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I trust everyone has had a healthy happy fall and is looking forward to the holiday season.

New Listings

For the membership’s convenience the telephone numbers of the Board of Directors and District Secretaries are now listed under their names on the masthead. This is at the request of your officers.

Closing

Thanks to all who continue to contribute and make this Journal a publication of which we can all be proud.

Have a wonderful holiday season.

SY(SSSA)

Letter to the Editor

September 17, 1987

Dear Dr. Knight,

How many times have we, as athletic trainers, been asked to do something that is not in our job description or that we do not receive compensation for? Our answer is usually, “No, I don’t mind, I’ll do it.” Are we too nice, do we accept things the way they are and let ourselves be taken advantage of? We are lucky in doing what we love to do, but usually we are not compensated for our time or for that little extra something that we were asked to do.

On the whole, most athletic trainers realize that they will not get rich at this profession. However, when comparing the educational levels of athletic trainers with others in the health care profession, there are discrepancies between levels of education and base salaries. Unfortunately, athletic trainers can frequently be found on the low end of the pay scale.

Also, there is a great disparity within our own profession when comparing the educational levels of our members and the base salaries of athletic trainers in various high school, college, clinical and professional positions. As a profession, we need to recognize our own value before we can expect current and prospective employers to realize our true value as health care professionals.

Within any good athletic department, the value of the athletic trainer is well known, but rarely is compensation adequate. Without healthy athletes

continued on page 379
Get the facts. Compare. Then decide for yourself.

It's the only way you'll know for sure that the system you choose is right for you. To aid you in your effort, Universal Gym Equipment, Inc., has compiled an “Isokinetic System Buying Guide.” This 43-point checklist will help you understand and compare before you buy.

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1. Does the system allow Isokinetic testing to functional velocities (a minimum of 400 deg/sec.)?

2. Does the system offer functional attachments that allow testing of all six muscle/joint groups including diagonal patterns of the shoulder... and have you seen them operate?

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4. Does the system offer separate modes for fatigue/endurance analysis in Isotonics and Isokinetics?

5. Does the system offer isometric evaluation with torque/time curves and torque/second exertion analysis at each stop?

6. Does the system's software allow you to
   a) set test parameters, perform tests, view and manage data and graph recordings on one screen?
   b) calculate torque in foot-pounds or newton-meters at your selection.
   c) look at individual rep data as well as peak data from all reps after testing?
   d) enlarge or reduce graph curves after testing?

7. Has the system's speed and force measurements been validated by an independent research facility?
Thoracic and Vascular Injuries in Athletes

Patrick S. Vaccaro, MD, FACS

Abstract
Athletes rarely suffer major thoracic or vascular injuries, but an apparently trivial injury may result in devastating consequences. The athletic trainer should be aware of the nature of these injuries so they can be recognized promptly and treated immediately. Injuries to the thoracic cage, such as rib or sternal fractures, are not uncommon in athletes engaged in contact sports, and the consequences require immediate recognition for appropriate treatment. Major vascular injuries resulting from blunt or penetrating trauma or following long bone fractures can be associated with many sports. Athletes who sustain such injuries may be completely asymptomatic at first, but should be evaluated carefully. The spectrum of thoracic and vascular injuries that constitute a risk for athletes is outlined, with a detailed discussion of the recognition and treatment of specific conditions.

Introduction
Major thoracic and vascular injuries rarely occur in athletes; generally such injuries are benign and self-limiting. However, the most trivial injury may result in devastating consequences. It is therefore important for the athletic trainer to be aware of the nature of thoracic and vascular injuries so they can be promptly recognized and immediately treated, or the victim transferred to an appropriate facility. Some of the more common thoracic and vascular injuries that do occur in athletes will be described, with emphasis on the importance of recognizing several prominent vascular syndromes that may affect the young athlete.

Thoracic Cage Injuries
Thoracic cage injuries occur most commonly in people participating in contact sports. Injuries to the soft tissue, ribs, and sternum will be described, with emphasis on the recognition of subcutaneous emphysema, flail chest, and open pneumothorax.

Soft Tissue Injuries
Bruises, contusions, sprains, and strains are the most common injuries to the thoracic cage. The presence of a tender ecchymotic area over the thoracic cage signals the presence of at least a soft tissue injury. It may also be an indication of trauma to the bony structures of the thoracic cage.

Treatment of soft tissue injuries in this area is the same as that for soft tissue injuries in other areas of the body. Cooling and compression in the area of injury will minimize swelling and tenderness. Short-term reduction in physical activity should result in prompt improvement and permit early resumption of normal activity levels. An athlete with obvious soft tissue injury to the thoracic cage and shortness of breath requires an urgent medical examination to determine the cause of shortness of breath.

Rib Fractures
Rib fractures are recognized by localized pain that is aggravated by respiration and movement. The mechanism of injury determines whether or not the fractured rib protrudes out from the thoracic wall or in toward the lung parenchyma. In general, injuries that occur in the anteroposterior plane, such as contact in the region of the spine or sternum, result in outward dispersion of forces along the rib and lead to an outward fracture. However, if the direction of force is directly against the lateral aspect of the rib, inward fractures can occur, causing protrusion of bone into the thoracic cavity leading to pneumothorax or hemothorax. Stress fractures of the ribs may also occur in a noncontact setting, such as throwing a baseball (1).

Generally, outpatient treatment is all that is required to alleviate the pain. Oral analgesics are often necessary, but occasionally relief may require intercostal nerve block with a local anesthetic agent. Since respiration and movement are potential aggravators of rib fractures, it is best to place the victim at no activity for three to six weeks to allow rib healing.

Sternal Fractures
In general, greater force is required to produce sternal fractures. Usually there is localized tenderness over the sternum, with some degree of deformity viewed from the lateral position. Because of the force required to fracture the sternum, a search for other injuries to the underlying structures such as the thoracic aorta or heart should be made. Therefore, anyone suspected of having a sternal fracture should be seen immediately by a physician so that the possibility of underlying injuries may be investigated.

Occasionally, in athletic endeavors in which upper body stresses are great, such as wrestling, a stress...
fracture of the sternum may occur (2). Symptomatic treatment with analgesics and rest is all that is required.

Subcutaneous Emphysema
Subcutaneous emphysema is the presence of air in the subcutaneous tissue, and it is usually due to: 1) major disruption of the pleura and muscle; 2) outward displacement of air from the mediastinum; or 3) direct extension from an external wound. Such problems generally follow high impact injuries, such as free fall, where there is sudden deceleration. Compression of the overlying skin will produce a crackling sensation against the fingers. Since subcutaneous emphysema is generally related to major traumatic events, immediate medical attention is necessary.

Flail Chest
Flail chest occurs when there are fractures of several ribs in at least two places. This leads to a paradoxical movement of that segment of the chest wall with breathing and resulting in respiratory embarrassment. Like subcutaneous emphysema, flail chest occurs only with very forceful trauma. Patients with flail chest routinely have underlying pulmonary contusion and require immediate transport to a medical center.

Open Pneumothorax
Open pneumothorax occurs when there is a penetrating injury through the chest wall and into the pleural cavity. Sucking air through the wound can be heard when the patient inhales. The wound should be covered immediately with a sterile dressing, and the victim transported to the nearest medical facility for appropriate treatment.

Tension Pneumothorax
Tension pneumothorax follows high impact injuries and is usually related to rupture of a major bronchus. It leads to accumulation of air in a closed thoracic space, which will cause shift of the trachea and distention of the neck veins. This may then lead to compression of the heart and severe respiratory impairment. In some instances, immediate tube thoracostomy placement may be lifesaving. Persons who suffer such an injury require immediate transport to a medical center.

Closed Pneumothorax
Closed pneumothorax may be less serious than the previously described conditions. It may occur spontaneously or be related to trauma, but generally results from rupture of a pulmonary bleb. The victim may exhibit shortness of breath and decreased breath sounds on the affected side. Percussion of the chest wall with the finger will produce a hyperresonant sound within the thoracic cavity. Persons exhibiting these signs should be transported to a medical center.

Vascular Injuries
Major vascular injuries are extremely rare in athletes, but when they do occur, require immediate attention that may be lifesaving. More commonly, conditions occur that are due to the extrinsic compression of blood vessels by surrounding musculoskeletal structures. Two conditions in particular, thoracic outlet syndrome and popliteal artery entrapment, are described in detail.

General Approach to Vascular Injuries
Arterial or venous injuries may occur as a result of blunt or penetrating trauma or occasionally following long bone fractures. Blunt injuries may be due to sudden deceleration such as that which accompanies downhill skiing, automobile or motorcycle racing, or diving. Blunt transaction of the thoracic aorta has been reported to have occurred during a soccer match where forces may actually be less than in the previously mentioned activities (3). Blunt vascular injuries may also result from contact with a bat, ball, stick, or racquet, depending on the particular sport. In these circumstances, an injury may produce thrombosis of the artery or vein due to disruption of the vessel wall and injury to the intima, or a pseudoaneurysm, which is actually a pulsatile hematoma. Such injuries have been reported in many sporting activities. Axillary artery thrombosis in windsurfers has been reported to be due to repetitive falling on the outstretched arm causing axillary trauma (4). Thrombotic occlusion and the formation of aneurysms of the radial and ulnar arteries have been reported in volleyball and lacrosse players (5). Similarly, pseudoaneurysms of the superficial temporal (6), common carotid (7), and dorsalis pedis arteries (8) have been reported to have followed athletic injuries.

Penetrating injuries are usually due to impalement of the vessel by an instrument or fragment. Such injuries have been reported to occur in those participating in fencing (9) or javelin throwing (10).

Common fractures associated with arterial disruption are supracondylar fractures of the humerus, in which the brachial artery may be entrapped in the fracture line, and tibial plateau or epiphyseal fractures (11) that may cause injuries to the underlying popliteal artery. Posterior dislocations of the elbow or knee may similarly entrap the vessel in the area of dislocation.

A person with a suspected arterial or venous injury may actually be totally asymptomatic. However, as time progresses, a major truncal injury will lead to hypotension and shock. More common, however, are injuries to the extremities, which may result in pain, pallor, pulselessness, paralysis, and paresthesia or lack of sensation in the extremity distal to the site of injury. If any of these findings are noted, the person should receive immediate medical attention. Occasionally, a local hematoma will appear and may slowly increase in size. If the hematoma is expanding or is suspected to be a pseudoaneurysm, the extremity should be immobilized and the patient transported to the nearest hospital for prompt treatment. If there is an open wound and bleeding is profuse, immediate direct pressure should be applied over the wound to control hemorrhage. Tourniquets should be avoided if possible, since they may actually worsen the degree of soft tissue injury. In a person who has sustained an impalement injury with the injuring instrument still in place, the instrument should be immobilized and the victim transferred to a hospital. Prompt removal of an instrument lodged in a major artery may lead to exsanguinating hemorrhage, whereas leaving the instrument in place may tamponade the bleeding.

Thoracic Outlet Syndrome
Thoracic outlet syndrome is an ill defined condition that is associated with pain, paresthesia, or swelling of the upper extremity and is due to compression of the neurovascular bundle as it passes through the thoracic outlet (12). Generalized arm pain with activity, especially when the arms are in a position above the level of the
head, is most often due to compression of the brachial plexus. In such cases, the person usually complains of a generalized aching of the arm following the precipitating event. However, as occasionally may occur in baseball players, the pain in the arm begins to occur only after more sustained activity. The pain may then immediately disappear with cessation of the activity. This is referred to as claudication of the upper extremity and is due to compression of the subclavian artery in the thoracic outlet. Compression of the subclavian vein may lead to swelling of the extremity, and if subclavian vein thrombosis has occurred, the swelling may be sustained (13). An increase in the number of superficial veins may be apparent over the shoulder girdle on the affected side. Such a finding is pathognomonic of subclavian vein thrombosis.

The cause of compression of the neurovascular bundle is usually narrowing in the region of the thoracic outlet, but it may also be due to earlier fracture of the clavicle with hypertrophic bone scarrring, an accessory cervical rib, muscular hypertrophy of the anterior scalene muscle, or occasionally fibrous bands between the muscular and skeletal structures. There is no single test that can establish a diagnosis of thoracic outlet syndrome. A person suffering arm pain associated with activity or generalized swelling of the upper extremity should be seen by a physician for further evaluation. Physical therapy should be instituted to improve posture and increase shoulder strength, and the precipitating event should be avoided. Occasionally, operative intervention is necessary for the removal of the first rib on the affected side to enlarge the opening of the thoracic outlet.

An occasional person may complain of nonspecific pain and paresthesia in the upper extremity not associated with trauma or thoracic outlet syndrome, but aggravated by abduction and external rotation of the humerus. There may also be point tenderness posteriorly in the quadrilateral space. This condition, quadrilateral space syndrome, is caused by compression of the posterior humeral circumflex artery and the axillary nerve or one of its major branches in the quadrilateral space (14). The quadrilateral space is located over the posterior scapular and subdeltoid region consisting of the teres minor inferiorty, the long neck of the triceps medially, the teres major inferiorty, and the surgical neck of the humerus laterally. Treatment is generally symptomatic, but occasionally surgical decompression of the space is warranted to relieve these symptoms.

Popliteal Artery Entrapment

Another vascular syndrome affecting young athletes is popliteal artery entrapment (15). This may occur in a young person who previously was able to run great distances or swiftly without any problems. Suddenly the person begins to complain of pain in the calf when running, which severely curtails the ability to participate in the activity. An examiner may notice diminished or absent pulses in the foot, although pulses may be present at rest. As long as the person avoids running, the discomfort is minimized. Occasionally, the discomfort may be acute and may be due to total occlusion of the popliteal artery. In each case, the individual may actually experience diminished calf pain, even when walking. It is not uncommon for the condition to occur bilaterally. Popliteal entrapment is due most commonly to anomalies in anatomic origin of the gastrocnemius muscle. The most common occurrence is the passage of the popliteal artery medially to the medial head of the gastrocnemius. Occasionally, an aberrant insertion of the gastrocnemius or plantaris muscle may also account for the compression. Since the artery is now either tethered over or passing through the muscle bellies, repetitive contraction of the muscle transmits compression to the artery, resulting in damage to the artery over time. Disease may then build up on the interior of the artery, leading to thrombosis.

