on the banquet.

Other areas of consideration are: Shopping for the ladies, areas where one can eat quick and inexpensive meals, good restaurants, entertainment areas for exhibitors, transportation in and out of the city, easy registration, and convention bureau assistance.

All of these things have made our National meetings a growing experience. The Clinical programs offer a wealth of educational value. The social gatherings and lobby conversation give us all a sense of pride in NATA, and a sense of knowing we were meant to grow.

Tom Healion
Assistant Executive Secretary

Medical Guidelines For Return To Participation

Martin E. Blazina, M.D.
Department of Surgery/Orthopedics, UCLA School of
Medicine, Los Angeles

The question of when can an athlete return to participation after an injury has been asked as long as competitive sports have existed. Before the accreditation of team physicians, the decisions about return to competition were made principally by nonmedical personnel. Medical consultation was sought only after it became obvious that the athlete had almost reached an end-stage in decreasing ability to perform.

In recent decades, more and more authority has been assumed by the medical profession with decreasing emphasis on the role of the nonmedical supervisor. It is the opinion of this observer, however, that future developments will include more of a balance in decision-making between medical and nonmedical supervisors, the emphasis exercised by each depending on the type and the severity of the specific injury and the qualifications and interest of these responsible personnel. These interplays between medical decisions and appraisals of performance ability are quite complicated and must be coordinated.

In situations in which the demands on the doctor's time preclude on-the-field observation, or even worse, in which no interplay exists, breakdowns will almost certainly occur. There will be a tendency for the physician to be too arbitrary and too conservative, and concomitantly, the non-medical supervisors of the athlete's activity will delay requesting medical opinions or will attempt in some manner to offset the doctor's decisions.

CONSIDERED MEDICAL DECISIONS

Considered medical decisions are required by the concerned physician only after a careful analysis of many factors:

The Historical Events Surrounding the Particular Problem

It is important to know "what has been going on". The factors of chronicity, aggravation, recurrence, or increased severity are important considerations in themselves, but become of particular significance in the absence of significant signs.

The Symptoms

A detailed record of the manner of how a specific problem "bothers" an athlete forms an integral part of the protocol to be made up for the injured athlete. Pain and disability are usually the principal symptoms.

The Physical Findings

What the observer "sees" or "feels" forms a graphic record for the concerned physician. They play an important role, not only in making the considered medical decision, but also in assessing performance ability.



COVER PHOTO

Idaha University's team physician, Dr. William Fitzgerald, seen giving aid and comfort to quarterback, John Hathaway, who suffered a dislocated shoulder in a hard-fought game.

The Pertinent Laboratory Information

This area of investigation not only aids accurate diagnosis, but also by depicting progressive improvement or progressive deterioration, aids in determining prognosis. X-rays, blood counts, electromyograms, electrocardiograms, and electroencephalograms are all examples of the types of tests employed to provide laboratory information for particular situations.

The Prevalent Psychological Factors

It is extremely important for the concerned physician to be aware of the athlete's psychological make-up. How well he is motivated, how secure he feels, how realistic an attitude he has must be evaluated before allowing him to return to the stress of competition.

The Appropriate Consultations if Indicated

The concerned physician rapidly realizes that the field of Sports Medicine is so vast that it is impossible for any individual no matter how intent or how interested, to encompass all knowledge available on this subject. For this reason, it is best in difficult or unclear situations to obtain another opinion. Also, because of the intense desire an athlete usually exhibits to return to competition, further medical reinforcement will allay the reprehensions that may occur if the concerned physician prohibits further participation all by himself.

Frank Discussions with the Athlete (and his parents if he is a minor)

No decision prohibiting future competition should be made without a straightforward discussion with the athlete. If the player has not been informed of the facts leading to his not being allowed to play, he will tend to react to the situation as if it were a type of summary dismissal or as a peer assessment of inferiority. Many times when he is presented with an accurate, informative evaluation of his status, he will immediately recognize the situation and cooperate in a whole-hearted manner. If the player is a minor, it is not sufficient to clear the situation with him alone. The parents must be brought into the discussion and their views sought. No athlete should be allowed to return to competition, if his parents do not want him to play! They are ultimately responsible for him, and must be allowed to have the last word on the matter.

Considered medical decisions will play a primary and preponderant role in the evaluation of mishaps such as concussions, and cervical spine, thoracic, abdominal, and urological injuries. Injuries to extremities are usually evaluated by an assessment of performance ability.

ACCURATE APPRAISALS OF PERFORMANCE ABILITY

Accurate appraisals of performance ability require careful evaluation of specific objective physical signs and personal observation of certain functional maneuvers.

Careful Evaluation of Specific Physical Signs

It is possible to assess a player's performance potential by eliciting certain findings.

Extremity Injuries. The persistence of **tenderness** and **swelling** indicates that the reaction to injury has not completely subsided and there is the probability that highly efficient performance will not be possible. There is great individual variation in the tolerance to tenderness, however, and some people can perform even though pain upon pressure still exists.

A decreased range of motion definitely interferes with performance. For example, if a player with a shoulder injury cannot lift his arm above his head, it is doubtful that he will be able to tackle, block or throw effectively. Likewise, a player with a knee injury who has restriction of knee flexion is unable to do a deep squat and thus is not able to take his regular stance or to move quickly.

Residual atrophy or measurable muscular weakness means lessened performance ability, easier fatigability and enhanced possibility of reinjury. Visual inspection of atrophy may be readily possible, but tape measure records are much more meaningful. Ability to negotiate stairs represents a practical method of evaluating muscular strength. A series of single-toe rises may aid in ascertaining degrees of weakness. Single maximal lifts or repetitive performance with weights provide information as to muscular strength. The dynamometer is particularly useful for evaluating hand and wrist injuries. Comparison with the unaffected extremity is readily available and should be utilized.

Residual instability indicates limitation of joint function and lessened performance ability. It should be noted, however, that kinesthetic stability may be developed or it may be possible to brace or tape the injured part. Once again, comparison with the unaffected extremity is essential.

Head Injuries. The presence of residual neurological deficits (pupil abnormalities, spasticity, abnormal reflexes) sensory or motor impairment, following cerebral injury adds absolute reinforcement to prohibit further participation.

Cervical Injuries. Any restriction of motion, any residual tenderness, or any neurological deficits preclude further participation.

Thoracic Injuries. Restriction in respiratory volume as determined by tape-measuring chest

expansion or evaluating vital capacity would, of necessity, indicate potentially ineffective performance.

