

SPRING 1968 Volume Three, Number One





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SPRING 1968

Volume Three, Number One

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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 pàid at Lafayette, Indiana 47904.

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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.

Two-Way Radio Valuable Communication Device for Athletic Trainers

By R. E. "Duke" LaRue Athletic Trainer, Western Illinois University

A hunter must be alert, ready, and prepared for action if the prey appears.

At Western Illinois University the athletic training staff doesn't necessarily go hunting for fallen victims during a practice session or intercollegiate athletic event. However, the W.I.U. trainers under the direction of R. E. "Duke" LaRue are always prepared to carry out the proper procedure if one of the Leathernecks is injured.

Today's athletic trainers must go to the area of activity with ample equipment to give immediate care for even the most serious trauma. The Western trainers have a variety of equipment at their disposal but one of the main articles now being used is a Motorola two-way radio. At practice time the trainer heads for the drill field with his medical bag and radio hand-in-hand, prepared to expedite the treatment of an injured athlete.

LaRue says that the two-way radio is an important communication device to carry the signals from the trainer on the field to the team physician and other members of the trauma team at the University Health Service. The "team" includes nurses, X-ray technicians, and ambulance drivers.

The plan of action is simple. When a serious trauma is suspected, a report is sent from the trainer at the scene to the Health Service via the radio. A doctor, nurse, or driver receives the message and within minutes the injured athlete is being transported to the emergency room.

Upon arriving at the Health Service, the trauma team swings into action to carry out duties as assigned by the physician.

In the meantime, the trainer continues to observe the activities on the practice field.

LaRue believes the key to swift treatment of athletic injuries is the two-way radio.

Thus, the athletic trainers at Western Illinois are alert, ready, and prepared for action . . . just like a hunter.



Roger Egland, assistant trainer at Western Illinois University, applies plastic splint to right ankle of Tim Schmidt, Varsity baseball catcher, for suspected fracture, while "Duke" LaRue, head trainer, reports the injury to team physician and asks for ambulance to transport athlete.



Dr. Joseph E. Powell, team physician for the Leathernecks, taking a call on the radio in his Health Service office.



Athlete Schmidt observes as Roger Egland inflates splint, while "Duke" LaRue informs the injured that the report has been made to the physician and transportation is enroute.



Upon arrival at the emergency entrance, Dr. Joseph E. Powell the captain of the trauma team, gets an initial look at the injury and talks with the athlete, while assistant trainer Roger Egland, uncovers the right leg and trainer "Duke" LaRue points to injured extremity.



Doctor Powell examines the extremity in the emergency room while nurse Mrs. Kathy Welch, waits for her team assignments and trainer "Duke" LaRue is anxious to hear the physician's diagnosis.



While Leon Moore, driver of the ambulance performs his team duties by loading the stretcher with injured athlete, trainer "Duke" LaRue informs the Health Center that the injured is doing fine and will soon arrive at the emergency room outside entrance.



Since the radio is kept in a desk drawer in the training room, it is a convenient way to report an injury that occurred in the fieldhouse if the doctor's attention is needed when the office phone is busy or out-of-order.



The WIU Leathernecks may be engaged in various athletic events, but via the use of the two-way radio Dr. Powell, his wife Peggy and family may relax at the Macomb City Park. However, by having the radio he may easily be reached if his presence is needed.

Athletic Injuries of the Hand

By Adrian E. Flatt, M.D., Iowa City, Iowa*

T HE hand is at hazard in practically all sports. Even in the so-called noncontact sports such as basketball and baseball, injuries to the hand are frequent. Many of these injuries are relatively minor and do not need extensive care. Unfortunately, too many potentially serious injuries are dismissed as unimportant either by the participant or his advisers.

There is a strange attitude that, "It's just a small break, Doc"—an attitude that disregards the fact that to a finger a phalangeal fracture is just as serious an injury as a femoral shaft fracture is to a leg.

