THE JOURNAL OF THE NATIONAL ATHLETIC TRAINERS ASSOCIATION

VOLUME 5 NUMBER 1 SPRING 1970

Twenty-First Annual Convention National Athletic Trainers Association

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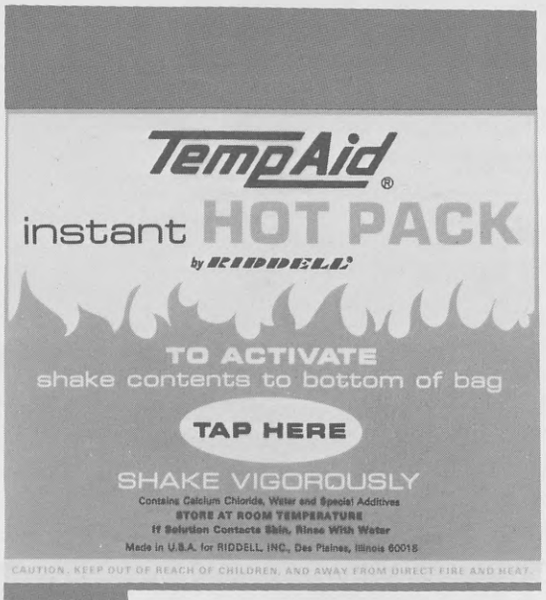

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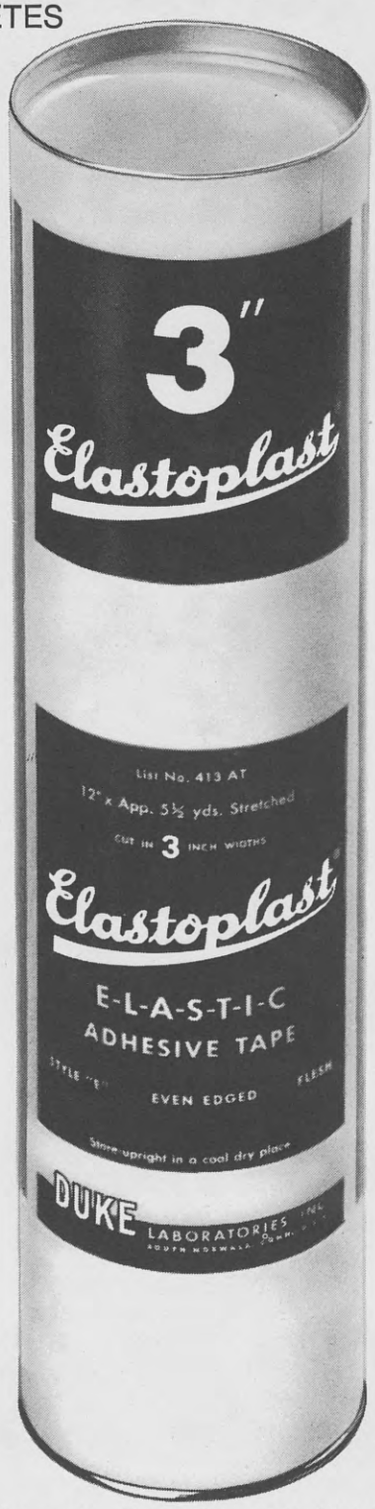

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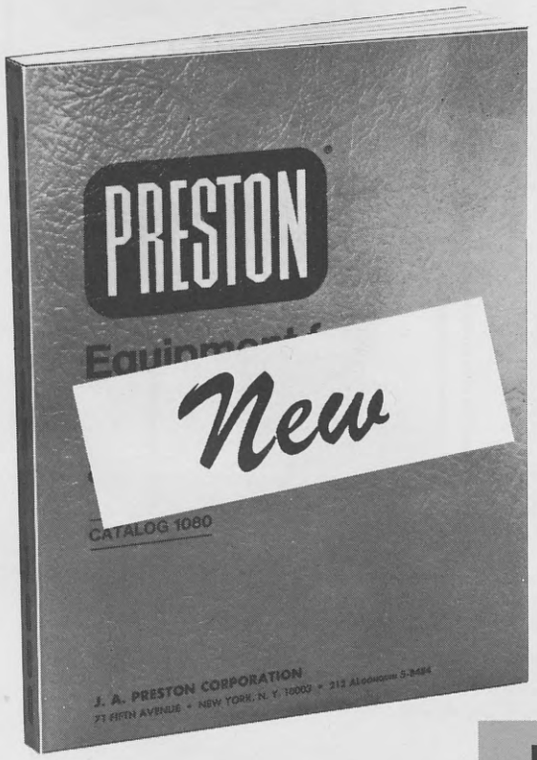

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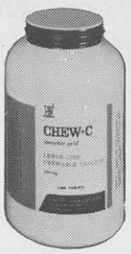

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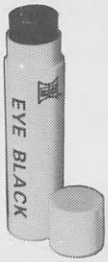

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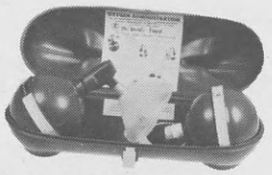

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VOLUME 5 NUMBER 1 SPRING 1970

CONTENTS

DIRECTORS AND SECRETARIES

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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 initials 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.

Physical Conditioning, Care And Treatment Of Baseball Players

by Bob Bauman
St. Louis Cardinal Baseball Club.

This article was presented at the 20th Annual Meeting of the National Athletic Trainer Association.

Generally speaking, in order to attain physical proficiency, the athlete should be strong, flexible, and possess above average endurance. The development of these characteristics should be part of every athletic program, both during the season and off season. During the season it is absolutely essential to be in shape and during the off season some conditioning is necessary. Off season conditioning is essential–it will enable the player to prepare himself more quickly for the season's activities and he will also be less prone to minor injury.

OFF SEASON

In off season care, preliminary to intensive conditioning, we recommend stretching. After the last game of the season, every player is told to reach for the sky at least twenty times each day. This little stretching aids in the prevention of bursitis and other injury to the arm in Spring Training. Strengthening exercises are recommended for rehabilitation and weaknesses of the throwing arm. For weakness in the throwing arm of pitchers, exercises involving the basic and fundamental throwing motions are employed. The rehabilitation exercises involve the use of a metal ball that I designed some years ago.

This ball is called a Medi-Exercise Ball and is advocated in rehabilitation of persons recovering from surgery or injuries to restore, revive, and strengthen normal muscular action. The weight of the ball is 3⅛ lbs.

The various pendulum swings have been borrowed from Dr. Codman, one of the pioneers and foremost authorities on the treatment and rehabilitation of shoulder injuries.

These exercises loosen the shoulder girdle and prepare the limb for what I term the "fundamental exercises of throwing." Here we have the starting position. Standing upright with the elbow bent at shoulder level, hold the ball in the palm of the hand which is at a perpendicular position to the elbow. The action is to raise the ball straight upward until the bicep touches the ear at count one. At count two, stretch a little higher. At count three, stretch still a little higher. Return to starting position. Repeat six times. Note: Trunk remains erect and face forward.

Then, from the starting position, we work on the rotator muscles of the shoulder. The action is moving the ball slowly forward to shoulder level with the ball held in a downward position. Wrist, ball, and elbow are now shoulder level. Raise the ball slowly upward, keeping elbow at shoulder level, and continue moving the ball up and then back as far as possible without bending the body. Continue this forward and backward motion of the ball six times.

Now, with nothing in the hand, shake the arm loosely by the side for a few seconds and then repeat the entire cycle with a regulation baseball.

You will discover a distinct psychological, as well as a physiological effect.

The ball may be also used in stretching the forearm and strengthening in elbow injury.

Place the wrist under and in back of the elbow. Extend the arm outward with the ball in the palm of the hand which is facing upward. Now, bend the wrist upward and downward slowly. Next, rotate the forearm inward and continue the up-down bending of the wrist. Repeat the exercise six times.

It has been my experience that these exercises will rehabilitate the majority of sore arms without utilizing any other type of therapy.

