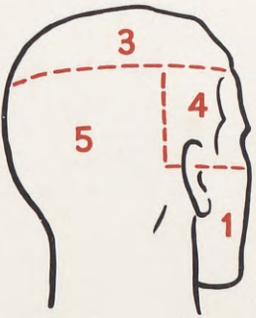
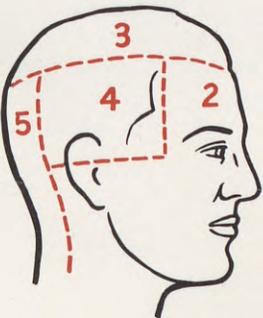
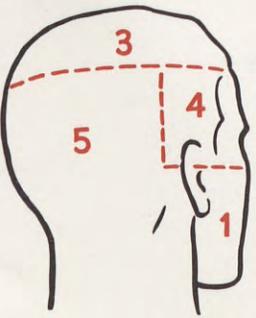
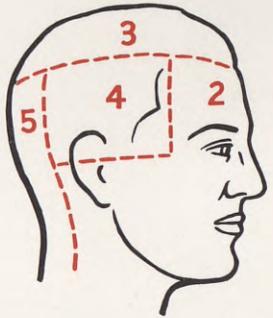
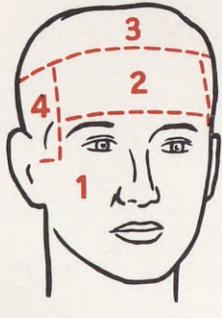
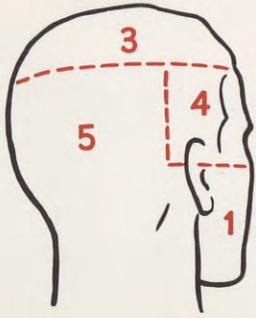
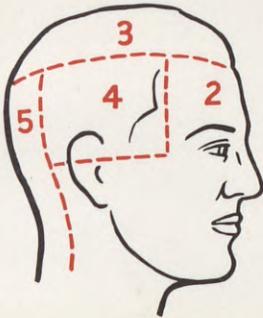
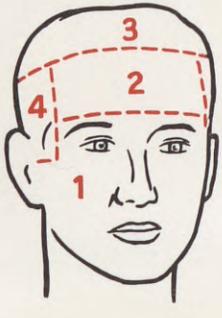


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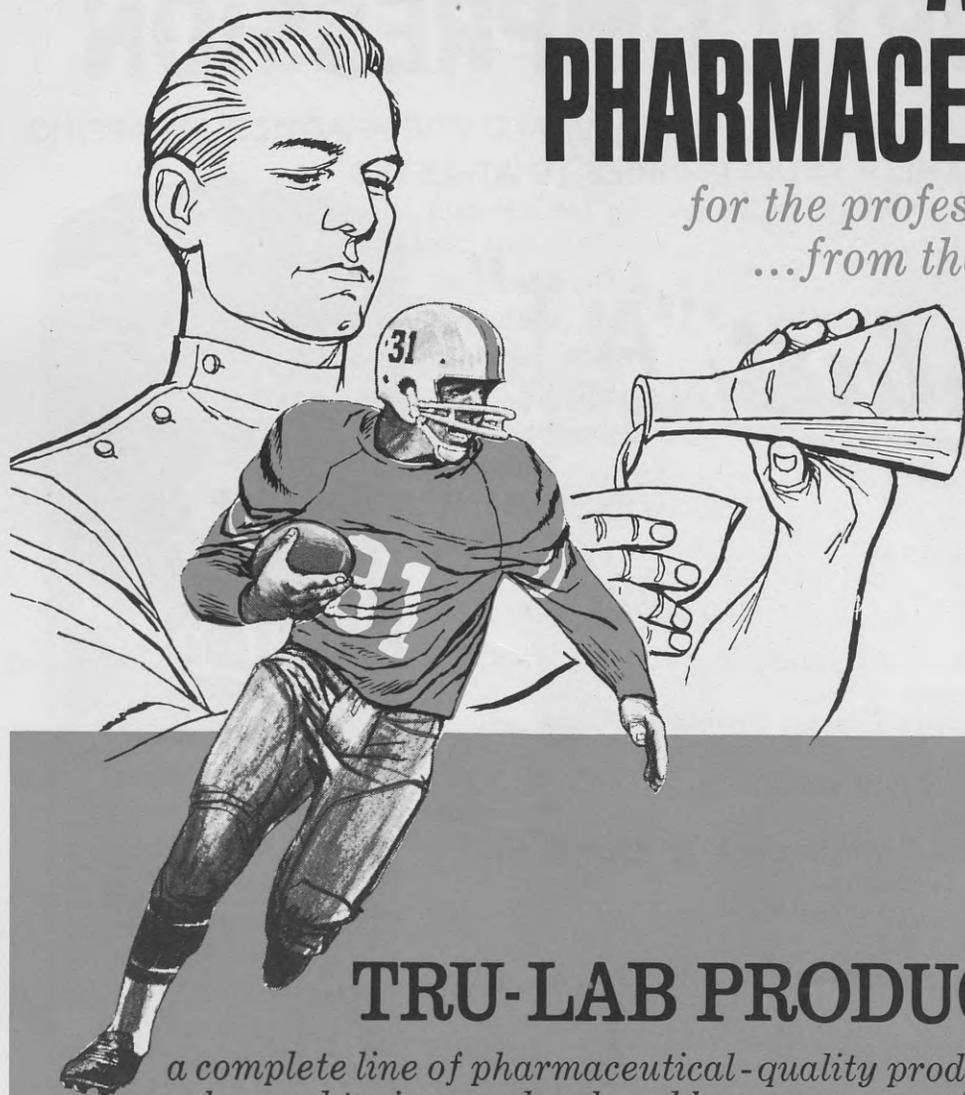