Abdominal Injuries. Deep tenderness intra-abdominally would make the examiner wary about allowing the athlete to return to the game. The presence of a palpable mass, or the absence of peristalsis, also would indicate further assessment is necessary.

Urological Injuries. Close observation is indicated if there is deep tenderness retroperitoneally and precludes reinitiation of activity.

Personal Observation of Certain Functional Maneuvers

It is essential that everyone concerned with assessing the athlete's performance potential be able to observe the player's ability to perform certain functional maneuvers. The ideal locale for making these observations is the practice field. If the situations are controlled, there is little chance for reinjury. If at all possible, the concerned physician should be available to observe these functional maneuvers along with the trainer. The coach should also be in close attendance and asked to supervise the activity sessions. At this particular stage of evaluation, if the parents express a desire to be present, they should not be discouraged from sitting in the stands.

Upper Extremity Injuries. If the player has a shoulder injury, it is useful to see how well he can do "form tackling", "form blocking" or to note what happens when he "hits the crowther". Ability to throw or catch a pass should be observed. When he runs, it is obvious that he does not "swing" the injured extremity normally? If there has been a hand or wrist injury, does he hold on to the ball satisfactorily?

Lower Extremity Injuries. In order to be able to play, the injured player must satisfactorily pass all the following progressive maneuvers: (1) walk without a limp; (2) jog straight ahead without a limp; (3) run straight ahead with full speed; (4) run backwards without difficulty; (5) "cut", "pull", "drive" and "run out of stance" normally.

For certain sports, observation of jumping ability is necessary to evaluate performance potential. As for upper extremity injuries, observations of form tackling, form blocking and working on the crowther are also useful.

Head Injuries. Persistent headache or dizziness just after wearing a helmet for a period of time indicates insufficient recovery from a concussion. Also, if the athlete experiences similar problems after merely form tackling, form blocking, or hitting the crowther, he is still not ready to return to competition.

Cervical Injuries. Recurrence of neck pain or radicular arm pain after form tackling, form blocking, or hitting the crowther casts doubt about returning to contact activity.

Thoracic Injuries. Pain in the chest or over the rib cage after ordinary running or "form" exercises indicates that the athlete is not ready for full activity.

Abdominal Injuries. The development of intra-abdominal pain after running or form exercises would preclude further intensive activity. The athlete should be able to do "sit-ups" and "jumping jacks" without difficulty before being considered ready for game participation.

After these functional maneuvers have been attempted, it then becomes important for all the parties involved to come together and discuss and evaluate their observations. If the decision is potentially favorable, then the athlete should once again be asked if he felt that he was able to perform the maneuvers satisfactorily and if he felt that he would be able to compete without restriction. There is no place in athletics for the statement that "they made me play even though I told them I wasn't ready," and it is inconceivable that the medical and nonmedical supervisors would force an athlete into competition against his will. Once again, however, if the athlete is a minor, he should not be allowed to resume competition unless his parents are satisfied as to his degree of recovery and consent to his return.

SUMMARY

Return to participation in athletics after an injury involves complicated and coordinated interplays between considered medical decisions and accurate appraisals of performance ability.

Considered medical decisions are rendered by the concerned physician only after analysis of: (1) the historical events surrounding the particular problem, (2) the symptoms, (3) the physical findings, (4) the pertinent laboratory information, (5) the prevalent psychological factors, (6) the appropriate consultations if indicated, and (7) frank discussions with the athlete (and his parents if he is a minor).

Accurate appraisals of performance ability involve careful evaluation of certain specific objective physical signs and personal observance of certain functional maneuvers. Rating of performance is jointly determined by the physician, the trainer, the coach, and the athlete himself (parents also if he is a minor). Methods of testing performance after various groups of injuries are outlined.

Approval of Athletic Training Curriculums at Colleges and Universities

by Sayers "Bud" Miller, Chairman
Subcommittee on Curricular Development
Professional Advancement Committee

On December 7, 1968, William E. Newell, Chairman of the NATA Committee on Professional Advancement, appointed a subcommittee on curricular developments to determine the availability of academic opportunities in the area of athletic training. The objectives of this subcommittee's investigation were to determine the specific colleges and universities throughout the nation offering curriculums in athletic training, to ascertain whether those curriculums being offered in the area of athletic training fulfilled the basic minimal requirements (including specific course requirements) recommended by the NATA approved program of education, to develop a procedure for those institutions offering athletic training curriculums to submit their curriculums for NATA approval, and to recommend to the Board of Directors for their approval athletic training curriculums submitted by colleges and universities throughout the nation that meet the requirements of the NATA approved program of education. At this time I would like to bring you up to date on the accomplishments of this subcommittee in attempting to carry out these objectives.

Shortly after the formation of this subcommittee, which includes Whitey Gwynne, Ernie Biggs, Bobby Gunn, Tow Diehm, Bud Miller, medical advisors, and educational advisors, a questionnaire was developed to ascertain the colleges and universities offering, planning to offer, or interested in developing a curriculum in athletic training. Concurrently this questionnaire was designed to determine whether or not the institutions replying to this questionnaire offered a curriculum that fulfilled the requirements of the NATA approved program of education.

Upon the completion of this questionnaire, a list of institutions offering an undergraduate major in physical education or health education was obtained from the American Association of Health, Physical Education, and Recreation. Since it was felt that only institutions with an

athletic trainer who is a member of the NATA would be qualified to offer the advanced course or courses in athletic training and to provide the proper supervision for the practical experience aspect of the NATA's educational program requirements, the questionnaire was mailed to only those institutions on the AAHPER list that have an athletic trainer, who is a member of the NATA, on its staff. Therefore, the questionnaire was sent to a total of 200 directors and heads of college physical education departments from the AAHPER list that met the aforementioned criteria. Out of these 200 questionnaires, 155 (77.5%) were returned; however, one institution reported in its returned questionnaire that they had dropped their physical education major and this response was not included in the study.

Although a considerable amount of data was collected from this survey questionnaire, only the pertinent findings to the progree of the curricular developments subcommittee in its work will be reported at this time in this article. It is hoped that the entire study and its findings can be presented in a future issue of the Journal.

