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The Journal of the National Athletic Trainers Association is published quarterly at 3315 South St., Lafayette, Indiana 47904. Subscription charge to members: \$1.00 per year. Editor: MARVIN ROBERSON. Assistant Editor:

CLYDE STRETCH, Michigan State University. Advertising Manager: ELLIS MURPHY, 600 S. Michigan Avenue, Chicago, Illinois 60605.

Second class postage paid at Lafayette, Indiana 47904.

All communications concerning editorial matter in *The Journal* should be directed to Marvin Roberson, 165 Smith Field House, Brigham Young University, Provo, Utah 84601.

The views and opinions expressed in the

articles in the Journal of the National Athletic Trainers Association are not necessarily the views or opinions of the National Athletic Trainers Association.

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 pub-

lished works, include superscript numerals and appropriate footnotes giving author, title of book or article, periodical or volume number, pages, and date of publication.

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.

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

5

Secondary School Administrative Problems in Athletic Training

RAY C. THURMOND

Golf and Freshman Basketball Coach University of Oklahoma

A large percentage of the problems and potential problems in secondary school athletic programs pertains to the athletic trainers, or the lack of them. The good administrator will have a sound training program because a qualified trainer will prevent and relieve many problems for the entire school community as well as produce good public relations with the parents and patrons.

Unfortunately the word "trainer" is a misnomer. A dictionary definition of trainer is "an instructor, especially one who prepares or drills men or animals for races, exercise or skill, or the like." Actually trainers are instructors who are medical technicians working directly under the supervision of a team physician and in cooperation with the coaching staff and administration [3:16]. Trainers are unique specialists and there is no member of the educational organization closer to the student-athlete than the trainer. Athletic injuries can be expected due to the nature of sports; therefore supervision must be provided so that injuries can be taken care of in an efficient manner. However, the prevention of injuries and maintenance of health is the primary objective of the trainer. [7:221]

The major administrative problems in secondary schools related to athletic training are: 1) Qualified Personnel; 2) Team Physicians; 3) Facilities and Equipment; 4) Legal Liabilities; 5) Supervision and Policies.

QUALIFIED PERSONNEL

Around 1916 secondary schools began to realize that a complete program for athletics included not only scientific coaching and educational psychology procedures, but also injury prevention and treatment, and began to provide athletic trainers. [14:10] Today every secondary school with an athletic program should have a **qualified** athletic trainer on the faculty. "The athlete in high school as compared to college is much more immature and under-developed physically. Since the athletic trainer is such a physical and mental influence upon the athlete, his role becomes even more important in high school than in college." [15:18] Unfortunately too few schools have a professionally trained man for the position; some schools designate a coach whose sport is not in season, others regard it as a part of the coach's responsibility, and many delegate this important responsibility to a student manager.

Educational certification agencies do not establish criteria to certify men as athletic coaches or trainers. The certification is that a man has had adequate academic training to qualify him to teach a classroom subject, be it art or mathematics. [12:24] Consequently when the teacher also coaches, there are no requirements as to his qualifications to coach. Usually a coach is arbitrarily selected on the basis of his experience as a collegiate player or his won-lost record as a coach. The academic training of the man that qualifies him to coach should be considered! Every coach should have academic work relating to the prevention and care of athletic injuries, and every athletic trainer should have extensive academic preparation and experience in this area.

L. B. Blank made a study of the course offerings in the prevention and treatment of athletic injuries for the preparation of professional personnel in physical education. He found that of 419 colleges and universities which offer professional training in physical education, only 222 of them offer courses in prevention and care of athletic injuries. The appalling conclusion is that only approximately half of the colleges and universities even offer course work in prevention and care of athletic injuries. However, the majority do require the course for the bachelor's degree. [13:363]

An examination of catalogues of state colleges in Texas and California reveal a wide variation in the quality of courses offered. The spectrum includes one semester hour courses, co-educational courses, and three semester hour courses with prerequisites of twelve semester hours of biology, anatomy, and physiology. Therefore when a man has had a course in the prevention and treatment of athletic injuries, it does not necessarily mean that he is qualified or prepared to assume the duties of an athletic trainer.

It becomes increasingly imperative that a highly trained man be on the staff of every secondary school that has an athletic program to cope with the myriad of technical problems. Any cursory survey of the literature reveals that in addition to the changing methods of treating contusions, sprains, and strains [62], blisters [52], and knee injuries [64] there are such problems as anaerobic training [54], weight training [59], interval training [57], and circuit training [53] to be dealt with. Other technical problems include the controversy of warm-up [56], heat illness [51], liquid nutrition [63], evaluation of the air splint [55], as well as the influence of anxiety on the athlete's performance [58]. Research in the prevention and treatment of athletic injuries dates back to the Golden Age of Greece, but the modern era is regarded to have started around 1829 with John E. Morgan. His studies, which he called the Oxford University Oars led to the development of successful tape procedures, protective devices for athletics, and physical therapy procedures. [19:20] It takes a highly qualified athletic trainer to be able to continually keep abreast of the current research.

A major problem also is the problem of supplementary salary for the teacher and/or coach who serves as athletic trainer. A wide variation of practice exists in this area. School systems whose standards are high enough to have a qualified trainer on the athletic staff are usually the systems that are willing to remunerate the trainer for his professional services. A New York school system devised a supplementary pay plan that utilized an objective method for determining supplementary pay. They established nine criteria with a weighted score system. Of the nine criteria used, the athletic trainer would score high on six of them: 1) hours involved including preparations; 2) number of students involved; 3) experience, specialization, quality of training; 4) injury element to indicate significance of injury worry; 5) weekends, afterschool, and vacation time involved; and 6) equipment and facility

responsibility. [16:58]. Every secondary school athletic budget should include funds to pay a qualified athletic trainer a salary supplement.