SCAPHOID FRACTURES

Fractures of the hand are not common in athletics but it should be remembered that fractures of the scaphoid constitute about 8 per cent of all fractures in organized athletics. I regard a fresh fracture of the scaphoid as an absolute bar to participation in athletics until union can be demonstrated across the fracture site. In the first instance the diagnosis must be made on symptoms since the x-ray will rarely show a fracture at the time of injury. The athlete who still has symptoms after two weeks of plaster immobilization and whose x-ray does not show a fracture must still be considered unfit to participate for an additional two weeks. If a fracture is present, sufficient absorption should occur around the fracture site during the second two weeks for it to show on x-rays which are taken one month after injury. A normal x-ray at this time is probably adequate proof of no bony injury provided that all symptoms have subsided.

FRACTURES OF THE LONG BONES

Fractures of the long bones are readily diagnosed, but maintenance of their reduction is difficult unless it is appreciated that the "position on function" represents the balance of power of the muscles acting over these long bones. A fracture will introduce a new hinge or joint into the multilevered system; the balance of power will be destroyed and deformity will result. The site of the fracture will determine the direction of angulation but for any one site the deformity is constant and characteristic.

*Presented at the Eighty-seventh Annual Meeting of the Louisiana State Medical Society, May 3, 1967, New Orleans.



Figure 1. Phalangeal Fractures and the Banjo Splint— If these fractures are pulled longitudinally and the bones "suspended" the fractures will heal with crippling angulations. (Flatt, A. E.: Alaska Med., 2:34-40, 1960.)

TO REDUCE FRACTURES

To reduce these fractures, the distal segment has to be brought into line with the proximal and the whole unit placed in the functional arched position so that there is a neutral balance between the extensor and flexor muscles. Immobilization of the palm or a finger on a flat plane must collapse the arches of the hand, destroy the balance of power and lead to union in a deformed and crippling position. For this reason tongue blades, flat splints and banjo suspension splints cannot be used to treat hand fractures (Fig. 1). Splints based upon the position of function are commercially available or can be easily made at home or in the office. They can be used to treat either a solitary fracture or multiple fractures of the metacarpals and phalanges.

METACARPAL FRACTURES

Metacarpal fractures are more common than phalangeal fractures, and the former should be differentiated into two distinct types: fractures of the shafts of the inner fingers and fractures of the border fingers.

The metacarpals of the long and ring fingers are well supported by the adjacent metacarpals and usually require little or no immobilization. Certain athletes whose occupation demands little skilled use of the hand, such as linemen in football, can continue to play if they are of sufficiently stoic temperament. When dexterity is demanded of the hand, it usually requires a minimum of three weeks before adequate callus has formed and the symptoms have subsided sufficiently to allow participation.

Metacarpal shaft fractures of the index and little fingers are potentially more serious than those of the long and ring fingers. The metacar-



Figure 2. Metacarpal Neck Fractures—Dorsal angulation at the fracture site forces the metacarpal head into the palm (A) and produces an imbalance of power in the tendons to the finger (B). (Flatt, A. E.: Care of Minor Hand Injuries, Ed. 2, C. V. Mosby, 1963.)

pals on either side of the palm do not have an intact shaft on both sides to act as internal splints, and they are often subject to angulation and overriding. They can usually be treated by a well molded plaster cast, but occasionally I have been forced into using Kirschner wires as internal fixation. Until repair is firmly established, active use of the hand should be allowed only for the lightest activities. Transverse shaft fractures may require at least a week more than the average three weeks of immobilization.

Fractures of the neck of the metacarpal—or boxer's fracture—usually displace the head toward the palm. This dorsal angulation of the shaft produces an imbalance of muscle power within the finger and a protrusion into the palm (Fig 2). I believe a good reduction should be obtained in these fractures and the balance of power restored within the finger. Occasionally a less than perfect reduction may be acceptable in the ring and little fingers because of the mobility at their carpometacarpal joints; the index and long fingers do not have such mobility at their carpometacarpal joints and good reduction is, therefore, more important.