SIGNIFICANT FINDING

A very significant finding from this questionnaire was that the directors and heads of physical education departments are poorly informed about the NATA's educational program. It was discovered that less than one-half (46.2%) of the heads of physical education departments had any knowledge of the educational program approved by the NATA in 1959. Consequently, the recommendation of the subcommittee to the NATA Board of Directors at the 1969 National Meeting was that an informational brochure explaining the role of the athletic trainer and providing the guidelines for the development of curriculums that will professionally prepare the athletic trainer should be developed and then published. With the completion of this type of publication, the

NATA could use it for two purposes—information and recruitment. This type of brochure could be sent to all physical education department heads to assist in their education of our efforts in the area of professional preparation and to seek their assistance and support in the establishment of athletic training curriculums that meet the standards established by the NATA. This recommendation was approved by the Board of Directors and the subcommittee is working on this project at the present time.

From the same questionnaire, nineteen institutions indicated that they offered a specific curriculum in athletic training. In addition, another twenty-three institutions also indicated future plans in developing athletic training curriculums. These curriculums took various forms including a major field of study, a minor, an option within an established major, and a less formal area of specialization. Further examination of these curriculums, however, indicates that only five of the aforementioned institutions meet all of the specific course requirements of the NATA educational program. Although only five institutions from this survey could fulfill all of the requirements of the NATA educational program, the subcommittee felt that the 42 institutions indicating that they offer or plan to offer a curriculum in athletic training in this survey provided a good potential core if a few revisions were made in these curriculums. Therefore, the subcommittee decided to invite the 42 institutions to submit their curriculums for NATA approval according to the following procedure which had been developed earlier by the subcommittee:

PROCEDURE

1. Submission of a letter from the head of the department, division or college in which the athletic training curriculum is offered stating that the curriculum has been approved by university officials as an official field of study.
2. Submission of a copy of the athletic training curriculum offered by the institution and a copy or copies of the appropriate university catalog or academic bulletin listing the offering of the athletic training curriculum. If this curriculum is a recently developed one, it is very likely that it will not be published for one or two years later. Therefore, this requirement can be waived in this case and the bulletin or catalog sent at a later date when it is published.
3. Submission of a completed questionnaire which can be obtained from the following address: Sayers J. Miller, Athletic Trainer,

Tubby Graves Building, University of Washington, Seattle, Washington, 98105.

All of the aforementioned documents should also be sent to this same address upon completion. From these 42 letters, the subcommittee immediately received four applications for curriculum approval. Since all four of these athletic training curriculums fulfilled all of the requirements of the NATA educational program, the Board of Directors made its first official action in the approving of athletic training curriculums. Indiana State University, Lamar Tech, Mankato State College, and New Mexico University were the first institutions to receive from the NATA an official letter recognizing their curriculum's approval.

However, since the approval of these four curriculums, only two more curriculums have been received by the subcommittee. At the present time these curriculums are being studied by the subcommittee. Another six institutions have also written indicating that they are in the process of having their curriculums developed or are being approved by their institutions. The quantity of responses would seem to be discouraging; however, it must be remembered that the development of curriculums and university official approval procedures are very slow. A good example is the paramedical field of physical therapy which has been established in the area of professional preparation for a much greater period of time than the NATA and still has today less than fifty institutions officially approved to professionally prepare its members. Therefore, if you have an athletic training curriculum or are planning one, it is the plea of this subcommittee to get the ball rolling now toward its approval by your own institution and the NATA.

Finally, it was discovered from the survey questionnaire sent out by the subcommittee that a good number of the heads of physical education departments did not understand the need for an advanced course in athletic training beyond the basic course offered by most colleges and universities. Therefore, the subcommittee is also attempting at the present time to set down in a written statement the rationale for an advanced course or courses in athletic training. This statement upon its completion will be submitted to the Board of Directors for this body's official approval.

The membership's assistance in the projects being carried out by this subcommittee has been greatly appreciated. We only ask that you continue to submit advice, assistance and questions concerning these projects.

Ergogenic Aids And Athletics

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*Prepared for Eastern Michigan University
Fourth Annual Trainers' Clinic*

Definition: "An ergogenic aid is defined as an agent increasing the capacity of bodily and mental effort, especially by eliminating fatigue symptoms."

The use of some ergogenic aids has also been called doping. The British Association of Sports and Medicine define doping as being: Any abnormal substance introduced in abnormal amounts, any agent administered for the sole purpose of alleviating secondary effects so as to improve performance. Probably a more practical ruling has been put forth by the International Amateur Athletic Federation which states that no agent that stimulates nerves and muscles should be used; no agent that paralyzes the sense of fatigue should be used, and no agent which is habit forming should be used.

Because of the growing interest in modern day sports on endurance and maximum performance, there has developed concomitantly a wide variety of ergogenic aids for the athlete. Unfortunately, most of these aids are of doubtful benefit and are too often nothing more than fads, fallacies, and out-right quackery.

Probably the most misunderstood and over-rated ergogenic aids are the vitamins, especially vitamin C and B₁₂. Vitamin C or Ascorbic Acid is a water soluble anti-scurvy vitamin which is readily absorbed from the intestinal tract. After absorption it is readily detectable in the blood.

Administration of the compound in amounts greatly in excess of physiological requirements causes no demonstrable effects. An individual who is found to have 1-2 mg. percent plasma level is completely saturated with the vitamin. The ascorbic acid is partially absorbed and partially excreted by the body. Since the drug is water soluble, little is stored and when the plasma level reaches approximately 1.4-1.5 mg. per cent, the renal threshold is met at which time large amounts of vitamin C are excreted by the kidney. If further amounts of the vitamin are administered, most of it escapes in the urine. In the normal individual, 75-100 mg. of vitamin C is all that is needed for daily requirement; doses over 200 mg. are excreted in the urine.

In recent years the use of Vitamin B-12 in athletics has become prevalent. This probably has risen out of the fact that B-12 is essential for normal growth and nutrition and is needed in the energy metabolism of muscle where it functions as a co-enzyme in carbohydrate metabolism. It is likewise important in protein and fat metabolism. Artificial injections of B-12 have no place in a normal healthy individual's life and its only established use is in the treatment of pernicious anemia; yet I know of two professional football teams who routinely give injections to their players. In one recent study by Ross, Matheno, and Sullivan of the University of Nebraska, it was

shown that there is no evidence of vitamin B-12 deficiency in a group of football players after two hours of strenuous exercising. The study suggests that vitamin B-12 supplementation prior to a game is unnecessary since no deficiency is demonstrable even after exercise.

Along these same lines the practice of using anabolic steroids to make bigger and better athletes is another deplorable practice. That anabolic steroids will consistently stimulate tissue growth in man has not been established. In athletes using these drugs over a long period there has been reported virilization, acne, testicular atrophy, sterility, disturbances in carbohydrate metabolism and lately there have been reported several cases of hepatitis or liver damage attributed to the long term use of this drug. Most of these athletes were on doses 3-4 times the prescribed dosage for several months, however. Because of the potency and many side effects of this drug, it has no place in the training and development of athletes.