Since 1946 there seems to have been a distinct growth of acceptance of the athletic trainer as a **necessary** faculty member in the secondary schools. The addition of a high school trainer indicates the desire of administrators and coaches to place boys in competition not only with the best protective equipment, but with the best preventive and safety supervision at all times. Texas has probably given the greatest impetus to the high school trainer. [19:20] Every administrator should exert every effort to insure that the man designated to be responsible for the prevention and care of athletic injuries is qualified by education and experience.

TEAM PHYSICIANS

An alarming trend is apparently developing in that some school districts are having difficulty in procuring physicians to attend football games as team physicians. Most state laws (including New York and California) do not require, but only recommend that the home team supply a physician at high school games. Fortunately, however, many school districts have their own regulations requiring home teams to have physicians present. Oakland, California was unable to secure physi-

cians for the high school games in the fall of 1963. A motion to relax the regulation requiring the physicians presence at every game was tabled by the board of education and it appeared as if several early season games would have to be cancelled. When the administration decided to pay physicians fifty dollars per game, enough team physicians were acquired. [20:1] Another solution to the problem used by one community was to give the physicians season passes to the high school athletic events. [21:38] The administrator must work with the local physicians, the county medical society, or whichever organization is feasible in a community to assure the services of a team physician.

The team physician must be not only a proficient medical doctor but also one who understands the unique nature of athletic injuries and the educational philosophy of secondary school athletics. The



Ray C. Thurmond is a graduate of North Texas State, with both a Bachelor's and Master's Degree. He has been on the staff at the University of Oklahoma, where he is pursuing his Doctorate, since 1964. He has 14 years of experience in high school athletics as coach or in administration in Texas, Georgia, and California.

concept of "rapid return to play" should be of prime importance, but judgment should not be swayed by it. [24:30] The most highly desirable practice is to have the same team physician throughout the year and for several years. This enables him to learn each athlete, his thresholds, reactions, and physiological changes. And importantly, it enables the physician to establish rapport and respect with the teams. The good administrator will have a competent team physician as an adjunct to his staff.

FACILITIES AND EQUIPMENT

All schools that participate in interscholastic athletics should have a training room as part of the athletic plant. It need not be elaborate, with many costly machines, and it need not necessarily be spacious, but it must be CLEAN and OR-DERLY. Many administrators use the excuse of budget problems for not maintaining adequate training room facilities. There are many examples where effort, ingenuity, and scrap material produced adequate training rooms. [26; 28; 31]

The training room should be the "neatest one in the school and should reflect hospital cleanliness at all times." [33:32]. The minimum equipment should consist of hot and cold running water, treatment and/or taping table, medical supply cabinet, refrigerator, and telephone. [32:12] Other items include a whirlpool and drains, large waste cans, infra-red heat lamp, scales, fluorescent lighting, electric wall clock, bulletin board, mirror, stretcher, pillows, ice bags, and splints. [33:32] Excellent specifications for training room equipment are available and can be adapted for the specific needs of a school. [10:12-16] Administrators must exercise leadership in developing adequate training room facilities in their school.

One of the most important administrative problems is the selection, purchase and fitting of protective equipment. No matter how good the equipment is, if it does not fit properly, it is not only useless, but can be inherently dangerous. For example, the plastic shell helmet with double bar face guard has decreased head injuries by 57% since 1958, but of the head injuries reported only 4.7% had been correctly fitted. [30:42] The addition of the rules requiring face guards and mouth pieces has added to the cost, but has greatly reduced injuries. Cost alone does not determine the quality of the product. [29:168] The trainer has a major responsibility in the proper fitting of protective equipment, about new developments in protective devices and when to use them effectively.

LEGAL LIABILITIES

The most increasingly difficult administrative problem today in athletics is legal liabilities. Recently athletics have become prime targets for legal action. [39:38] The law has undergone change in a short period of time. Historically governmental agencies were immune because of the "king can do no wrong" derivation, but the change can be noted in the fact that today over 100 liability cases arising from trampoline liability are pending in California. [40:20].

One of the major grounds for legal action is negligence. "All courts accept the doctrine that everyone is liable for acts of negligence." [43:50] California is the only state that prescribes procurement of liability insurance coverage for negligence. [37:18] A vulnerable area for the athletic trainer is the removal of an injured person. The trainer can be held liable if the player is removed from the playing area in a negligent manner. [43:50]

Another area for legal action is the doctrine of "attractive nuisance." If anyone gains entrance to a gymnasium, swimming pool, or training room and is injured, the school personnel can be held liable if these areas were **not** locked under the "attractive nuisance" doctrine. [39:38] Legal actions have been brought over using tax money to purchase athletic equipment. [39:38]

A recent study on state laws and regulations for public schools reveals that all fifty states have laws which specifically require or permit the teaching of health, physical, safety, driver, and outdoor education. There is a total of 217 laws and 88 regulations involved, indicating that they are both numerous and varied. Though the literature cites numerous specific cases, all states may not follow precedent of other states. Therefore a major administrative problem is to KNOW the laws and regulations of **your** state regarding health and safety practices required and permitted. [41]