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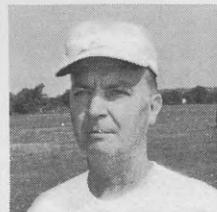
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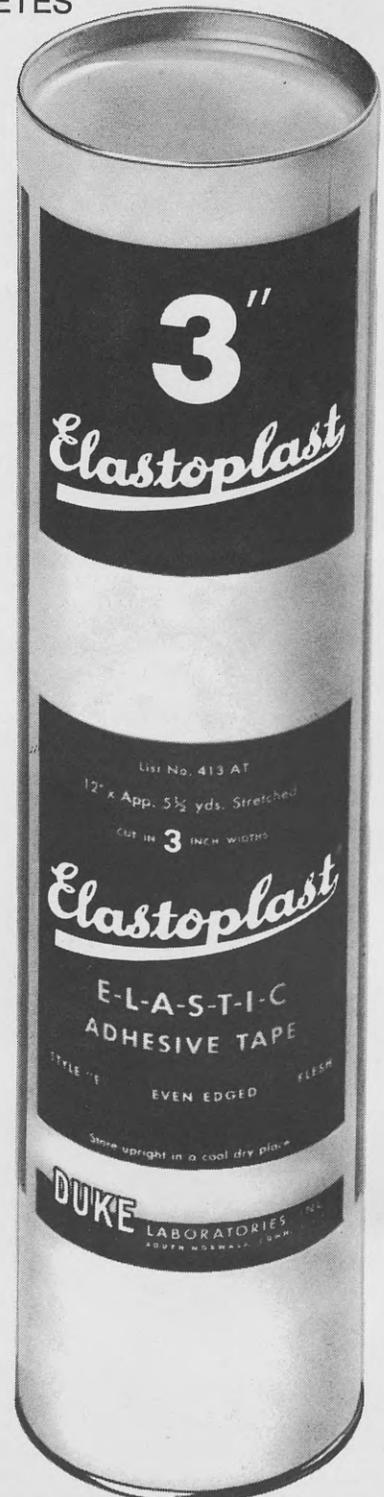
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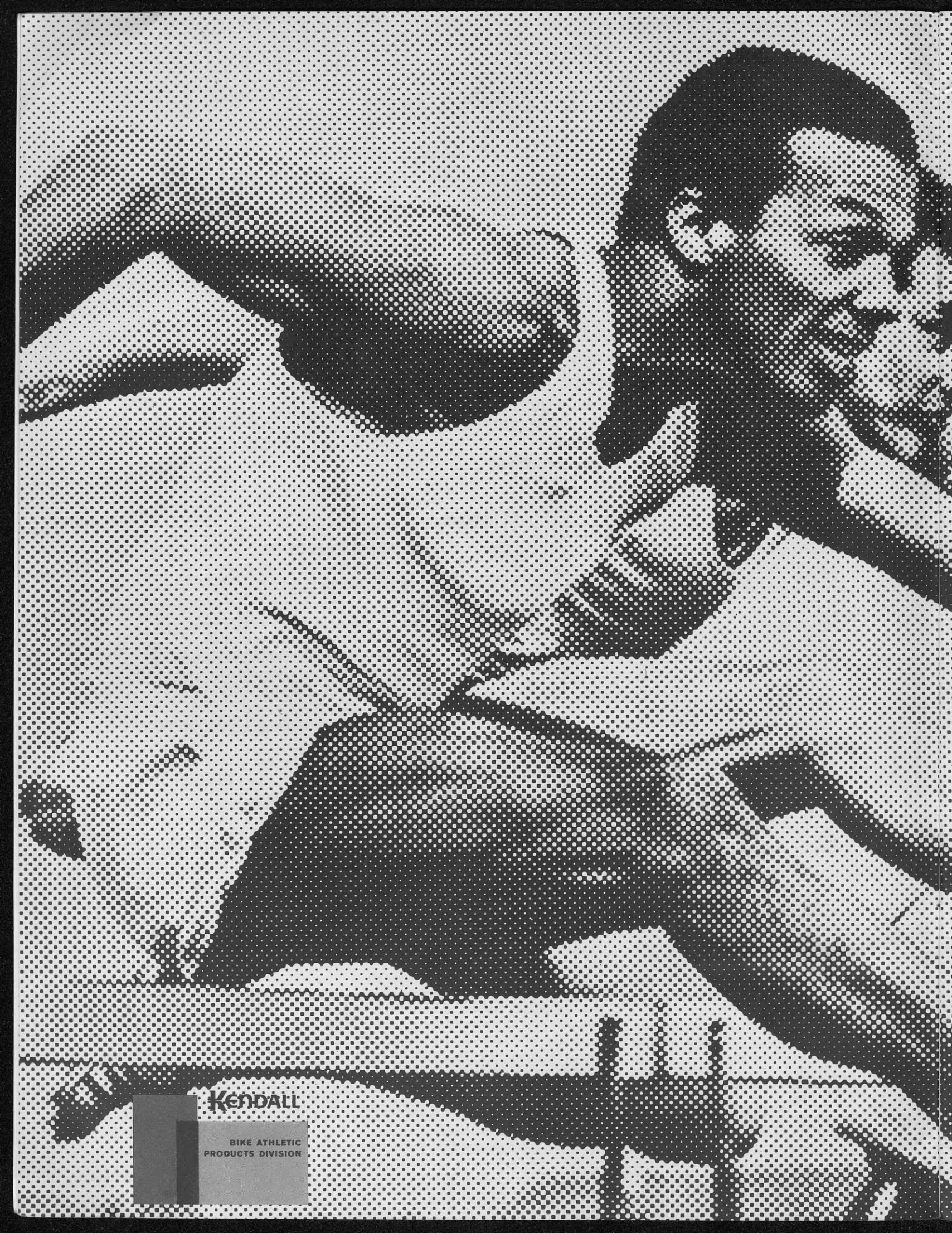
2. When references are made to other published works, include superscript numerals and appropriate footnotes giving author, title

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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.

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# The Therapeutic Use Of Cold (Cryotherapy) In The Care Of Athletic Injuries

Robert J. Moore, Jr., B.S., R.P.T.\*

Robert L. Nicolette, B.S.\*\*

Robert S. Behnke, M.S.\*\*\*

## INTRODUCTION

THE FIELD OF SPORTS medicine is primarily concerned with studying and developing methods and materials that will help to improve athletic performance and to decrease the dangers that are inherent in most athletic endeavors. This latter area, known more specifically as prevention and care of athletic injuries, is the primary concern of the physician and his essential paramedical counterparts, the athletic trainer, and/or physical therapist.

The prime responsibility of this physician-athletic trainer-therapist team, is not only to prevent athletic injuries but to ensure each athlete his "Bill of Rights".<sup>1</sup> Among these "Rights" is the right to competent medical treatment of injuries and the safe return to athletic participation.

To this end, the physician-athletic trainer-therapist team seeks treatment methods and procedures that will help to return the injured athlete safely and speedily to full participation.

This is a preliminary report on a new approach to the rehabilitation of athletic injuries — the use of ice (cryotherapy, cryokinetics) in conjunction with therapeutic exercise. The use of cold in one form or another (cold water, ice packs, ethyl chloride) has been reported in the literature for many years.<sup>2,3</sup> This use has, in the past, been confined largely to first aid procedures. In the past few years, however, there has been increased interest in cold as a therapeutic modality.

## CLINICAL EFFECTS OF COLD APPLICATION

Mead and Knott reported success in reducing spasticity by the use of cold applications in such conditions as quadraplegia, arthritis and polio-

myelitis.<sup>4</sup> Viel studied the effects of cold applications. He found that patients suffering from cerebral vascular accidents, multiple sclerosis and traumatic quadriplegia experienced relief from spasticity of the finger, wrist and ankle flexor muscle groups after cold applications.<sup>5</sup> Knott and Barufaldi found cold applications to be of benefit in the treatment of cervical sprains (whiplash injuries).<sup>6</sup>

Showman and Wedlick concluded, as a result of their two year study of the effects of cold on the relief of muscle spasm, that the application of cold combined with specific exercise techniques is an effective measure in the treatment of multiple sclerosis, traumatic conditions and in the mobilization of stiff joints.<sup>7</sup>

Hayden reported the early results of a program of treatment of acute and painful musculoskeletal conditions with ice massage.<sup>8</sup> In Hayden's program, 1000 patients were treated by an ice massage method. Eight hundred and fifty of the patients returned to military duty within one hour after the treatment. Only three of this number required an advanced form of treatment.