Another form of ergogenic aid which has become popular in sports are the amphetamines or pep pills. Amphetamine is categorized as a sympathomimetic amine and is a strong central nervous stimulant. Many of its pharmacologic actions resemble epinephrine or adrenalin. This epinephrine effect while causing increased wakefulness and alertness also increases respiratory rate and depth of respiration, increased systolic and diastolic blood pressures, acceleration of the EEG or brain wave pattern and further has a central effect on the brain causing a depression of appetite. The psychic effects such as lessened sense of fatigue, enhanced confidence, increased sense of well being and increased ability to concentrate are not always constant. Some persons taking amphetamines experience headache, marked nervousness, palpitations, dizziness, agitation, confusion, apprehension, depression and/or fatigue. Large doses are nearly always followed by fatigue and mental depression. Studies have shown that more work may be accomplished but that the number of errors is not decreased. Similarly, while the drug fortifies an individual for a longer period of mental effort it does not improve performance; the initiative rather than the ability to do mental work is increased. In a double blind study by William C. Morgan, it was reported at the annual meeting of the American College of Sports Medicine, there was no improvement in athletic performance or endurance after taking pep pills. The temporary mental stimulation obtained from amphetamines in normal persons is not always beneficial and

considerable danger lies in the promiscuous use of the drug. Many studies by Beecher and Smith, Blyth of the University of North Carolina, Jokl of Kentucky and others have indicated that there is no improvement in athletic efforts with the use of amphetamines.

It is interesting to note in passing that methedrine or "speed," a more potent form of amphetamine, is highly addicting when taken by injection. It has been compared to cocaine in developing drug dependence which is one of the most rapidly addicting drugs known.

Just a word on tranquilizers as an ergogenic aid. In general, these too have no real place in sports. Occasionally, you may have a boy who gets very jittery and anxious far beyond the usual reaction before competition; this boy may benefit from a mild dose of Librium or Miltown. It has been used to advantage in jittery place kickers on more than one occasion.

MISCONCEPTIONS

As far as the use of hormones in athletics, there are only a few to be mentioned and a few misconceptions to clarify. At the present time, the use of Estrogen and Progesterone products for the suppression of menstrual periods in women athletes has not been disallowed and I see no reason why they should be. On the other hand, the use of Cortisone by mouth for increasing performance is mentioned only to be condemned. This practice has been discontinued now but was prevalent 10-12 years ago. It was soon evident that when given by mouth in large doses they produced diabetic states, loss of calcium in the bones, high blood pressure, adrenal insufficiency, and in some instances, a drug dependency which required a weaning off the drug. This practice is not to be confused with the use of hydrocortisone and hydrocortisone-like drugs by injection for treatment of certain inflammatory conditions in joints and ligaments. Injection of hydrocortisone products for the treatment of a bursitis or tendinitis of the shoulder, elbow, knee, or ankle has a definite sound medical basis for its use in sports. I have found it definitely useful also in hastening recovery in the mildly sprained knee ligaments, costochondrial or rib separations, and mild acromioclavicular separations.

It is very useful in treating the iliac crest bruise or hip pointer as it is commonly called. Usually one or two injections, followed by a protective padding, allows these lads to return to practice much earlier. An X-ray should be taken first in many of these cases mentioned to rule out fracture or epiphysis separation. I would not use

hydrocortisone injections around fracture sites, in areas with ruptured or torn vessels, areas with open skin lesions or areas infected by bacterial or viral agents and finally, in areas very close to large arteries or nerves.

There has been much said about the use of xylocaine or novacaine as an analgesic in sports medicine. Mostly the practice is condemned and in general I agree with what has been said. The use of xylocaine or novacaine to anesthetize a joint with a ligamentous tear cannot be condoned in any shape or form since, under the analgesic affect, further damage can be sustained to the joint without the player realizing it. There are times, however, when the judicious use of a local anesthetic can be useful and not harmful. I have on occasion used xylocaine to stop pain in a heel bruise or a hip pointer when I am satisfied the player is not allergic to the drug and that it would do the boy more harm to keep him out of the game. The point is . . . discrimination must be used when administering local anesthetics.

Another practice which I recently became aware of is the use of diuretics or "water pills" to lose weight for wrestlers. The drugs most commonly used are the thiazides which have their major effect on the proximal tubule of the kidney and cause excretion of sodium, bicarbonate, chloride, and potassium along with proportionate amounts of extra cellular fluid. Ammonia excretion is depressed and because of increased ammonia concentration in the blood, the urine becomes alkaline. These drugs also exert an antihypertensive effect as well. It is a fallacy to use such methods to decrease body weight since the loss in fluid, not tissue, and is immediately replaced when fluids are ingested. Also, when these are taken in a dehydrated state, they further add to this condition and thus add to the already weakened condition of the athlete. This method of weight loss is similar to the misguided and even dangerous use of the rubberized sweat suit to lose weight. There are several reported cases of death from heat prostration in athletes using a rubberized suit on very warm, humid days. The fallacy here is that while 5-10, or even 15 pounds of weight loss is noted immediately, after the workout it represents an abnormal loss of fluid and body salts. Little or no loss of adipose tissue accompanies this and as soon as the player rehydrates himself, he finds his weight is the same as before. Further, this amount of fluid loss in such a short period of time is harmful and has a marked effect on performance, strength, co-ordination and endurance. It never ceases to amaze me when I talk to coaches who still believe in

water and salt restriction in their training program. I can only surmise that these people stopped reading, learning, and listening fifteen years ago or else, they are unable to understand what they read. There have been innumerable well-done studies by sports medicine researchers as well as the armed forces that conclusively demonstrate that heavy exercise in warm weather, with and salt restriction, rapidly leads to early fatigue, weakness, loss of co-ordination, and finally to heat cramps and heat prostration. A young athlete or two still die from heat stroke every year because of ignorance of this fact. Conversely, by providing a very dilute salt solution, or water and salt tablets, on and off the field without restrictions, these problems are avoided and practice sessions are made more rewarding to both player and coach.