SUPERVISION AND POLICIES

The administrator, in addition to procuring qualified personnel for athletic trainer, must be able to evaluate him professionally. "The trainer's best work—prevention—is never known because no trouble develops." [47:36] Included in the criteria for evaluation of the secondary school athletic trainer should be: 1) fundamental knowledge of anatomy and physiology, 2) skills and techniques such as taping and bandaging, 3) emotional stability especially in emergencies, 4) professional improvement—alert to current research and practices, 5) adequate record-keeping system, 6) cooperation with the coaching staff and faculty, 7) judgment in purchase of supplies and their use, 8) professional ethics in relationships with athletes and patrons, 9) punctuality in having athletes ready for practice, 10) seeks and upholds decisions of team physician, 11) training room maintained in clean and orderly manner, 12) assumes responsibility for safety procedures and practices. [47:37-40] Among many wellintentioned but harmful practices that should be evaluated are weight programs that are not basically sound or properly supervised, permitting drills and scrimmages after the fatigue point has been reached, establishing good off-season resistive exercise programs and discontinuing them when the season starts, permitting use of poorly fitted equipment to save money, negligence in assuming responsibility for checking playing areas for safety, providing salt tablets and failing to make sure they are taken, and fitting mouthpieces and not checking to be sure they are used. [50:52]

The athletic trainer should be evaluated both as a member of the faculty and as trainer. The latter necessitates the administrator being informed himself sufficiently to competently supervise and evaluate the trainer professionally.

A major leadership function of the administrator is in establishing and adhering to policies. Generally policies fall into two major categories —procedures and records.

Even though every effort is made to prevent accidents and injuries, inevitably they will occur. A good administrator will establish procedures for emergencies. [45:214] A New York school system formulated an accident procedure that involved the athletic staff, the physical education department, the medical consultants, health service, legal department, and the local hospital and police. A priority of action was established and published in a brochure. [44.3] In addition to brochures and meetings to discuss emergency procedures, there should be placed by all telephones near athletic facilities a summary of the procedures and the telephone numbers of all who are to be notified. [45:214]

A necessary procedure is the periodic safety inspection of areas of high incident for injuries. For example in the locker and shower rooms abrasive strips should be placed on the floor where turns are made, locker locations evaluated, on the grounds areas where there is a variation in the elevation should be marked with a high reflection color as should structures on the playing fields, structures on playing fields should be padded as well as indoor area walls. The administrator and trainer must cooperate to be ever alert to every small detail that might aid in preventing and reducing the number of injuries as a matter of procedure. [46:40]

The medical records kept by each school system on their athletes can rarely be too thorough. The health and welfare of the participants should be of first consideration in planning an athletic program. Every player that tries out for any type of athletic activity should have a thorough physical and medical examination. A physician's program for examining high school athletes should be carefully planned with administrators, coaches, and trainers. A detailed medical history should be prepared for each athlete. [21:37] In addition to the physiological data recorded, a psychological profile should be kept. Research on psychological factors in athletic injuries indicates that some athletes take chances because they have a sub-conscious need to be injured. For these, injury is the ideal way out. A boy who eagerly wants to play but does not have much ability and a boy who does have ability but does not want to play are candidates for the injury file. Also in this category is the not too capable son pushed into sports by the athletically successful father. [4:64] The administrator must expedite the procurement and coordination of all this data.

One benefit of athletic insurance plans has been the emphasis on athletic injury data being compiled and analyzed. Prior to 1930, information on the subject was apt to be guesswork. [6:299] A study made in ninety-six New York secondary schools over a ten month period found that there were 1408 accidents reported. Analysis of these reports revealed that the greatest number of accidents occurred in September and October; that the highest number of accidents occurred during practice for interscholastic competition; and that the second highest number of accidents occurred during interscholastic competition. The activities which produced the most injuries were football, basketball, wrestling, soccer, track and field in that order. The most frequent type of injury was sprain followed by fractures and wounds. The leg and foot were the most frequently injured parts of the body, followed by the arm, hand, and head. [44:3] In a similar type of study, Lansing, Michigan found that accidents increased sharply in October, February, and April and that the single largest factor in accidents was the lack of supervision. [2:4] With this type of specific information from accurate records, the administrator and trainer can develop procedures to reduce the number of injuries.

CONCLUSIONS

The new philosophy of the high school administrator is to lower the accident rate in interscholastic athletics, to prevent serious accidents with scientific protective devices, and to apply the latest medical science to an injury's cure. "But many problems must be solved before the philosophy is a practiced reality in the secondary schools." [49:122]

In conclusion, it is apparent that keeping the student-athlete active in a safe and healthful environment requires a collective effort on the part of the parent, the administrator, the athlete, the physician, the coach, and the trainer, with the trainer and the administrator sharing a major direct responsibility. [48:36]