These strengthening exercises, along with daily stretching and activity, will all help the player tremendously when the formal spring training begins. In fact, these aids, plus a stepped-up physical conditioning program five to six weeks be-

fore the opening of spring training, virtually assures the player of above average physical efficiency in the beginning of the season.

We inaugurated a six week pre-spring training program for the Cardinals in 1959. It actually started when Stan Musial decided to really get in shape for the 1960 season. He had suffered physically in 1959, which led many to believe that Stan was washed up. However, the pre-spring training program not only helped him for 1960, but by continuing with the program, he had three more successful years in baseball.

The pre-program consists of planned systematic and progressively arranged activities. The work consists of jogging, lateral running with cross steps, and a half hour of suppling and strengthening exercises. After the formal workout, the players enjoy some form of recreational activity of their own choice, i.e. handball, basketball, swimming, etc. This program is conducted in the St. Louis University Gymnasium by Prof. Walter C. Eberhardt, one of the most authoritative leaders in the area of Physical Conditioning. Prof. Eberhardt also conducts the conditioning program during the formal Spring Training.

THE OVERLOAD PRINCIPLE

There is a need for extra fitness in baseball for research shows that batting, fielding, and throwing are not sufficient in themselves to achieve proper conditioning. When greater demands are made, a player needs additional strength, power, and endurance for peak performance. As a result, extra work is required. This extra work, or load, is known as the "overload principle." Briefly, it means that for best results, the body must do more than the activity (baseball) requires. And in order to obtain this desired result, both isometric and isotonic exercises are employed. We feel that limiting the workouts to one phase of development, that is, strictly an isometric workout, could be very harmful to the baseball player. Since most of the action in baseball requires freedom of motion, the player must be supple or flexible. In my opinion, this is the greatest essential in baseball. Thus, limiting the workouts to strength exercises, or gimmicks, defeats the basics of physical conditioning.

Although this is primarily a physical program, it does have psychological implications, too. The player that is in good physical condition has great confidence in his ability to perform. He knows that he can extend himself at a very early date. He also is aware that in peak form he is less prone to strain and muscle pull. One day after a workout, Curt Flood remarked, "I feel as though I could lick the world." In fact, our records prove that there has been a 40% decrease in minor injuries over the past ten years.

SPRING TRAINING

Our Spring Training and seasons program for conditioning pitchers is as follows:

The first three days of training are devoted to throwing for five minutes a man. On the fourth day the squad is split into two groups, A and B; group A throws for ten minutes. The next day group B throws for 10 minutes and A rests. Each group follows this routine for three outings. Then they alternate throwing 15 minutes every other day for four days. During the regular season we use five starting pitchers. After pitching, the starter rests a day. The second day he throws ten minutes on the side lines. He is never used for batting practice the first month of the season. After that his activity is gauged upon his performance.

A pitcher averages 120 throws per game, below that number is considered excellent, above he may be straining.

It is suggested that a pitcher begin spinning a ball after two days of throwing. This is done to improve coordination of muscle groups in preparation for snapping the curve ball. However, knuckle balls or various off pitches are not thrown for one week.

Pitchers' motion and follow-through are important. In Spring the arm is weak and it is well to avoid extra pressure and strain on the shoulder. It is important to push with the back leg in contact with the pitching rubber.

The running routine for pitchers in Spring Training is as follows:

During the first three days the pitchers run on their own. On the fourth day 12 laps are run across the outfield, 50 to 75 yards per lap. Each day two laps are added until 24 laps are reached. The following day it is back to 12 laps and then increased three laps daily until 20 are taken.

During the first month of the baseball season, 12 laps per day are run. During the middle months, the pitchers run ten laps daily but this may be reduced to 8 or 6 laps depending upon the temperature elevation. All the pitchers run the same distance. Running is important for respiration and circulation. It also aids to strengthen the muscles, builds endurance, and improves coordination.

Massage and passive stretching are important in spring training and in the early months of the season.

Players are cautioned to retain body heat by wearing long sleeve sweat shirts, as this prevents chilling, often the cause of muscle cramps and pulled muscles.

You might ask what our pre-game treatment for a pitcher is, and we actually have no set routine for care of the pitchers' arm the day of the game.

After years of training and experience in handling pitchers, my plan is only a suggestion, which is to advise the player and then do as he wishes. For example, on our staff, one starter will need a passive stretch of the arm and shoulder plus an analgesic applied over his arm and back. Another may use just a passive stretch. Still another pitcher may request a massage of the arm, shoulder and back plus a stretch. We have a couple of starters who do nothing more than the active stretch, using the metal ball before their pre-game throwing.

The post game treatment varies, too, for we have no organized routine with our present staff. For years we used what the players termed a "milking process." After the game, with the player lying on the rubbing table, throwing side up and the arm elevated, an iced towel was wrapped around the limb. A hand vibrator was then used to massage the arm from wrist to shoulder. The treatment lasted for five to ten minutes. Then the towel was removed and a brief massage was given directly over the skin.

Our present staff prefers medication rather than mechanical therapy such as a muscle relaxant, for post game treatment. This form of therapy has been used for the past three years with a great deal of success.

There are many common arm disorders, which include: **Biceps tendonitis**—The biceps tendon is subject to inflammation due to friction along its groove over the shoulder.

Triceps injuries—The continued stress and strain of throwing causes irritation, partial rupture or both at the origin of the long head of the muscle on the infra glenoid tuberosity of the scapula.

Rotator cuff muscles—These muscles, particularly the infraspinatus, are subject to strain and tears.

Bursitis and calcification—These conditions may involve the sub-deltoid, sub-acromial and sub-scapular bursae. This latter is operable in the removal of calcification. The first operation of its kind was performed on Bob Miller, now a pitcher with the Minnesota Twins, and the second on Ron Willis, still a member of our Cardinal staff. These operations were performed over six years ago.

Epicondylitis—This condition, which is common to pitchers, is an irritation of the condyles on the humerus with a subsequent bursitis, eventual osteophyte formation and even fragmentation. In the forearm, the pronator and supinator muscles are affected due to the rotary action of the forearm and flexion of the wrist. This movement, plus extension, leads to development of an irritation in front of the medial condyle of the humerus which is extremely disabling. On examination one will note distinct fullness over the pronator radioteres beneath which are the tendinous attachments of the brachialis and the flexor sublimus digitorum. These are covered by a very strong fascial band, a portion of which is the attachment of the biceps which runs obliquely across the pronator muscle.

Traumatic arthritis—This is a condition common to all joint injuries and although aggravating, the irritation can be relieved with treatment and medication.

The wrist is subject to sprains, strains and fractures, due to swinging at the ball and missing, jamming the hand into the ground while sliding and trauma in the act of tagging the runner. Another common cause is, of course, getting hit with the ball.

Fingers and hands are often injured in baseball. They are subject to sprains, strains, fractures, torn nails, blisters (usually over the carpal-phalangeal junctions and pads of the fingers, especially the index and middle digits), and sesamoid bone irritations at base of the thumb, due to hitting. Calluses, due to excessive hitting, if not properly trimmed, may predispose to infection.

Most of these injuries can be prevented by proper protection and care during training and the regular season. Nails and calluses should be kept trimmed and the sesamoids cushioned. All players should be properly instructed in preventive care.

In summary general conditioning is of primary importance both during and between the baseball seasons.

During the off-season, atrophy of muscle should be prevented by performing active stretching exercises, and the weight should be kept at a normal level so as not to weaken the body by trying to shed excess poundage during spring training.

A short resume of injuries to the shoulder, elbow, wrist, hands and fingers and some hints toward their prevention have been presented.

Finally from this short resume, it can readily be seen that prophylactic measures are of overall importance in baseball as well as other sports.