DIET

There are many other ergogenic aids but I can only mention a few here. Much has been made of special diets for athletes such as high protein diets, low-fat diets, high carbohydrate diets, weight-gain diets, weight reduction diets, crash diets and so on. Probably the best diet for an athlete in training is a well balanced diet. One recent report in nutrition in athletes by Dr. Ostrand of Stockholm indicated, however, that for the best performance in endurance events, athletes should, about a week in advance, exercise those muscles to be primarily used to near exhaustion, restrict their food intake to fats and proteins for three days to keep the glycogen content of the exercising muscles low, and follow a carbohydrate-rich diet for the remaining days before competition. Carbohydrates appear to play an increasingly larger part in the metabolism the longer the effort is maintained. Athletes and coaches often have a prejudice in favor of high protein meals such as the traditional morning steak before the football game. Many nutritionists have written that the pre-event meal should be rich in carbohydrates and low in protein for best performance. When one considers that during strenuous exercise, the renal blood flow is considerably reduced, it would follow that a high protein-content in the blood stream would further lead to increased fixed acids which cannot be excreted by the kidneys. This in turn leads to further metabolic acidosis which affects the performance. I would say from this that the rationale for increased carbohydrates and less protein for the pre-event meals appears valid. Also, it would appear that for endurance events, longer periods

of 2-3 days on high carbohydrate diets are beneficial to performance.

It would appear in summary that most of the aids I have mentioned have been with a negative view. I would say, in general, that most ergogenic aids do have a negative effect as far as athletic performance is concerned. Furthermore, we must also consider the legal and ethical implications in using drugs or other materials on healthy individuals to improve athletic efforts. Legally and ethically we must consider the possible harmful effects on an individual by the use of an ergogenic aid. We must also consider the ethics of using a drug or material which gives an advantage to the user in a particular sport. I leave these questions for you to ponder at your leisure.

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Survey On The Use Of Mouthguards

This survey was conducted by Tom Healion, Assistant Executive Secretary of the National Athletic Trainers Association, and was submitted to the NCAA Football Rules Committee—1970.

130 Schools participated, with an average of 59 squad members per school.

TOTAL RESULTS

1. Are mouthguards required in your football program? 26 Yes 104 No
2. If not required, how many squad members wear them? 1930 out of 7588 total on varsity teams, (this is an average of 14 per squad).
3. Out of this number, 591 are custom made by a dentist, and 1339 are the purchased type.
4. Approximately, 525 freshman reported to college with their high school mouthguards, (this is an average of 4 per school).
5. Estimate of:
Number of chipped teeth during the 1969 football season, 307. An average of 2.3 per squad.
6. Number of teeth lost during the 1969 football season, 41. An average of .315 per squad.
6. Opinion of teeth injuries in football, compared to basketball and wrestling.
 - a. More total injuries in football.
 - b. For total number of participants, injuries are higher in basketball and wrestling.
 - c. Schools having hockey programs relate a high incident of teeth injuries.
7. Do you feel that the mouthguard will help prevent:
 - a. Head injuries? 61 Yes, 46 No, (note—all agreed it will help the state of unconsciousness as the result of a blow to the chin).
 - b. Neck injuries? 12 Yes 94 No.

ADDED NOTE

Of the 26 schools reporting that they require the use of mouthguards, there were a total of 60 chipped teeth, and 7 teeth lost. Many of these schools report that even though they require the use of the mouthguard, it is impossible to enforce it.

Bits And Pieces

by Clyde Stretch

THE JOURNAL TEN YEARS AGO —
SPRING 1960

“**A**merican College of Sports Medicine—Its Contribution to the Athletic World,” by Grover Mueller. A presentation of the five year old college, its goals, achievements and the position of an athletic trainer should he decide to join the college.

“Treatment of Football Injuries,” by Donald B. Slocum, M.D. Dr. Slocum reviews many of the factors of general importance in football injuries. He points out the continuing high incidence of knee and ankle injuries in the sport. From this point forward he discusses the form that knee and ankle injuries take as well as the treatments indicated. A chart is presented providing a list of general injuries and the various aspects of the treatment of each. The thoroughness in the presentation of this chart alone makes the article outstanding. Along with this, two excellent points are made in the summary.

“Of those injuries that result, ligamentous injuries of the knee and ankle are most commonly the one which remain undiagnosed or inadequately treated. Classification based on an understanding of the pathologic anatomy will go far to guide the team physician in his choice of treatment.”

“Athletic Injuries — Thoracic Area,” by Earl Wilkins, Jr., M.D. This article was the text of a talk presented at the January meeting of the E.A.T.A., 1959. Dr. Wilkins points out that serious injuries to the chest are not common in athletics. He discusses the necessity of using ice and a compression bandage in the less serious injuries, and the muscle strains of the area, mentioning the latissimus dorsi and pectoral muscles as upper extremity muscles which assist in respiration. It is also pointed out that strains of the serratus and intercostal muscles can be difficult to differentiate from actual injuries to the rib cage. The author closes by discussing cases with more serious injuries to the thoracic area including fractures and the possibilities of hemothorax and/or pneumothorax.

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Two very interesting articles appeared in the literature this past February. These articles appeared in two different publications on two some-

what different subjects. Because they were different, and yet because they were similar, I am going to attempt to combine these two articles into something that, hopefully, will make its own point. All of the material with the exception of two or three questions added for continuity are direct quotations from these two articles.

EFFORTS TO PROTECT YOUTH IN SPORTS ARE NOT MERELY SO THAT THEY WILL SURVIVE BUT SO THEY CAN LIVE.

To achieve the benefit of sports, the element of risk must be encountered. The result is the ever present equation of calculated risk (benefits over risks) that must be the basis of every supervisory decision in sports. Without risk, sports would lose its motivational appeal for youth; and without appeal, youth would not obtain the educational and health values from responding favorably to the stress of training and participation. Disability, in turn, is not absolute; it depends upon how a particular atypical condition relates to the particular task at hand.

In many cases athletic directors, coaches and trainers are also giving increased emphasis to preventative and predictive medicine. This is fortunate because in no other sphere of medical interest must the physician and the public depend so heavily on the skills and judgement of nonmedical leadership.

Should that nonmedical leadership come from the coach?

The coach finds himself in the most difficult spot of all. Most coaches have studied first aid and treatment for minor injuries, but any coach supervising a large squad actually does not have time to do a real trainer's job. Another problem faced by every coach is presented by the boy who is so anxious to play that he intentionally does not mention the slight bruise or sprain he has incurred. The sad ending to this story is that the boy, in favoring the minor injury, usually leaves himself wide open in a more vulnerable spot. Thus, he winds up with a more serious injury.