FRACTURES OF THE PHALANGES

Fractures of the phalanges frequently involve the soft tissue structures within the skin cylinder of the finger. Tendons frequently become incorporated into the fracture callus, and bone spikes may damage the tendons or the neurovascular bundles. Intra-articular fractures are not uncommon and some degree of permanent stiffness should be anticipated in all but the smallest fracture of the phalanx. All phalangeal fractures can be treated by longitudinal traction and maintenance of reduction on a padded splint in the position of function. Constant attention to the splinting is needed during the first week. This is necessary because of the risk of displacement which seems particularly common in transverse fractures of the shaft of the proximal and middle phalanges. Rotational deformities are likely to occur when treating these fractures, and great care must be taken to insure that the finger is not twisted. The plane of the fingernails is often a useful guide for this problem.

INTRA-ARTICULAR FRACTURES

Intra-articular fractures cannot always be satisfactorily reduced by closed methods and open operation may be necessary. The problem when seen on the x-ray looks deceptively easy, but the technical difficulties of pinning these small fragments of bone in place are great and such operations should only be attempted by one experienced in this field.

THUMB FRACTURES DESERVE CARE

Fractures of the thumb deserve the highest of care since the thumb constitutes about one half of the function of the hand. It is the metacarpal fractures which are of greatest importance. If the fracture line does not pass through the proximal articular surface of the bone, then the treatment consists of reduction and its maintenance by longitudinal traction. The thumb should be held in abduction with the plaster cast well molded around the proximal phalanx and the slightly flexed metacarpophalangeal joint.

When the fracture line passes through the articular surface at the base of the metacarpal, the prognosis must be considered poor. The relationship between the double curved surfaces of the saddle joint will be permanently altered and degenerative changes must be anticipated. Some people can "work-in" the incongruous articular surfaces over a period of years and produce a reasonably functioning joint. Others will have permanent painful limitation of movement of this vital joint.



Figure 3a. Fractures of the Thumb Metacarpal—Bennett's fracture is really an avulsion of a large fragment of bone attached to a joint ligament.



Figure 3b. Rolando's fracture is a "Y" shaped fracture in which two fragments are separated from the base of the metacarpal. (Flatt, A. E.: Care of Minor Hand Injuries, Ed. 2, C. V. Mosby, 1963.)

TWO FRACTURES DESCRIBED

Two fractures are described at this site. Bennett's fracture which is really a fracture dislocation and Rolando's fracture in which the fracture line is usually "Y" shaped and the two fragments are detached from the main shaft (Fig 3). Treatment of these fractures is extremely difficult because the strong proximal pull of the extensor and flexor muscles tends to force the fragments apart over the crest of the greater multangular. External traction and a plaster cast do not always give a satisfactory result and internal fixation of the fragments may be necessary to maintain the reduction.

EPIPHYSEAL INJURIES

Epiphyseal injuries are frequently missed in younger participants and "sprained fingers" should always be x-rayed for the injury. In an adult hand a force which would sprain or rupture a ligament may in a growing hand cause a unilateral displacement through an epiphysis (Fig 4). If these injuries are neglected, subsequent growth may be disturbed and serious malfunction develop in the finger. Gentle manipulation will correct the angulation and the fingers should be immobilized for at least three weeks to allow healing with the epiphyseal area.

DISLOCATIONS

Dislocations within the hand are usually caused by a hyperextension force, and it is more common for the distal bone to lie on the dorsum of the proximal bone. A dislocation cannot occur without massive soft tissue damage, and it is quite unreasonable to reduce a dislocated finger and then expect its owner to immediately use it quite normally. The torn tissues must be given a chance to repair. A dislocated hip is given protection for weeks and so should a finger. Early movement will only produce further hemorrhage into healing tissues, more fibrosis and a definite restriction in the range of joint movement.