Occasionally, the popliteal vein may be similarly entrapped leading to progressive swelling of the lower extremity. Such a finding requires prompt recognition so that correction of the muscular anomaly may be performed before the artery or vein becomes completely occluded. In the case of complete occlusion of the artery, a vascular bypass is necessary to eliminate the pain. However, if the condition is diagnosed prior to occlusion of the vessel, simple transection of the attachment of the gastrocnemius muscle with movement medial to the gastrocnemius will result in cure.

References

CEU Credit Quiz

THORACIC AND VASCULAR INJURIES IN ATHLETES

Patrick S. Vaccaro, MD, FACS

As an organization accredited for continuing medical education, the Hahnemann Medical College and Hospital certifies that this continuing education offering meets the criteria for .3 hours of prescribed CEU credit in the program of the National Athletic Trainers' Association, Inc., provided the test is used and completed as designed.

To participate in this program, read the material carefully and answer the questions in the test. Mark the answers you select by placing an X in the proper square. Then xerox the test sheet, fill in your name, address and other information, and mail with $12 for processing to Hahnemann University, School of Continuing Education, Broad and Vine, Philadelphia, PA 19102.

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<tr>
<td>1. Which of the following statements is/are true regarding rib fractures?</td>
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<td>1. Typically, the pain is generalized.</td>
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<td>2. Inward fractures can occur if the direction of force is directly</td>
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<td>against the lateral aspect of the rib.</td>
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<td>3. Intercostal nerve block with a local anesthetic is usually required</td>
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<td>for pain relief.</td>
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<td>4. No activity is recommended for 3-6 weeks.</td>
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2. If compression of the skin overlying an area of trauma produces a crackling sensation against the fingers, this is an indication of

- a. multiple fractures.
- b. abscess formation.
- c. hematoma formation.
- d. subcutaneous emphysema.

3. Subcutaneous emphysema is usually caused by

- a. major disruption of the pleura and muscle.
- b. outward dissection of air from the mediastinum.
- c. direct extension from an external wound.
- d. a and b above
- e. all of the above

4. Paradoxical movement of a segment of the chest wall occurs with

- a. all types of fractures.
- b. sternal fractures.
- c. flail chest.
- d. none of the above

5. Which form of pneumothorax causes distention of the neck veins?

- a. tension
- b. open
- c. closed
- d. all of the above
- e. none of the above

(This page may be xeroxed.)
6. Which of the following activities is known to cause blunt vascular injuries?
   a. downhill skiing  
   b. motorcycle racing  
   c. playing baseball  
   d. playing racquet ball  
   e. 1, 2, 3, 4, 5

7. Blunt vascular injuries may cause a pseudoaneurysm to develop.
   a. True  
   b. False

8. In managing the person with an arterial or venous injury and an open wound is bleeding profusely,
   a. a tourniquet should be applied.  
   b. immediate direct pressure should be applied over the wound.

9. Which of the following tests is diagnostic of thoracic outlet syndrome?
   a. Allen test  
   b. Adson maneuver  
   c. Tinsel sign  
   d. None of the above

10. Compression of the neurovascular bundle is usually caused by an accessory cervical rib.
    a. True  
    b. False

11. Which of the following statements is/are true regarding the diagnostic features of popliteal artery entrapment?
    1. There is a sudden onset of calf pain in young runners.  a. 1, 2, 3  
    2. Diminished or absent pulses may be found on examination.  b. 1, 2  
    3. Symptoms may be bilateral.  c. 2, 4  
    4. Elevation of the affected extremity is required for relief of pain.  d. 4 only

12. Entrapment of the popliteal vein causes
    a. intermittent claudication.  
    b. progressive swelling of the lower extremity.  
    c. both a and b above  
    d. none of the above

---

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If you are interested in submitting an article to be used in the Journal quiz please contact Don Kaverman. All authors of published articles will receive 1.5 CEUs.
The Injury Toll Among High School Athletes Is One Million.

Based on projections from studies conducted in 1986-87 by the National Athletic Trainers’ Association, the annual injury toll among an estimated 5.8 million interscholastic athletes in the U.S. is one million.

Athletic trainers, physicians and coaches understand that the risk of injuries can be substantially reduced with sound injury management procedures. But until more parents of high school athletes recognize the value of injury prevention, efforts to reduce and properly manage sports injuries will be thwarted. Sports medicine professionals have an obligation to student athletes and their parents to make them aware of methods available to reduce the number and severity of sports injuries.

“The Injury Factor”

Now available is a 24-minute film documentary entitled “The Injury Factor,” which is available on half-inch (VHS) and three-quarter inch video cassette. “The Injury Factor” explains why secondary school athletes can and must receive first class health care. It’s the kind of information every parent should have, and every health care professional should have on hand.

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The Effect of Anabolic Steroids on Female Athletes

George J. Nevole, Jr., MA
William P. Prentice, PhD, ATC, LPT

Abstract
This literature review examines what anabolic steroids are, how they work, how they are used, and their effects on female athletes. With increasing female participation in sport, more knowledge of the effect of anabolic steroids on the female athlete is essential. Anabolic steroids may aid performance by building lean body (muscle) mass and increasing strength. This is accomplished by increasing the level of the male hormone, testosterone, in the body, increasing nitrogen and potassium retention, enhancing protein synthesis, blocking the uptake of cortisol in the muscles, reducing fatigue, and slowing protein breakdown. Female athletes suffer the same risks of developing related side effects of anabolic steroid use as males. Females may develop side effects of acne, male pattern baldness, increased facial hair growth, peliosis hepatitis, reduced serum HDL-cholesterol levels, and hepatocellular carcinoma. Specific sex-related side effects may also develop in females. These side effects include menstrual irregularities due to the inhibition of FSH and LH in the pituitary, enlargement of the clitoris, deepening of the voice, and decreased breast size. It is essential that health care professionals, coaches, and athletes know and be able to recognize the development of these side effects, to properly counsel and educate the athlete about the risks of anabolic steroid use.

Introduction
The use of ergogenic aids to enhance athletic performance is not a recent development. The term “ergogenic” means tending to increase work; thus any method that could elicit an ergogenic effect might prove to be beneficial in sports, for it might increase an athlete’s physical or mental capacity (19). According to Wright (20), ergogenic aid usage has been in practice for over 3,000 years. These ergogenic aids ranged from mushrooms to caffeine and nitroglycerine (9). Modern-day athletes use technological advances, particularly in chemistry, to maximize performance. Some chemical compounds receiving extreme notoriety and use are anabolic steroids.

Anabolic steroid use in athletics was first reported in 1954. It involved Russian male and female athletes (10). By 1964, anabolic steroid use was widespread among athletes competing in strength events (10). This widespread use of anabolic steroids led to their eventual banning by the International Olympic Committee (I.O.C.) in 1974.

Though anabolic steroids have been banned by the I.O.C., there is speculation that these drugs are still widely used by both male and female athletes. With female athletes becoming more involved in competitive sport, they, like their male counterparts, are seeking all of the advantages available, including the taking of anabolic steroids. This literature review will focus on what anabolic steroids are, how they are taken, and their effect on female athletes.

Definitional Perspective
Anabolic steroids are synthetically created chemical compounds whose structures closely resemble naturally occurring male and female sex hormones (6). Anabolic steroids were developed and utilized in the mid 1930’s to promote weight gain (lean body mass) in patients recovering from systemic illnesses (10).

Steroids are classified as androgenic or anabolic depending on their major effect on the body. Androgenic effects include growth, development, and maintenance of reproductive tissues and masculinization in males. Anabolic effects promote nitrogen retention, leading to protein synthesis in skeletal muscle and other tissues, under certain conditions (8). In addition, blood volume and the number of red blood cells are increased (8).

Athletes seek the maximum anabolic effects without the androgenic side effects associated with this type of drug use. To date, however, there have been no purely anabolic steroids developed (9); all have associated androgenic side effects.

Techniques of Administration
In order to obtain the maximal benefit of these drugs, athletes typically use different administrative techniques. They make take quantities of steroids as high as 40 times greater than either the therapeutic dosage* or normal testosterone levels (6,7,8). Anabolic steroids are introduced into the body either orally, which tends to be more potent and easier to take, or via intra-muscular injection, which is taken less frequently and has less severe hepatic side effects. One technique used in taking steroids is “stacking”. This involves the oral administration of different steroids, or a combination of oral with injectable steroids (3,8,9). Another technique is “pyramid-ing”, which is taking low amounts of steroids at the beginning of a cycle, gradually increasing dosages toward the peak, then tapering down toward the end of the cycle, prior to the drug free or “drug holiday” period. This cycle may range from six weeks to a year (3).

*The clinical dosage for Oxymetholone (Anadrol-50) in therapy for acquired and congenital aplastic anemia is 1-2 mg./kg. body weight per day (12).

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of the anabolic steroids commonly used by athletes is given in Table 1.

The Female Athlete

The vast literature on anabolic steroid use is centered around male subjects. An increasing number of female athletes are using anabolic steroids to gain desired muscular strength to aid athletic performance. While some physiologic and structural differences exist between male and female athletes, these differences do not reflect the competitiveness of female athletes. They do, however, dictate and stress different general overall physical management needs for female athletes, provided anabolic steroids are not used to alter the body's structural development.

The areas that naturally differentiate male and female athletes most dramatically are bone density, muscle mass, and the menstrual cycle (18). Prior to puberty, androgen secretions and muscle strength levels for male and female children are similar. At puberty, males have a 20-fold increase in circulating testosterone, which leads to the development of the primary and secondary male sex characteristics, acceleration in growth, increased bone size and density, and muscle size and number (6,20). This results in males having heavier and larger bone structures than females and gives males a mechanical advantage in sport activities that involve strength (18).

An increase in lean body mass and strength is the primary advantage of steroid use. This increase in lean body (primarily skeletal muscle) mass is accomplished in two ways. Proportions of body potassium to lean body mass occur at over twice the normal level with steroid use (4). Hervey et al. (4) also found total body nitrogen in larger proportions to lean body mass gain. As potassium and nitrogen levels increase, fluid retention (both plasma and intracellular) increases. With this increased plasma content, amino acid activity and protein synthesis are heightened (20).

Protein synthesis is also enhanced by the effects of anabolic steroids on cortisol uptake at the muscle sites. Hervey et al. (4) suggested that anabolic agents block the cortisol uptake at the muscle sites and slow protein breakdown. Some researchers believe that the blocking mechanism elevates circulating cortisol during training, which in turn, may stimulate the central nervous system (CNS) and decrease muscle fatigue (1). Lean body mass is therefore increased by the combination of reduced protein breakdown (10), increased muscle stimulation (1), and increased protein synthesis (4,8,9,20) through nitrogen and potassium retention.

The degree to which these factors, which affect protein synthesis, occur may also be related to an athlete's diet at the time of steroid administration. The diet at the time of administration, particularly with respect to protein quality, quantity, and total caloric intake has been found to influence the anabolism induced by steroid administration (20).

Related to the bone density difference is the muscle mass composition between males and females. There is little qualitative difference in muscle tissue between males and females. However, a muscle mass comprises approximately 23% of the total body weight in females, as compared to 40% in males. This gives males a decided strength advantage due to their greater muscle size and fiber number, which are two of the components directly related to muscular strength (18).

Menstrual cycle irregularities may occur in females that actively participate in athletics, and seem to be more common in top performers (13). Secondary amenorrhea may occur due to actual physical stress and metabolic changes that occur with exercise (13). Amenorrhea may also develop in females that actively take anabolic steroids (7,8,9,10,15,20).

The use of anabolic steroids is not the only cause of amenorrhea (2). Strenuous training such as running or weight lifting has been shown to cause amenorrhea; however, anabolic steroid usage by female athletes may be a contributing factor (2,13,18).

Anabolic steroids have been shown to suppress luteinizing hormone (LH) and follicle stimulating hormone (FSH) (9,10). At the beginning of the normal menstrual cycle, FSH and LH are released from the pituitary gland which facilitates follicular development. Once the follicular phase has concluded, LH is secreted in large amounts to induce ovulation. Ovulation facilitates the secretion of estrogen and progesterone to maintain the uterine lining in case of fertilization and simultaneously causes FSH and LH secretions to stop. If fertilization does not occur, the cycle completes with menstruation, and FSH levels in the blood begin to rise to begin the cycle again (14).

Anabolic steroids inhibit FSH and LH secretions, thus interfering with menstruation. Also, increased levels of testosterone combined with supressed FSH and LH secretions alter normal amounts of estrogen and progesterone in the body.

The side effects of anabolic steroid use do not appear to discriminate between the sexes. Females also suffer minor side effects of increased facial hair growth, acne, male pattern baldness, mood changes, and decreased libido as do their male counterparts (3,5,6,8,9,10,16,20).

It is the potential side effects of anabolic steroid use such as peliosis hepatitis, hepatocellular carcinoma, and decreased serum HDL-cholesterol (leading to heightened atherogenesis and possible premature cardiovascular disease) that the athlete, coach, and athletic trainer must be aware of.

Hepatocellular carcinoma may develop if anabolic steroid use is prolonged at high dosage levels; however, benign cysts may develop long before the malignant stage occurs and usually dissipate with discontinued steroid use (5,9,20).

Peliosis hepatitis is the development of blood-filled cystic spaces throughout the liver, which may rupture, resulting in hemorrhage or in liver failure (5,9,20). A significant number of deaths caused by peliosis hepatitis have occurred in steroid-using athletes who had no previous indication of liver malfunction (9).

Accelerated atherogenesis may occur with the use of anabolic steroids (16). High doses of anabolic steroids reduce the HDL—cholesterol levels by as much as 50%, elevate the highly atherogenic LDL-cholesterol levels, nearly tripling the LDLC to HDLC ratio (16).