Only in recent years has the wedding of sports and medicine been formalized, consummated, and found compatible. Physicians have been active as athletes and as medical counselors to athletes since the beginning of athletics. Until the late 1950's,

however, there was no organized approach on the part of medical societies to the problems of health in athletics. As a result, the fruits of marriage are still forthcoming, but they are now considered "legitimate" and of a stock that measures up to the highest ideal in the heritage of both sports and medicine.

We should take a hard look at the number of persons injured. Who is available to take care of them and their injuries? The physician is much too busy to attend practice sessions and the games. If physical therapists are not available, then who should be appointed to be present at every practice and game? Who should see that a physician is called when necessary, or that the injured player is taken to the physician's office or hospital or home, or told not to practice until he has been seen by a physician?

Even the most learned and dedicated coach, does not by himself, however, constitute quality supervision of the health needs of the athlete. He needs help . . . help from assistants who can be responsible for first aid care and emergency procedures . . . help from medical and health personnel. The decision to offer a sports program should hinge on the availability of this help.

While this help is needed at all school and adult levels of both organized and unsupervised sports activities, it is almost paradoxical that it is weakest where it is needed most — at the high school level. At the college level staffs of team physicians, coaches, trainers and health departments are usually conscientious about physical conditioning and prescribing competition by unprepared or injured athletes. But at the upper-grade and high school levels, the community physician and his medical society can do the most to take care of the least protected at the age when it is most important.

With the courtship of sports and medicine came a legacy of respective traditions that had to be accepted or resolved. Physicians had to learn that rest and vacillation were not attributes to athletics, that they couldn't get by with saying "stay off it for a while, come back and see me in several weeks." Coaches in turn had to learn that some of their traditional procedures needed change, such as withholding water during practice or telling a boy with an injury to "shake it off and get back in if you have any guts."

But what of these sports participants once disability occurs?

The biggest difference between college and high school is that the high school player who is hurt is not given an immediate examination unless he is badly hurt. If the boy receives a sprain, it may be ignored because it was not severe enough. Or, he

may go home before it swells. No one knows of the injury because the boy has not told anyone about it. This leaves him subject to another more severe injury.

With every confrontation between athlete and physician (there) must come an immediate and hopefully accurate decision on medical eligibility for participation: Can the athlete continue to participate without undue risk of aggravated injury and prolonged unavailability? If yes, a subsequent decision by the coach must be made. Will the athlete carrying the injury be more effective than his uninjured or differently injured replacement?

If, on the other hand, the medical decision is **against** further participation, a consequent decision of "for how long" must be made. On the basis of this prediction, the coach must make further decisions as to adapting strategy and techniques with his and his opponents' available personnel.

Therefore, without even discussing the humanitarian aspects of the decisions, it is readily seen that on the accuracy of the health and safety decisions, hinges much of the conduct of sports. Include the health and safety interests of the athlete, and on these prior-to-the-act decisions hinge the responsible conduct of sport.

Here then is the big difference: In college, athletic injuries are taken care of by a specific person. At the secondary level, there is a question as to who will take care of the injuries.

Sports have educational and health qualities. If not, sports would have no justification as to being in our secondary schools' programs. The risks within sports would be encountered only to permit a catharsis for selected aggressive young men to act for the entertainment of others. The experiences then would merely be as a placebo rather than as a boost to maturity.

But where does this leave the parents of the young athlete?

Take a look at the situation from a parent's viewpoint. He is justly proud and pleased, like most parents, when he learns that his son has made the squad. But if the boy is seriously injured while carrying out an assignment that he is not able to handle because of some minor or temporary disability, the outlook is considerably changed. Not only is the parent faced with the burden of medical expense but with a much more important worry, his son's condition.

School officials have a perfect right to feel that the school is performing a real service for both the boy and the parent by sponsoring an organized athletic program. Equally, parents have the right to feel that the school should be responsible for the physical condition of athletes who perform for the

school in contests for which admission is charged. Admittedly there are two sides to the question.

If a responsible person were delegated to take care of these duties or the injury phase itself, it is certain that the percentage of injuries would drop drastically. If secondary schools would appoint this responsible person, they could save more than the amount of his salary through lower insurance premiums.



I would like to express my apologies to both authors for any possible misunderstanding that might come from the alteration of the context of their material. I would also like to strongly recommend that both articles be read in their entirety as both are excellent and provide a far broader scope than the material presented here. The two articles are: "Trainer's Role in High School Athletics," by Joseph N. Abraham, pp. 537-42, *New York State Journal of Medicine*; February 15, 1970; and "Sports Medicine in Perspective," by Kenneth S. Clarke, pp. 44-7, *The West Virginia Medical Journal*; Vol. 66, February, 1970.



Closely associated with the previous material is a solution conceived by D. L. Hinerman, M.D. for the Washtenaw County Medical Society, Michigan, and presented to the House of Delegates of the Michigan State Medical Society by Henry A. Scovill, M.D. The text of that resolution is as follows:

Whereas, the American Medical Association and the Michigan State Medical Society have demonstrated an active concern in athletics insofar as health problems arise frequently, and this concern is reflected in the recognition of the field of "sports medicine," and

Whereas, the high rate of injury, the need for prevention of these injuries and the need for rehabilitation of the injured athlete constitute a serious health problem, and

Whereas, complete records of athletic injuries are non-existent in many schools, and

Whereas, the medicolegal aspects of athletic medicine are becoming more and more important, and

Whereas, this problem is of national concern and may properly be of interest to the American Medical Association, therefore be it

Resolved: That the Michigan State Board of Education and the Michigan Department of Public Health encourage the establishment of an adequate Athletic Medicine Unit in every school where feasible, and

Resolved: That the Athletic Medicine Unit be

composed of a duly licensed physician, and athletic health coordinator (trainer) and other necessary personnel, and

Resolved: That the duties of the Athletic Medicine Unit be prevention of injury, provision of medical care with the cooperation of the family physician and others of the health care team of the community and the rehabilitation of the injured, and

Resolved: That the school be required to submit a complete report of all injuries to the Michigan Department of Public Health, and

Resolved: That medical schools be urged to assume the responsibility of training Athletic Health Coordinators (trainers) as well as specialists in Athletic Medicine, and

Resolved: That copies of this resolution be forwarded to the Governor, the Legislature, the Michigan Department of Public Health and the Michigan State Board of Education, the Michigan Association of School Boards and the Michigan Association of School Administrators.

This resolution was adopted by the House of Delegates.