Dislocation of either joint of the thumb is frequently accompanied by avulsion fractures at the site of ligamentous attachment because of the great strength of the supporting ligaments. An interphalangeal joint dislocation can be readily reduced by longitudinal traction in the line of the thumb accompanied by flexion of the joint. Reduction of a dislocation of the metacarpophalangeal joint is sometimes impossible by closed means. One good attempt should be made under adequate anesthesia. The dorsal and backward displacement should be increased since this hyperextension will allow one to attempt to push the metacarpal head dorsally while applying counter pressure to the dorsum of the base of the proximal phalanx. If the joint does not readily reduce, then it must be assumed that the metacarpal head is buttonholed through a slit in the joint capsule. Further attempts at reduction will only tighten the sides of the buttonhole around the neck of the metacarpal. Relatively extensive open operation will be needed to release the trapped metacarpal head.

RESULT OF SPORTS PARTICIPATION

The great majority of finger dislocations occur as a direct result of sports participation. They will recur whenever the fingers are subjected to a similar force if the primary treatment has been inadequate. Lateral dislocation is not as common as dorsal dislocation, and in both of them avulsion flake fractures are probably not as common as in the thumb. X-rays in two planes should always be taken. Reduction by longitudinal traction on the finger followed by flexion is usually easy. Occasionally a finger metacarpal head will become trapped in a buttonhole slit in the capsule as occurs in the thumb. The metacarpophalangeal joint must be protected for about three weeks. A padded metal splint is best but sometimes an adjacent finger will provide sufficient protection to allow continued participation in athletics (Fig 5).

MOTION TO BE REGAINED AT OWN PACE

When a dislocated finger is released from its immobilization, it must be allowed to regain its range of motion at its own pace. Attempts to rapidly increase the range of motion by passive stretching must tear healing tissues and produce a stiffness and limitation of range which will be worse than before the manipulation. If protection cannot be guaranteed in contact sports during the early stages of recovery, participation must be forbidden because contact may produce a particularly violent form of passive manipulation.

DIAGNOSIS OF SPRAINS

Sprains within the hand should be diagnosed by exclusion. A sprained wrist is a fractured scaphoid until this can be excluded, and a sprained finger is a reduced dislocation until examination proves otherwise. "Just a sprain" is a common lay diagnosis and must be accepted with the greatest reluctance (Fig 6). By definition, a



Figure 4. Epiphyseal Injuries—Opening of the epiphyseal areas can be seen on the radial side of the proximal phalanges of both the long and ring fingers. "Sprains" should always be x-rayed to exclude this lession.

sprain is a ligamentous injury, but it should be considered to include an avulsion fracture at one or other attachments of the ligament.

AVULSION FRACTURE DORSUM TRIQUETRUM

An avulsion fracture on the dorsum of the triquetrum can be caused by a fall with the wrist in full pronation or full flexion. The extreme tension in the dorsal radiocarpal ligament avulses the bone, and the chip can only be seen in a true lateral x-ray of the bone. It is important to remember this injury as a potential cause of pain on the dorsum of the wrist because failure to recognize the true cause of the pain has, in the past, led to unjust accusations of malingering. Supportive strapping to the wrist and reassurance are usually sufficient treatment since the symptoms will always eventually subside.