Besides amenorrhea, other specific side effects on females are associated with the general masculinization process. The circulating testosterone causes deepening of the voice, due to an enlargement of the larynx and lengthening of the vocal cords, clitoral enlargement (20), and decreased breast size (15).

The side effects including deepening voice, clitoral enlargement, and male pattern baldness are generally not reversible, even with prompt discontinued steroid use (7,20). Regardless, women surveyed were willing to tolerate the side effects for success (15).

Table 2 lists signs which suggest that an athlete might be using anabolic steroids.
Performance

Anabolic steroids are primarily used in weight lifting or in weight-related sports such as body building or shot putting. Since greater strength has been shown to improve performance in any sport, large numbers of athletes are turning to anabolic steroids to increase strength in a shorter time.

In weight training programs, females have lower levels of proportional performance and strength gains than males (11). Heavy-resistance training has been shown to stimulate testosterone secretion, which enhances muscular hypertrophy (17). Studies have shown that males have greater absolute testosterone responses to weight lifting than females (17). In order to gain higher levels of strength, a growing number of female athletes turn to anabolic steroids. This increases the amount of circulating testosterone in the body, which is directly related to muscular strength development (17).

With the increasing exposure of female athletes to anabolic steroids, athletic trainers, coaches, and the athletes themselves must be aware of the risks involved. Athletic trainers must be able to properly counsel and advise female athletes concerning the proper course of action to either reduce the severity, or eliminate the general and potentially fatal side effects associated with anabolic steroid use.

Table 1
Commonly Used Anabolic Steroids By Athletes

<table>
<thead>
<tr>
<th>DRUG</th>
<th>TRADE NAME ADMINISTRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boldenone undecylenate</td>
<td>Equipoise Injection</td>
</tr>
<tr>
<td>Ethylestranol</td>
<td>Maxibolin Oral</td>
</tr>
<tr>
<td>Fluoxymesterone</td>
<td>Haasotestin Oral</td>
</tr>
<tr>
<td>Mesterolone</td>
<td>Proviron Oral</td>
</tr>
<tr>
<td>Methandrostanolone*</td>
<td>Dianabol Oral &amp; Inj.</td>
</tr>
<tr>
<td>Methenolone Acetate</td>
<td>Primobolan Oral</td>
</tr>
<tr>
<td>Methenolone Enanthate</td>
<td>Primobolan Injection</td>
</tr>
<tr>
<td>Nandrolone Decomoute</td>
<td>Deca-Durabolin Injection</td>
</tr>
<tr>
<td>Nandrolone</td>
<td></td>
</tr>
<tr>
<td>Phenpropionate</td>
<td>Durobolin Injection</td>
</tr>
<tr>
<td>Norethandrolone</td>
<td>Nilevar Oral</td>
</tr>
<tr>
<td>Oxandrolone</td>
<td>Anavar Oral</td>
</tr>
<tr>
<td>Oxymetholone</td>
<td>Androl (50) Oral</td>
</tr>
<tr>
<td>Stanozolol</td>
<td>Winstrol Oral</td>
</tr>
<tr>
<td>Stenbolone Acetate</td>
<td>Anatrofin Injection</td>
</tr>
<tr>
<td>Testosterone Cypionate</td>
<td>Depo-Testiodol Injection</td>
</tr>
<tr>
<td>Testosterone Enanthate</td>
<td>Delatestryl Injection</td>
</tr>
</tbody>
</table>

*Removed from the market in 1982.

Table 2
Signs that Indicate Possible Anabolic Steroid Use*

1. The development of a yellowish tint of the skin
2. Thick and oily skin
3. A skin rash
4. Irregularity or cessation of menstrual periods
5. A lump or pain on either side of the abdomen
6. Hair growth on the face or chest
7. A deepening of the voice
8. Enlarged clitoris
9. Mood swings, ranging from euphoria to aggression to depression

*Modified to pertain to female athletes from Crawshaw (1).

References


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Role of the NATA Curriculum Director
As Clinician and Educator

David H. Perrin, PhD, ATC
Scott M. Lephart, MEd, ATC

Abstract

The NATA curriculum director faces a unique challenge when occupying a position as both an educator and a clinician. The purpose of this paper was to determine the academic credentials, faculty rank, and clinical involvement of those athletic trainers directing NATA approved curriculums at either the undergraduate or graduate level. The implication of the academic tenure process on the curriculum director's role as educator and clinician was also explored.

Directors of all NATA approved curriculums were surveyed. Ninety-three percent of the curriculum directors responded. Over 80% of the directors were clinically active. Twenty percent (1 graduate, 13 undergraduate) of the directors were tenured, while 39% (4 graduate, 23 undergraduate) held tenure-track appointments. Fourteen percent of the directors had been denied tenure. In general, teaching, research, and publication surfaced as the most important criteria for promotion and tenure.

Clinical involvement of the curriculum director was predominant. However, the feasibility of working as both a traditional clinician and as an educator may be in question. Institutions that are committed to quality athletic training education should consider creatively structuring positions for curriculum directors and or should weigh athletic training service heavily when making promotion and tenure decisions. Furthermore, athletic trainers seeking curriculum director positions should recognize the difficulty associated with the combined responsibilities of being an educator and a clinician.

Introduction

The professional preparation of athletic trainers has increased considerably in substance and sophistication in recent years. Presently 62 colleges and universities offer NATA approved undergraduate curriculums, while 10 institutions offer a program at the master's degree level.* At the undergraduate level, many institutions have already complied with the NATA mandate for development of an athletic training major by 1990 (2). Thirty programs have received NATA approval as academic majors at this time. Further, many institutions offer structured internship programs which include both clinical and didactic experiences.

Program directors of NATA approved curriculums are required by undergraduate and/or graduate guidelines to have 1) current NATA recognition as a certified athletic trainer, and 2) a minimum of three years of full-time experience as an NATA certified athletic trainer including experience in the clinical supervision of student athletic trainers. Further, the program director must be a member of the institution's teaching faculty, while "demonstrated involvement in athletic training and sports medicine through publication, public speaking, research, and membership in related professional organizations is highly desirable" (5,6).

The combination of the NATA mandate for the athletic training major, the ever increasing demands placed upon a college or university tenure-stream faculty member, and the exhausting load assumed by most athletic training clinicians places an increasing burden on the program director. Further, it seems predictable that the development of major academic programs on the undergraduate level and the development of additional graduate curriculums will increase the number of tenure stream faculty athletic training positions.

The purpose of this paper was to determine the academic credential, faculty rank, and clinical involvement of the athletic trainers presently directing NATA approved curriculums. Further, program directors were surveyed relative to the implication of the academic tenure process on their roles as athletic training educators and clinicians.

Survey Instrument

Program directors of all NATA approved undergraduate and graduate athletic training curriculums were surveyed (64 undergraduate, 10 graduate). While it was recognized that many strong and creatively structured internship programs existed, those athletic training educators were not surveyed due to the difficulty in identifying the institutions that offer such a program. Table 1 describes the questionnaire sent to each program director.

Questionnaire Results

Ninety-three percent (59 undergraduate, 8 graduate) of the program directors responded to the survey. Seventy-nine percent (53) of the curriculums were housed in state universities, while 10% (51) were offered through a department of Health and Physical Education. Seventy-four percent (49) of the undergraduate program directors indicated their curriculum had received institutional recognition as a major, or major equivalent

*At the time of this survey, 64 undergraduate programs were approved by the NATA.
The average length of professional experience as an athletic trainer was 13.6 years, while experience as an NATA approved curriculum director was 7.5 years. Twenty-nine percent (15 undergraduate, 5 graduate) of the program directors held a doctoral degree. Of those program directors not holding an advanced degree, 17% (11) were working toward either the Ph.D. or Ed.D. Over 80% (53) of the program directors responding to the survey were clinically active athletic trainers. Clinical involvement ranged from working one intercollegiate sport, to assuming responsibilities as head athletic trainer, including football.

Twenty percent (13 undergraduate, 1 graduate) of the program directors were tenured at their university or college, while 39% (23 undergraduate, 4 graduate) held appointments within the tenure stream. Fifteen percent of the curriculum directors had been denied tenure by their institution. In contrast, 12 institutions made special provisions to facilitate the granting of tenure for the curriculum director. For example, several institutions recognized the master's degree as the terminal degree in athletic training.

Considerable variation existed in the ranking of criteria for promotion and tenure between institutions. In general, research and publication, teaching, and professional involvement surfaced as the most important criteria for promotion and tenure. For all institutions, teaching, research and publication were the two most important criteria, while athletic training service ranked sixth of the eight items. For the eight institutions offering an NATA approved master's degree program, research and publication surfaced as the most important criteria.

The Tenure Process

The advent of tenure as a fundamental factor of higher education occurred in 1940 when tenure was incorporated into the Declaration of Principles by the American Association of University Professors (4). Academic tenure systems presently operate on 85% of the nations campuses. All universities, nearly all four-year colleges, and approximately two-thirds of two-year colleges have some form of tenure policy (1). The purpose of tenure is to secure freedom of teaching, research, and extramural activities, and to provide enough economic security to attract professionals to careers in academia (4).

Tenure decisions typically reflect assessments of past and current performance, and judgements about future potential of a faculty member in the areas of teaching, scholarship and research, and service. During the tenure review process and depending on the institution, each of these three areas is accorded different weight. Institutions granting the Ph.D. typically weigh research most heavily, followed by teaching and then service. Excellence is usually required in one or two areas with evidence of consistently good performance required in the other area(s).

The tenure review process typically entails a sequence of deliberations and recommendations usually beginning with peer review at the program or department level. The process continues with a school or university promotion and tenure committee review, and then recommendation to a department chairperson and/or dean. Final recommendation is made to a provost, academic vice president or university president who offers a recommendation to a Board of Trustees.

The concept of tenure continues to be the focus of debate. The demands placed on a faculty member seeking tenure often force the professor to compromise his or her professional integrity. Young scholars in search of tenure are driven into a fierce seven-year “publish or perish syndrome” (3). They may write not because they have something to say, but because the decision of tenure is based primarily on the number of publications in refereed journals. The quality of classroom instruction may suffer, and time allocated to student advising is often compromised. The process is further complicated for the athletic training educator because of the excessive time commitment necessary to work as a clinically active athletic trainer.

The Dilemma

The professional attempting to occupy a position as an athletic training educator and clinician faces a dilemma which emanates from several sources. Concerns about student perceptions, faculty promotion and tenure committee awareness, and one's own interest in clinical athletic training each contribute to the dilemma.

From the student's perspective the classroom credibility of an athletic trainer may be questioned if the athletic trainer is not involved in performing the daily responsibilities of a clinician. Analogies may be made with professionals in related fields. A medical school clinical professor of orthopaedics would probably have difficulty “selling” the orthopaedic resident on the best approach to reconstruction of the ACL deficient knee without regularly performing surgery on such cases. Similarly, the graduate student in exercise physiology might question the value of a mentor's research idea if the advisor was never involved in the collection of laboratory data. Innovations in athletic training are developing at a rate that creates a challenge for even the full-time clinician.

On the other hand, several years of experience as an athletic training clinician may be adequate preparation to assume a full-time role in the classroom. In addition, the need to validate the daily practices of the athletic trainer and to explore the efficacy of alternative techniques through research is of paramount importance at this time. This need is most logically met by the graduate curriculum director by conducting one's own research and by directing the research activities of graduate students.

The dilemma presented by the institution is primarily the rigidity by which a promotion and tenure committee evaluates a faculty member's credential for tenure. Rarely are such committees comprised of faculty members having a strong clinical orientation. Furthermore, the typical college or university faculty member has no concept of the energy and time commitment required of a practicing athletic trainer. Thus, service responsibilities of the athletic training educator-clinician rarely are given ample weight in the interrelationship between research, teaching, and service.

Finally, the educator faces a dilemma created primarily by himself. Love for athletics and concern for the health and welfare of the athlete are the typical forces driving one into the athletic training profession. Thus, to restrict or eliminate involvement in clinical athletic training may not be desirable, and may be a source of career frustration.

Recommendations

We concede that the dilemmas discussed are not easily solved. However, we wish to present the following for consideration:
Tenure-Stream Positions

The athletic training curriculum director holding a faculty position within the institutional tenure stream must realistically limit involvement in the clinical setting. To practice athletic training on a daily and full-time basis would jeopardize one's chances for obtaining a favorable tenure decision. An alternative recommendation is to have athletic training clinical responsibilities for one high-injury incidence sport. Examples include soccer, wrestling, lacrosse, field hockey, and assistant for football. Such a one-sport clinical assignment would assure exposure to an adequate injury caseload and would require the application of current athletic training techniques, yet would necessitate a significant clinical time commitment for only one sport season each year. Attention to research and writing could occur primarily during the sport's off-season.

If clinical athletic training is included in the job description of the tenure-stream curriculum director, the service component of the tenure committee relative to the time commitment and role of the clinical athletic trainer would seem to be critically important. Such education would be most effective if disseminated from a high administrative level.

We recognize that promotion and tenure standards of some institutions may make it impossible to have any athletic training clinical responsibilities. Further, some academic departments prefer appointments for athletic training educators completely exclusive of athletic units. In such instances it would seem advisable to incorporate the expertise of clinically active athletic trainers into the didactic component of the curriculum.

Non-Tenure Stream Positions

Some circumstances might necessitate appointment of the curriculum director outside of the tenure stream. For example, the curriculum director might not hold a terminal degree. While such positions may permit greater clinical involvement, administrators should recognize that the more time spent in the athletic training room, the less time devoted to the administrative and teaching responsibilities of a curriculum director. Thus, some release time from normal clinical responsibilities would still seem desirable and necessary.

In order to attract high caliber individuals to non-tenure stream positions, institutions must address the job stability and longevity concerns of prospective curriculum directors. Creation of multiyear and renewable positions would seem to demonstrate an institutional commitment to athletic training generally, and to the curriculum director specifically.