Grant later reported a continuation of Hayden's preliminary work. He found that of 7000 patients treated with the ice massage method over 80 per cent achieved a rapid and "satisfactory" result.<sup>9</sup> He states that "these results have been achieved in over 80 per cent of the patients with no more than three formal treatments, with less than five per cent of the patients requiring more than six treatments."<sup>10</sup>

Knott has used cold application with success in the treatment of rheumatoid arthritis.<sup>11</sup> Juvenal has reported success in using Grant's method of ice massage in the treatment of athletic injuries.<sup>12</sup>

## PHYSIOLOGICAL EFFECTS OF COLD APPLICATION

The physiological effect of cold has been studied for many years and the literature in this area is vast. However, the effects of cold as used in the techniques described in this paper are not clear. A review of the literature reveals a lack of research

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findings concerning the physiological effects of cold as used in ice therapy.

The authors feel the physiological processes involved include an anesthetic effect, the raising of the threshold of the muscle spindle, thereby decreasing the spasticity that usually accompanies injury, and an increase in circulation in the involved areas. It is in this last area that the physiologic mechanisms are unclear.

The anesthetic effect of cold applications has been substantiated by the work of Kraus and Travell cited above.<sup>2,3</sup>

Newton and Lehmkuhl have shown that the threshold of the muscle spindle is raised by body or muscle cooling. They found the frequency of action potential firing was decreased during a 10° C reduction in muscle temperature.<sup>13</sup>

Mead and Knott have recently reviewed the subject of cryotherapy and point out that the literature in this area is sparse. They feel that the anesthesia of superficial nerves produced by local applications of cold is one factor involved in the success of cryotherapy techniques.<sup>14</sup>

Fox, in his review of the effects of local cooling in man cites Lewis' discovery of a vasodilatation response to cooling of certain areas of the body.<sup>15</sup> However, the study of Lewis and others reviewed by Fox seem inconclusive. Downey also has reviewed several studies that have reported a cold induced vasodilatation.<sup>16</sup> He points out, however, that these responses are not fully understood.

Additional specific research is necessary to provide a working physiological model of the effects of cryotherapy.

#### TECHNIQUES OF COLD APPLICATION

There are several methods by which cryotherapy may be applied. One should remember that ice therapy is instituted after internal hemorrhage has been controlled with the standard first aid procedures.

*The use of cold towels* which have been immersed for a period of time in a shaved ice and water slush has been used quite effectively by Knott and her co-workers.<sup>11</sup> Knott suggests that the mixture of ice and water be kept at a temperature under 58° F. In actual practice, when using a shaved ice and water mixture, the temperature of the mixture has been found to range from 34° to 40° F.\* At these lower temperatures one seems to achieve more satisfactory clinical results. If shaved ice is not available, crushed or cubed ice can be used. In this method, the towels (usually of the turkish type) are kept in the ice-water mix-

ture until ready to be placed on the patient. The cold towel is wrung to get rid of excess water, wrapped around the injured part in the case of joint injuries or in the case of muscle or other soft tissue injuries to larger areas, is placed upon the entire injured area.

In the latter instance, the whole muscle from proximal to distal attachment should be covered. The ice towels should be frequently changed during the treatment.

One advantage of the ice towel method is that the injured part may be exercised while the cold applications are in place.

*The ice massage method* (Cryokinetics) was first reported extensively by Hayden<sup>8</sup> and later Grant.<sup>9</sup> The injured area is massaged with ice in the form of an ice ball or cube. The simplest mode of application via this method, is to make ice in small cans such as juice or soft drink cans. The present authors have employed paper cups to make the ice and have found this to be a satisfactory method. The injured part and the surrounding area is massaged with the ice until the patient reports local numbness or analgesia. Initially the patient will experience a sensation of cold which becomes increasingly uncomfortable followed by a numbing sensation. The ice massage should be continued until analgesia is reported. This usually takes from five to ten minutes and varies with the area and type of tissue being treated. It is important to remember that the massaging action should be gentle. Voluntary resistive exercise routines are instituted after the patient experiences analgesia.

The advantages of the ice massage technique of ice application include, (1) availability of materials, (2) little or no financial outlay, (3) ease of application and (4) adaptation to self and home treatment which leaves the trainer or therapist free to administer therapeutic exercises.

*The ice immersion technique* is another successful technique of ice application. The injured part is simply immersed in a solution of ice and water until the patient experiences analgesia or more commonly as long as the patient can tolerate it, (usually a few seconds).

This technique, however, can be used only for injuries of the distal joints such as knees, ankles, elbows and hands. Another disadvantage of this technique is its extreme discomfort. The majority of patients treated in this manner find prolonged immersion in ice a painful experience. Therefore, short periods of immersion before each exercise bout is recommended.

*The ice blanket or pack technique* can be used with success especially when therapist time is limited. The injured area is covered with a blanket

\*Based on experience of Moore and others under the direction of Miss M. Knott at the Kaiser Foundation Rehabilitation Center, Vallejo, California.

or pack made by putting a layer of crushed or shaved iced between two turkish type towels. The pack should remain on the patient for fifteen to thirty minutes. This technique is especially useful in severe injuries where pain and/or edema are significant problems. Therapeutic exercises are initiated, if indicated, after the ice pack is removed or can be administered while the pack is in place.

The ice towel, ice massage, and ice blanket techniques of cold application seem to produce the most satisfactory results. The ice towel method requires special equipment but is more suited to the treatment of larger areas, i.e., back, thighs, etc. and as previously mentioned offers the advantage of being able to exercise the injured part during the ice applications. The ice massage method is more economical in terms of amount of time and material required for treatment and adapts well to the athletic situation where one may be treating a large number of injuries. The ice blanket technique has the advantage of both of the above methods and is especially useful in severe injuries.

#### EXERCISE TECHNIQUES

Immediately after or during the ice application, depending on the technique of application, voluntary restive exercise routines are initiated. Therapeutic exercise is of paramount importance to the success of cryotherapy, without exercise the effect of this technique is seriously diminished. The cold applications in effect prepare the injured area for exercise. Any of the many exercise techniques may be used with success in conjunction with ice therapy. The authors however, basically follow the techniques first introduced by Kabat and Knott<sup>17</sup> and later perfected and taught by Knott and her co-workers.<sup>18</sup> This technique will not be described in detail here. However, certain basic principles should be followed when employing the selected exercise technique.

*Basic principles.* The following guidelines and principles should be followed when approaching any injury.