Medical Qualifications for Participants in Interscholastic Athletics in Maine*

Russell M. Lane, M.D., Team Physician, University of Maine

The United States has traditionally been a sports-oriented nation and since World War II, we, as a people, have increasingly given recognition to the importance of sports and physical fitness in the character development and health maintenance of our population. Since organized athletics on the secondary school level ("Interscholastics") encompasses the greatest numerical and most accessible group of our youth in probably their most sensitive years for both physical growth and character development, we naturally turn our attention towards medical guidelines for said interscholastic sports participation. These medical guidelines are herewith formulated into this CODE, whose purpose is to give direction to state and community leaders, who are in positions to translate guidelines to actual practices, which will in turn directly effect the health and safety of our youth in their athletic pursuits. In so formulating this CODE, we all must fully realize that although sports have real health and education values, said values are not assumed without some forms of supervision and control. In the formulation, our primary commitment has been the same as expressed by Dr. Thomas Quigley of Harvard in 1957; namely, that each sports participant is entitled to good medical care and good health supervision as part of his (or her) involvement in an organized athletic program.

GROUPING OF SPORTS BY COMPETITIVE CHARACTERISTICS

Although recognizing that all sports have their individual characteristics and their unique physical and mental demands on their participants, it is rather universally acknowledged that we have three general categories of competitive athletics. These broad groupings will be most helpful in establishing the workability of this CODE: and are listed with those organized interscholastic sports of Maine in each category:

Contact Sports	*Endurance Sports* (non-contact)	*Leisure Sports*
football	cross country	golf
basketball	skiing	bowling
baseball	swimming	archery
soccer	track and field	riflery
wrestling	tennis	sailing
lacrosse	volleyball	
ice hockey	gymnastics	
softball (girls)	crew	
field hockey (girls)	fencing	

It is imperative to note that the benefits of sports toward fitness, health, and character are as applicable to **girls** as they are to boys, and that this CODE is intended to apply equally to both sexes. Hopefully, we will see increasingly more programs in interscholastic athletics for our female youth, with resultant increasing beneficial effects in the factors mentioned above.

GENERAL DISCUSSION OF QUALIFYING VERSUS DISQUALIFYING MEDICAL CONDITIONS AND CIRCUMSTANCES

The commitments of the physician in this area of athletic medicine are twofold: 1) to withhold the athlete from participation if medical reasons for such action are present, and 2) to prevent unwarranted medical disqualification of any athlete with the desire for participation. Said physician in athletic medicine must never lose sight of this second commitment; he must have the courage to make decisions in this sphere, without shielding his ignorance and indecision in ultra-conservative disqualification or inaction.

Under the heading of the physician's first commitment above, the major reasons for restricting participation will be: a) when there is a disease or process which would prevent the athlete from participating and competing fairly with 'normal' persons; and b) when there is a disease or process which might be significantly and/or permanently aggravated by participation. Let it be further urged that potential athletes with obvious deficiencies which preclude contact or endurance sports, be identified as early as possible in their

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school careers and directed towards less vigorous sports, for which they can qualify. Chronologically early re-direction will usually result in a devoted athlete at his (or her) new and medically appropriate level in the sports spectrum, and will be a rewarding experience for all involved.

In performing the medical evaluation, the physician must exercise thoughtful judgment to arrive at his decision for or against athletic participation by the candidate. The decision must include accurate diagnoses, a reasonable knowledge of any encountered pathological process, a thorough background of information of the many types of sports and the psycho-physiological demands of each, and a full evaluation of the personality of the candidate. The decision which includes these factors will be a wise one; but omitting any of them could prove harmful to the athlete, to the team, to the physicians, and to sports in general.

A. "Matching"—This term refers to the usually desirable practice of grouping participants on the basis of comparable levels of physical size and emotional maturation. The factors of size and maturity are often hard to delineate, since they involve individual judgment to so great an extent. They will be less problematical as more and more schools develop the sorely needed interscholastic junior varsity and freshman sports programs, thereby providing athletic participation for an increasing number and spectrum of students.

In the specific area of the varsity football squad, the minimum candidate weight is suggested to be 125 lbs. at the pre-season medical evaluation, and the minimum squad size for each interscholastic contest is suggested to be at least 22, "dressed and able", regular team members.

Furthermore, in the specific area of wrestling, the practice of an athlete competing markedly above his "desirable weight level" or of sweating and starving himself down for a match markedly below said level, is to be vigorously condemned as pontentially medically harmful and contrary to the true intent of all sports participation. Consequently, a sincere effort is urged upon all physicians for a potential interscholastic wrestler, to arrive at the "desirable weight level" for the student in question with full consideration of the fact that it will represent their considered medical appraisal of what the weight would ideally be when the student is in good condition for athletic competition, namely wrestling. It would then be considered reasonable to restrict each wrestler to competition in the class closest to his listed "desirable weight level," and to allow him to compete one class above or move one class below, but no greater deviation from his base during any given season.

B. Acute Infections—That the acute phase of an infectious disease (contagious, or not) is a time for restriction from sports participation, will lead to almost no controversy; yet the appropriate period of convalescent restriction will be less easy to decide, and must remain an individual decision by the responsible physician in each situation. Some more common examples of temporarily disqualifying acute infections are: Chickenpox, Mumps, Measles (both kinds), Scarlet fever (or Scarlatina), Rheumatic fever, Respiratory infections, Genitourinary infections, Hepatitis, Infectious mononucleosis, Boils, Furunculosis, Impetigo, Celluiltis, Lymphangitis, Pediculosis, and "Herpes simplex gladiatorum."

C. Blood and Related Conditions—The preseason exam will sometimes uncover these problems and point the way to appropriate treatment; in other cases, the therapy will be well established. Once again, exacting rules for disqualification, or not, will require mature and compassionate medical understanding and judgment, with consideration of all factors involved.

D. Diabetes Mellitus—The tendency for marginal control at best in juvenile diabetics, the increasing desire for sports participation in a growing proportion of our youth (including said juvenile diabetics), and the requirement for having and maintaining adequate control of one's diabetes (if present) prior to being medically qualified for interscholastic sports; these factors should all be appropriately and vigorously 'used' to promote better health in this group of young people.

E. Eyes—Vertebrate animals, namely Man in our discussion, are fortunate that their means of vision comes through a **pair** of eyes; for eyes are relatively vulnerable to injury by virtue of their essential nature to almost all activities (thereby being in the center of the action), they are rather hard to device protective equipment for without impairing their efficiency as organs of sight, and blindness in an eye from injury to said eye is not too unusual, despite good medical treatment. However, we are further fortunate in that eye injuries in sports are usually unilateral (as compared with the bilateral nature usually associated with fire and explosion), and in that a person is able to adjust to a healthy, productive life with only one functioning eye ('monocular vision'). In contrast, total blindness is a most severe handicap, and the direction of reasoning of this CODE will be to guard carefully against athletic endeavors ever leading to this tragic state. Con-

sequently, our guidelines are reached always in response to the following question: "What would the athlete be left with in the way of vision, if he lost the vision in his best eye as a result of a sports injury?"

Football players, who would not be able to participate without some form of visual correction because of the magnitude or type of their necessary correction factor, should be required to use contact lenses, which are all made of unbreakable and unshatterable plastics. Frame glasses ("spectacles") should not be allowed in this 'collision' sport because of their potential for conversion into a weapon for eye injury when dislodged.

Unbreakable and shatter-proof lenses and sturdy 'athletic' frames (those designed and manufactured specifically for use in vigorous sports), should be required for all eyeglass-wearing athletes in contact sports other than football, unless they also choose to use contact lenses.

Once again, the athlete in the special category of having "only one good eye," deserves special mention here with respect to contact sports. From football and ice hockey, he should be permanently disqualified. For the other contact sports, if he (or she) normally wears glasses in sports activities, then it should be required that they are of the 'athletic' frame with safety lenses variety, as described in the preceding paragraph. Contact lenses are not ideal protection for the "glasses-wearing" eyes in contact sports other than football, wherein the helmet and face-mask provide the primary protective barrier, and they should not be acceptable protection in contact sports for the monocular-vision athlete. For the "only-one-good-eye" athlete who does not ordinarily wear any glasses (and this is often the case actually); the use of a plane (no correction factor), safety-lens, "athletic"-frame pair of spectacles as a protective shield to his, or her, "one good eye" in non-football contact sports, is indicated and vigorously urged. The same protective use of 'plane' safety glasses (as described herein) is also in order in small-ball, non-contact sports, such as tennis, squash, hand-ball, paddleball (exception, golf).