BIBLIOGRAPHY

General

- 1. Anon. "Accidents in Physical Education: How to Avoid Them—Their Effect on the Teacher and the Curriculum," **Physical Education Newsletter**, VII (March 27, 1963), 3.
- 2. _____. "Lansing Analyzes Pupil Accidents and Injuries," **Physical Education and School Athletics Newsletter, III** (December 27, 1958), 4.
- 3. Bilik, S. E. The Trainer's Bible. New York: T. J. Reed Co., 1948.
- 4. Boyle, Robert H. Sport—Mirror of American Life. Boston: Little, Brown, Co., 1963.
- 5. Brown, Joe. "The Trainer's Responsibility to His Profession," **Coach and Athlete,** XXVI (June, 1964), 20.
- 6. Forsythe, Charles E. Administration of High School Athletics. 3rd ed. New York: Prentice-Hall, 1954.
- 7. Frank, S. L. and Deaver, G. G. et al. Safety in Athletics. Philadelphia: W. B. Saunders Co., 1939.
- 8. Littledale, Harold L. "Take the Danger out of Sports," Education Digest, XXVIII (March, 1963), 45.
- O'Donoghue, Don H. and Rawlinson, Ken. "Prevention and Treatment of Football Injuries," Scholastic Coach, XXVI (April, 1957), 42; (May, 1957), 18; (June, 1957), 14.
- 10. Rawlinson, Ken. The Trainer in Modern Athletics. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1962.
- Walch, Sister M. Romana. Pestalozzi and the Pestalozzian System of Education. Washington, D. C.: Catholic University Press, 1952.

Personnel

- Blaettler, Richard B. "Should Special Preparation And/Or Certification Be Required for Coaching?" Coach and Athlete XXIX (November, 1966), 24.
- Blank, Lane B. "Professional Courses in the Prevention and Treatment of Athletic Injuries at American Universities and Colleges," The Research Quarterly, XXVI (October, 1955), 363.
- Dolan, Joseph P. "The Athletic Trainer in High School," Athletic Journal XXXVII (September, 1965), 18.

- Federico, Anthony. "Need For An Athletic Trainer in High School," Coach and Athlete, XXIX (November, 1966), 18.
- 16. George, Jack. "Extra Pay for Extra Services," in Administration of High School Athletics. Washington, D. C.: American Association of Health Physical Education, and Recreation, 1961, p. 58.
- 17. Gieck, R. P. T. "Conduct of Student and Assistant Trainers," Coach and Athlete, XXVIII (May, 1966), 26.
- 18. Hess, Ed. "Organizing An Efficient Manager and Trainer Staff in Your High School," Coach and Athlete, XXVII (April, 1965), 42.
- 19. Prelaz, Edward J., "The Trainer's Warbag," Scholastic Coach, XXVII (January, 1958), 20.

Physicians

- 20. Anon. "Is There A Doctor in the House?" Physical Education Newsletter, VIII (December1, 1963), 1.
- 21. Hall, Wesley W. "Football Medical Testing Program," Scholastic Coach, XXVIII (June, 1959), 37.
- 22. Hirata, Isao. The Doctor and the Athlete, Philadelphia: J. B. Lippincott, 1968.
- 23. Marcin, Joe. "The Coach-Doctor Team," Coach and Athlete, XXX (October, 1967), 28.
- 24. Smilkstein, E. "The Team Physician: His Primary Responsibility," Coach and Athlete, XXVII (September, 1965), 30.

Facilities and Equipment

- 25. Anon. "Injury Prevention Is Big Business In Houston School System," **Bike Sports Trail,** XVIII, No. 2 (1964), 1.
- 26. Arbaugh, Jay. "From Closet to Training Room," Scholastic Coach, XXXVII (January, 1968), 52.
- 27. Cerney, J. V. "Training Room Germ Carriers," Scholastic Coach, XXVII (November, 1957), 30.
- Dayton, Bill and Gunn, Bobby. "The High School Training Room," Scholastic Coach, XXV (January, 1956), 10.
- 29. Fagan, C. B. "Misconceptions About Protective Equipment," Journal of School Health, XXXIV (April, 1964), 168.
- 30. Homola, Samuel, "The Plastic Helmet and Head Injuries," Scholastic Coach, XXXIV (March, 1965), 42.
- Kanicki, Walt. "A High School Training Room: A Super Renovation That Cost Only \$15.00," Scholastic Coach, XXXIII (January, 1964), 36.
- 32. McLean, J. Lindsy. "A Refrigerator So Useful In the Training Room," **Coach and Athlete**, XXIX (January, 1967), 12.
- 33. Mutchner, John. "Developing A Training Room," Scholastic Coach, XXXV (January, 1966), 32.

Legal Liabilities

- 34. Anon. "School Law and Teacher Negligence," NEA Research Bulletin, XL (October, 1962), 75.
- 35. _____. "Pros and Cons of Athletic Insurance," Scholastic Coach, XXIII (January, 1954), 28.
- Bula, Michael A. "Personal Liability of the Coach and Physical Education Teacher," Athletic Journal, LV (June, 1965), 46.

- Giles, John W. "Liability of Coaches and Athletic Instructors," Athletic Journal, XLII (February, 1962), 18.
- 38. Gold, Gerald F. and Gold, Sondra Y. "First Aid and Legal Liability," Journal of Health, Physical Education, and Recreation, XXXIV (January, 1963), 42.
- 39. Grieve, Andrew. "Legal Considerations On Equipment and Facilities," Athletic Journal, XLVII (February, 1967), 38.
- 40. Kurtzman, Joseph. "Legal Liability and Physical Education," **Physical Educator**, XXIV (March, 1967), 20.
- 41. Maynard, Zollie and Rinaldi, Salvatore. State Laws and Regulations for Health, Safety, Driver, Outdoor, and Physical Education. Washington, D. C.; U. S. Government Printing Office, 1964.
- 42. Shroyer, George. "Personal Liabilities of A Secondary School Physical Educator," **Physical Educator**, XXI (May, 1964), 55.
- 43. Tener, Moe. "The Coach's Legal Liabilities," Scholastic Coach, XXXIII (November, 1963), 50.