Table 1

Survey Instrument

Please check the nature of your academic appointment:

- tenure track (39.1%)
- non-tenure track (37.9%)
- presently tenured (20.3%)
- other (2.9%)
- clinical instructor (0%)
- instructor (20.6%)
- adjunct instructor (3%)
- assistant professor (28%)
- associate professor (25%)
- professor (13.2%)
- other (5.8%)

Please identify the highest degree you have obtained:

- B.S. (0%)
- B.A. (0%)
- M.A. (9.1%)
- M.S. (31.1%)
- M.Ed. (26.1%)
- Ed.D. (14.3%)
- Ph.D. (11.3%)
- other (7.8%)

Are you currently working on an advanced degree? yes (16.7%) no (83.3%)
If yes, what degree? (Ph.D.)

How many years have you worked as a program director of an NATA approved curriculum? (x = 7.5 years)

How many years have you worked as a certified athletic trainer? (x = 13.6 years)

Are you presently clinically active as an athletic trainer in the training room? yes (80%) no (20%)
If yes, what is the nature of your clinical work? (examples included head athletic head, assistant athletic trainer, one sport assignment, clinical supervision of students only)

If you are presently tenured, were you clinically active in the training room during the years preceding your being tenured? yes (87.1%) no (12.9%)
If you have a shared appointment with an academic unit and athletics, what is the percentage assignment to each? (average was 77.4% academic, 22.6% athletics)

Have you been denied promotion or tenure? yes (14%) no (86%)
Were any special provisions made for you relative to the tenure process at your institution? yes (19.7%) no (80.3%)
(examples included considering the master's or physical therapy degree a terminal degree)

Number in order what you believe to be the most important criteria for tenure for you at your institution:

Undergraduate and Graduate Combined

1. teaching
2. research and publication
3. professional involvement
4. university committee work
5. advising
6. athletic training service
7. administration
8. community service

Graduate Only

1. research and publication
2. teaching
3. professional involvement
4. administration
5. athletic training service
6. university committee work
7. advising
8. community service

Acknowledgment

The authors wish to thank the members of the NATA Professional Education Committee for their assistance in the development of the survey instrument.

References

5. NATA Professional Education Committee. Guidelines for continued on page 365
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Sports Injuries, the Disabled Athlete, and the Athletic Trainer

Brent C. Mangus, ATC, EdD

Abstract

Disabled individuals are becoming more involved in sports competition, and as a result are experiencing athletic injuries during training and competitive athletic efforts. Sensory impaired and wheelchair bound athletes experience some of the same athletic injuries that able-bodied athletes encounter; however, the wheelchair-bound athlete may present new medical problems and injury etiologies not normally seen in the training room. When injuries to the disabled athlete occur, the proper treatment and rehabilitation plans need to be implemented.

Prevention of injuries is important and includes not only commonly used preventative techniques but also procedures to avoid injuries that are a direct result of training and competition associated with being wheelchair-bound. Many of the therapeutic exercises and modalities athletic trainers now utilize can be incorporated into the treatment regimen of the injured disabled athlete. The athletic trainer can be a valuable asset to the training, injury prevention and management, and rehabilitation of these athletes. Working with these athletes must be guided by the thought that they are physically or sensory impaired - not mentally deficient.

Introduction

The number of physically and sensory disabled athletes participating in competitive sports is rapidly increasing. Wheelchair sports have evolved from a rehabilitation process to a competitive form (2). There are sport competitions for these athletes on the local, state, national, and international levels (10). Wheelchair athletes have now broken the four-minute mile barrier and can run a marathon in less than two hours. Visual and hearing impaired athletes are competing on the same level as non-disabled individuals in competitive activities such as swimming, wrestling, running, and others.

With the increasing number of participants, the increasing level of competitive effort by disabled individuals, and the vulnerability of these athletes, sports related injuries to this population should also increase as is expected in any population with an increase in participants. Interested athletic trainers need to be aware of the disabled athlete’s needs relevant to athletic training and be knowledgeable about the types of injuries commonly incurred, as well as some special considerations in the rehabilitative process.

It is important to keep in mind that strains, sprains, lacerations, abrasions, and other injuries are the same in the disabled population as the able-bodied population. However, Jackson and Fredrickson (12) report that disabled athletes are slightly more vulnerable to stress and fatigue than are able-bodied athletes. The difference in an injury to a disabled athlete is in the etiology of the specific injury and, at times, the management and rehabilitation of that injury.

Sensory and physically disabled athletes usually do not have an impaired cognitive ability. The athletic trainer can easily work with them and explain injury management and rehabilitation techniques. This concept is important to keep in mind as you work with disabled athletes. Many of these athletes are aware of the value of rehabilitation of an injury and will work hard in their rehabilitation program.

Sensory Impairments

The disabled athletes who have sensory impairments will usually suffer from strains, sprains and other injuries that can be managed and rehabilitated in much the same manner as the non-disabled athlete. You need to be much more careful when interacting with these athletes due to their sensory impairment. The following suggestions are general principles that will assist you in working with the hearing and visually impaired.

Hearing Impaired

The hearing impaired athlete will want to read your lips as you are giving injury management or rehabilitation instructions. Try not to yell, but speak in a normal voice and directly to the athlete. It has been suggested that the hearing impaired person has difficulty reading lips that are covered by a moustache. If you have a moustache, ask the athlete if it inhibits his/her ability to read your lips. If this is the case, you may decide to trim the moustache so that the lips are visible and more readable for this athlete, or use a teammate or coach to relay the instructions to the athlete. Conversely, the hearing impaired athlete may have speech which is difficult to understand. But with patience and effort on your part communication can be accomplished.

Visually Impaired

Mastro (14) indicated that more visually impaired athletes are choosing to compete in competitive sporting events due to a progressive change in attitude of fellow athletes, coaches, peers, officials, and others connected with sports. Visually impaired athletes many times experience the same types of injuries as able-bodied athletes; however, one published report indicated a higher incidence of ankle sprains with this population (12).

Because these athletes have limited or no vision you must work through the sensory modalities of hearing and touch. Thorough explanation of the injury, the
physical training. The rehabilitation is imperative when working with the visually impaired athlete. The tactile sense is also important and should be utilized to demonstrate the injury to the athlete as the athletic trainer explains information pertaining to that specific injury. When evaluating an injury such as an ankle sprain, on a visually impaired athlete you should talk to the athlete and ask leading questions as he touches various bones, ligaments, and contracts specific muscles. Encourage the athlete to follow your hands through the evaluation. You can then take his/her hands and help him/her utilize the ice, if an acute injury, or assist in picking up the towel if self-administered resistance exercises are prescribed during the rehabilitation phase. These athletes can do many of the first aid and rehabilitation activities if they are minimally assisted initially.

Physically Disabled

Physically disabled athletes enjoy various types of physical activities including weight lifting, skiing, swimming, track and field, volleyball, basketball, and others. Nilsen, et al. (16) found that among spinal cord-injured athletes in Norway weight lifting was the activity participated in most frequently. These authors indicated the possibility of a spinal cord-injured athlete developing a sports related injury as a result of participation in one of a variety of sports was fairly small. Their argument for this low rate of sports injuries was that the athletes they studied were closely supervised by a medical staff. This meant that there was early diagnosis and treatment of even the most minor injury. Other factors contributing to the low injury rates were the sub-maximal training levels, the variation of training activities, and athletes being closely monitored by highly skilled instructors and coaches. However, there were sports injuries experienced by the athletes in this study indicating that even closely supervised disabled athletes do experience sports related injuries during training and competition.

Many of the disabled athletes in the United States training and competing in sport are not closely monitored by medical teams and highly trained coaches. For this reason there needs to be a closer look at the disabled athlete in America who is training on his/her own. In a 1972 survey conducted among wheelchair athletes in the U.S., 72% of the athletes responding reported having experienced at least one injury as a result of sports participation (3). Road racing had the greatest number of reported injuries, followed by basketball, track and then tennis. Weight lifting, field events, swimming, and archery were next in injury frequency but much lower than the first four. The four events which demonstrated the least number of injuries were table tennis, slalom, billiards, and bowling (3,4).

When comparing the Curtis (3) and the Nilsen et al. (16) studies you should recognize that closer monitoring of the disabled athlete during training could reduce the number of injuries. Essentially, more involvement by competent athletic trainers with this population would be of benefit to these athletes. Curtis (3) indicated that the most common injuries in this group were soft tissue injuries including sprains, strains, muscle pulls, tendinitis, and bursitis occurring in 35% of the injuries reported. The next two most common injuries listed were blisters and lacerations which were experienced by 18% and 17% of the respondents respectively. The specific site of these blisters and lacerations were not enumerated; however, injuries occur to the wheelchair athlete in many of the functioning body parts.

Shoulder Injuries

Injuries to the shoulder include rotator cuff injuries, capsule tears, muscular trauma, tendon and ligament damage, an A-C separation or broken bone. Rotator cuff injuries are usually the result of an overuse type injury. The wheelchair athlete competes in many throwing and other upper body activities which require the extended use of the rotator cuff muscles causing tears and strains. Capsule tears can result from overuse or acute trauma. These athletes become very physical in some of the basketball games they participate in during the season. At times pushing, bumping, or falling out of the wheelchair will be the cause of the acute trauma. Muscle trauma, tendon, and ligament damage can also result from their participation in an activity and the physical contact associated during the game.

Other injuries to the shoulder girdle resulting from falling from the wheelchair include an A-C separation or fractured clavicle. Just the force of the athlete hitting the ground can result in one of these injuries. Treatment and rehabilitation of the shoulder injury may be difficult with the wheelchair-bound athlete due to the dependence on the shoulder musculature for locomotion. You must explain the importance of proper rest and immobilization for the affected part to heal correctly. Caring for a severe shoulder injury may include a recommendation that the athlete not use his/her shoulder musculature for locomotion.

Rest, ice, ultrasound and TENS are useful during the injury management phase of shoulder injuries. The athlete may require assistance in locomotion such as having someone push their chair during the rehabilitation period if the injury is severe. Because these athletes are dependent on their shoulder musculature for locomotion, many will not adhere to your recommendation for proper rest, thus extending the total rehabilitation time. At the appropriate time strength training, range of motion, and coordination exercises should be initiated. To accomplish increases in strength, range of motion, and coordinating the use of proprioceptive neuro-muscular facilitation patterns of exercise can be used initially followed by continued work in the weight room.

Preventive measures to strengthen the muscles of the shoulder girdle will also help to reduce the number and severity of shoulder injuries (21). Early recognition, evaluation, diagnosis, and treatment will help prevent these injuries from becoming chronic or degenerative (21).

Wrist Injuries

Injuries to the wrist area commonly include carpal tunnel syndrome, lacerations, and abrasions. It has been estimated that 63% of the paraplegic population show a tendency for development of carpal tunnel syndrome (1). In addition, there tends to be a strong relationship between the time of spinal cord injury and the development of carpal tunnel syndrome in this population. The longer an athlete is spinal cord-injured, the greater the tendency to develop carpal tunnel syndrome (1). Because of the dependence these athletes have on their hands, proper recognition and rehabilitation of carpal tunnel syndrome is imperative with this population.

Rehabilitation of carpal tunnel syndrome will be dependent on severity of the injury. Early recognition may require that the athlete use ice, heat, and a mild.
anti-inflammatory such as aspirin. For more severe cases splinting and rest may be indicated along with the ice, heat, and aspirin. The wheelchair athlete may be required to have another person push his wheelchair in severe cases and be required to change his/her training mode to swimming in order to maintain the level of conditioning he/she has worked to attain.

Prevention of wrist injuries can be accomplished through muscle strengthening of the flexors and extensors of the forearm, padded push rims, and the use of gloves when pushing the wheelchair. Although other injuries to the wrist such as sprains and contusions do occur, they are not as frequent.

### Upper Back Injuries

Problems with the upper back include muscle imbalances as a result of poor posture or overuse. Skeletal problems can also occur; however, these are not always a direct result of sport participation. Skeletal problems are usually a result of the individual’s posture, method of locomotion, or the result of sitting too much.

The problem of muscle spasm and soreness created by these etiologies should be treated symptomatically and a stretching and strengthening program introduced. Problematic muscles should be isolated, and proper techniques of stretching and strengthening initiated.

The axillary region is extremely vulnerable to an abrasion-type injury as the wheels of the wheelchair may extend into this area. This is especially true in road racing wheelchairs. Many athletes receive the abrasions to this area as a result of incidental contact with the top of the wheelchair wheels as they train or race. However, some athletes occasionally use the axillary region to put pressure on the bowls as a braking device to slow the wheelchair. For this reason the athletic trainer may want to prevent this injury by placing a friction reducing material on the bicep-tricep region of the arm and require the athlete to wear a shirt that covers the chest wall portion of the axilla. Athletes have cut a portion out of a tube sock and strapped that into place over their arm with some success in reducing this type of injury. (See Figure 1)

### Hands and Fingers

The hands and fingers become very tender and sore as a result of the athlete pushing his chair. Blisters, abrasions, swelling and tenderness are all associated with the hypothenar eminence as a result of pushing a wheelchair. To prevent this type of injury padded push rims and gloves may be appropriate. Some athletes use the foam padding similar to that used on the handle bars of commercial bicycles on the push rims of the wheelchair. Also, different types of batting or handball gloves will protect the athlete’s hands. (See Figure 2) However, these preventative measures do not always solve the problems of abrasions and lacerations to the hands as a result of pushing a wheelchair. The athletic trainer may have to come up with an individualized plan such as using moleskin taped into place over chronic injury spots to help the athlete who continues to experience hand problems.

### Lower Torso

Injuries to the lower torso in the wheelchair-bound athlete are usually limited to problems of the skin. Abrasions, lacerations, and ulcerations are common. These injuries are difficult to manage because of poor circulation to this area. Injuries to the legs can occur from transferring out of the wheelchair and falling or bumping the legs, falling out of the wheelchair during competition, or getting into the swimming pool and dragging the legs on the deck or pool edge. Swimming athletes require help to get into the pool either from other people or a mechanical lift. Some athletes wear nylon stockings to enter the pool which reduces the friction between the legs and pool deck. Another method is to use a small covered mat to let the athlete slide into and get out of the pool.