F. Ears—An externally-worn hearing aid should not be worn in contact sports because it, also, represents a potential weapon for causing injury itself; and therefore, the athlete who is significantly deaf overall should be restricted from contact sports. This restriction in view of his inability to respond to team signals and to the officials' controlling directives. Unilateral deafness probably would not preclude participation in contact sports unless associated with acute or chronic infection. Previous radical mastoid surgery would probably have rendered the skull sufficiently thin in the surgical area to make subsequent contact sports unwise; however, such post-surgical cases are becoming increasingly more infrequent in this antibiotic era.

G. Respiratory—Since efficient respiratory function is so much synonomous with good athletic performance, it is pertinent to enumerate the listed potentially disqualifying respiratory conditions. "Significant pulmonary insufficiency" might refer to emphysema, bronchiectasis, or cystic fibrosis, or to a combination of these, or to other more rare pulmonary problems. Spontaneous pneumothorax (unilateral) should be restricted from contact and endurance sports for a period of 3 months following full re-expansion of the effected lung; whereas, bilateral or recurrent pneumothorax would most likely preclude any further competition in either of these sports categories for at least one year (12 months). The relatively new approach to Tuberculosis therapy referred to as "INH Chemoprophylaxis," should not be considered disqualifying provided the student athlete is clinically well and is considered as an 'inactive' TB case.

H. Cardiovascular—Perhaps no other area of the medical history and examination is more important than the cardiovascular system. For there are non-pathological heart murmurs, mild situational ("exam-room anxiety") blood pressure elevations, and transient physiological pulse irregularities; none of which should limit athletic participation. And, in like manner, there may be significant past and/or present cardiovascular problems which only a thorough, current medical history and examination will bring to clarity, and which will have a direct and vital bearing on the candidate's qualifications for various sports. The only way to arrive at the proper decision for the student in question is a full and considerate evaluation of all factors, using consultants where and when indicated.

Generally speaking, valvular and/or cyanotic heart disease which have not required surgery prior to secondary school days, previously operated hearts (including the great vessels in the chest), organic hypertension (including coarctation of the aorta), active carditis (of any type) currently or within 3 previous months, significant pulse irregularities, and thrombo-embolic cardiovascular disease; are all sufficient cause for restricting both contact and endurance types of sports participation. Noteworthy exceptions to these general restrictions might be: a) a successfully surgically-repaired, and subsequently

asymptomatic, patent ductus arteriosus, and b) acute superficial and/or deep thrombophlebitis; both of which should probably be only temporarily disqualifying in the same manner as an acute illness or injury.

I. Liver and Spleen—Sharp or blunt contusing injury to either of these organs can be a life-threatening event if said injury were to produce a tear in the organ capsule and subsequent intra-abdominal hemorrhage. Consequently, the pathologically enlarged liver and/or spleen, with the increased tension and fragility of its capsule, should preclude both contact and endurance sports. However, not infrequently, in young people with lean, slender, athletic bodies, either the liver or spleen may be palpable without evidence of any disease of the organ involved per se, or of any other systemic pathological condition. These cases are certainly qualified for endurance sports, but should be allowed to engage in contact sports only after a second medical opinion, only with extra protective padding to the areas, and only in consideration of frequent re-evaluations by the physician-in-charge to ascertain any change in status which might herald the early phase of some disease process.

Jaundice in the age group covered by this CODE almost invariably signifies an acute viral infection of the liver, and thereby disqualifying for all sports participation until complete recovery has occurred and has been maintained for at least six (6) weeks. Nevertheless jaundice from any remote or less common cause should be equally restrictive to sports participation.

J. Kidneys, Herniae and Genitalia—Congenital or surgical absence of one kidney, or of one testicle, should restrict the candidate from interscholastic contact sports, as per the reasoning expressed previously in the discussion of candidates with "only one eye." In addition, for boys, when evaluating a potential athlete's genitalia, since the function of sperm production is the vital consideration for the testicle, and since an atrophic or an undescended testicle do not produce viable sperm, either of these conditions will be considered the same as an absent testicle in determining the boy's medical qualifications for participation.

Acute and chronic kidney disease cover such conditions as glomerulonephritis (Bright's disease), nephrosis, pyelonephritis, and associated renal insufficiency (uremia), and are not consistent with significant exertion, sports or otherwise, in any form.

Scrotal hydrocele is usually associated with an apparent, or an occult, inguinal hernia and is therefore afforded like consideration. In order that a blow directly over a hernia, which during sports exertion might well contain a short segment of small bowel, not lead to a serious bowel resection, this CODE directs that contact sports should be restricted until herniae (inguinal or femoral) and scrotal hydroceles are surgically repaired and are anatomically 'solid' 3 months thereafter.

K. Musculo-Skeletal System—Almost every evaluation and judgment in this realm must be individualized by the physician after thorough consideration of the condition under debate, the potential athlete as a whole, and the sport in question. Notwithstanding this fact of individualization of decision, however, some generalizations, and some specific guidelines, also, are in order and follow herewith.

Generally speaking, symptomatic structural abnormalities (congenital and acquired), acute or chronic inflammatory processes, and functional inadequacies (congenital or acquired) incompatible with the skill or contact demands of the sport in question, should all be reason enough for disqualifying the candidate until the condition has been thoroughly rectified, and until there seems little or no danger from reoccurrence and/or reaggravation by returning to participation. The vast majority of previous injuries to limbs and their joints will be judged for qualification (initial or return) on the basis of this 'functional adequacy' clause, and on the basis of whether they remain asymptomatic under vigorous sport use.

Specifically, a) because of the frequency of their occurrence, b) because of the need for medically appropriate and uniform decisions in their handling, and c) as examples of how general concepts are to be applied to actual conditions in an area of the medical evaluation, it is worth mentioning the following conditions. A history of herniated nucleus pulposus ('ruptured disc') *above* the L4-5 level, and most especially in the cervical area, should not be a candidate for contact sports because of the danger of and from reoccurrence therein. Spondylolisthesis (L5-S1 'slippage'), previous spinal surgery above the L4-5 level, and previous bony injury (fracture and/or dislocation) to the cervical spine, should all be disqualifying for contact sports on the basis of the real probability of aggravation and permanent damage via further major stress. In contrast, spina bifida occulta, lumbar spondylolysis, and 'old' disc at the L4-5 and L5-S1 areas (including remote surgical excision with or without fusion), would all be qualified, or not, primarily on the basis of current symptomatology.

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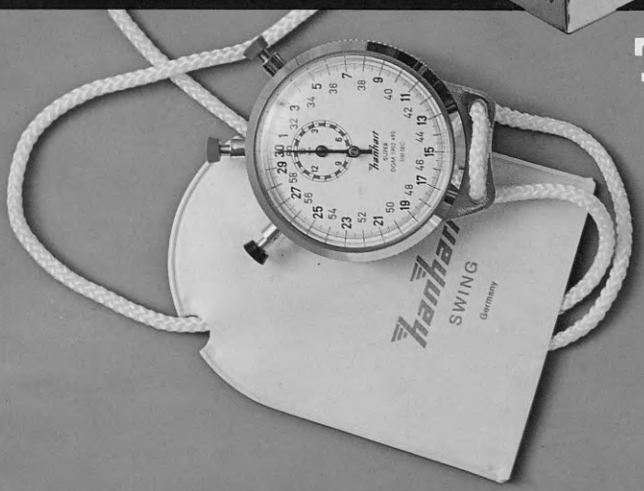

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Occasionally, the examining physician will encounter a candidate in whom an orthopedic surgeon has employed a device, usually metallic, to repair or facilitate healing of a fractured or diseased long bone. If said device is an actual joint prosthesis, then the candidate should be restricted from all but the most "leisure sports," and even then only after strict consideration of the general factors mentioned above. Candidates with intramedullary rods and those with plates and screws, would most likely not be qualified for either contact or endurance sports, although there might well be certain exceptions here. However, candidates in whom screws alone were used by the surgeon, would most likely be qualified for all sports; but not without emphasizing once again the need to consider first the symptoms-free and functional adequacy factors of the healed state.