Supervision and Policies

- Anon. "Accidents Will Happen—Are You Prepared for Them?" Physical Education Newsletter, VIII (February 15, 1964), 3.
- 45. Grieve, Andrew W. Directing High School Athletics. Englewood Cliffs, New Jersey: Prentice-Hall, 1963.
- 46. Johnson, Burt and Abercrombie, Stanley. "A Safe Environment for Learning," Education Digest, XXVI (January, 1961), 40.
- 47. Lawther, John D. Psychology of Coaching. Englewood Cliffs, New Jersey: Prentice-Hall, 1951.
- Savastano, A. A. "Keeping the High School Athletic Candidate Active," Athletic Journal, XLIV (October, 1963), 36.
- Semler, Charles A. "What Standards for Administration of Athletic Programs?" The Bulletin of the National Association of Secondary School Principals, XL (April, 1956), 122.
- Spackman, Bob. "Commonsense Precaution Against Injuries, Colds, and Respiratory Infection," Scholastic Coach, XXXVII (April, 1968), 52.

Technical Problems

- 51. Burnham, Sam. "Heat Illness in Athletics," Coach and Athlete, XXVII (June, 1965), 24.
- 52. Edwards, A. G. "Blisters-No Problem," Athletic Journal, XLVIII (June, 1968), 16.
- 53. Grieve, Andrew. "Circuit Training for Fitness," Scholastic Coach, XXXVI (September, 1966), 44.
- 54. Hinds, John W. "Anaerobic Training," Athletic Journal, XLVII (January, 1967), 54.
- 55. Horine, Larry. "An Evaluation of the Air Splint," Scholastic Coach, XXXVII (January, 1968), 28.
- 56. Jensen, Clayne R. "The Controversey of Warm-Up," Athletic Journal, XLVII (December, 1966), 24.
- 57. Lewis, A. S. "Principles of Interval Training," Scholastic Coach, XXVI (November, 1956), 26.
- Nelson, Dale O. and Langer, Phillip. "Comments on the Athlete's Playing Performance and His Anxiety," Coach and Athlete, XXVIII (December, 1960), 12.
- 59. O'Connor, Bob. "Scientific Weight Training," Scholastic Coach, XXXIV (September, 1964), 52.

- 60. Osius, Theodore. "Food for the Training Table," Scholastic Coach, XXX (October, 1960), 64.
- 61. Rawlinson, Ken. "General Treatment Rules: Contusions, Sprains, Strains," Scholastic Coach, XXXVIII (September, 1968), 88.
- 62. _____. "Shoulder Injuries Preventive and Corrective," Athletic Journal, XLIV (October, 1952), 15.
- 63. Robison, Ray. "The Merits of Liquid Nutrition," Athletic Journal, XLVI (January, 1966), 68.
- 64. Spackman, Bob. "Knee Injuries and Prevention," Scholastic Coach, XXXVI (June, 1967), 18.

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.
- Asprey, G. M., et. al: "Effect of Eating at Various Times on Subsequent Performances in the One-mile Free Style Swim," *Research Quarterly* 39:231-4; May, 1968.
- Dyke, L. M.: "Herpes Simplex Gladitorium," G. P. 36:95; December, 1967.
- Edwards, A. G.: "Blisters No Problem," Athletic Journal 48:16+; June, 1968.
- "Footballers Quench Thirst: Beverage That Matches Body Fluids," *Science Digest* 63:42; May, 1968.
- Frankel, C. J.: "Team Physician and the Law," Journal of School Health 38:87-9; February, 1968.
- Johnson, E. W., et al: "Acromioclavicular Separation," Minnesota Medicine 51:663-70; May, 1968.
- Kisner, C. D., et al: "Connective Tissue Massage: Influence of the Introductory Treatment on Automatic Functions," *Physical Therapy* 48:107-19; February, 1968.
- Lapidus, P. W., et al: "Letter to the Editor. Immediate Mobilization and Swimming Pool Exercises in Some Fractures of Foot and Ankle Bones," *Clinical Orthopedics* 56:197-206; Jan.-Feb. 1968.
- Larson, R. L.: "Knee Injuries in the Adolescent Athlete," *Medical Times* 96:679-88; July, 1968.
- Melvin, W. J.: "Emergency Treatment of Diving Accidents," *Applied Therapeutics* 10:398-9; June, 1968.
- Rogin, G.: "Bottle and the Babe; Gatorade Thirst Quencher," Sports Illustrated 29:54-8+; July 1, 1968.
- Singer, R. N. and R. E. Neeves: "Effect of Food Consumption on 200-yard Freestyle Swim Performance," *Research Quarterly* 39:355-60; May, 1968.

Respiratory Aids for Respiratory Injuries During Sport Contests

LOUIS ABELSON, MD New York University

The necessity for maintaining adequate respiratory exchange after injuries to the mouth, jaw and throat is of extreme importance. When the brain is deprived of oxygen for more than four minutes the chances for complete recovery of the victim, are practically nil. The severity of the trauma may vary from simple mouth injuries with broken teeth and torn tissues to those of a crushing nature to the neck, involving the larynx and trachea. When injury results in airway obstruction, prompt corrective first-aid is an absolute must.