Figure 5. Interphalangeal Joint—This player suffered dislocations of the proximal interphalangeal joints of the left little and right ring fingers one week prior to a game. Reduction was maintained by strapping the fingers to ad-

CONSERVATIVE TREATMENT IMPOSSIBLE

The thumb stands out from the hand and is frequently subjected to sprains. Injury to the interphalangeal joints is rare but damage to the metacarpophalangeal joint is quite common. Xray examination is always necessary and if a severe injury is suspected lateral strain films should be taken. Comparable films of the unaffected side will often be needed for comparison. The ulnar collateral ligament of the metacarpophalangeal joint is essential for normal hand function and it is this ligament which is most commonly damaged. If this ligament is allowed to heal with lengthening, the integrity of the pinch mechanism is destroyed and subluxation of the joint will become a chronic occurrence. The proper treatment of either ligamentous tear or avulsion fracture is restoration of the exact length; more often than not this can only be done by open operation. The reason for the poor results of conservative treatment are seen at surgery. When an avulsion fracture has occurred the

jacent digits. He continues to play professional football ten years after these injuries and has no residual disability. (Flatt, A. E.: Care of Minor Hand Injuries, Ed. 2, C. V. Mosby, 1963.)

bone fragment is almost invariably rotated so that the fracture surfaces face away from each other. When the ligament alone is torn, one or both ends are frequently curled up away from the other. In either instance it is impossible for conservative treatment to restore the original anatomical state and produce a taut ligament.

GUARDED PROGNOSIS

"Sprains" of the interphalangeal joint of the thumb occur most often as an end-on jamming of the digit. Such a force produces a crush injury of the articular surfaces and the joint laxity which is found on clinical examination may be due to this injury rather than any ligamentous laxity. These injuries should be protected for several weeks, but they will be painful for many weeks and a guarded prognosis should always be given.

All three joints of a finger are equally susceptible to sprains and take an equal—and very long—time to recover. The examination should always include a comparison with the opposite finger, after it has been established that it has not Injury prevention begins with protective strapping ...your best assurance of making your season as injury-free as possible.



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Figure 6. "Just a sprain"—These three fingers were diagnosed as sprained incurred during a single Big 10 game. On the left is an intra-articular fracture of the metacarpophalangeal joint, in the center a reduced complete dislocation of the proximal interphalangeal joint, and on the right a small chip fracture on the flexor aspect of the proximal interphalangeal joint shows that a violent hyperextension injury had avulsed the palmar plate.

been injured in the past. X-rays must always be taken to show whether bony flake avulsions have occurred. Lateral x-rays must be included because occasionally the palmar plate will be torn away and a small flake of bone avulsed. Demonstration of this small flake will show that a major injury has occurred to the joint despite the remaining innocent looking aspects of the film.

RECOVERY SLOW

If gross lateral instability can be demonstrated the best results will be obtained by early surgical repair of the ligament. Milder cases may be treated by immobilization on a splint for about three weeks. The patient must be warned that recovery will be slow despite good treatment. It will be even longer if the joint is subjected to "calculated neglect" or no treatment at all. The finger is a precision instrument and a sprain is a major injury. The two do not go well together and the fusiform periarticular swelling will take months to absorb and may never completely disappear.

CONCLUSION

Compromise should have no place in the treatment of athletic injuries of the hand. Professional athletes are mature adults and are entitled to ask for a compromise in treatment if their livelihood is affected. They must be told the potential risks and possible prognosis and be given enough information for them to reasonably be able to make up their minds. Most of them willingly accept a short period of inactivity when the reasons are explained. Most athletic injuries to the hand occur in young people, and they are entitled to the best possible functional result. Care should not be modified or accelerated in response to nonclinical pressures. Two thousand years ago Hippocrates remarked that "healing takes time" and nothing has yet happened to alter this view. I find that coaches are often more responsive to this reasoning than some of the more partisan parents. All one can do is provide the best possible care and defend one's patients against the pressures of community pride.



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Football Face Guards: Caution Advised

By John Baumann, M.D. Team Physician, University of California, Santa Barbara



Figure 1. Rigid Plastic Face Guard. Arrows indicate where guards were broken.



Figure 2. Shows broken face guard and laceration produced when the jagged edge was driven into the player's cheek. A^t the University of California, Santa Barbara, a rigid plastic Face Guard (figure 1) was used during the 1967 football season.