L. Neurological System—In this section, we are discussing only the brain and associated intracranial structures, whose importance warrant consideration by themselves. The other components of the neurological system (spinal cord and peripheral nerves) are covered best in the physician's functional evaluation of the structures which they innervate, the musculoskeletal system.

Previous or current conditions which have left, or which are likely to have left, the brain and/or meninges scarred or dysfunctional; such as vascular accidents, surgery, infection, congenital abnormalities, malignancy, or trauma; should be considered disqualifying for all contact sports, and only considered qualified for endurance sports after careful deliberation of all factors. In this group would be found such not uncommon entities as sub-dural hematoma, epidural and subarachnoid hemorrhage, depressed skull fracture with or without laceration of brain substance, 'berry' aneurysm, hydrocephalus, and other less common clinical states.

Regarding cerebral concussions, this CODE utilizes the classification of the "Standard Nomenclature of Athletic Injuries (SNAI)" of the American Medical Assocation's Committee on the Medical Aspects of Sports, publis hed in 1966, wherein the following differentiations are made:

Cerebral Concussion, Acute, 1st Degree (Mild)

symptoms: No loss of consciousness; variable symptoms of temporary memory impairment, mental confusion, unsteadiness, tinnitus, and/or dizziness.

signs: Perhaps none; or, appearance of brief period of mental confusion.

Cerebral Concussion, Acute 2nd Degree (Moderate)

symptoms: Transitory unconsciousness (up to 5 minutes) with retrograde amnesia; variable symptoms of mental confusion, tinnitus and headache.

signs: Appearance of transitory unconscious state and subsequent mental confusion.

Cerebral Concussion, Acute 3rd Degree (Severe)

symptoms: Unconsciousness for prolonged interval (more than 5 minutes) with prolonged period of retrograde amnesia; variable symptoms, but of greater duration than that experienced in mild or moderate types; possible convulsions.

signs: Appearance of prolonged unconscious state and subsequent mental confusion.

Taking our cue from the general consensus of experienced men in athletic medicine throughout the country, we conclude that the athlete who has sustained three or more 2nd or 3rd degree cerebral concussions in his previous lifetime has reached the point of dangerously increasing susceptibility to subsequent similar responses to lessening degrees of head trauma (like the 'glass-jawed' or 'punch-drunk' boxer), and therefore, should be excluded from further contact sports regardless of the protective equipment used.

Regarding convulsive disorders and athletics, it is essential first to have an accurate diagnosis from a qualified consultant in all such cases. Jacksonian epileptics should not be qualified for contact or endurance sports in that such a condition often signifies focal intracranial disease, as noted above ("brain and/or meninges scarred or dysfunctional"). Petit mal and psychomotor epilepsy, while in their active phases and/or under treatment, ordinarily cannot be sufficiently well controlled medically to allow for contact or endurance sports participation. If the condition here in petit mal and psychomotor forms is no longer active, and if no seizures have occurred for two treatment-free years, then certainly reconsideration for competitive athletics would be in order. Grand mal epileptics, however, are more predictable in their response to medical control, and if said treatment results in them having been seizure-free for at least two years immediately prior to their evaluation for interscholastic athletics, then we would find said candidates fully qualified contingent upon continued

full seizure-control. In these cases, it is imperative that the appropriate coach be appraised of the neurological background of said specific athlete.

M. Other Medical Conditions—Certainly, there are additional rare and unusual conditions not covered in the foregoing discussions. Most often in these cases the physician's decision for sports qualification, or not, will not be a difficult one, and the course of appropriate action will be quite obvious; as it would be in the case of an active malignancy, or in cases of Cerebral Palsy, Muscular Dystrophy, Myasthenia Gravis, Multiple Sclerosis, or Addison's disease. However, occasionally the decision will be less clear, as it might be in cases of Graves' Disease, Regional Ileitis, Ulcerative Colitis, or certain neuropsychiatric problems; and then the decision must be left to the physician-in-charge, with the urging once more that he keep in mind the potentially beneficial effects of athletics, not just the well-publicized possible hazards.

N. Special Considerations—As part of this CODE, there are several peripheral considerations which need to be expressed and briefly discussed. Some of these matters, which follow, will be rather definitive rules, others will be guidelines of strong urging, and others will be hopefully helpful suggestions based on personal convictions. In this regard, where each matter fits should be obvious from the wording.

1. Dental mouthpieces—Following the lead of the National Federation of State High School Athletic Associations (NFSHSAA), mouthpieces should be required equipment for all interscholastic football players. They have been conclusively shown to significantly reduce dental injuries, soft tissue injuries of the face and mouth, and cerebral concussions. The most effective type of mouthpiece is the custom-made (by a dentist) style for the upper jaw.

2. Drugs, Alcohol, and Tobacco—The nonmedical use of sedatives, tranquilizers, or stimulants, or the use of narcotics or hallucinogens, ought to lead directly to dismissal from any and all interscholastic teams for the student, or students so involved. Team rules regarding the use of alcohol and tobacco are each coach's prerogative to set as he sees fit; yet the medical committee authorship of this CODE strongly supports those coaches whose decision is to forbid the use of said alcohol and tobacco among their athletes.

3. Insurance—That interscholastic athletic participants are totally uninsured, or inadequately insured, seems unrealistic in 1969; but this is the case in a frighteningly significant percentage of said athletes. And although compulsory accident and injury insurance coverage for all participants in all interscholastic sports is an administrative, not medical, decision, it is endorsed here as a potential stimulus to its actuality.

4. Medical Coverage—This much-traveled and much-abused term can refer to an almost endless spectrum of actual circumstances depending upon local customs. This spectrum of meaning will include: a doctor and/or athletic trainer on the field, a school nurse in her office, a coach with his background of a couple of courses in health and athletic injuries during his college days plus the practical experience of his coaching years, an ambulance with its First Aid Team in the area, or a doctor in his office some variable distance removed from the sports area and yet aware of the fact that practice or a game is going on, and that he is providing the "medical coverage" (that he might be needed and called quickly to the sports area). This CODE contends that said "medical coverage" can only be provided in its true sense by a physician, and that only he (or she) can delegate the authority to someone else. Furthermore, it is strongly urged that all schools with organized interscholastic athletic programs have a responsible and committed athletic medicine advisor (who will be a physician), whose duty it should be to keep informed of **all** sports practices and at-home competition schedules within his school. For said sports practices and competitions, he will sometimes be present in person, and at other times he will stand ready to respond immediately if needed to the place summoned by his personally appointed on-the-scene representative (trainer, nurse, coach, or other). For all 'home' contests of his particular school in football and ice hockey, the advisor in athletic medicine ought to be present himself. In case of unavoidable unavailability for any of the aforementioned responsibilities, said advisor should arrange for a responsible substitute and should inform all concerned. Treatment of athletic injuries other than that of an immediate nature rendered by the "medical coverage" of practices and contests, is not within the province of this CODE, and should be handled according to local and regional medical and school policies.

5. Primacy of Medical Decisions—Paramount to all that has been thus far expressed, ought to be the understanding that medical decisions should be respected and adhered to without being contested or resisted. It is the physician's responsibility to render an honest and compassionate medical judgment, with willing explanations when requested, to the best of his ability, consid-

ering all factors and all interested parties to the decision;—and it will be the coach's, the school's, the student's, and his (or her) parents' joint responsibility to accept said judgment without argument. This CODE intends, as one of its most important functions, to create the climate for both sides of this mutual responsibility.

6. Immunizations—It should be mandatory for every student interscholastic athlete to have a current, protectively-immunized status to tetanus and to poliomyelitis (oral Sabin-type vaccine) as part of his (or her) preseason medical evaluation. Hypersensitivity status to the immunizing biological product, or valid religious objections to the use of same, must be decided individually by the physician on the basis of the relative hazards involved.