If the mouth can be opened, removal of broken teeth and wiping away of blood may be all that is necessary. However, if the injury is more severe, involving the larynx and trachea, loss of consciousness may ensue. The victim becomes blue or cyanotic from lack of oxygen and then he may convulse; his jaws become tightly clenched in trismus and resuscitative measures become difficult. Unfortunately, when the damage to the brain centers is so extreme that the jaws eventually relax, it is usually too late and irreversible brain damage has occurred.

Herein is suggested a program including simple devices and a technique well within the ken of anyone trained in first-aid.

NASOPHARYNGEAL TUBES

These are a series of convex tubes with expanded ends. They measure from about onequarter inch inside diameter to about 5% of an inch. They vary from about three to six inches The sizes utilized, depend upon the size of the victim. Children would, of necessity, require the smaller sizes. One should be aware of the fact that the nasal passages extend straight back and that one side is usually roomier than the other. That is the side selected for introduction of the tube. Passage of a lubricated tube of this type with its convexity upward, might aid consider-



NASOPHARYNGEAL TUBE

ably in pushing the tongue forward, leaving direct access to the breathing apparatus by-passing broken teeth and bloody secretions which interfere with breathing.

RELIEF OF MOUTH INJURIES

For this purpose we designed a three and onehalf inch corkscrew-like device. It features a two and one-half inch finger grip and a series of grooves wide and deep enough to accommodate the teeth. Clinically it has been used by cancer surgeons to permit patients suffering from extensive jaw scarring to exercise the muscles and open the mouth to permit them to eat and talk. On the ambulance and in the emergency room over a period of four years observation in cases of epilepsy and convulsions, the mouth was invariably opened without damage to the teeth. Once the mouth is opened a dental prop is inserted and the jaw-spreader removed to facilitate emptying the mouth of foreign material such as blood, dirt or broken teeth.

CRICOTHYROTOMY CANNULA

One often reads in the newspapers of the attempt to save life in cases of throat injuries, by crude "Tracheotomy". It is commonly known that the operator tries to make an opening in the throat by using a penknife, then he inserts the tube of a fountain pen to allow for passage of air. This is often successful, but too often the lack of knowledge on the part of the would be rescuer hampers resuscitation and then again, with the advent of the ball-point fountain pen—no tubes.

The simple device we recommend, has been tried innumerable times with great success in hospitals and emergency units. It has also been adopted as a must in the first-aid kits of some of our professional football teams.

1. A curved stainless steel shaft, or "Trocar" with a bayonet like point and an expanded finger grip. The bayonet point is the cutting portion.

2. A curved stainless steel tube which is tooled for and accommodates the steel shaft

above described. About one-half inch from one end through which the bayonet protrudes, there is a red marker. Toward the other end one notices a disc with a notch on the top side. Beyond the disc, is a needle hub which is recognized as the portion into which a syringe is generally fitted when one is given an injection.

JAW SPREADER





CRICOTHYROTOMY CANNULA (Magnified two times)

3. A rubber tubing about twenty two inches long. On one end is a circular fitting with a small elevated vent about 3/8 of an inch high. On the other end of the tube is a metal conical piece, with the taper away from the rubber tube.

When the emergency arises and it is necessary to by-pass the normal routine breathing apparatus and tracheotomy is indicated, the "Cricothyroid Cannula" is used. One should familiarize himself with the region used as the proper operative site for the introduction of the Cannula. We are aware of the so-called "Adams Apple", anatomically, this is what is known as the Thyroid Cartilage, the interval below that consists of a smaller cartilaginous horseshoe, called the Cricoid. The interval between these cartilages is the largest and most accessible.

TECHNIQUE

The thyroid cartilage is grasped firmly with the fingers of one hand and by sliding the index finger downward in the midline one can locate the Cricothyroid interval. The assembled Trocar-Cannula is inserted, bayonet forward thru this interval until the red marker on the shaft of the cannula is in contact with the skin.

The Trocar is then pulled out and the shaft of the cannula is directed backward into the throat until the disc rests on the skin. The disc should be fastened to the neck with adhesive. The notch should always be kept headward. Often, on insertion of the cannula into the Trachea or windpipe, spontaneous breathing will develop. If further help is necessary, the third part or rubber tubing

is utilized. The smaller metal piece is fitted into the needle hub which now protrudes from the disc. If no oxygen is available, artificial respiration is carried out by blowing into the tube, with the finger tightly blocking the small vent only on blowing in. This is done rhythmically, the chest will be seen to rise-when the finger is removed, the chest will fall. This will give the patient adequate oxygen and should be effective in the markedly depressed victim. The respiratory rhythm should be about twenty per minute. If oxygen is available the conical piece is fitting into the rubber tube of the tank and the fingering of the vent should be continued at the same rate. A word of caution-do not allow excessive pressures to come off the tank-this applies to tanks without gauges and is apparent by too high an expansion of the chest.

CONCLUSION

Herein are presented simple devices for the treatment of traumatic cases where serious interference with breathing is present. These people must be helped before the all-important **"Four Minutes"** has passed. Trained surgeons and a completely stocked operating room are rarely available in time to save life. Most often the victims are seen first by trainers, first-aiders, emergency crews of the Police and Fire departments, and emergency room crews. With little additional training these valuable people can be instructed in the nature of, the anatomy of, and the tools wherewith to render valuable life-saving service.

Safety—Speed—Simplicity

Bits and Pieces

Clyde Stretch

An interesting and entertaining anecdote was presented by Dr. Dan Hanley, Senior Physician for the US Olympic teams, in his article, "The Catastrophic Triviality," appearing in the June, 1968 issue of *Nutrition Today*.