1. All motions should be voluntary and active.
2. Maximal resistance is applied to the part being treated. It is important to understand that maximal resistance refers to that resistance which will allow the patient to move *pain free* through the available range of motion or that resistance which the patient can equal in the case when isometric exercises are used. Resistance must be to patient tolerance and not based on the strength of the trainer or therapist.
3. Any motion that causes pain or any part of the range of motion that is painful is avoided. If the patient experiences pain the injured

area may go into spasm, thus defeating one of the purposes of the ice applications — relaxation.

4. The rotatory components of joints and muscle groups are stressed in each exercise routine. If one analyzes each joint kinesiologically one discovers the importance of the rotary component in the integrity of each joint.
5. Whenever possible, spiral and diagonal patterns of motion, rather than the traditional linear patterns are used in the exercise routines. In this way all of the components of each muscle and joint are rehabilitated more efficiently. When one examines any athletic event it becomes apparent that few, if any, linear motions are made.
6. An injured area should be relaxed before strengthening is done. Relaxation is achieved through the use of isometric exercises and ice applications.

#### CASE REPORTS

1. A football player received a second degree sprain of the medial collateral ligament of the knee. A cylinder cast was applied and left in place for ten days. Ice therapy and exercise was initiated on the day the cast was removed. The player returned to full participation three weeks after the injury with a tape support for the injured knee.
2. A football player sustained a strain of the left hamstring muscle group during a practice session. Ice therapy and exercise was begun the day after the injury. The player returned to full participation six days after the injury and required no additional treatment after that time.
3. A basketball player suffered a first degree ankle sprain during practice. Ice packs for first aid were applied to the ankle over night. Ice therapy and exercise was applied once the following day and twice the next day. The second day after the injury, the player participated for forty minutes in an intercollegiate basketball game with his ankle taped. In one week's time, with daily treatment, the player was able to participate with only a cloth ankle wrap for protection.
4. A football player suffered a complete dislocation of the radio-ulna-humerus complex. The dislocation was reduced by the closed method and the player's involved arm was placed in a sling. The attending physician felt that the sling would be required for at least five weeks and that the athlete would not be able to participate in football for the remainder of the season. Two days



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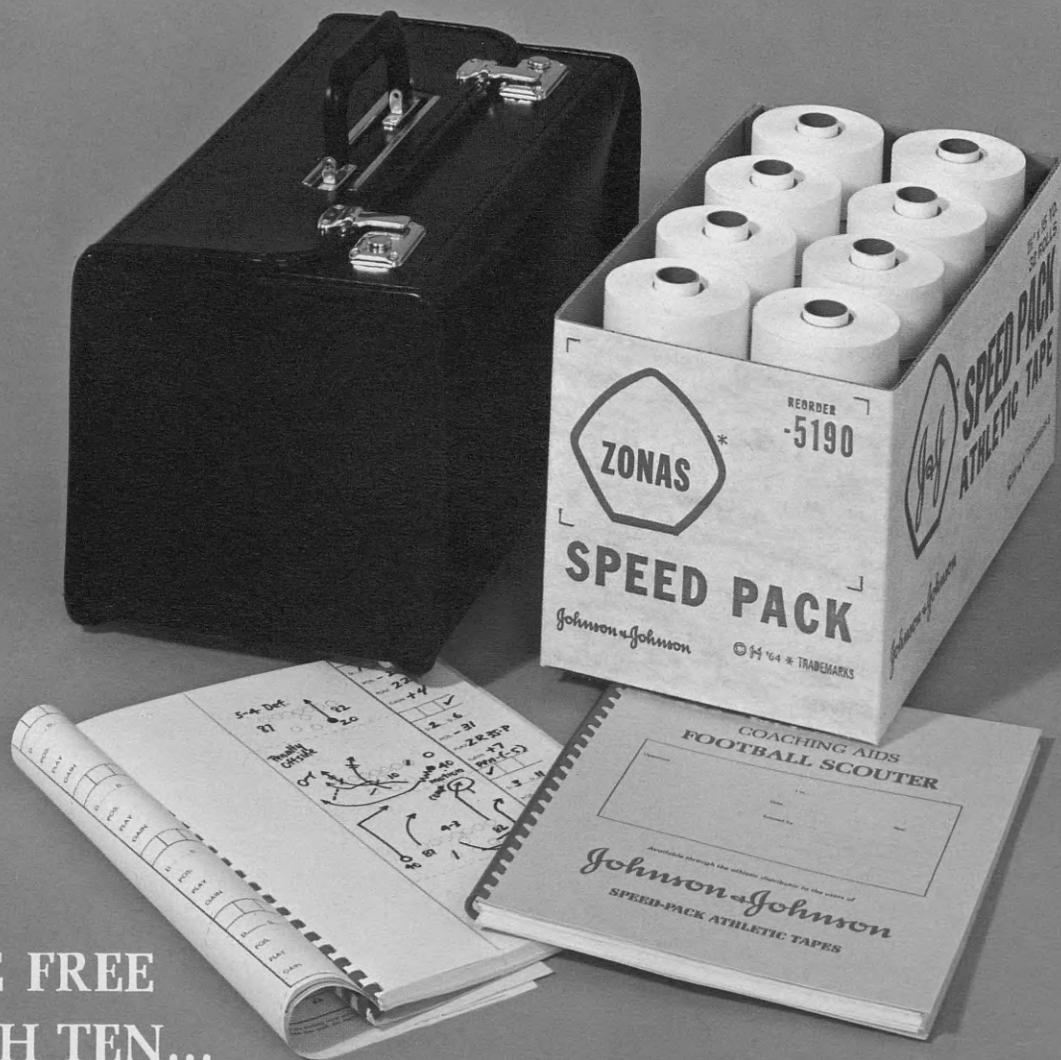
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after the injury, ice therapy (immersion technique) was instituted, under the direction of the team physician, in addition to rehabilitative exercises. These exercises followed the principles set forth in this report. Full, pain-free range of motion was achieved on the fourth day. On the fifth day the athlete was able to perform two chins on the bar and five push-ups pain free. Nine days after the injury, the player was allowed, by the attending physician, to resume full participation in football. The athlete remained on a rehabilitation program for the rest of the season but was able to play as a regular team member without re-injury.

5. A football player received a "shoulder separation" (acromio-clavicular sprain). X-ray examination showed this to be a severe 3rd degree type of injury. After standard first aid procedures, ice therapy and exercise was initiated on the second day after the injury. Eight days after the initial treatment the player was allowed to return to full participation. He did not suffer re-injury and in fact, distinguished himself by outstanding play in three games.

The above cases are only a few instances of the satisfactory results obtained with the methods outlined in this paper. These instances represent a small portion of the successful cases experienced in the clinics at the authors' institutions. We have had similar experiences with a wide range of athletic injuries including, "shin splints", cervical sprains, back injuries and crest of the ilium contusions.

#### DISCUSSION

The method of treatment of athletic injuries described above has been used with considerable success. The authors have reviewed many research reports on the effect of cold applications on nervous and circulatory activity and have been unable to find applicable evidence to give an adequate physiological rationale for cryotherapy.