During the course of the season, eight face masks were broken: Four broke at the attachments to the helmet, and the other four broke at the sites indicated by the arrows in figure 1.

Figure 2 shows one of the broken guards and the laceration produced when the jagged edge of the face guard was driven into the player's cheek. This was the only injury sustained as a result of broken face guards, but it was a very significant injury for two reasons: First, manipulating the helmet on the player revealed that a more upward blow could have driven the jagged edge into the player's eye with potential permanent damage; second, in the excitement of the game the player continued playing with the broken guard, posing a serious hazard to others as well as leaving himself open for futher injury.

Football is a rough game, exposing the participants to many hazards. It is the duty of coach, trainer and team physician to see that equipment is not one of these hazards. Serious consideration must be given to whether the lightness of the solid plastic face guard compensates for the hazard it can become.

BITS AND PIECES

Clyde Stretch

The premier of this column did manage to get the ball rolling, but we have a long way to go. The district secretaries have been kind enough to arrange matters such that the district newsletters are available sources of information for the column. These newsletters are beneficial, but no where sufficient in maintaining a column that can be of service to as many members as possible. There has been far from a deluge of mail providing material which might be presented here. This column, just as any other portion of the organization, can easily stagnate without the help and support of the membership.

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It would be needless to announce the fact that the National Convention will be coming up soon. Logan Wood Jr. has done an exceptional job in assembling speakers for the meetings. For further information on this see the article—announcement elsewhere in this issue.

0 0 0

Jack Rockwell has reported that the committee for a new Executive Secretary has completed a report that has been distributed to the Board of Directors. The report made two recommendations: 1) That there be a change in dues structure effecting both the amount of the dues and those required to pay the dues; and 2) although not reported for present publication, the type of person best suited to successfully fulfill the job of Executive Secretary. No specific person or persons were recommended for the position. The Board of Directors will then determine whether or not further committee consideration will be necessary. 0 0 0





ANOTHER REASON WHY THE EXPERTS LIKE BIKE...

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KENDALL

BIKE ATHLETIC PRODUCTS DIVISION SPECIALISTS IN THE PREVENTION AND CARE OF ATHLETIC INJURIES The plausibility of announcing job openings in this column will require some examination. Because of an almost three month time lapse between the composition of this column and its distribution, providing announcements of available positions may or may not prove to be a useful service. The potential of such a service demands a reasonable trial. Some of the job openings that have been announced include:

1. Rochester Institute of Technology—The salary will begin at six to seven thousand dollars depending on experience and educational background. Inquiries should be directed to Mr. Louis A. Alexander, Jr., Director of Athletics, P. O. Box 3402, Rochester, New York 14614.

2. Detroit Cougars Professional Soccer Club is looking for someone to start immediately. Further information may be obtained by phoning Mr. Emmet Simms, General Manager, Detroit, Michigan: 313-872-1334.

From District #7 newsletter comes the announcement that Tom Little, now at New Mexico State University, is looking for a training job for next year, preferably a head trainer's job. Tom has been at NMS for four years and will finish his Master's Degree this year. If you know of any openings, Tom would appreciate a call or letter.

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The Third Annual Sports Medicine Conference to be held by the University of Wisconsin Medical Center and University Extension, will be held March 27-28. This conference is open to physicians, coaches, trainers, and any others who may be interested in sports medicine. For information contact Dr. Thomas C. Meyer, M.D, Coordinator, Postgraduate Medicine, Rm. 302-333 No. Randall Ave., Madison, Wisconsin. 53706.

The Third Annual UCLA Symposium on Athletic Injuries, will be held this coming March 30th. For information contact Dr. Martin E. Blazina, M.D., Dept. of Surgery, School of Medicine, University of California, Los Angeles, Calif. 90024.