CODE IMPLEMENTATION, CHANGE, AND MEDICAL-DECISION REVIEW

A. Implementation—The responsibility for the distribution of this CODE, and any subsequent modifications of it, to Maine secondary schools with interscholastic athletic programs, will be cooperatively shared by the Maine State Principals' Association and the Maine State Coaches' Association. As continually stressed in all foregoing sections, the intent of this CODE is to set forward recommended guidelines having to do with the medical aspects of conducting an interscholastic athletic program; and that these guidelines will have statewide uniformity and will be based upon the endorsed values of fitness, health education, competition and safety. That this CODE will be **the** adopted set of guidelines for each Maine secondary school in their sports program can be no more strongly urged than by appealing to the universal virtues of "good sportsmanship" and "same rules for all."

In like manner, the Committee on the Medical Aspects of Sports of the Maine Medical Association will be responsible for maintaining an updated version of the CODE with all practicing physicians (M.D. and D.O.) in the State, and for promoting the attitude of physician adherence to the CODE in decisions concerning interscholastic athletic medicine.

B. Change—It is only prudent to recognize from the outset that ours is a changing culture and a changing world; that we will see changes in medical treatment and technology, changes in athletic rules, equipment and techniques, and changes in social attitudes towards sports. Some of these changes will undoubtedly necessitate modifications (additions, deletions, or re-structures) in this CODE; and provision under the combined endorsement of responsible educational and medical leadership is authorized.

C. Medical-Decision Review—All the rules and guidelines herein presented are not precise and absolute pro and con, and all indecisions cannot be resolved by changing said rules as per the preceding section. Many medical decisions for qualification, or conversely for disqualification, as has been repeatedly emphasized throughout the foregoing body of this CODE, involve relative and circumstantial matters, and must be individualized with a workable solution being delivered by the physician on the case in question. Even so, an occasional (and hopefully rare) situation will arise where the decision seems locally insoluble, and provision is herewith made for a State Review Panel to settle said indecisions. This Review Panel will consist of one member from the Maine State Principals' Association, one member from the Maine State Coaches' Association, and one member from the Sports Medicine Committee of the Maine Medical Association. Cases devoid of local decision will only be considered when submitted jointly by the responsible local medical and educational authorities. The Review Panel will not function to substitute for local work and understanding, nor will it function to settle local personal disputes.

SOURCE MATERIAL FOR CODE

1. "A Guide for Medical Evaluation of Candidates for School Sports" — Second Edition (1968) — Committee on the Medical Aspects of Sports, American Medical Association.
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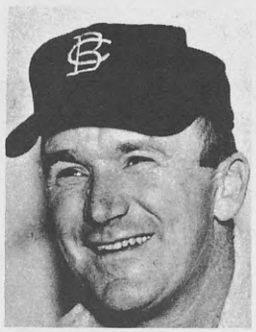
3. "Medical Policy in Athletics" from the Staff Manual of the Department of Physical Education and Athletics, University of Maine (Orono) — in publication.
4. "Recommended Standards and Practices for a College Health Program" — 1964 — American College Health Association.
5. "Guide for Interscholastic Athletic Disqualification" — January 18, 1969 — Wisconsin Interscholastic Athletic Association.
6. Medical history and physical examination record forms; student participation, parental consent form — National Federation of State High School Athletic Associations.
7. "Desirable Athletic Competition for Children of Elementary School Age" — 1968 — American Association of Health, Physical Education and Recreation — Washington, D.C.
8. "Minimum Standards of Physical Fitness Required of Candidates for Collision Sports at the University of Maine," J. D. Clement, Jr., M.D., et al — The Journal of the Maine Medical Association, 58:121 (June 1967).
9. "Accident Prevention Research in Sports," Kenneth S. Clarke, Ph.D. — Journ. AAHPER, Vol. 40: No. 2, p. 45 (February 1969).
10. "The High School Team Physician" — Robert E. Reibeld, M.D. — Proc. 7th National Conf. Med. Aspects of Sports (AMA-1965) — pg. 50.
11. "Philosophy and Standards for Girls' and Women's Sports" — DGWS-AAHPER — Washington, D.C. — 1969.

Know Your Directors

FREDERICK R. MASSMAN, District 1
Boston College, Chestnut Hill, Mass.

Frederick R. "Fritz" Massman is currently the head trainer at Boston College. He has been serving in this capacity with the Eagles since July, 1966. Massman is a native of New Rochelle, New York, and graduated from New Rochelle schools and Iona Prep. He served in the Navy from 1946-49, and after discharge attended the Gus Mauch School for Trainers.



He returned to Iona Prep to serve as the school's first athletic trainer, and later moved up to Iona College as head trainer. He then accepted a position with Columbia University as assistant trainer, and two years later went to Brown University in the same capacity. In 1964, Massman succeeded Joe Romo as Brown's head trainer, a position he held until accepting the BC appointment.

FRAN SHERIDAN, District 2
Lafayette College, Easton, Pennsylvania

Fran Sheridan has been head athletic trainer at Lafayette for ten years. A member of the Eastern and National Athletic Trainers Association since 1954, he has served as past president, Eastern Athletic Trainers Association, and past president, Middle Atlanletic Trainers Association.

Fran is Chairman of the Pinky Newell Scholarship Committee, has been a member of the National Membership Committee for seven years and was a trainer for the United States Teams at the 1967 Pan American games, Winnipeg, Canada. A veteran of the U. S. Air Force during World War II, Fran is married to the former Gladys Osborn, is the father of three children, and recently became a grandfather.

JOE HOWARD GIECK, District 3
University of Virginia, Charlottesville, Va.

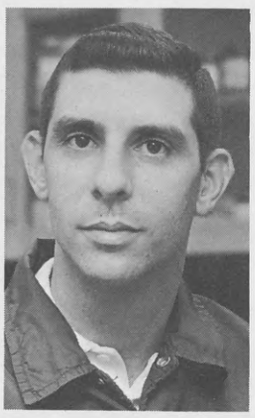
Joe Gieck has been the Head Trainer at the University of Virginia since 1962. He is a graduate (1961) of the University of Oklahoma, where he assisted Ken Rawlinson. Upon graduation he was the assistant trainer at the USMA at West Point for one year. Joe holds a bachelor of science degree in Physical Therapy (from Oklahoma) and a M.Ed degree in Physical Education from the U. of Virginia.

Joe has written many articles on "athletic training", and has had several book reviews published in various journals throughout the country. He is a member of Phi Delta Kappa Honorary Education Society.

AL HART, District 4
Ohio University, Athens, Ohio

Alan Hart has been Bobcat athletic trainer for the past ten years.

He is a 1958 graduate of Ohio, holding a bachelor of science degree in physical education.



From the time he entered the university as an undergraduate student, Hart has been active on the training staff. He assisted former trainer, Fred Schleicher, with football and took over head duties in basketball and track.

A 1954 graduate of Fairview Park High School, a Cleveland suburb, Hart is a close personal friend and has gained much valuable experience from Leo Murphy, trainer of the Cleveland Browns. Al is Director of District Four of the National Athletic Trainers Association and a member of the American College of Medicine.

BRUCE MELIN, District 5
Washington University, St. Louis, Mo.

Bruce received his bachelor of arts degree in 1944 from the University of Minnesota. In 1948 he returned to his alma mater and received his M.Ed in Physical Education. During this time he also worked with Lloyd Stein in the training department.

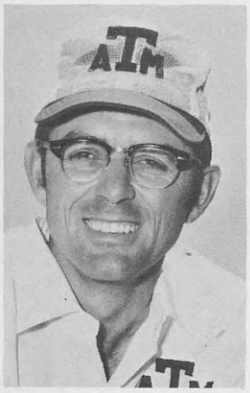
In 1949, Bruce became Head Trainer at Washington University. He is now an Associate Professor in P.E., and the Associate Director of Athletics.

An active member in the NATA, he is presently serving his district as Director and is on the National Board of Directors as well.

BILLY PICKARD, District 6
Texas A&M University, College Station, Texas

Billy Pickard has been the Head Athletic trainer at Texas A&M since 1965.