The present authors feel, on the basis of available research and clinical observation, that the mechanisms involved include superficial anesthesia, depression of the stretch reflex mechanism and an increase in circulation to the injured area. It is clear, however, that cryotherapy permits earlier initiation of therapeutic exercises. Competent investigation of the physiological basis of cryotherapy is sorely needed to answer the many questions raised by the present authors and others.

We must, therefore, for the present, rely on the clinical evidence available which gives considerable support to the effectiveness of this technique.

The prime concern of the clinician is the safe and speedy recovery of the patient. Cryotherapy, in the opinion of the authors meets these criteria.

The purpose of this paper has been threefold; first to present the techniques of cryotherapy in an organized and functional manner, secondly to report the clinical results obtained with cryotherapy and finally to stimulate competent researchers to pursue further study of the physiological mechanisms involved.

The present point is that cryotherapy enables the physician-trainer-therapist team to return an injured athlete to competition safely and considerably earlier than with other physical therapy modalities.

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# The Incidence of Graded Cerebral Concussions Sustained by Athletes Participating in Intercollegiate Football

Arthur L. Dickinson, Ph.D., Tempe, Arizona

**T**HE PURPOSE of this study was to determine frequency and severity of cerebral concussion occurring to college athletes and the relationship of selected circumstances that accompanied these injuries.

A definitive classification of cerebral concussion into three grades (or degrees) of severity by a subcommittee of the American Medical Association Committee on the Medical Aspects of Sports greatly facilitated accurate tabulation of the incidence of each grade (or degree) of cerebral concussion sustained by athletes participating in intercollegiate football at sixty-three colleges in the United States during the 1966 season.

## RESULTS OF STUDY

From the sixty-three participating schools reports of two hundred and sixty-one cerebral concussions were obtained. Seventy-one percent of the concussions obtained were of grade (degree) one. Nearly twenty-six percent of the concussions were of grade two. Only three percent of the concussions reported were of grade three. From this

\*Editors Note: Mr. Dickinson has given the Editor permission to abridge his article (study) for publication purposes.

we see only an average of four injuries for each squad which is significantly less than an expected average of eight injuries for each squad. Five football squads were free of head injury during the 1966 season; all but one of these squads having minimal — if any — contact during team practices.

Not infrequently the replicants commented that their number of head injuries were less than in other years. This may be due to an unpredictable cyclic variance in the incidence of injury familiar to all persons concerned with sportmedicine, or to some real trend not explained by this study.

Information sought which might reveal some relationship with the incidence or degree of severity of the injury to the athlete included:

### *Playing Experience of Athlete*

Apparently, the extent of college playing experience had no relationship to either the frequency or degree of severity of cerebral concussion.

### *Area of Head Receiving Blow*

The head was arbitrarily divided into five separate areas for recording the location of impact (Fig. 1). The deliniation was made to correspond

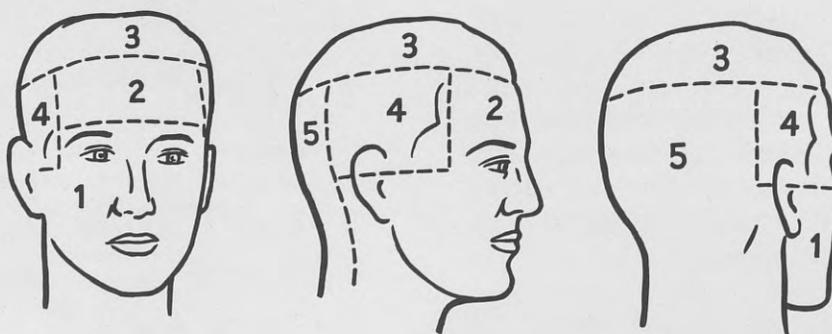


Figure 1 Deliniation of Head Areas for Recording of Impact Site

TABLE 1

FREQUENCY OF INJURY  
FOR EACH AREA OF HEAD

Area	1	2	3	Total	Percent
1	19	2	0	21	8.2
2	48	20	1	69	26.7
3	33	8	1	42	16.2
4	38	17	4	59	22.9
5	19	9	1	29	11.7
Unknown	24	11	1	36	14.3

with coverage of a typical football helmet and not on an anatomical basis. The only exception being the deepening of area "4" to include the course of the middle meningeal artery.

The frequencies shown in Table 1 are similar to those found by Reid, Tarkington and Healion while recording telemetered accelerometer values. Impacts received in areas two and four resulted in the greatest number of days lost from participation, and of the seventeen athletes who did not return to further participation during the season, ten received the injuring force in one of these two areas.

#### *Mass Causing Injury*

An opponent's knee or helmet predominated as the causative weapon of injury, followed distantly by contact with the turf. One replicant suggested that the artificial turf of the Houston Astrodome which was the home field may have been a factor towards lessening the usual incidence of injury to his football squad.

#### *Participation Situation at Time of Injury*

Injury sustained by offensive personnel was greatest to running backs by almost a two-to-one ratio over other positions, while internal linemen and linebackers were the defensive personnel most frequently injured. The defensive secondary proved to be a position of relatively infrequent head injury.

The greatest number of injuries occurred in similar frequency during the second and third quarter periods of both games and practice sessions.

Evidently activity fatigue was either not a factor in predisposition to head injury, or that free substitution and superior conditioning minimized late-game activity fatigue.

The fact that fully five percent of all cerebral concussions sustained in game conditions occurred during kick-off activity emphasizes the need for consideration of means to lessen this dangerous situation.

#### *History of Prior Episodes of Cerebral Concussion*

A significantly greater percentage (forty percent) of athletes injured during the 1966 football season had a history of previous concussive epi-

sodes than the expected frequency (ten to twenty percent) of athletes with prior histories that comprise an intact football squad. It would certainly appear that the young man who has sustained one cerebral concussion is more likely to sustain more, whether it be due to his style of play, his basic ability, or some other factor.

#### RECOMMENDATIONS

The results of the analysis of data would seem to warrant the following recommendations in regard to the incidence of cerebral concussion sustained by athletes participating in intercollegiate football.

1. Use of the definition of graded cerebral concussion as described by the subcommittee of the American Medical Association Committee on the Medical Aspects of Sports be employed wherever possible in Sportsmedicine.

2. Additional, or more effective, force-attenuating material be added to the anterior and anterolateral aspects of the football uniform encasing the knee joint, and further emphasis placed upon padding the external surface of the headgear.

3. Greater adherence to rules limiting the headgear as an offensive weapon.

4. Improved protection be designed for the "hatband" area of the football headgear.

5. Consideration be given for additional protection of the athletes possessing a history of cerebral concussion, such as meticulous attention to helmet fit for the individual, careful selection of the type of helmet most appropriate for the individual, and when possible, shifting of the athlete to a less potentially dangerous playing position.

6. Investigation into practical methods towards lessening the high incidence of head injury sustained during kick-off action.

7. Investigation to a possible relationship of a decreased range-of-motion resulting from a resistance-exercise program for cervical musculature hypertrophy to the incidence of cerebral concussion.

8. Research in regard to cerebral concussion be continued at local and national levels where more detailed, informative, and more sophisticated investigation can replace the descriptive study above.