"The Princeton and Yale students, alumni, and assorted other fans nearly filled Palmer Stadium to capacity down at Princeton a few years ago and witnessed a strange display by the Yale football team that still puzzles many of the spectators. The day was brisk and the sky was clear. They were enjoying perfect football weather. No one was greatly surprised that the Tigers devoured the boys from New Haven. That had been expected. But one thing was not foreseen. Everyone thought it was strange the way Yale kept a steady flow of substitute players running through the game. Every man on the squad got to play not once, but several times.

More than one Son of Eli wondered, as he watched the performance that afternoon, why Yale ran in so many substitutes and changed them so frequently. Occasionally a Yale player seemed so anxious to leave the game he'd bolt from scrimmage before his replacement left the bench. The departing player seldom ever paused at the sidelines. He'd head straight for the locker room, running or at a fast walk, then, minutes later, stroll back and take his seat on the bench. By the second half many of the fans noticed that even the head coach, his assistants, and the trainers had joined the parade to the locker room and back. I am told that a few preceptive physicians in the stands realized what was going on. The Yalies all had diarrhea.

"Strangely enough, as Bill Dayton, Yale's great trainer told me when I was preparing this paper, the coaching staff didn't realize that the team was really quite ill until the

Olympic Medical Staff



United States Olympic Committee Medical Services Staff -

Front Row, Left to Right: Joseph Abraham - Tony Russo - Dr. William MacAusland - Mrs. Barbara Sebasteanski - June Persson - Ann Martin - Dr. Donald Cooper - Robert White - A. C. (Whitey) Gwynne

Back Row, Left to Right: Edward Lane - Buddy Taylor - Chuck Medlar - Dr. Daniel Hanley - Dr. Winston Riehl - Lewis Crowl - David Wike

The United States Olympic Committee Medical Services Staff was composed of the following: **Physicians:** Dr. Daniel Hanley, Brunswick, Maine, Head Team Physician; Dr. Donald Cooper, Still-

water, Oklahoma; Dr. William MacAusland, Boston, Mass.; Dr. Winston Riehl, New Orleans, La. **Nurses:** Mrs. Barbara Sebasteanski, Brunswick, Maine; June Persson, Denver, Colorado. whistle blew for the opening kickoff. Then "all hell broke loose," Dayton says.

* * *

News from the national office: 1) The William E. Newell Scholarship Fund Committee has entered a report, and it looks as though the Board of Directors will have a complete report and some applicants to act upon at the Cincinnati meeting. 2) The Ad Hoc Study Committee is working on reorganizational ideas and will get together in part at the NCAA meeting in Los Angeles.

* * *

After twenty-one years of service with the University of Michigan, head trainer Jim Hunt retired earlier this year. Making outstanding contributions to U of M athletics and having served as a past president of the NATA, along with being elected to the Helms Hall of Fame, Jim had a full career and was a real credit to his profession. We would like to

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wish Jim well in his future endeavors.

* * *

The De Lorme axiom states that high-resistance, low-repetition exercise is necessary to build strength, and that low-resistance, high-repetition exercise is necessary to build endurance. This axiom has become an important part of physical education and conditioning as well as rehabilitation. It is widely accepted and seldom questioned. Could it be possible that such an established principle of conditioning is indeed questionable and perhaps incorrect?

A study published in the May 1968 issue of Archives of Physical Medicine and Rehabilitation¹ has, in fact, raised this question and come up with a surprising answer. "The data (of the study) suggest that in producing both strength and endurance, choice of weights is not of prime importance as long as the subject continues the repetitions to the point of fatigue. Strength and endurance thus appear to be two closely related attributes of the well trained muscle."

An attempt at abstracting or evaluating this article would most likely be misleading at best. It is, though, something which has to raise questions either about the subject being investigated or the method of investigation of the subject. Either way, it is something which deserves consideration.

 DeLateur, B.J., J.F. Lehmann and W.E. Fordyce: "A Test of the De Lorme Axiom," Archives of Physical Medicine and Rehabilitation 49:245-248; May, 1968.

CALENDAR:

1) The Medical Aspects of Sports Symposium sponsored by the Medical Society of the State of New York will meet from 9 am to 5 pm, Saturday, February 8, 1969 at the Americana Hotel in New York city. Further information about the symposium may be obtained by writing: The Medical Aspects of Sports Committee, Medical Society of the State

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of New York, 750 Third Avenue, New York, N. Y. 10017.

2) April 3, 4 and 5 are the dates for annual meeting of The Medical Aspects of Sports being presented by the Department of Continuing Education of the University of Tennessee College of Medicine. The meetings will be held at the University's College of Medicine, Memphis, Tennessee. Information may be obtained from either Dr. Marcus Stewart, Campbell Clinic and Hospital, 869 Madison Ave., Memphis, Tennessee 38103; or Mr. Wallace H. Mayton, Director of Continuing Education and Conferences, The University of Tennessee Medical Units, 62 South Dunlap Street, Memphis, Tennessee 38103.

3) Second Annual Sports Medicine Seminar, Saturday, March 22, 1969, Windjammer Restaurant, Seattle, Washington.

National Notes

JACK ROCKWELL, EXECUTIVE SECRETARY

The news from the National office will be quite brief for this issue of the Journal. Since we are almost all engaged in football currently you can understand the lack of issues and problems being worked on at present. Committee reports are not available, but several committees will have information for publication by the next issue.