He received his bachelor of science degree from A&M in 1956. After graduation he began work as athletic trainer in Port Arthur, Texas. From there he went to Freeport, Texas for 8 years before finally going back to his alma mater A&M.



Not only is he a gifted trainer, having worked in many Texas High School Championship events which took his team to the Cotton Bowl, but he is a gifted speaker as well.

JACK AGGERS, District 7
University of Wyoming, Laramie, Wy.

Since coming to the University of Wyoming as head athletic trainer in 1958, Jack Aggers has earned a top reputation in the profession. A 1950 graduate of Wyoming, Aggers served as the Cowboys' assistant trainer for three years prior to receiving his degree in physical education and beginning eight years of coaching duties in the Big Horn Basin area of Wyoming. A native of Thermopolis, Wyo., Jack joined the Army Air Corps where he served during World War II.

DICK VANDERVOORT, District 8
Washington State University, Pullman, Wash.

Dick Vandervoort has been the Head Athletic Trainer at Washington State University for the past 10 years. He is a graduate of the University of Kansas, where he assisted Dean Nesmith for five years. After graduation he became the head trainer at the University of Wichita for one year before moving on to Washington State.

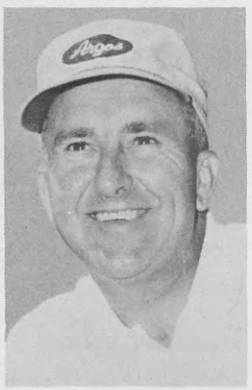
Dick has worked with the British Columbia Lions of the Canadian Pro Football League, for the past ten years in the pre-season camp.

CHRIS PATRICK, District 9
University of Kentucky, Lexington, Ky.

A Tennessee native (Fayetteville), Chris became head football trainer at the U. of Kentucky in March 1967. A graduate of the University of Tennessee and Eastern Kentucky University (MA 1963), he spent 1957 to 1967 as an assistant trainer for the Volunteers. After graduation from Eastern, he spent some time at Furman University and then in 1964 joined Florida State as an associate trainer. In 1965, the traveling trainer switched to Mississippi State—where it is thought he became the youngest head trainer to ever serve in the Southeastern Conference.

MERTON E. PROPHET, District 10
York University, Toronto, Ontario

Merton Edward (Mert) Prophet, the Athletic Trainer at York University is also the founder and president of the Canadian Athletic Trainers Association. Mert's career as a trainer began at Indianapolis in 1951 while he was also spare goalie. He became head trainer of the Indianapolis Indians of the American Association (baseball) in 1952 and was with that team in 1956 when it won the league pennant and junior world series. He also served the Argonaut Football Club as head trainer.



1970 Pre-Convention Notes

The Mile-High City of Denver, [Colorado] will host the 1970 annual meeting of the National Athletic Trainer's Association. Denver is an excellent site for the convention this year, considering the different type of programs planned which will allow more time for family get-togethers in the evenings and plenty of entertainment for everyone in and around the Denver Area. We'll discuss the program in detail later in this article.

Within walking distance of Convention Headquarters in the Denver Hilton Hotel, you can find the Denver Mint, the Colorado State Museum, the capitol and civic center, the city library, and Larimer Square.

All around the Denver area there are summer camps that cater to meetings such as ours and offer your children horse back riding, hiking, swimming, fishing, etc., as well as day camps for the younger children.

A night on the town in Denver can be fun and need not be expensive. Most restaurants serve Colorado steaks, prime beef, and fresh Rocky Mountain trout. There are specialty houses featuring all the popular foreign dishes.

PROGRAM OUTLINE

The metings are to be short presentations followed by longer discussions. All sessions will end by early afternoon each day. This will allow families to spend evenings together, possibly on excursions to the near-by mountains, or one of the planned tours.

The trainer will be invited to exchange ideas for the benefit of everyone. A "hi-lite" will precede and/or follow each session. A "hi-lite" will not last longer than 10 minutes and will include lectures, slides, demonstrations, film, or whatever is necessary to present the information. A "hi-lite" is a trick of the trade, or something unique to your particular situation. An example might be a different way of taping, splinting, exercise, special devices, pads.

The tentative outline is as follows:

Saturday, 6 June

1:00 - 5:00 p.m. — Board of Directors Meeting
1:00 - 5:00 p.m. — Professional Advancement Committee

Sunday, 7 June

9:00 - 12 noon — NFL-AFL Trainer-Team Physician Meeting
9:00 - 5:00 p.m. — Registration — NATA
9:00 - 5:00 p.m. — Board of Directors NATA Meeting
1:00 - 4:00 p.m. — NFL-ALF Trainers
1:00 - 4:00 p.m. — NFL-AFL Team Physicians

Monday, 8 June

8:00 - 4:00 p.m. — Registration — NATA
8:30 a.m. — Exhibits open after introduction of exhibitors
9:00 — Invocation
9:05 — Welcome — State and City Officials
9:20 — Dedication and Award District #7
Program: Hand Injuries
Athletic Trainer Education
NATA Business Meeting
Introduction of Student Trainers
Shoulder Injuries
Injections
Panel of All Speakers for Questions
Banquet
Six Separate "Hi-Lites" by Trainers Spotted Throughout the Day

Tuesday, 9 June

9:00 a.m. — Taping Demonstrations
Canadian Panel on Football and Hockey
Foot, ankle and lower leg problems
Knee Injuries
The Knee — Three Sessions
Panel of All Speakers for Questions
Six Hi-Lites by Trainers

Wednesday, 10 June

9:00 — Taping Demonstration
Problems in Young Athletes
Synthetic Turf
Conditioning
Life Saving Techniques
Four Hi-Lites by Trainers
2:00 p.m. — Close

ANY QUESTIONS YOU WANT ANSWERED ON ATHLETIC TRAINING PROBLEMS

Please send to: Jim Conboy, NATA Convention Program Chairman, Air Force Academy, Colorado Springs, Colo. 80840

Bits And Pieces

by Clyde Stretch

The flow of information was fairly slow over the last couple of issues making it necessary to turn to the literature. This fact is not particularly harmful as it does expand the scope of the Journal a little. Compared with those previous issues, there are lots of goodies to pass along this time.

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In the September issue "The Journal Ten Years Ago," was presented. It was hoped that this item could develop into a regular feature. The only problem with the idea of a regular feature was that the Fall 1959 issue (presented in September issue) was presented prematurely as that was the last issue of that year. As if the mistake wasn't enough, there were only three issues published in 1960 and 1961 instead of the usual four. For this reason, "The Journal Ten Years Ago," will be absent from this issue and the March 1971 issue.

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The American Academy of Pediatrics has proposed the establishment of local sports medicine councils located within school board areas.

In a statement appearing as a supplement to the current (Dec. 1) **AAP Newsletter,** the Academy's Committee on youth urges all national organizations interested in the health status of children and youth participating in sports and recreational activities, "to approve, actively support, and encourage all its membership to develop these councils in every community throughout the United States."

Membership in the sports medicine council would consist of the school administrator, athletic coach, trainer, physician, and athlete.

Sports medicine councils would have these primary functions:

1. To evaluate all local resources (material and individual) available for the provision of the highest quality of health care for the athlete.

2. To review and implement established policies of national organizations recognized as leaders in health concerns for athletes.

3. To inspect sports equipment periodically, and call any deficiencies and substandard equipment to the attention of the appropriate authorities. These authorities shall then be empowered to cancel any athletic event until the necessary recommendations have been activated.

4. To review instances where injury or illness related to sports participation has occurred, and make recommendations to eliminate recurrences.

5. To provide for dissemination of all pertinent information related to sports medicine to the public, local medical societies, school administrators, coaches, trainers, athletes, and others.

6. To promote workshops, conferences, and other educational endeavors for the preparation and continuing instruction of those who are responsible for the health and safety of young athletes.

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The committee on Sports Medicine of the American Academy of Orthopaedic Surgeons has begun a nationwide study of spinal injuries occurring in high jumping. Dr. Jack C. Hughston made this announcement in December. He said that a lack of valid and reliable information on the subject, particularly in regard to the controversy over the new Fosbury supine technique of high jumping, has prompted the study. A continuing pooling of such injury data, he said, is needed for competent analysis and for the effective protection of the athlete.