# Letters to the Editor

Fellow Trainers,

The National Athletic Trainers Association is at present going through a critical period of self evaluation, appraisal, and decision toward the future. We, as an Association, are attempting to foresee the needs and qualifications for future Athletic Trainers. It is not a simple question of supply and demand. If the demand of the future is just for anyone with a degree in Physical Education, or in Physical Therapy, as has been the case at times in the past, then the NATA has no future, for the supply may be met from any source. But if the demand of the future is for specially trained and educated, competently qualified and certified Athletic Trainers, then it is the duty of the NATA to provide the rules, regulations and opportunities for qualification (or certification) that would be recognized and accepted nationally. Only in this manner would the supply be accepted and acknowledged as competent, for the backgrounds of Athletic Trainers would be basically the same, and the standards would be sound.

Our Committee on Professional Advancement has prepared a basically sound program for us to use, as a start. It is not without need for improvement and future change, but it is workable for the present. There should be a future need for a qualifying or certifying examination, to be held nationwide in specified cities. There should be a future need for post graduate short-term courses that would enhance the position and accreditation of the certified athletic trainer. There are many avenues of growth for the future. But at present, the proposed standards for certification seem to be the most workable.

As to the suggested fifth year in Physical Therapy, it is not without merit, educationally. It is not, or was never, the intent of the Professional Advancement Committee to make a year, or certification, in Physical Therapy mandatory. It was the intent of the Committee to recommend it, if a fifth year was economically feasible, because the added education would obviously be beneficial, and the extra years work would qualify the person to practice in another field, if he chose to. But we are primarily and completely concerned with educating and qualifying *Athletic Trainers* and the proposed program is built on that premise. We do need to include, and I believe that this requirement was inadvertently left out, that the student trainer or trainee must also include *at least* two years, or approximately 1800 hours, of work

under the direct supervision of a certified athletic trainer during his undergraduate years of study.

It is the sincere wish of your present Board of Directors that all members of the National Athletic Trainers Association offer their constructive criticism, their suggestions, their ideas, and the willingness to *work* for the Association.

If it is true that a small group of people have been running the NATA, we have no one to blame but ourselves. Your Board of Directors is made up of men elected to govern the NATA, and they are, or should be, the spokesmen for the individual Districts. If the Districts are strong, and the Directors are unified, the NATA will progress.

The past is past. Let us profit from our mistakes. The present is now. Let us work, suggest, propose, criticize *constructively*. The future is coming. Let us plan together for the future of our Association and Athletic Trainers.

Sincerely,

BOBBY GUNN

Chairman Board of Directors—NATA

Dear Editor:

As everyone seems to be getting into the act, I would like to make known my feelings on the certification of an athletic trainer. My ideas are based on the way various medical professions regulate their certifications. My educational background is a B.S. in Physical Therapy and a M.Ed. in Physical Education.

Some of the reasons behind my beliefs are as follows: First of all, I do not believe a degree in Physical Therapy is the answer. Nor do I think any specific degree is either. The limited number of schools in the country being able to offer such degrees would severely curtail the number of individuals able to participate in the program, because of the geographical and economical factors involved. These specific degrees would exclude many talented men from the field. I think any specific degrees required to become a certified athletic trainer, meaning Physical Therapy, will only cause undue hard feelings among members in some corners, as is already evident.

All professions must govern themselves from within and have a basis of certification if they are to survive and be recognized as professional. I only hope that we can come to a workable solution as soon as possible.

This letter is not to be a criticism of anyone, but merely my personal feelings in the matter. In rebuttal of recent criticism, I do not feel that a few men are "running the show", but rather they are to be commended for their efforts on taking on such a task as certification. There are too many of us who sit back and do nothing but are the loudest critics of whatever may be proposed, myself included.

JOE GIECK  
Univ. of Virginia  
Charlottesville, Va.

Dear Editor:

A few weeks ago, I received a telephone call from the parents of a boy who was a student trainer in a school district which had no athletic trainer. Their son wanted to become an athletic trainer, and the parents were seeking information as to how to help their son get into this field. To be frank, the parents really had no idea of what an athletic trainer was. I helped them the best I could, using guidelines set up by the NATA and my own experience. Several days later, I attended a meeting of local area trainers. During the discussion, an unfortunate problem was brought up concerning athletes who had been neglected from sheer lack of knowledge; they were from school districts where no trainer or no qualified trainer is employed. Several suggested that the Trainers Association urge these districts to employ full time, qualified trainers. It was of course a good idea, but under our present set-up in both our national and local trainers associations, I doubt if it will be carried out to any extent.

The parents mentioned above had a very vague picture of the Athletic Training Profession. I suspect that there are all too many school districts in this same category. Too often in the past, the training profession has wrestled with the problems of gaining paramedical recognition from the American Medical Association or joining with related therapy groups. Recognition is a fine goal to work for, but I don't believe our association has struck in all the right places nor do I believe that we need an alliance with any other paramedical group at this time. What we do need is internal growth and development along with better public relations.

The suggestion to urge every school district to hire qualified trainers will probably not be carried out for several reasons. First, our profession is still not fully clear on how, what, and when a person becomes a qualified trainer. Secondly, if we urge schools to hire trainers, by what guidelines will they go to hire a person and set up a training room and the related procedures. The schools have guidelines to hire teachers and set up class-