CALENDAR

1. June 4-5; The annual meeting of The Medical Aspects of Sports sponsored by the Department of Continuing Education of the University of Tennessee College of Medicine, Memphis, Tenn. Information: Dr. Marcus Stewart, Campbell Clinic and Hospital, 869 Madison Avenue, Memphis, Tenn. 38103, or Mr. Wallace H. Mayton, Director of Continuing Education and Conferences, The University of Tennessee Medical Units, 62 South Dunlap Street, Memphis, Tenn. 38103.

2. August 3-5; "The Knee in Sports". A post-graduate course in sports medicine presented by the American Academy of Orthopedic Surgeons, at the Hilton Hotel, San Francisco. Information: Fred L. Behling, M.D., 300 Homer Avenue, Palo Alto, California 94301.

3. September 12-13; The Third Annual Athletic Injuries Seminar presented by the New York Osteopathic Society at the Thruway Hyatt House, Albany, N.Y. Information: The New York State Osteopathic Society, 87 South Lake Avenue, Albany, N.Y. 12203.

4. September 18-29; A scientific program, "Sports Medicine", as a part of the annual meeting of the Kansas Chapter of the American Academy of General Practice at the Holiday Inn, Lawrence, Kansas. Information: Gene M. Wilcox, Executive Secretary, Kansas Chapter, American Academy of General Practice, 521 State Bank, Winfield, Kansas 67156.

The Heel Cleat - Its Contribution To Football

Professor Karl K. Klein
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Knee injury has too long been accepted as a normal hazard of football. Although it's recognized that it would be impractical to assume that the problem could be completely eliminated, evidence indicates that certain equipment traditionally used has a significant relationship to knee injury—namely the **Heel Cleat**.

The influence of the heel cleat, as an injury mechanism, is a more important factor at the high school age level, ages 14-17 years, than at the college age level. This is due to the fact that during this period of growth and puberty change, there is a significant loosening of the ligament structures of the knee and therefore a lessening of control of the lower leg (and the thigh) in torsion movement at the knee joint. Since the ligaments are the first line of defense against knee injury, major precautions should be taken, especially in contact sports, to protect these ligaments during this period of growth looseness. Three simple steps that could be taken are: (1) Removal of the heel cleats and replacement with the regular locked-on or bar heel unit; (2) extra emphasis on quadriceps — hamstrings with strength building and ligament strengthening exercises; and (3) teaching proper techniques of running and cutting, emphasizing toeing-in or pigeon-toed action, to be sure that in cutting movements especially the weight is on the ball of the foot.

The evidence that the heel cleat is a significant factor in knee injury is not something "just" discovered. It dates back to Hanley, who did some original work in the early '50's and later additional experimental studies which continued to bear out the conclusion that removal of the heel cleats reduces the incidents of, as well as severity of, injury. Whether the heel cleats are replaced with a rubber-heeled, locked-on, disc, or with a single bar (as compared with cleated heels), the resulting decrease is the same.

CONCLUSIONS

Two years studies are reported by Hanley: In 1965, a study of 5,530 players showed that 4,441 (80%) players wore conventional heel cleats and experienced 7 percent of knee injury while 1,106 (19%) players wearing the heel replacement experienced 3.1 percent of knee injuries; the 1966 study of 2,521 players showed that 1,180 (71.8%) wearing heel cleats experienced 7.1 percent of knee injuries and 711 (28.9%) players wearing heel replacements experienced 3.05 percentage of knee injury.

When the heel cleats were replaced with the bar heel (Smith heel), students at Harvard showed significant reduction of knee injuries between 1966 and 1969, as compared with knee injury incidence the previous three years. Numerous other studies in both high school and college have borne out the results of injury reduction in both incidence and severity.

New York State's Public High School Athletic Association studied extensively the problem of knee injury during the 1968 season in a review of incidences from 44 high schools. Factors studied were types of shoes and cleats worn, position played, hour of practice, etc. The lowcut shoe with regular cleats (fore and aft) resulted in the highest incidence of injury while the low disc heel and soccer type shoes resulted in the lowest injury incidences. In final analysis, the data indicated that a reduction of two or more knee injuries on each team a season in the study could result by substituting heels for heel cleats; further, those using the heel instead of cleats suffer no reduction in playing efficiency. The 1969 NYSPHSAA study of some 17,000 football players again indicates that the heel cleat is highly involved in the problem of knee injury. The evidence from numerous other studies indicates the need for change in the attitude toward heel cleats on the football shoe.

The influence of tradition is, I believe, the major problem. Tradition holds that the heel cleat is ab-

solutely necessary for better function — but what players run on their heels anyway? Any coach who understands the mechanics of the human body should realize how useless the heel cleats are and how they can lock the heel in cutting, turning, and player contact, intensifying the major strain thrown upon the knee.

Tradition insists that we continue to use heel cleats, because they have always been on football shoes. Why change? What about the players? Let's give them the opportunity to play longer — as well as preserve their knees, uninjured if possible, for the remainder of their lives.

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National Notes

by Jack Rockwell, Executive Secretary

With 1970 Convention time drawing near we have a great many things to look at in retrospect since our 1969 Convention. The work of the Professional Advancement Committee has been especially gratifying. The progress made by the Sub-Committee on Certification is exceptional and has reached a point where the P.E.S. examination will be available during the Fall of 1970. Further meetings at Denver will determine the mode of the examination mechanics, i.e., when it will be given, where it will be given, and who will actually administer the test.

The Sub-Committee on Curriculum has been equally busy. A number of schools have applied for approval and are being considered at the present time. The Committee is also working closely with many other schools in helping to develop programs in these schools. The contin-

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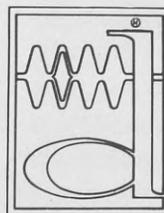
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ued work of this committee will be greatly needed, not only in the area of curriculum but in various other phases of continuing education.

Our recently approved Reorganization Plan for the NATA is the result of a great deal of work and dedication by the Ad Hoc Committee on Reorganization. I would like to take this time to commend and congratulate the members of this Committee; they have performed a great service to the NATA. Dick Vandervoort, Washington State, is chairman of this Committee, while the other members are: Bud Miller, University of Washington; Logan Wood, Houston Public Schools; and Bruce Melin, Washington University.