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The annual meeting of the American College of Sports Medicine takes place in University Park, Pennsylvania, May 1-4, 1968. They are planning to devote one session to "The Medical Aspects of Sports," and the other session to "The Physiology and Psychology of Maximum Performance." Further information may be obtained by writing to Donald E. Herrmann, 1440 Monroe St., Madison, Wisconsin 53706.

A postgraduate course on Sports Medicine, will be conducted by the Sports Medicine Committee of the American Academy of Orthopaedic Surgeons. This course will be held in Oklahoma City on July 29-31st. For information contact Dr. Don H. O'Donoghue, M.D., Local Chairman, 1111 No. Lee St., Oklahoma City, Okla. 73103

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Two suggestions have been presented concerning the use of Pampers® disposable diapers in the training room. One of the uses is that of a backing for the analgesic pack. The plastic lining that "keeps baby drier," serves as a protection for clothing as well as additional insulation for any heat generated by the pack. A second use, suggested by Gordon Stoddard of Central Michigan University, is as a padding for the popliteal space in routine strapping. "We cut each diaper in half, notch it in the middle on each side and apply it to this area with strips of 2" elastic tape. Our athletes prefer this method as opposed to the standard application of combine roll as it is thicker and covered by a plastic coating."

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The Washington News Service recently reported a husband and wife research team at Children's Hospital of Philadelphia believes it has identified the virus that causes mononucleosis. In reporting their findings in the January issue of the proceedings of the National Academy of Sciences, Drs. Werner and Gertrude Henle said their discovery should eventually lead to development of a vaccine to inoculate young adults against the most severe form of the disease.

The Medical Tribune reports: The Sixth Postgraduate Conference on Medical Aspects of Sports, recently held at the University of Rhode Island, was told by Dr. Barry B. Mongillo, a neuropsychiatrist and senior physician at the Rhode Island Hospital, Providence, that "a psychiatrist or psychologist could well be an important member of the coaching and teaching staff in all sports." Dr. Mongillo also stated, "that emotional personality problems should perhaps be studied more intensively than has been the case up to the present." "Perhaps instinctively, the coach and trainer have recognized the problems that are associated with the physical and emotional aspects of the athlete. But the help of a skilled professionalsuch as a psychiatrist, a psychologist, or an internist-would be most helpful and perhaps prevent time loss and development of problems."

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The data collected from the survey dealing with freon coolants in aerosol spray cans was passed on to the Bureau of Medicine of the National Food and Drug Administration for compilation and analysis. Should further information become available, it will be forwarded here.

Information concerning the summer physical therapy program is being considered, but termed too early for definite results. Speculating from this little information, it would appear that the results of the survey showed interest, but the response was not overwhelming.



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By Isao Hirata, Jr., M.D.



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While the book is directed mainly to the team physician, there is much of immediate, practical value to the athletic trainer as well. Of special interest are such topics as: rehabilitation measures; the prevention of injuries through sound training and conditioning; the relation of diet and nutrition to athletic conditioning; and the physical basis for exclusion from athletics.



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19th ANNUAL MEETING— JUNE 9, 10, 11, 12, 1968

SHAMROCK HILTON HOTEL HOUSTON, TEXAS

- Sunday—June 9, 1968 9:00 to 4:30-Registration 9:00-Board of Directors Meeting 9:00—Committee Chairmen Meeting
- Monday-June 10, 1968 8:00 to 4:00-Registration
 - 8:30—Exhibits Open
 - 9:00-GENERAL SESSION; Welcome Robert H. Gunn, Chairman of Board, NATA
 - 9:30 to 10:00-Ken Rawlinson, Oklahoma Univ., "Treatment of Ankle Injuries Using Walking Splints"
- 10:00 to 10:30-BREAK
- 10:30 to 12:00-National Business Meeting
- 10:30 to 12:00-Student Trainer Workshop
 - 10:30 to 11:00-James Dodson, Midland High School, Texas, "Functions of the Student Trainer"
 - 11:00 to 12:00-Taping Demonstrations: Robert Smith, University of Houston; Larry Turner, Rice Univ.; Charley Henry, Lamar Tech.
- 12:00 to 1:00-LUNCH
- 1:00 to 1:45-Dr. R. A. Murray, Scott and White Clinic, Temple, Texas, "Causes of Pain in the Lower Leg of the Athlete"
- 1:45 to 2:00-BREAK
- 2:00 to 2:30-Clint Houy, Atlanta Falcons, "Special Problems of Athletic Training at the Pro Level"
- 2:30 to 3:00-Jack Rockwell, St. Louis Football Cardinals, "Proper Fitting and Wearing of Equipment"
- 4:30—District Meetings
- 7:00—ANNUAL HONORARY AND AWARDS BANQUET