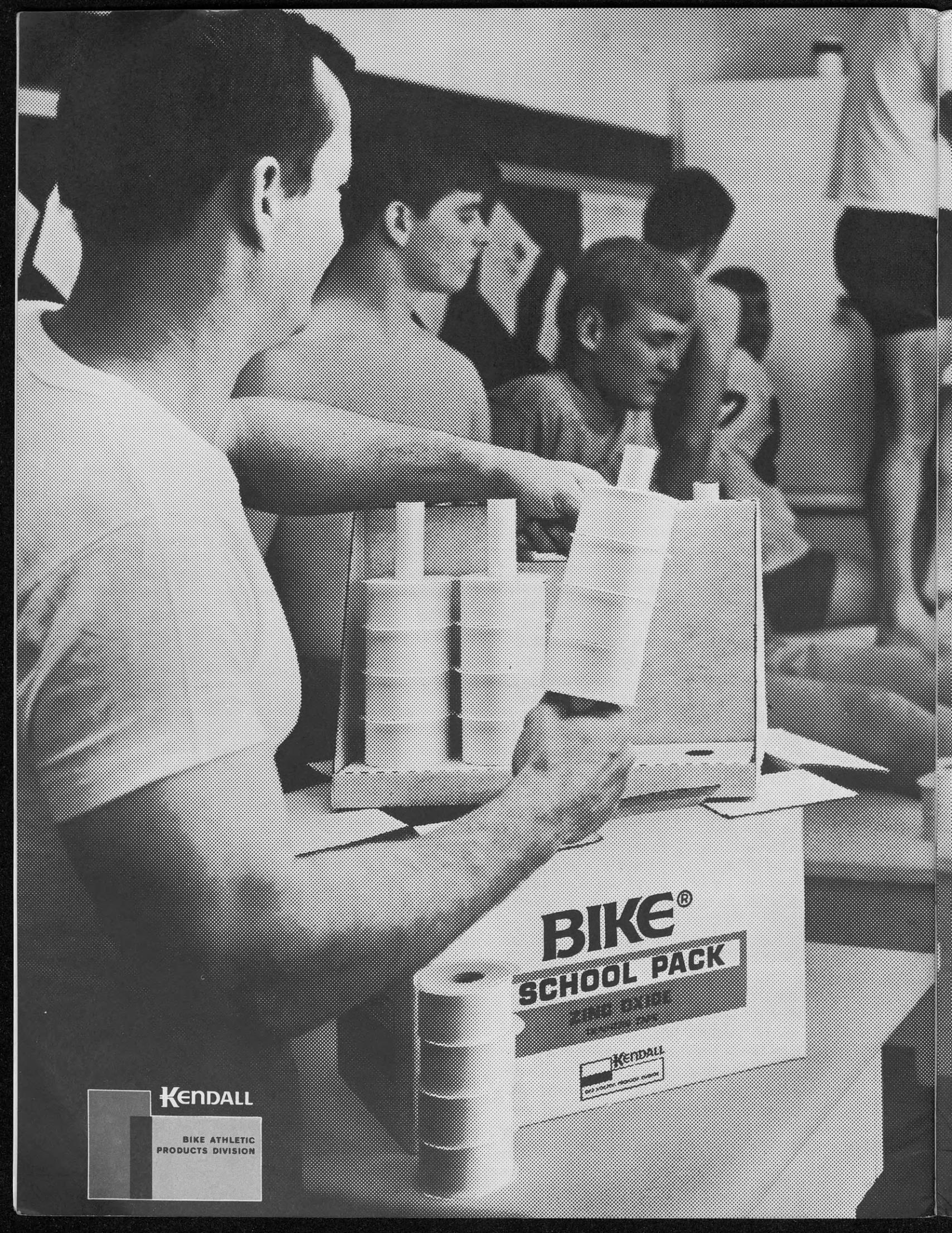
room procedures, why not for trainers too? Thirdly, our present administrative set up in our national association is not adequate to fulfill these needs.

Solving these problems will not be an easy task. I have no quick or definite solutions, but I will venture some suggestions. First of all, we must have in our National Athletic Trainers Association, a committee to formulate guidelines. These guidelines should first be formulated at the district levels and then passed on to a national guideline committee. Whatever formula this committee develops should be voted upon by the entire membership of our national association. We need two guidelines; one to tell students what course should be taken to become a trainer; another to suggest to both the local school districts, and to the respective State Education Agencies as to why hiring a full time qualified trainer is to their advantage and what constitutes a qualified trainer. The first guideline, on subject matter along with other explanatory material, should also be sent to colleges around the nation in hopes of getting schools to adopt a curriculum or at least some courses in Athletic Training. As to how to acquaint parents and the general public with our profession, we should have, as every paramedical group does, a brochure to advertise and explain the how's and why's of our profession. These brochures would be sent out to students, parents, or interested groups by request.

The question now seems to be how do we obtain these goals. I've already suggested local district guideline committees to give their suggestions to a national guideline committee. Once these guidelines are completed, we will need someone to handle the printing, distribution, and possibly personally contacting our colleges and local school districts. I think the time for internal expansion has come, and our organization needs to establish a post which would handle public relations, coordinate the development of guidelines, act as liaison man between the local districts and national association, and work with the colleges in an attempt to develop a curriculum for students seeking to become professional trainers. This post could be made a full time position or the office of executive secretary of the national association could be turned into a full time job adding the duties of public relation director.

I want to urge every Athletic Trainer to consider these propositions, and discuss them at the local levels with hopes of presenting positive action in the near future.

LOGAN WOOD JR.  
Athletic Trainer  
Houston Independent School District  
Houston, Texas