Since there are very few, if any, new issues to be reported in this edition, I would like to write a few words pertaining to my feelings about this organization that we all belong to, and that this Journal represents. Pinky mentioned in this column in the fall issue that I planned to visit as many of the District Meetings as possible. It is the National office's hope that each District will hold a District meeting and will notify the National office of the date and place. It is our firm belief that our organization can only continue to grow if we all work together and think of ourselves as members of a professional organization with no geographical, conference, district or other differentiations.

The use of the phrase "professional organization" in the past paragraph brings to mind another thought that I hope will be worth

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saying a few words about. We, members of the NATA, are emerging as a professional group. A recent article in the Journal of Health Physical Education Recreation by Mr. Charles Bucher, states the criteria for determining professional status as follows: In order to achieve full professional status, a field of endeavor must:

- 1. Render a unique and essential social service.
- 2. Establish high standards for the selection of members.
- 3. Provide a rigorous training program to prepare its practitioners.
- 4. Achieve self-regulatory status for both the group and the individual.

As I'm sure all of you can see, neither our organization nor we as individuals can at the present time fully meet the criteria presented. In various ways, we have during the past few years, made great strides in establishing our field of endeavor as a profession. It is the Executive Secretary's hope that through the continuing work of the Professional Standards Committee, and the help of allied Medical and Para-Medical organizations, we will achieve the factors we now lack to become full fledged professional organization.

Some of the things that we might all think about in regards to helping our organization and at the same time helping each of us as individuals to gain professional status, are: Pride, pride in being an athletic trainer. Be a public relations man for the NATA and for athletic trainers as individuals. You don't have to blow your horn, just don't hide it.

Take pride also in your Journal, this is the official organ of your organization. Help your Editors make it a great Journal by contributing. Thesis, and finished manuscripts aren't necessary; send short, concise, explanatory articles to make your Journal one that is received, read, and is helpful to all members.

Warren Arial has need for new leads on Exhibitors. Anyone who

knows of a potential manufacturer, sporting goods house etc., that would be interested in displaying his wares at our National Convention, please have him contact Warren in care of the New Orleans Saints.

The need for unity amongst all members was mentioned earlier; the mention of understanding between all in these troubled times is also, I believe, necessary at this time. With newspaper and magazine articles telling of requests for black coaches and black trainers at various places across the country, we find ourselves faced with two questions. The first is why aren't there more black athletic trainers now working in all phases of athletics today? It is not because of any single or significant reason, but it must be remedied.

The second question that arises then is why should an athletic trainer be differentiated by skin color. This is where understanding is needed; the black athlete should not, cannot, and must not be treated in any way differently than the white athlete. In fact, the color of a boy's skin has no bearing on his ability, physical prowess or character, why then should it determine how his physical well being is managed. As individual athletic trainers, who all have pride in your work, and display the integrity and character needed to perform your tasks, I sincerely hope you will all show the greatest concern and understanding in this situation that prevails in our country today.

In closing the column in the last issue, Pinky mentioned the matter of the better service to all members of the NATA that we would like to achieve. We cannot serve you unless we know your problems and desires, so please let us know at any time if we can be of service. It was with great humility and feeling of extreme responsibility that I accepted the position of Executive Secretary, it is my sincere hope that the organization will continue to grow and prosper as we all work towards the goal of becoming a full fledged professional organization.

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specially formulated to quench "action-thirst"; not a soft drink, but carefully selected salts, plus two energy sources and Vitamin C, that when mixed with water helps serve the body's craving for fluids and salts that action-people lose during physical activity. SPORTADE—the first in supplying your team with the desired quick-dissolving powder form. Mixes—instantly. Wets "action-thirst"—fast. Bright, fresh taste. Give SPORTADE a tryout with your team. When it comes to beating the heat, the sure winner is SPORTADE. Available through your regular athletic dealer. From the makers of ACE Bandages.

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Olympic Medical Staff, Cont'd from page 15

Trainers: Chuck Medlar, Pennsylvania State University, Head Trainer; Joe Abraham, Hobart College; Lew Crowl, Sacramento State College; Whitey Gwynne, West Virginia University; Eddie Lane, Southern Methodist University; Tony Russo, Citrus College; Buddy Taylor, Tennessee A. & I. University; Bob White, Wayne State University; Dave Wike, University of Miami; Ann Martin, Mayo Clinic, Rochester, Minnesota.

Medical Research Consultant:

Dr. Plummer, Pomona, California.

Under the direction of Dr. Hanley, the relationship between the trainers and physicians was excellent. In the USA quarters, the physicians' office and the training room were adjoining, which made a very convenient arrangement.

The training room quarters were adequate. There was a large room which was quite suitable for the use of the physical therapy modalities and for taping, massaging, and rub downs. There was also a separate room for the whirl-pool bath. Both the physicians' office and the training room were located on the first floor of the U.S.A. quarters. Also, there

The training room was staffed was a separate room for the care and treatment of the women athletes. from early morning until mid-evening and many times late evenings. There was a physician on duty twenty-four hours a day.

A daily work schedule was arranged for the trainers. This consisted of staffing the training room, and covering the practice sessions and actual competition of many of the respective teams. Such teams as track and field, basketball, boxing, wrestling, swimming, and volleyball were assigned a full time trainer. The other sports, such as rowing, gymnastics, fencing, etc., during the time of their actual competition were covered by a training staff member.

Finally, much appreciation must be given to the various companies who donated supplies for the Olympic games. Their cooperation is invaluable.



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