- Tuesday-June 11, 1968 9:00—District Secretary's Meeting 9:00 to 9:30-Marshall Cook, Montana State Univ. "Off Season Weight Program"
 - 9:30 to 10:15-Dr. A. Ross Davis, Orthopedic Surgeon, "Lower Back Injuries"
 - 10:15 to 10:45-BREAK
 - 10:45 to 11:30-Dr. Ed Smith, Orthopedic Surgeon, "Pathology of Muscle Injuries"
- 11:30 to 12:00-Bobby Gunn, Lamar Tech.; "Trainer's View of Muscle Injuries."
- 12:00 to 1:00-LUNCH
- 1:00 to 1:45-PANEL-"Heat Exhaustion"-Fred Hoover, Clemson Univ.; Tom Wilson, Univ. of Houston; Earl Porche, Tulane Univ.
- 1:45 to 2:15—BREAK 2:15 to 3:00—Dr. T. O. Shindler, Orthopedic Surgeon, "Pathology of Shoulder Injuries"
- 3:00 to 3:30—Bobby Brown, Houston Oilers, "Trainer's View of Shoulder Injuries"
- 3:00—Second Board of Directors Meeting
- Wednesday-June 12, 1968
- 9:00 to 9:30-Stephen Moore, Indiana Univ., "Ice Therapy"
- 9:30 to 10:15—PANEL—"Length of Recovery in Relationship to Age of Athlete." Allen Hurst, Denver Broncos; Jerry Rhea, Los Angeles Rams; Billy Pickard, Texas A&M; Vernon Eschenfelder, Houston Schools
- 10:15 to 10:45-BREAK
- 10:45 to 11:15-To Be Announced

For information contact Logan Wood, Program Chairman, 2020 Mangum, Houston, Texas 77018.

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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.

Baekeland, F. et al: "Exercise and Sleep Patterns in College Athletes," Perceptual Motor 23:1203-7; December, Skills 1966.

- Belding, H. S.: Research on Problems of Work in Heat, Arch. Environ. Health 15:660 (Nov.) 1967.
- Brostrom, L.: "Sprained Ankles v. Treatment and Prognosis in Recent Ligament Ruptures," Acta Chirurgica Scandinavica 132: 537-50; November, 1966.
- Brostrom, L.: "Sprained Ankles VI. Surgical Treatment of Chronic Ligament Ruptures," Acta Chirurgica Scandinavica 132:551-65; November, 1966.
- Corrigan, A. B.: "The Overuse Syndrome in Athletes," Medical Journal of Australia 2:148-53; 22 July, 1967.
- Donoho, C. R., et al: "Physiology, Treatment and Prevention of Heat Illness," Delaware Medical Journal 38:235-7; August, 1966.
- Gendel, E. S.: Women and the Medical Aspects of Sports, J. School Health 37:427 (Nov.) 1967.
- Greenhill, B. J.: "The Importance of the Medial Quadraceps Expansion in Medial Ligament Injury," Canadian Journal of Surgery 10:312-7; July, 1967.
- "Guide for Athletic Disqualification, Junior and Senior High School Level," Wisconsin Medical Journal 66:46-7; January, 1967.

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