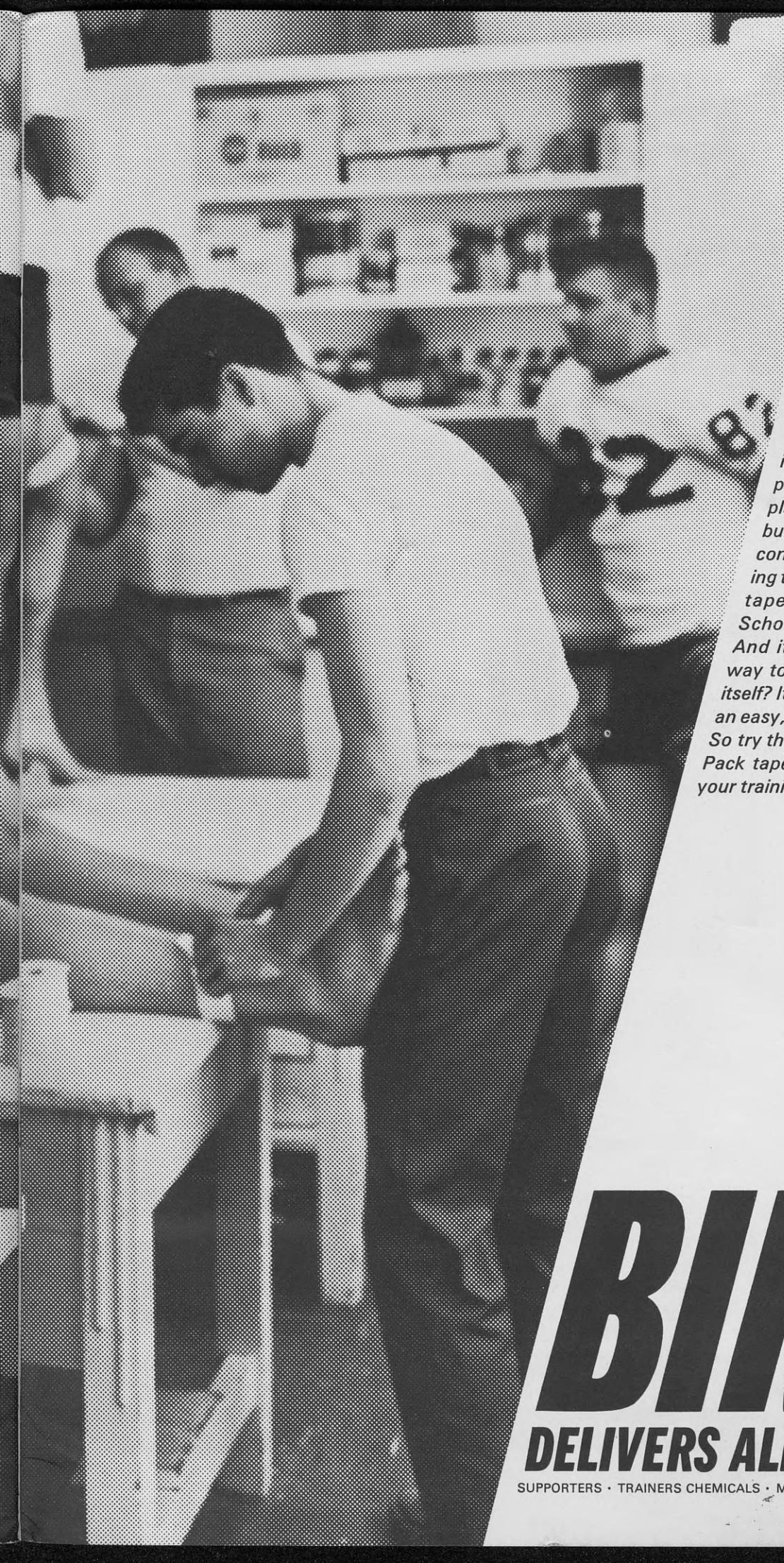


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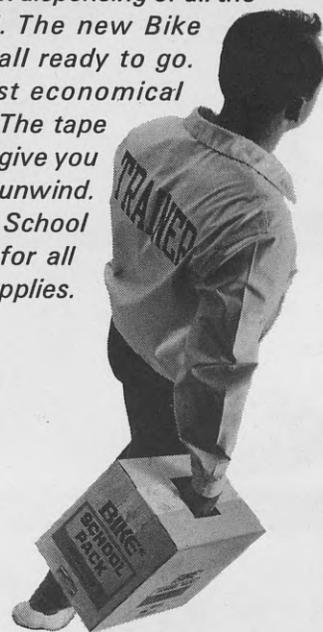
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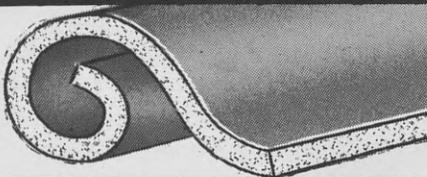
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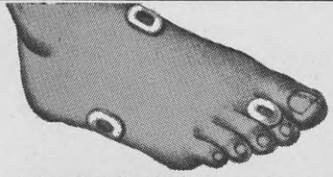
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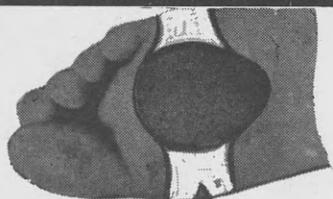
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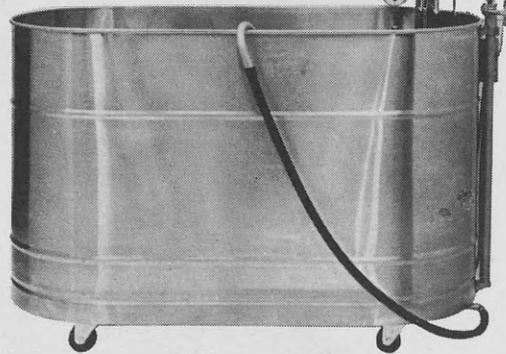
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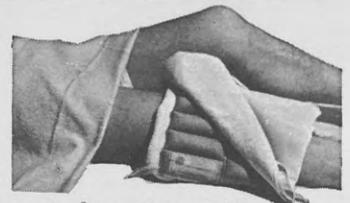
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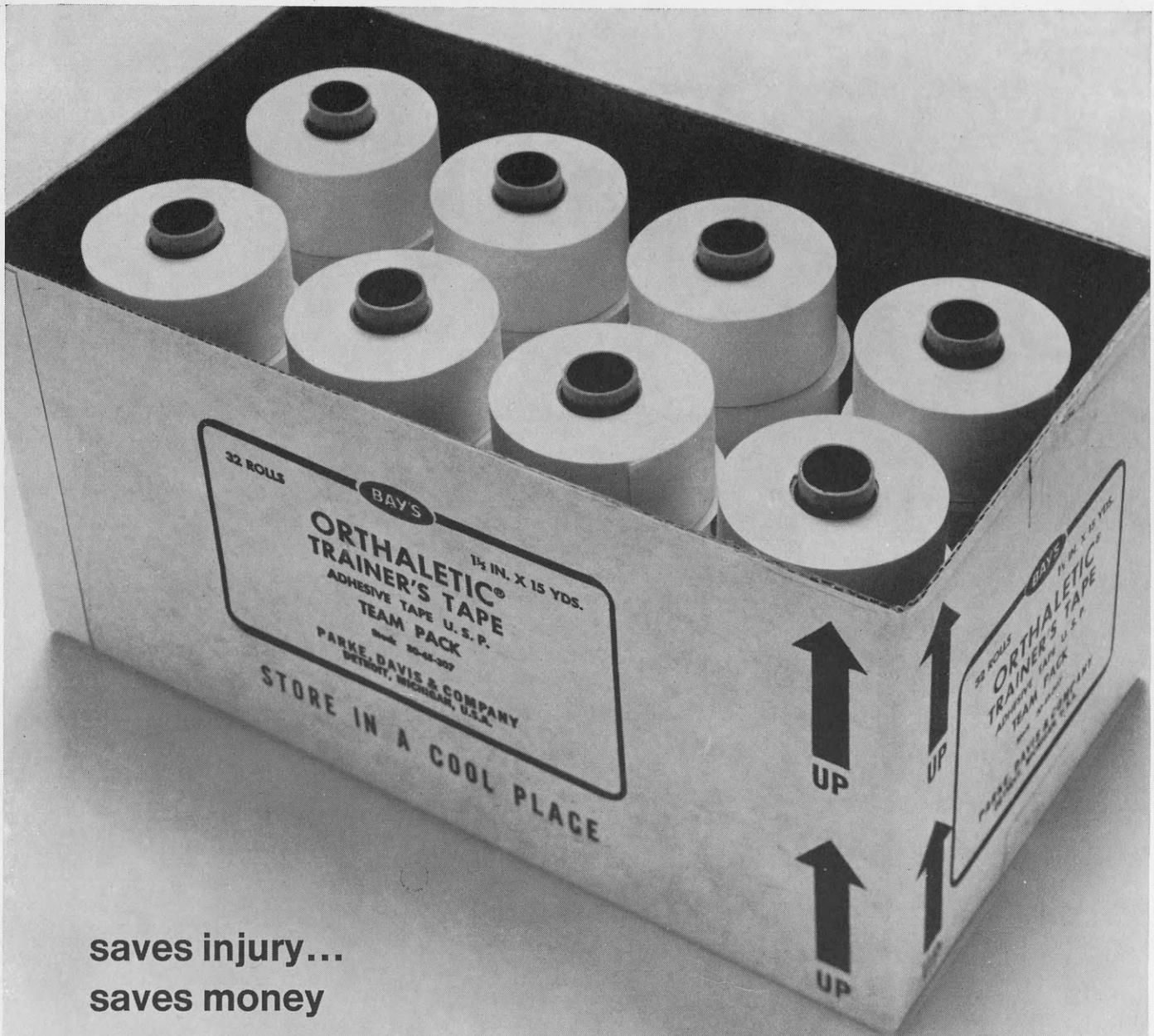
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