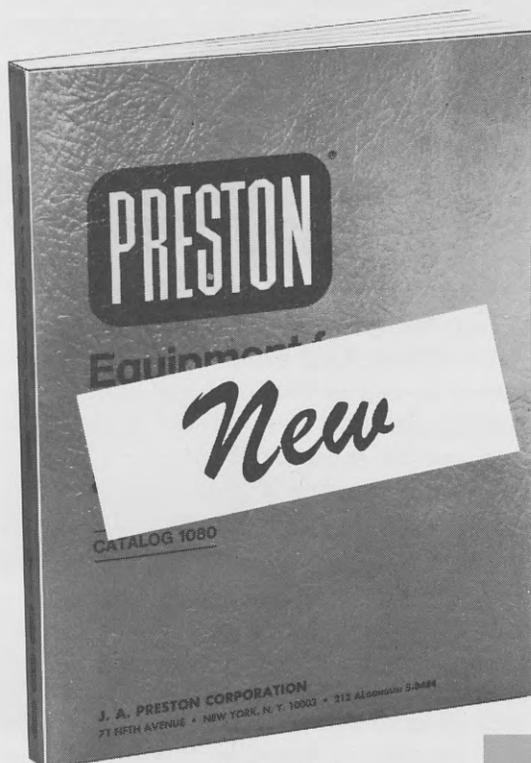
In line with the reorganization, we are now undergoing the need for other changes that have become increasingly apparent. Daily, your Executive Secretary receives letters requesting information about schools, job openings, undergraduate job opportunities, and non specific questions about the field of athletic training. The need for printed material in the form of brochures, booklets, and informational sheets is very apparent. The Board of Directors is at present studying a proposal by a Public Relations firm that could well be the answer to this problem.

The biggest problem with the proposal is the amount of money needed. We are constantly striving to overcome this lack of information, so if any of you have ideas along this line, please write or call and pass your ideas along.

THE ONE-DAY CLINIC

Another problem that has arisen and is getting bigger week by week, is the "one day" clinic for high school athletic trainers. It is hard to condemn this type of clinic since it is serving a purpose in developing an interest in the field of athletic training for many high school students. They also can, if properly organized, give the high school athletic trainer some rudimentary knowledge that he otherwise would not possess. Too often of late, though, I have had coaches tell me that they have a real fine young athletic trainer who has completed a correspondence course and attended a few one day clinics. This type of background qualifies these youngsters, in the coach's mind, to diagnose, tape, treat, and perform all types of minor miracles. The NATA has worked since the mid-1950's to develop certification, to raise the standards of athletic training and to work toward professional standing in the medical community.

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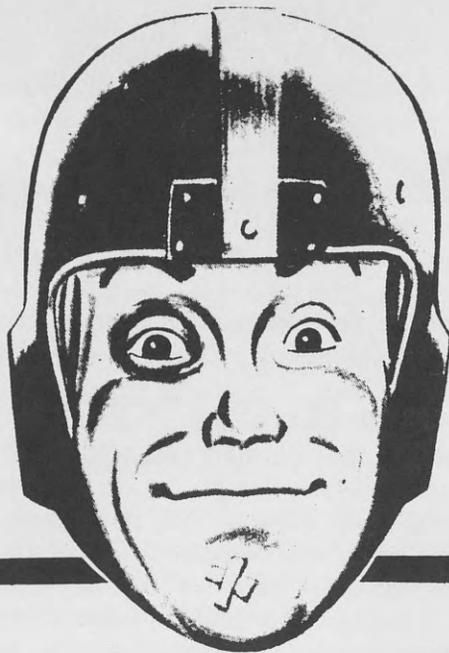
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Yet we allow ourselves the luxury of sticking our head in the sand and let those hit and run clinics and correspondence courses go on. I would like to digress a bit and say that I have participated in many of these short order clinics, so I am as much at fault as anyone. I do, though, also admit the shortcomings of this type of instruction and sincerely hope we can come up with a better formula for imparting information to the high school student athletic trainer. The Red Cross doesn't try to give a First Aid Course by correspondence or in a one-day session, yet we are condoning an even greater dissemination of information by this very inadequate method.

NATA PROGRESS

Recently your Executive Secretary wrote to over twenty affiliated organizations giving them a progress report on the work of the NATA. The response to this report has been slightly overwhelming. The interest and understanding extended by many of these organizations has been simply great. I feel that very often we have underestimated our own progress and it is only through correspondence with other organizations that I once again am able to see how our organization has grown and developed.

The question of ethical practices and moral values is very big in conversation these days. How much credence we attach to these values and practices sometimes becomes the most important questions. We, as athletic trainers, are today dealing with situations and problems that only a few years ago we would never have thought about. It is to our credit or discredit as to how we handle these problems. I firmly believe that we do ourselves discredit in the field of ethics when we break contracts and jump jobs without prior warning. This is becoming a most prevalent situation and one that, for the good of all athletic trainers, should not continue. One cannot tell another individual what he can or cannot do as long as the person is within the legal limitations of the prevailing law. A person must face up to the understanding thought that even if he is within the law in his dealings he must question what he is doing from a moral and ethical viewpoint. If we are to deal with the youth of America in these troubled times and expect them to follow our teachings of ethics, then we had better develop and live within certain ethical and moral concepts ourselves.

May you all have a good, relaxed, and perhaps stimulating summer. I mention the stimulation since we will all need it along with motivation when football comes around again.

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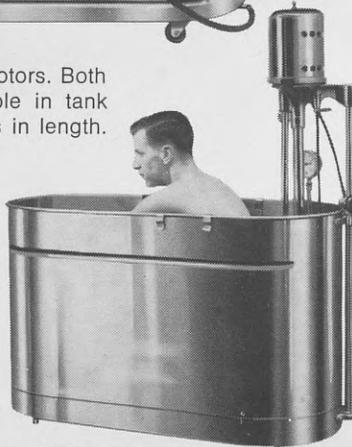
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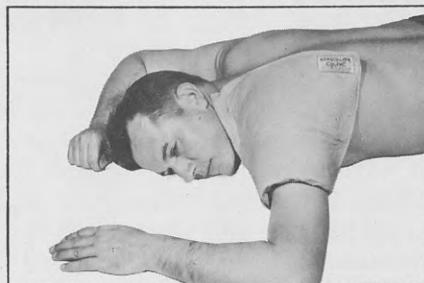
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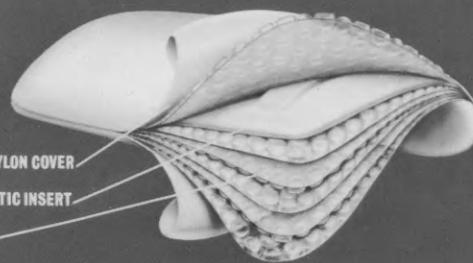
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