Athletes who wheelchair race are now strapping their legs up closer to their bodies which increases their movement efficiency and reduces the chance of injury from feet falling to the ground. (See Figure 1) The fit of the wheelchair to the individual athlete is important in reducing some injuries. Fitting of the wheelchair should be done by a knowledgeable professional who understands the biomechanics of the pushing motion. Complete fitting of the sports wheelchair and the biomech-
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Optimally, 70-90% of pressure sores can be managed between. For minor ulcerations physicians have prescribed coal tar and ultraviolet application which can be used for management of the ulcer should be followed. There are a variety of treatment approaches to dealing with this problem, and the decubitus ulcer can easily get out of control if not managed properly. De Lisa and Mikulic (6) enumerate some of the treatments that have been utilized in the past including the use of alcohol, maggots, and from egg white to zinc sulfate and everything in between. For minor ulcerations physicians have prescribed coal tar and ultraviolet application which can be carried out by an athletic trainer under a physician's prescription (9).

Recently, more authors are recommending a conservative treatment approach to decubitus ulcers (6,18). Optimal, 70-90% of pressure sores can be managed conservatively (6). The conservative approach consists of the following steps (6,18).

1. Remove the pressure from the site. Even momentary pressure is detrimental.
2. Debride the necrotic tissue. This can be done by an enzymatic process or surgically.
3. Treat local infection with some type of local disinfectant. The use of topical antibiotics is not recommended.
4. Use some type of dressing that will create or allow a granulation effect while keeping the area clean and moist.
5. Improve the general health of the person through exercise and proper nutrition. This will help to keep the person moving resulting in less immobilization.

This type of management should really be carried out in a hospital setting. Athletic trainers should be aware of the decubitus ulcer and be willing to work with a physician to eliminate this problem.

Strengthening Exercises

Strengthening muscles and improving the overall physical condition of the athlete can prevent many problems (18,21). The improvement in physical conditioning has the same athletic benefits for the disabled as it does for the able-bodied, which are strength, endurance, flexibility, and cardio-respiratory efficiency. The conditioning and strength training of competitive disabled athletes must go beyond just the functional performance needs of most disabled individuals (2).

The majority of sensory and physically impaired athletes enjoy using the weight training facilities utilized by other athletes. Few modifications for participation in weight training need to be made as the most popular exercises are bench press, curls, lat pulls, fly-aways for the deltoids, military press, neck and stomach exercises. Sensory impaired athletes will work on their leg strength as well as their upper body strength.

Many wheelchair-bound athletes have no problem transferring to the exercise station or completing the exercise while seated in their chair. Some exercise facilities are now incorporating wheelchair hold-downs into their facility designed to assist these athletes. If exercise while seated in their chairs. Some exercise facilities are now incorporating wheelchair hold-downs the handles on a station-type weight training machine are available.

Sensory impaired athletes may require assistance in their strength training. The visually impaired athlete will need a guide to assist them in their workouts. A hearing impaired athlete can benefit from written instructions pertaining to safety procedures or a written outline of his/her specific workout that day if a coach is assisting in the strength training program.

Therapeutic Modalities

If an athlete is sensory or physically impaired, the use of therapeutic modalities to rehabilitate a sports injury is indicated much the same as with the able-bodied athlete with some precautions. Cold and heat techniques can be utilized as is commonly indicated for acute injuries in the case of cold, or for increased circulation and as indicated for heat modalities to provide muscle relaxation (17). Electrical muscle stimulation can be implemented for the same indications as able-bodied athletes with similar injuries.

When you decide to incorporate the use of a therapeutic modality into the treatment regimen of a disabled athlete, some precautions may be necessary. Those athletes who have lost the nerve innervation to a portion of their bodies could be more prone to injury from overdose of a therapeutic modality. The athlete in this situation is unable to report to the trainer if he/she is burning, stung or other tissue damage may be occurring during the application of the therapeutic modality. You should be aware of the dosage of the modality being applied and monitor the application if there is a chance of tissue damage. An increased awareness of the possible

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loss of sensation in the wheelchair athlete by the athletic trainer can circumvent problems and embarrassment.

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A Survey of Michigan School Superintendents’ Knowledge of and Attitudes Toward Athletic Injuries, Athletic Trainers, and Legal Liability

Richard Ray, ATC

Abstract

The purpose of this study was to determine school superintendents’ knowledge of and attitudes toward athletic injuries, athletic trainers, and legal liability. Questionnaires were sent to every school superintendent in the state of Michigan. The results of the survey indicate that although most superintendents had accurate perceptions of athletic trainer job functions and the magnitude of the high school injury problem, their views regarding NATA certification of athletic trainers are highly inaccurate. Additionally, many school superintendents feel that the employment of certified athletic trainers in their high schools would reduce risk from legal liability. In addition, most school superintendents thought the athletic trainer was the most qualified person to prevent and treat athletic injuries. My recommendations include shifting emphasis away from injury awareness in the NATA Public Education Program toward an emphasis on utilizing certified athletic trainers in high schools. Another recommendation is that an emphasis on targeting this specific population be attempted as part of our public awareness efforts.

Introduction

The purpose of this study was to measure school superintendents’ knowledge of and attitudes toward three specific areas of concern: high school athletic injuries, athletic trainers, and legal liability as it relates to athletic injuries. There are several reasons why these areas of concern and this population group were targeted. The primary reason centers around the growing concern the members of the profession of athletic training have regarding the quality of athletic health care afforded high school students (9,20,22,27,28). Another objective of the study is to provide direction for athletic trainer organizations, specifically the Michigan Athletic Trainers Society and the National Athletic Trainers Association, as they attempt to influence various educational constituencies relevant to athletic health care (25). The third major concern was to attempt to determine if school superintendent perceptions of various factors relating to high school athletic injuries are consistent with the body of knowledge documenting these factors so that appropriate public awareness programs can be targeted toward this population of educational administrators.

School superintendents were selected as the target population for studying this problem for three reasons (25):

1) They are in a good position to facilitate policies relevant to athletic injuries at the high school level.
2) They have a large amount of experience in the educational system and consequently may mirror attitudes held by others in educational settings.
3) Their relatively small numbers will enable easier sampling given the budgetary constraints of the project.

Methodology

The target population was the school superintendents in the state of Michigan. The accessible population was defined as the members of the Michigan Association of School Administrators, which includes all school superintendents in the 576 public school districts in the state of Michigan. Only school superintendents were surveyed. Assistant superintendents and other school administrators were not included. A roster of the Michigan Association of School Administrators was utilized to help identify subjects. Every member of the accessible population was surveyed using a thirty item questionnaire (see Table 1). The first twenty questions deal directly with school superintendents’ knowledge of and attitudes toward athletic injuries, athletic trainers, and legal liability as it relates to athletic injuries. The final ten questions deal with demographic concerns.

The instrument was evaluated for face validity and content validity by a panel of certified athletic trainers using the procedure outlined by Ary (1). The data were collected and analyzed during the winter of 1987. Eighty percent (462/576) of the questionnaires were returned.

Results

Survey questions and results are presented in Table 1. Questions 13-19B summarize the demographic characteristics of the population.

The vast majority of school superintendents indicated they not only had heard of the profession of athletic training, but they had, in fact, had personal contact with an athletic trainer (questions 1, 2). When ques-
tioned about their primary source of information regarding the profession, most superintendents indicated they received their information from sources other than those listed for them to choose from in the survey (question 3); from the athletic directors and/or coaches in their school districts. Although 68 percent of the school superintendents felt they were only somewhat familiar with the job functions of the athletic trainer, their perceptions of the relative importance of the traditionally accepted athletic training duties were quite accurate (questions 11a-11f). Using the “high” response as a relative measure of rank, superintendents ranked the six athletic trainer job functions in the same order that athletic trainers ranked them in the 1982 Role Delineation Study of the Entry Level Athletic Trainer (19). The only exception occurred with the education/counseling and organization/administration domains. The superintendents perceived education/counseling as being more important than organization/administration. The opposite was true of athletic trainer perceptions as measured in the Role Delineation Study.

Another school superintendent perception that was relatively accurate involved the percentage of their high school students injured in interscholastic athletics (question 5). School superintendents perceived that, on average, 20 percent of their high school students that participated in athletics were injured every year. This is only slightly higher than the 16 percent estimated by LeGear (14) from the 1975 HEW study.

Although the vast majority of the school districts did not employ a certified athletic trainer, over 75 percent perceived the athletic trainer to be the most qualified person to prevent and treat athletic injuries (question 6). There were 70 school superintendents who indicated that their school district currently employed a certified athletic trainer (question 12a). This is an especially interesting finding in that it contrasts sharply with the results of two other studies that determined that there are only approximately 20 certified athletic trainers employed in Michigan high schools (15,24). There are three likely factors that could be causing this inflated perception of certified athletic trainer presence in the high schools:

1. The presence of non-certified “athletic trainers” currently employed in the high schools.
2. The presence of student interns from various athletic training curricula.
3. The presence of sports medicine clinic based certified athletic trainers who make periodic visits to the high schools. (Approximately 50 percent of all certified athletic trainers who reside in Michigan are employed in sports medicine clinics.) (15,24).

Most school superintendents were very concerned with both legal liability and reducing risk from legal liability in their schools (question 8). This finding is not surprising considering the emphasis on litigation in our society today. Forty-three percent of the respondents felt that a moderate to high reduction in risk from legal liability would result if athletic trainers were employed in their high schools.

There is some indication that the extremely low level of health care afforded high school athletes in the state of Michigan may rise in the near future. Sixty-two percent of the school superintendents indicated they would be moderately to very willing to commit funds to reduce athletic injury rates (question 10). Although 44 percent of the respondents indicated they would not be willing to hire a certified athletic trainer within the next year, 35 superintendents indicated they would be willing (question 12b). This would represent an increase of 75 percent over present levels. In addition, 48 percent said they were uncertain if they would hire a certified athletic trainer within the next year, which seems to indicate that they are, at the least, still open to the concept of certified athletic trainers at the high school level. Finally, the mean perceived funding commitment to employ a combination teacher-certified athletic trainer was $23,363 (question 12c). It should be noted that there was a large diversity of opinions on this question as is demonstrated by the large standard deviation ($7,868). Although this cost appears to be significantly higher than those reported by other authors (23), it should be noted that the superintendents were asked for their estimate of total funding commitment as opposed to simple salary.

In addition to tabulating frequencies and percentages, contingency tables were constructed which matched all demographic questions (13-19b) with all knowledge/attitude questions (1-12c). Chi-square values were calculated for each contingency table and tested for significance. Tables with degrees of freedom of one were adjusted using Yates correction. Some tables had their data grouped in order to reduce the number of cells with an expected frequency of less than five (1). The .05 level of significance was used to determine the significance of any relationship.

The results of the chi-square tests indicate that school superintendents who participated and were injured in high school and/or college athletics or who had children that were injured in high school athletics were significantly more likely to have had personal contact with an athletic trainer. There was also a strong relationship between those superintendents who were injured in high school or college athletics and the superintendents’ perceptions of athletic trainer job functions as expressed in questions 4 and 11a-11f. It is interesting to note that there was no relationship between such demographic variables as age, sex, or years of experience with any of the attitude/knowledge variables.

Discussion

Incidence of Injury

The ever increasing level of importance placed on sports in our culture exists not only at the college and professional levels, but has infiltrated our high schools as well. An example of this inflated importance of high school sports is illustrated by Vaapel and Sweerts’ (31) survey of Arkansas school superintendents which predicted that soccer would be the third most important “curricular offering” by the year 2000, placing it in front of biology and literature. Nearly five million of our nation’s fifteen million high school students participate in school sponsored athletic programs (14). More than one million of these students participate in the sport of football (23). It was estimated that in 1985 approximately 800,000 high school students suffered “time-loss” injuries (missed practice or game for at least one week) while participating in school sponsored athletics (22). Of these, nearly 100,000 were “major” injuries requiring a time loss of three weeks or more (14). In addition, Mueller and Schindler (18) report that between 1931 and 1983, 851 high school students have died as a direct or indirect result of injuries sustained while participating in football. A recent study of the incidence of injuries among children and adolescents indicates that sports trauma is second only to falling on stairs in
Medical Care for High School Athletes

The sheer number of injuries suffered by high school athletes requires an examination of the availability of health care practitioners to prevent and treat these injuries. As was mentioned earlier, this study examines knowledge and attitudes toward athletic trainers. Although the presence of NATA certified athletic trainers is commonplace at the college and professional levels, there are very few high schools that employ certified athletic trainers (2,5,9,15,16,21-24,26,27,32). There is, on average, one certified athletic trainer for every 25 college and professional athletes; however, there is only one certified athletic trainer for every 5,500 high school athletes (14). This shortage of certified athletic trainers is especially alarming considering the paucity of other qualified health care practitioners available to service the needs of the high school student athlete (17). Redfearn (27) surveyed high school principals in Michigan and found that high school athletic programs secured the services of nurses and emergency medical technicians only to the extent of 22 and 26 percent, respectively. In addition, only 15 percent of those schools surveyed indicated that they had the services of a school physician. Culpepper (5,6) reported that fewer than 15 percent of all Alabama high schools have team physicians available at practice sessions, when more than half of all injuries occur (22). Only 21 percent of the Maryland schools surveyed had a team physician (32).

Legal Considerations

The combination of high injury rates in high school sports and the litigious nature of our society requires an examination of the legal obligations school districts have toward student-athletes. Although lawsuits against school districts for damages in athletic injury situations have typically fallen into four categories (failure to supervise, failure to properly instruct, failure to warn, and failure to exercise due care with reference to equipment and facilities), Hurt (12) appropriately pointed out that the duty of school districts to provide care for their students is well founded in law (3). Indeed, a West Virginia court recognized the schools' responsibility to provide emergency aid:

"Board of Education must be deemed to have implied authority to assume responsibility for first-aid or immediate surgical services rendered to a pupil who is injured or becomes ill while engaged in school activities" (13).