The survey is directed to physicians, athletic organizations, school authorities and the public. All are asked to report all known cases of spinal injuries to high jumpers, regardless of the technique used.

This information should be sent to Martin E. Blazina, M.D. as each injury occurs. Dr. Blazina's address is: U.C.L.A. Medical Center, Los Angeles, California 90024.

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In an October newsletter to districts one and two, Joe Abraham presented a letter from a dismayed high school athletic director. His problem

seemed interesting enough to pass along to the rest of the organization.

"As a high school athletic director I am concerned with a very serious problem that faces high school administration and coaches. The problem is the youngsters who wear long hair and play football. In New York state we are finding it very difficult to tell a boy what length his hair should be so as to ensure proper fit of the football helmet. Our concern over the fit is construed to be prejudice and an infringement on the individual's rights.

Are you familiar with any research that might have been done on the importance of proper fit, or what constitutes proper fit, of any serious injuries caused by this problem of hair? I even wonder whether this has occurred to anyone in the medical profession.

We in the athletic field are very concerned about this problem and wish to seek the help of any interested individuals or organizations."

If you have any information that might be helpful to this gentleman, please forward it to Joe.

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It appears as though athletic trainers camps are a developing area. One or two camps were attempted last summer. Now, an announcement is out for a new camp directed by Gordon Stoddard, head trainer at the University of Wisconsin. Details about the camp may be obtained by writing: Birch Knoll Athletic Trainer Camp. P.O. Box 206, Beaver Dam, Wisconsin 53916.

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FROM THE LITERATURE:

The portions of the following articles are provided merely to act as a stimulus. The summary or conclusions of an article do not provide all of the answers, but they can be used to stimulate thought and encourage reading. It is with that intention that this material is presented.

"Some Aspects of Muscular Movement: A Review," P. J. Rasch, *American Corrective Therapy Journal* 23:15; September, 1969.

SUMMARY

1. The correlation between increases in strength and increases in hypertrophy is low.
2. Improvement in muscular performance following training may be due to motor learning.
3. The careful investigator must differentiate between sarcoplasmic hypertrophy and actomyosin hypertrophy.
4. Muscles are composed of red and of pale fibers. Each of these may be affected differently by a given exercise and/or neuromuscular integrity.
5. The concentration of myoglobin in a muscle may be increased by exercise.
6. The number of mitochondria per unit of skeletal muscle may be increased by training.
7. Skeletal muscle is predominantly protein, but experimental attempts to increase the muscle mass by means of dietary supplementation have been unavailing.

"Effects of Mild Activity, Heat Applications, and Cold Applications on Range of Joint Movement," G. A. Stull, *American Corrective Therapy Journal* 23:123; July, 1969.

CONCLUSIONS

Within the limitations of this study, the following conclusions appear justified:

1. For enhancing wrist flexibility, either mild activity, heat application, or a combination of these treatments is superior to immersion in cold water; and a mild activity bout in combination with heat application seems more effective than either of these treatments administered separately.
2. At the ankle or elbow, mild activity, heat application, and a combination of activity and heat do not differ in their effects on range of motion, but all seem superior to immersion in cold water.
3. Mild activity, heat application, cold application, and a combination of mild activity and heat application do not differ in their effects on knee flexibility.

CALENDAR

1. The American Academy of Orthopaedic Surgeons present "The Shoulder in Sports," from March 9 through 11 in Oklahoma City. Details may be obtained by writing Coordinator of Continuing Education, American Academy of Orthopaedic Surgeons, 430 North Michigan Avenue, Chicago, Illinois 60611.
2. The First Cleveland Sports Injury Conference will be presented on April 6 and 7 in Cleveland. Information about the conference may be obtained from H. Royer Collins, M.D., Cleveland Clinic, Cleveland, Ohio 44106.
3. The 1970 Annual Meeting of the American College of Sports Medicine will take place in Albuquerque, New Mexico on May 7-9. Further information may be obtained from Donald E. Herrman, Executive Secretary, American College of Sports Medicine, 1440 Monroe Street, Madison, Wisconsin, 53706.

National Notes

by Jack Rockwell, Executive Secretary

As you receive this issue of the Journal, we are starting into a new year and a new decade. The past ten years have been very active and productive years for the NATA, and because of the fine work done in the 60's, I'm sure the 70's will see ultimate fulfillment of our hopes to bring athletic training to its highest peak of professional status. With the Procedures for Certification, the Approved Curricula, and the approval of schools, we have developed and established the guidelines and criteria that will once and for all bring the NATA into the realm of a professional society. This can, and will help, govern, recruit, and do all other things to constantly make the position of the Athletic Trainer better in all ways.

The Ad Hoc Committee working with NATA Reorganization has presented a finalized version of the Reorganization plan to the Board of Directors. The Board is in the process of studying this plan and will present it to the membership very shortly for a mail vote. The need for a complete reorganization has been apparent, and I believe this plan, well conceived and very well worked out, will provide the vehicle needed to carry the NATA to greater heights. As you will see when you study the reorganization plan, many new positions have been created. The creation of new committees and new positions will help greatly in decreasing the workload on a few people, and will provide new and better service for the membership.

CONGRATULATIONS

In past years your Executive Secretary has written letters of congratulation to the Athletic Trainers of schools participating in post-season bowl games. This year I did not and I wish to apologize to all the athletic trainers who did participate in bowl games. I would like to also offer a word of encouragement and praise to all the athletic trainers at schools where no bowl games were played, and especially those athletic trainers who suffered through losing seasons. It seem that losing seasons always bring about a great many more injuries and a great deal more work to accomplish. What I've attempted to say is congratulations to all of you who have survived another football season, the personal gratification received from doing a good job is all too often apparent to only those of us working at our jobs. The long hours, constant worry about the players and the other details that go in to making a football season what it is for a trainer are very seldom apparent to the public. So as I attempted to say before, bless you all, keep up the good work.

The Executive Secretary met with Districts One and Two at their annual meeting at Grossingers, New York, in January and it was an extremely enjoyable and informative meeting. It is unfortunate that because of geographical location and distances involved, all of the Districts cannot have meetings during the winter months.

ANNUAL CONVENTION

The American Academy of Pediatrics has invited the NATA to put on a scientific exhibit at their annual meeting in Washington D.C. in April. The exhibit will consist of taping demonstrations, special protective devices, and the fitting of protective equipment. Fred Hoover, Clemson; Joe Gieck, Virginia; Jim Price, U. South Carolina, and Jack Rockwell, will represent the NATA at this meeting. The American Academy of Pediatrics is also establishing sports medicine councils on a local basis throughout the United States. Information regarding this work can be found in another section of this issue of the Journal. This is an extremely fine endeavor and it is hoped that any of you who are asked to participate will cooperate fully.

The plans for the Annual NATA meeting in Denver are coming along very well. The tentative program and other pertinent information can be found in another section of this copy of the Journal. It is hoped that every one of you are making plans to attend, as Jim Conboy and all the people in District Seven are putting together one of the finest programs and overall meetings we have had, a program designed for quick presentation of a subject in an informal atmosphere.

Best wishes to all in your Spring Sports Season and please try your best to be in Denver for the Annual Convention.

Recent Athletic Training Literature

This list is generally restricted to those areas of specific interest to the athletic trainer. Topics belonging to the broad areas of athletics, physical education and physical therapy will usually be omitted.

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INDEX

VOLUME 4

**The article written by Clint Thompson, "A Brief Evaluation of Certain Athletic Dietary Practices," which appeared in the Winter, 1969, issue of the Journal, was originally published in the June, 1969, issue of the United State Track Coaches Association, Track and Field Quarterly Review.*

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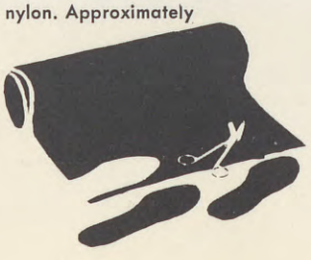

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