This ruling by the court is particularly unsettling considering the results of a survey by Stapleton, et al. (29) which indicated that fewer than half of the high school coaches they interviewed felt a responsibility to get other medical professional help for their athletes in an injury situation. Although numerous authors recommend risk reduction programs for school athletic programs which include employment of certified athletic trainers, few schools have fully implemented these programs (4,6,10,11,14,28). Indeed, the litigation crisis has grown to such proportions, that many physicians will not serve athletic teams due to the fear of lawsuit. Todaro's (30) review of "Good Samaritan Laws" nationwide reveals that physicians who treat athletes are protected from civil liability only under very limited circumstances in most states. Only six states nationwide (Arizona, Arkansas, California, Florida, Ohio, Oregon) have provided qualified immunity from civil liability for volunteer team physicians.

Although a wealth of information focusing on athletic injury, athletic trainers, and legal liability was found, there were no studies examining school superintendents' knowledge or attitudes toward these factors. The purpose of this study was to fill the obvious gap that exists in the body of knowledge relative to this important group. Since school superintendents play such an important role in developing and implementing educational policy, their views must be determined in order to effectively plan for possible solutions to problems in this area.

After analyzing the data from the survey, several important characteristics of the population of school superintendents became apparent:

1) School superintendents have a relatively realistic view of the job functions of the athletic trainer. Their views of the relative importance of athletic trainer job functions aligns quite closely with those of athletic trainers themselves. This is especially interesting considering that most of their information about the profession of athletic training comes from athletic directors and/or coaches. It would appear that the long relationship between athletic trainers have had with athletic directors and coaches and the concomitant transfer of information regarding our profession may now be filtering toward other educational professionals.

2) School superintendents have a reasonably accurate perception of the injury situation in high school sports. This perception is probably based more on their own or their children's participation and subsequent injury in high school sports than on any organized public awareness effort.

3) School superintendents have an extremely inaccurate perception of the importance of certification for athletic trainers. It appears that there are many superintendents who think they employ certified athletic trainers who may, in actuality, be employing non-certified personnel to perform the duties that certified athletic trainers are professionally prepared and credentialed to perform. Future public awareness programs targeted toward athletic directors, coaches, and school superintendents may need to shift away from injury awareness to emphasis on the importance of utilizing certified athletic trainers.

4) Concern about legal liability is still an important issue for school superintendents. Many superintendents apparently feel that athletes trainers can play a significant role in reducing risk from liability for their school districts. Athletic trainers should consider placing more emphasis on the benefits of implementing risk reduction programs that include employing certified athletic trainers in their public awareness programs targeted at this population. This would help strengthen perceptions superintendents already have and reinforce the notion that employment of certified athletic trainers is a cost effective investment for school districts.
### Table 1 — Survey Questions and Responses

1. Have you ever had any personal contact with an athletic trainer?
   - 1) yes 335 (72.7%)
   - 2) no 117 (25.4%)
   - 3) can’t say/no response 10 (2.0%)

2. Have you ever heard of the profession of athletic training?
   - 1) yes 449 (97.6%)
   - 2) no 10 (2.2%)
   - 3) can’t say/no response 3 (0.6%)

3. If you answered yes to question #2, then from what source did you get the most information regarding the profession of athletic training?
   - 1) newspapers 34 (8.5%)
   - 2) radio 1 (0.3%)
   - 3) TV 24 (6.0%)
   - 4) university coursework 72 (18.0%)
   - 5) NATA publication 2 (0.5%)
   - 6) MATS publication 2 (0.5%)
   - 7) other 246 (61.7%)
   - 8) can’t say/no response 81 (17.5%)

4. How familiar are you with the job functions of the athletic trainer?
   - 1) very familiar 85 (18.4%)
   - 2) somewhat familiar 314 (68.0%)
   - 3) unfamiliar 53 (11.5%)
   - 4) can’t say/no response 10 (2.2%)

5. What is your personal estimation of the percentage of your high school’s athletes that were injured in school sponsored athletics last year?
   - 1) X 277 (60.0%)
   - 2) S.D. 262 (56.4%)
   - 3) Low 20% (43.2%)

6. Which of the following people do you feel is most qualified to prevent and treat athletic injuries?
   - 1) school nurse 8 (1.7%)
   - 2) coach 55 (11.9%)
   - 3) athletic trainer 350 (75.8%)
   - 4) ambulance attendant 22 (4.8%)

7. How concerned are you about legal liability in schools today?
   - 1) very concerned 299 (64.7%)
   - 2) somewhat concerned 155 (33.5%)
   - 3) unconcerned 4 (0.9%)
   - 4) can’t say/no response 4 (0.9%)

8. How concerned are you about reducing risk from legal liability for your school?
   - 1) very concerned 323 (69.9%)
   - 2) somewhat concerned 129 (27.9%)
   - 3) unconcerned 4 (0.9%)
   - 4) can’t say/no response 6 (1.2%)

9. How much of a reduction in legal liability risk do you perceive would result from the employment of an athletic trainer in your high school(s)?
   - 1) high reduction 40 (8.7%)
   - 2) moderate reduction 160 (34.6%)
   - 3) low reduction 154 (33.3%)
   - 4) can’t say/no response 108 (23.3%)

10. How willing do you believe your school district would be to commit funds to reduce athletic injury rates?
    - 1) very willing 76 (16.5%)
    - 2) moderately willing 211 (45.7%)
    - 3) very unwilling 67 (14.5%)
    - 4) can’t say/no response 108 (23.4%)

11. For each of the following athletic trainer job functions, place an “X” in the appropriate space according to how you perceive their relative importance.

1. a. prevention of injuries
   - 1) X
   - 2) X
   - 3) X
   - 4) X

2. b. recognition and evaluation
   - 1) X
   - 2) X
   - 3) X
   - 4) X

3. c. management and treatment
   - 1) X
   - 2) X
   - 3) X
   - 4) X

4. d. rehabilitation of injuries
   - 1) X
   - 2) X
   - 3) X
   - 4) X

5. e. education/counseling
   - 1) X
   - 2) X
   - 3) X
   - 4) X

6. f. organization/administration
   - 1) X
   - 2) X
   - 3) X
   - 4) X

12a. Does your school district now employ a National Athletic Trainers Association certified athletic trainer?
   - 1) yes 70 (15.2%)
   - 2) no 372 (80.5%)
   - 3) can’t say/no response 20 (4.3%)

12b. If your school district does not employ a National Athletic Trainers Association certified athletic trainer, would you be willing to employ one within the next 12 months?
   - 1) yes 35 (7.6%)
   - 2) no 204 (44.2%)
   - 3) can’t say/no response 225 (48.3%)

12c. What level of funding do you perceive would be required to employ a combination teacher/athletic trainer at your high school(s)?
   - 1) X $23,363
   - 2) S.D. $7,868
   - 3) Low $2,363

13. Were you a participant in school sponsored athletics when you were in high school or college?
   - 1) yes 409 (88.5%)
   - 2) no 53 (11.5%)

14. Were you ever injured while participating in high school or college athletics?
   - 1) yes 289 (62.6%)
   - 2) no 123 (26.6%)
   - 3) can’t say/no response 50 (10.8%)

15. Do you have children of high school age or older?
   - 1) yes 356 (77.1%)
   - 2) no 103 (22.3%)
   - 3) can’t say/no response 3 (0.6%)
16. Do/did any of your children participate in high school athletics?
1) yes 340 73.6%
2) no 26 5.6%
3) can't say/no response 96 20.8%

17. Were any of your children ever injured while participating in high school athletics?
1) yes 236 51.1%
2) no 113 24.5%
3) can't say/no response 113 24.4%

18a. How many years experience do you have as a school administrator?
1) X 17.8 years
2) S.D. 6.7 years

18b. How many years experience do you have as a teacher?
1) X 7.4 years
2) S.D. 4.8 years

18c. How many years experience do you have as a coach?
1) X 4.8 years
2) S.D. 5.0 years

19a. What is your age?
1) X 48.5 years
2) S.D. 7.3 years

19b. What is your gender?
1) female 9 1.9%
2) male 446 96.5%
3) no response 7 1.5%

References

Acknowledgements
I would like to thank Elliot Tanis and John Shaughnessy, both of the Hope College faculty, for their assistance in carrying out this project. I would also like to thank the members of the Hope College Student Athletic Trainer Staff for their assistance with the data entry. This research was supported in part through a grant from the Michigan Athletic Trainers Society.

Richard Ray
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Composition:

<table>
<thead>
<tr>
<th>Component</th>
<th>Each tablet contains</th>
<th>%USRDA*</th>
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<tr>
<td>Soluble Calcium</td>
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<td>(Calcium Lactate)</td>
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<td>(Calcium Gluconate)</td>
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<td>5 mg.</td>
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<tr>
<td>Vitamin B₂ (Pyridoxine HCl)</td>
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<tr>
<td>Vitamin B₁₂ (Crystalline on Resin)</td>
<td>2 mcg.</td>
<td>33</td>
</tr>
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*U.S.R.D.A.: U.S. recommended daily allowance for adults and children 4 or more years of age.

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Alternative Taping for Plantar Fasciitis

Donald Ray Zylks, ATC, MS

Several textbook authors have described taping methods for foot sprain and plantar fasciitis. These procedures use normal athletic tape to support the longitudinal arch. The use of moleskin for the support of the longitudinal arch is another method employed by athletic trainers. Plantar-Fascia strips marketed by Protek-Toe Products are examples of pre-cut moleskin strips produced specifically for foot sprain and plantar fasciitis.

This paper will describe an alternative procedure to traditional taping or the use of the specialty straps that are available. The procedure offers the additional strength of moleskin and the versatility of using a product purchased in bulk and adaptable to many other uses.

Materials needed:

- Roll of 2" moleskin
- Roll of 2" elastic tape
- Roll of 1½" white tape
- Adhesive spray
- Lube pad
- Scissors

The procedure utilizes moleskin strips that are 2" in width along with 2" elastic tape and regular athletic tape.

Step 1. Measure from the base of the second metatarsal of the foot down the sole and approximately 2" up the heel. Cut two strips of 2" moleskin the length measured. Prepare the foot by spraying with a tape adherent. Also, place a pad with a small amount of lubricant on the heel of the foot. (Figure 1)

Step 2. Apply strip 1 starting at the ball of the foot and angling over the center of the heel and 2" up the back of the foot. Apply the second strip of moleskin with its lateral edge placed over the base of the fifth metatarsal. Angle this strip over the center of the heel and up the back of the heel 2 inches. (Figure 2)

Step 3. Apply a horseshoe anchor of 1½" white tape. This anchor should go around the back of the heel and down each side of the foot. The athlete should be instructed to arch the foot by plantar flexing the toes. Apply 2" elastic tape around the instep of the foot to anchor the moleskin strips and give support to the foot. The elastic tape is applied from outside to inside beginning on the top of the foot, going over the lateral edge of the foot, proceeding under the foot, and ending at the point of origination. The elastic tape can be wound several times but care should be taken not to apply too tightly. This will allow the foot to be supported in an arched position and relieve pressure on the plantar fascia. (Figure 3)

Step 4. The procedure is completed by placing strips of 1½" white tape strips over the moleskin posterior of the elastic tape. The strips are attached to the horseshoe anchor on the lateral side of the foot and are taken under the foot and completed on the medial side of the horseshoe anchor. (Figures 4 and 4a)

Several methods of taping the longitudinal arch were employed on various members of a Division 1 varsity.
soccer team during the 1986 season. The method described above provided the greatest acceptance among those athletes. The procedure offers the versatility of allowing the trainer to measure the exact size moleskin strips needed for the individual athlete with no waste of material. The procedure also offers the economy of using role moleskin suitable for a multiplicity of tasks rather than a specialty product that can be used for only one purpose.

References


Figure 3

Figure 4

Figure 4a
Medical Update

Internal Medicine
Safe Weight Gain

In an effort to gain a competitive edge in athletics, some athletes are known to take various ergogenic aids to enhance their muscle size, strength, and performance. Under some conditions it may be true that ergogenic aids do enhance the athlete’s competitiveness, although actual experiments have been inconclusive. The two ergogenic aids that will be discussed are anabolic-androgenic steroids and synthetic growth hormones, then we will conclude with a safe alternative to gaining weight, muscle size, and strength, rather than using these drugs.

Anabolic steroids are prescription drugs that have been used by many athletes. These drugs include testosterone and its synthetic derivatives. Its effectiveness in improving athletic performance has been debated extensively in the sports community. In 1984, the American College of Sports Medicine (ACSM) stated that anabolic-androgenic steroids taken with an adequate diet can contribute to increases in lean body mass and that by using anabolic steroids, some persons can increase the gains in muscle strength that are achieved through exercise and proper diet (1). However, Krakauer, Anderson, and Shephard concluded, also in 1984, that the risks and complications associated with anabolic steroids exceed any possible benefits (2).

The use of anabolic-androgenic steroids has been linked with adverse effects, including structural changes in the liver, liver tumors, hyposperma or asperma, enlargement of men’s breasts, reduced production of testosterone and gonadotropin, balding, acne, testicular atrophy, and significantly lower high-density lipoprotein cholesterol levels that might increase the risk of cardiovascular disease. Psychological effects of the drugs include changes in libido, mood swings, and aggressive behavior. Adverse effects in women may include menstrual irregularities, amenorrhea, hirsutism, hypertrophy of the clitoris, acne, male-pattern baldness, and irreversible deepening of the voice. In boys, the epiphyseal will close early, decreasing ultimate height. Other effects, for any age, include jaundice, fluid retention, and hypertension.

The human growth hormone (hGH), which is a polypeptide that is secreted by the pituitary gland and essential for normal growth, has been used as a presumed ergogenic aid. The hormone has legitimate medical use in helping hGH-deficient children attain more normal heights (3). Until recently, it was only obtained from the pituitary gland of cadavers. Now, biosynthetic hGH has been approved by the Food and Drug Administration for therapeutic uses, but at the same time, there’s likely to be an increase in pressure to use it for non-therapeutic purposes, such as to gain greater height in normal children with short stature, thereby enhancing their performances athletically. There were no published studies found on the effects of hGH on the human body or athletic performance, although the use of hGH for enhancing performance causes codes to be broken that govern most sports. Using such drugs is a form of cheating and causes a violation of the real spirit of competition.

The primary problem with the use of ergogenic aids is simply ignorance. The athletes need to be more educated on the effects that these drugs have on the body. One reason it’s difficult to educate athletes now is that until recently not much scientific data had been reported. Now, however, the athletes have discovered that these drugs do, in fact, work. This causes many athletes to ignore the side effects of prolonged use because at the present time in their athletic careers, they think they have an edge over their opponents.

The question then arises from the athlete, “if I can’t take steroids or growth hormones to enhance my performance, to gain weight, build muscle mass, and gain needed strength in my sport, then what can I do?” The alternatives to the use of these drugs is very simple and really requires four very basic steps. In interviewing Dr. Joseph E. Davis Jr., an internist with valuable experience and knowledge in bodybuilding, weight gain, weight loss, and nutrition, the four steps were outlined. Dr. Davis is also the founder of the Ultra-Fit Foundation, which is dedicated to the promotion of safe weight gain and weight loss. He stated these four simple steps as:

1. **Step 1**: Have a goal in mind. About 90% of all athletes who want to gain weight or muscle mass have absolutely no idea in mind of how much they want to gain when they begin. Athletes need to have a mental picture of what they want, whether it is only 10 pounds or as much as 20-30 pounds. Usually in most athletes, the most lean muscle mass that can be gained in one year’s time is only about 7 pounds, except in some cases where a person is just beginning to gain weight they possibly gain as much as 10-15 pounds in a year, but this is an exception.

2. **Step 2**: The training program, which is very important, basically consists of working large muscle groups beginning with the legs, then the back, and then the hips. These areas will stimulate the body’s own growth hormone the most. The small muscle groups are not as much of a concern. The fact is that when the growth hormone is released, it doesn’t know where the stimulation came from and, in turn, goes to all parts of the body, increasing all muscle mass.

3. **Step 3**: The diet is also very critical in weight gain. The diet should consist of carbohydrates (75%), fats (10%), and proteins (15%). The usual mistake made is by those who think they need to eat a great amount of protein in order to gain muscle mass, which is just not true. It’s not the amount of protein eaten, but the timing of when to eat it. The greatest amount of protein should be eaten just before work-out, so it is in the body when the growth hormone is released and utilized to a greater extent. The best form of protein is either chicken, fish, or a protein supplement.

4. **Step 4**: The last step in safe weight gain is rest. The athlete must have rest, at least 8 hours sleep at night and maybe even a nap during the day. To really enhance strength and true weight gain, any extra movement will just burn up energy reserves (4).

Any football player, weight lifter, discus or shot-put thrower, wrestler, or anyone who wants to gain weight or strength in order to gain a competitive edge can do so very simply. If weight gain is not done in the appropriate manner as just discussed, many are just simply gaining a lot of body fat and very little, if any, lean muscle mass. Also, if the athlete are gaining strength and body...
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A Tip From the Field

Open-Backed Ankle Tape Job
An alternative method for taping achilles tendinitis
Benito J. Velasquez, MEd, ATC

An alternative method of taping an ankle for support without causing irritation to the achilles tendon area is an open-backed ankle tape job. During the 1986-1987 season a female basketball player with a history of ankle sprains developed achilles tendinitis. After a period of cryotherapy treatments and mild anti-inflammatory drug therapy she returned to activity. Upon her return to basketball practice, she was unable to wear the conventional ankle tape job for ankle support because of irritation to the achilles tendon. This irritation was caused by the posterior strips of tape, underwrap, and any type of padding that was used to protect the area. In addition, the conventional achilles tendon taping caused irritation. This irritation occurred through repeated efforts to pad the shoe, the tendon and use of conventional “behind the ankle” achilles tape jobs. It was evident that another method of taping the ankle for support, as well as removing all forms of irritation to the achilles, needed to be developed.

In most cases the purpose of taping the achilles tendon is to prevent extreme dorsiflexion of the ankle. In this peculiar case, extreme plantar flexion of the ankle caused pain to the achilles tendon. After identifying the problem, the open-backed ankle tape job was developed. (Semi-rigid orthoplast and commercial ankle brace (Air Cast) were considered, however the semi-rigid orthoplast brace needed to be secured by posterior strips of tape and the Air Cast was too bulky to be used in a high top basketball shoe. The Air Cast prophylactic brace also has a tendency to slip and slide. Lack of a plantar flexion lock in both braces was also evident.) This tape job is designed to provide medial-lateral support from inversion-eversion forces and provide a plantar flexion locking mechanism. With the exception of anchor stripplings at the base of the gastrocnemius, the back of the achilles tendon and ankle is left exposed. The athlete received no irritation from the tape job, athletic sock or her regular high top basketball shoe. The open-backed tape job was found to be supportive and not to effect the athlete’s running ability or jumping.

Procedure for applying the OPEN-BACKED Ankle Tape job.

Materials:  
- Tape adherent  
- 1½ inch adhesive tape  
- 3 inch elastic non-tear tape  
- Tape scissors

Benito J. Velasquez is Head Athletic Trainer-Coordinator in the Sports Medicine Program at Conner’s State College, Warner, Oklahoma 74469.
Application:

After applying tape adherent, place 1 anchor contoured strip of tape around the base of the gastrocnemius. Apply overlapping stirrups medial to lateral. From 5 to 7 stirrups are placed to provide needed support. (Figure 1) Next, apply half figure-eight strips from the medial base of the anchor and go under the foot pulling up on the lateral aspect to cause slight foot eversion. End the tape over the medial malleolus. (Figure 2) Do this several times, slightly overlapping the strips. Usually three to five strips will produce adequate foot eversion. Anterior heel locks are applied by 2 to 4 overlapping “J” strips from below the base of the medial malleolus going under the foot, pulling up on the lateral aspect to lock the heel in eversion and end the tape medially as shown. (Figure 3) Additional strips may be applied to provide desired support. Using 3-inch elastic non-tear tape and scissors cut a strip 9 inches in length. From this, cut a longitudinal notch at each end. Separate one end and attach around the intertarsal joint of the foot. Place the ankle in extreme dorsiflexion and separate the elastic tape and attach to the anchor at the base around the gastrocnemius. (Figure 5) This is the lock and will keep the ankle from plantarflexing. Secure both ends of the strip with adhesive tape. Half strips of adhesive tape may be used to hold down the elastic and provide tension. (Figure 6) The finished tape job may now be worn under a sock and regular high top basketball shoe. This tape job will prevent plantarflexion and provide medial-lateral support. ©
Athletic Trainers Better Educated, NATA “Getting Younger,” Survey Shows

David Mooney
John LeGear

The majority of athletic trainers in the United States hold an advanced degree, work 50 hours a week and attend either the NATA’s national convention or district meeting every year to keep abreast of changes in the field of sports medicine.

Those are some of the findings revealed in a survey of NATA-certified athletic trainers conducted earlier this year.

Sixty-four percent of 5,000 NATA-certified athletic trainers who received the questionnaire last April participated in the survey. Findings were based on 2,576 respondents who were “actively participating” in the profession at the time.

According to the survey, which was sponsored by the Athletic Products Division of Johnson & Johnson, Inc., athletic training remains a male-dominated profession. But women are gaining rapidly. Only 70 percent of NATA-certified trainers who participated in the survey were men. The fact that three out of 10 members surveyed were women lends further credence to recent reports from the Professional Education Committee, which have shown that half of all graduates from NATA college curriculum programs are women.

The survey showed that 42 percent of certified athletic trainers are working at the collegiate level. A surprisingly strong 31 percent work in high schools, most in the dual role of classroom teacher-athletic trainer. Forty percent of those surveyed work in professional sports.

Twenty-two percent of the respondents said they are employed in a clinic or industrial setting, which bears out claims made recently by Roy Don Wilson, chairman of the Clinic/Industrial Trainers Committee. Wilson said athletic trainers in the clinic setting are the fastest growing segment of the NATA.

Athletic trainers in professional sports spend an average of 57 hours per week at the job. College trainers work an average of 50 hours a week and those employed in the clinic/industrial setting average 39 hours per week. While high school trainers said they spend only 33 hours per week in “athletic training,” that doesn’t include time dedicated to classroom and teaching responsibilities.

High school and college trainers both serve about 630 student-athletes each year, the survey revealed. High school trainers, however, said they act as the “personal athletic trainer” for an average of 449 students during the school year. By comparison, those in college act as “personal athletic trainer” for 254 students.

Athletic trainers are employed at an estimated 10 percent of U.S. high schools. At 82 percent of those schools, there is one certified trainer and four student trainers available to provide health care. Sixty-four percent of the colleges in the U.S. have two or more athletic trainers, and an average of 10 student trainers.

Other results of the survey lend credence to what has been described as the rapidly changing face of the NATA. The “average” NATA-certified trainer today is 31 years old, with eight years of professional experience. Seventy-five percent of college trainers have at least a master’s degree and 69 percent of those working in high schools have earned an advanced degree.

Athletic trainers reported that only six percent of the physicians affiliated with their sports program are associate members of the NATA.

Athletic trainers working in pro sports and in the clinical setting were found to be most content with their jobs. Half of all high school and college trainers, on the other hand, said that while they will stay in athletic training, they would consider a change of environment.

Fifty-six percent of the respondents attended one or both of the national conventions in 1985 and 1986. Sixty-seven percent attended one or more of their district meetings in the past three years.

The Sports Medicine Broker
Kenneth L. Knight, Editor

“The athletic trainer should be a broker — not a specialist,” stated Kenneth S. “Casey” Clarke of the United States Olympic Committee at the Pennsylvania Athletic Trainers Society Meeting last May. So who is Casey Clark and what does he know about athletic training?

Clarke has been a long time friend and associate of many athletic trainers and of the athletic training profession. His first job after graduate school was with the American Medical Association where he was given the task of organizing a committee of physicians and athletic trainers to write a book on athletic injuries. Standard Nomenclature of Athletic Injuries resulted. He was the guiding force behind the development of NAIRS. And he has directed athletic trainers as an administrator at Mankato State, Pennsylvania State, Illinois State and as head of Sports Medicine at the USOC. So although Clarke is not one of us, he has seen us “up close and personal.” His ideas deserve consideration. He wasn’t describing a new practice for athletic trainers, just applying new terminology to the way most athletic trainers practice. Read on and decide for yourself.

First of all an athletic trainer is a professional, not a technician. A technician goes by the book, follows directions of others. A professional makes judgements, and sometimes must do so in situations when the basis for the judgement is thin. But, even though an athletic trainer is a professional, he/she is not a specialist. No one person can acquire the knowledge and expertise to adequately care for all sports injuries.

The role delineation study determined that an athletic trainer must have expertise in: 1) Prevention of Injuries, 2) Injury recognition and evaluation, 3) Management of Sports Injuries, 4) Rehabilitation of Sports Injuries, 5) Organization and Administration, and 6) Education and Counseling. And add being a teacher, insurance broker, maintenance man (or woman), equipment manager, traveling secretary, dietician, drug enforcement agent, and probably a few other roles.

There are too many skills required for an athletic trainer to master them all; he/she cannot be a specialist. The solution that most good athletic trainers have...
adopted is to become a specialist in some areas and to be a broker of the other areas. A broker discerns needs and then refers to a specialist who can meet those needs. Stated another way, a broker observes, evaluates, recognizes and refers.

Another role of a broker is to be a unifying force among all the specialists. Sophistication has brought many resources to sports medicine. Many professionals want to be a part of sports medicine. Athletes sometimes become confused as to which professional to see. And the “professional jealousy” between the many professionals sometimes draws an athlete into the squabbles. There must be a broker to lead the athlete and to provide some degree of unification between the specialists.

Another advantage of the concept of an athletic trainer as a broker involves liability. As the recognition of athletic trainers as professionals increases so also will the liability. A professional who makes judgements is accountable for that judgement. A broker leaves many judgements to the specialist.

Remember, Clarke stated, “the distinction between risk and jeopardy is fine. Risk is accepting normal hazards that are justified by the benefits derived. Jeopardy is the acceptance of unnecessary or unusual hazards; when tinkering becomes tampering with existing standards. Jeopardy is accepting risk for no benefit.”

One area of the organization and administration section of the role delineation study involves knowledge of, and skills in working with, other sports medicine professionals. This is essential so that the professional athletic trainer can judge when to be a practitioner and when to be a broker.

The athlete deserves optimal health care and the athletic trainer must protect him/herself from legal liability. Adopting the attitude of a professional broker will facilitate both of these goals. Also this concept takes some of the pressure off the developing professional who may feel he/she must master all knowledge relating to sports medicine. and although the words are new, the concept is not. Most athletic trainers serve as a broker without realizing it. ©

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A Tip From the Field

Pool Therapy
Janice Kaye Loudon, MS, RPT, ATC

The whirlpool is traditionally used in the training room to increase range of motion and to decrease pain (3). Another form of hydrotherapy, swimming, should not be ignored as an excellent modality for rehabilitation. Some high schools and many colleges have indoor swimming pools so access should not be a deterrent. The pool can be used almost immediately following injury when other modes such as bicycling and running are not applicable (4,5).

Exercises in water differ considerably from apparently...
similar exercises on land because of the difference in the physical properties of the two mediums. Buoyancy is a physical property of water which makes it an ideal rehabilitation medium (1). A body will float if the weight of the body is less than the weight of an equal volume of water. Depending on the position of the body in water, buoyancy can be used to assist or resist movement.

As with other forms of therapeutic exercises, pool therapy increases muscle strength and endurance, helps mobilize joints and muscle, and stimulates proprioception (3). Athletes should be given an individualized swimming therapy program which will benefit their specific injury and correlate with the physician’s order.

A program developed by Dr. Daniel Kulund keeps a runner running when injured (2). Dr. Kulund utilizes a seven-foot running pool in which resistance is provided by spa jets. The athlete wears a ski belt with rubber tubing attached to the belt and the edge of the pool. (Figure 1) The athlete mimics the running motion in the water. The workout is tailored to stimulate a dry land workout. Kulund suggests for interval training that all out runs of 60-70 seconds be performed, followed by easy runs for the same length of time. The design of the pool does not have to be intricate like Kulund’s, any pool with a diving well can be utilized.

In conjunction with pool running, resistive exercise and coordination drills can also be performed in the water. Straight leg raises can be performed in the water using buoyancy to assist, support, or resist. Standing in three feet of water the athlete can perform leg raises; fins can be added to increase resistance. (Figure 2)

Drills such as side stepping, figure eights, and carioca can also be performed in the water when full weight bearing on land is premature. The exercise in the water should simulate the skill the athlete is trying to perfect. As with any form of therapeutic exercise, ice should be applied to the injured area following workouts and any increase in swelling or pain during or after exercise should be addressed appropriately. Contraindications of pool therapy include open skin wounds, contagious skin rashes, and fear of the water.

References
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Abstract

Professionalism is an area often overlooked, but it is vital to the success of an athletic trainer. This article will discuss professionalism as it relates to the student athletic trainer’s involvement with the certified athletic trainer, coach and student athlete. Past experiences were the essence of this article as opposed to educational materials. Specific experiences which may confront the student athletic trainer as well as possible solutions to those situations will be discussed.

The purpose of this article is to introduce the concept of professionalism in the field of Athletic Training and stress its importance in a successful career. Factors, too often overlooked, which could contribute to one’s development as an athletic trainer will be addressed. This article has intentionally been entitled “The Hidden Curriculum” because professionalism cannot be taught through the use of textbooks. Experience is its primary professor.

Personal Qualities

A positive attitude may well be the most important quality one can possess. “It is not the aptitude but the attitude which determines one’s altitude” states the Rev. Jesse Jackson. This quote may be directly related to athletic training in that it is not just the knowledge or the equipment, but the qualities of an athletic trainer’s character that determines his or her success. The key issue becomes the manner in which one carries out responsibilities within a given position. In working with others, especially in a position where medical assistance is warranted, all situations must be handled in a mature manner. From providing basic information to handling emergency situations, the athletic trainer will need to possess a variety of traits, including leadership, initiative, empathy, self-control and responsibility. Personal appearance also deserves consideration. If one resembles the athletes, they will often be mistaken or treated as such. On the other hand, dressing to impress is not necessary. Comfortable, neat clothing will assist in setting an appropriate tone. Overall, actions and attitudes will make a significant statement, and ultimately determine the level of confidence and respect obtained by the athletic trainer.

Relating to the Certified Athletic Training Staff

Demonstrating professionalism to the staff athletic trainer will definitely aid in gaining the staff’s confidence. Development of verbal and written skills should be an emphasized area for the student athletic trainer. When conversing with the staff, it is appropriate to speak in a clear and concise manner using professional/medical terminology. This is especially important in emergency situations where time and management are critical. In utilizing written communications, the student athletic trainer should be attentive to accuracy and detail. Injury evaluation reports provide an initial report for the staff athletic trainer and/or physician, consequently their importance cannot be overlooked. Additional pieces of valuable written information would include treatment logs, daily injury logs, and equipment check-out logs. Not only do these communications provide documentation concerning an athlete’s status, but also they can protect the athletic trainer against liability problems and facilitate insurance procedures.

Student athletic trainers can also express their professionalism through curiosity and involvement. Reading related literature and discussing the material with the staff exemplifies professional curiosity. In addition, attending seminars, conferences and clinics will achieve the same purpose while enhancing one’s knowledge. Becoming involved in the profession can be accomplished through memberships in local and national organizations. Unfortunately, there are student athletic trainers who have not become members of the NATA. Professional involvement can also be achieved by providing community services as an athletic trainer. This could be done during activities such as road races, Special Olympics and high school all-star games.

Another way of expressing professionalism is practicing good work habits. This is applicable both in the classroom and the training room. Regularly attending classes and taking pride in receiving good grades, academically expresses a mature, responsible attitude.

In the training room, attentiveness to the appearance and upkeep of the room will be indicative of commitment to the athletic training program. Taking the initiative to do a job will be more appreciated than doing the same job but having been asked to do it.

The end result of a student athletic trainer’s professional behavior will be the staff’s awareness of one’s knowledge as well as increase in the amount of confidence and responsibility given that individual. This
should allow for more opportunities to grow and develop as an athletic trainer.

Relating to the Coaching Staff

A student athletic trainer’s relationship with the coach is indeed unique and is instrumental to one’s success when working with a team. Since first impressions are usually lasting, it is important to begin the relationship by properly introducing oneself to the coach. Making an office visit rather than catching the coach just before practice will demonstrate initiative on the part of the student athletic trainer. During the meeting, it is important to familiarize the coach with your background in the athletic training program and to discuss your role and its importance as an integral part of the student athletic trainer. This process should be advantageous in establishing a working rapport with the coach.

Developing communication skills is essential. One means of communication found to be effective is the use of daily injury reports for providing player status. In most instances, these reports are completed by the certified athletic trainer. It becomes the responsibility of the student athletic trainer to review the report and to be prepared to accurately answer any questions posed by the coach concerning the contents. It is imperative that the facts, not opinions, be provided as this could ultimately be the source of unnecessary problems.

One of the most trying situations that a student athletic trainer could encounter is a confrontation with a coach. Students, typically, are expected to look up the coaches. However, there are some situations which require the student athletic trainer to perform according to a role delineation. The student athletic trainer is responsible for carrying out the certified athletic trainer’s instructions without compromise. The student athletic trainer must be able to stand firm in dealing with the coach. If the coach chooses to ignore the student athletic trainer, this can be an awkward situation, but the student athletic trainer should gain the respect of the coach by handling the case properly.

It will be important to make a positive impression based on a professional attitude with the coach. He/she could be an important resource with regard to future job opportunities.

Relating to the Athlete

The working relationship between the student athletic trainer and the athlete can be conducive to developing friendships inside as well as outside of the training room. While friendships should not be discouraged, it is important that the student athletic trainer understand his or her role as a professional. In the training room, fraternization with the athletes should be kept to a minimum. The topic of conversations should be related to the athlete’s injury and/or treatment. The athlete must be dealt with as a person in need of medical assistance, and not as a friend. A student athletic trainer’s personal feelings for an athlete should not interfere. Being sensitive to an athlete’s needs, feelings and concerns are appropriate, but this must be done with the medical well-being of the athlete in mind. For instance, an athlete may try to convince a student athletic trainer as a friend to let them skip their rehabilitation work-out to avoid being late for practice. The student athletic trainer has a professional responsibility to the athlete which does not allow for any compromise in such situations.

The student athletic trainer must also understand the importance of patient confidentiality. It may be tempting for a student athletic trainer to release information to an athlete as a friend. This is not acceptable. The student athletic trainer must act with integrity and loyalty at all times.

In situations outside the training room involving athletes, the student athletic trainer should always be conscious of their actions. This does not mean eliminating social activities, but overindulgence could prove to be detrimental to one’s overall professional image.

The relationship between the student athletic trainer and the athlete is indeed complex. The difficulty in this situation is working with one’s peers: a situation which can be very confusing.

Conclusion

In all roles, the student athletic trainer must take responsibility for his or her actions and make a positive experience out of them. In doing so, the student athletic trainer will grow and develop as a person as well as an athletic trainer. Demonstrating professionalism will earn the respect and confidence of others, but this is not always an easy task.

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Dance Exercise Today, the journal of the International Dance-Exercise Association, Inc., is actively soliciting relevant research for publication. Since the focus of the publication is the aerobics/dance-exercise professional, articles mainly address injury prevention, kinesiology, exercise prescription and execution and exercise psychology. To submit a research report, or for more information, contact Patricia Ryan, Editor, Dance Exercise Today, 2437 Morena Blvd., Second Floor, San Diego, CA 92110.

JOURNAL REPLACEMENT POLICY

The Policy for handling claims for missing Journals due to address change is based on the stipulation that the notice of change of address be received in the National Office at least 30 days prior to publication, in order for the member to receive a gratis replacement Journal. If the member did not meet the "30 day" requirement, or did not authorize the post office to forward Second Class mail, then the responsibility for not having received the Journal rests with the member and a minimum replacement charge is made. New members and Reinstated members do not receive back issues published before their membership was validated. New members will receive the first issue published after NATA membership is in effect. Reinstated members (previously deleted due to nonpayment of dues) will receive the first issue published after reinstatement is issued from the Membership Office.

FROM THE CUE OFFICE

The new 3-year Continuing Education Report period will begin January 1, 1988. Anyone who became an Associate member, or who was Certified prior to that date is responsible for accumulating at least 6.0 CEUs during the report period. CEUs earned in excess of the requirement for the 1985/1987 CE period cannot be carried over and applied to the 1988/1990 CE period. The Continuing Education requirements and CE Report Form are published in this issue in the Committee Forum section. Take time to review the various activities that are accepted for CEUs. Requests for CEUs should always be submitted on the report form, so be sure to photocopy it for extra copies.

All activities except Categories "I" and "L" can be utilized by Associate members.

CERTIFICATION BULLETIN

All requests for a specific site are filled in order of receipt of a completed application. It is very important that all NATA Membership, CPR and Basic First Aid cards be current on the date of the examination and certification. (See Committee Forum for sites and dates)

SEASON'S GREETINGS FROM THE JOURNAL OFFICE

Especially during the holiday season our thoughts turn to those who have helped make our year's progress possible: Our Advertisers. Thanks to each of you for the pleasant association we enjoyed during 1987. We appreciate your confidence in the Journal and your support of NATA. Your goodwill is the foundation of our continued progress. At this happy time of year it is a pleasure to pause and wish you a wonderful holiday season!

"RF"-QUOTABLE QUOTES

In a communication extolling the virtues of being "gung-ho" and a "go-getter", one of our business associates used these:

Wishing is WISHBONE.
Talking is JAWBONE.
Doing something about it is BACKBONE.

—Anonymous—

"Man must sit long time with mouth wide open for roast duck to fly in."

—Confusius—

And these words from a Master:

"There's just three things I'd ever say (to my team):
If anything goes bad, I did it.
If anything goes semi-good, then we did it.
If anything goes real good, then you did it.
That's all it takes to get people to win football games for you."

—Bear Bryant—

APTA FITNESS BROCHURE

The third in the APTA brochure series entitled Fitness: A Way of Life, "A Physical Therapist's Perspective" is now available. (Two previous releases included What Young Giants and Their Parents Need to Know about Scoliosis and The Secret of Good Posture.) Complimentary single copies of the new brochure may be obtained by sending a self-addressed, stamped business size envelope to: Dept. PR-J, American Physical Therapy Association, 1111 North Fairfax Street, Alexandria, VA 22314.

VISITORS

James Moore, Fairmont High School, Kettering, Ohio; Brooks McIntyre, Pawleys Island, SC; Ronnie Barnes, New York Football Giants; Steve Yates, Wake Forest University; David and Jane Kirk, Chicago, IL; John Roberts, Knightdale, NC; William and Susan Cothren, Franklinton, NC; David M. Costello, Wake Forest University; Randy Oravetz, Sam Lunt, Jay Logan, Jerry Latimer, James Stanley, Lee Buckroth and Jerry Rider, all of Florida State University; Frank Mei Chung Lin, General Manager, Quality Sports Company Limited; Dr. Chou Chung-Hsun, President, Athletic Training Association of the Republic of China; and Professor Chou Chung-hsun, Director of Republic of China National Sports Federation, all of Taipei, Taiwan.

GRAFFITTI

*NATA Members: Please keep your personal file current with a telephone number where you may be reached, as well as your current address.

*For information on a booth at the Baltimore exhibits contact George Budig, 1100 Gest Street, Cincinnati, OH 45203 (Tele: 513/621-6111).

*Lucky Trish Darlington, ATC, Georgia State University, was the winner in the Morfam drawing at the Columbus meeting and won a Deluxe Jeanie Rub!

*And congratulations to Mueller Sports Medicine on winning two of the 1987 national Excellence Awards for progressive packaging of their "Sport Care" line of products!

*The National Office staff wishes you and those you love all the special joys of this beautiful time of year.

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Abstracts

John Wells, ATC, PT, PhD


A total of nine boxers with ten involved eyes, were evaluated and treated by members of the Wills Eye Hospital Retina Service and Staff from April 1983 to October 1985. Eight patients suffered from a retinal detachment. The ninth patient did not, as he had a traumatic tear in the retina. Each individual underwent a complete ophthalmologic examination, which included a complete history, visual acuity, applanation tonometry, slit-lamp examination, and indirect ophthalmoscopy. Of the ten eyes treated, a total of six were left eyes. When the attempt to correct the vision of the eyes was made, 20/20 vision was reobtained in three, 20/50 to 20/40 in another three and 20/50 or worse in the remaining four. All but two of the eyes had suffered rhegmatogenous retinal detachments, those two, however, were noted to have a retinal tear without any evidence of subretinal fluid. All of the injuries, that is the retinal tears, were caused by blunt trauma, and all underwent surgery while three others showed a re-accumulation of subretinal fluid due to insufficient closing of the retinal break, and the eighth patient, in the meantime, suffered from an infection occurring around the scleral buckle. In each case the retina had been reattached, except for one who developed a severe case of proliferative vitreoretinopathy. To study the risk of boxing further, we reviewed Wills Eye Hospital cases of rhegmatogenous retinal detachment in patients between the ages of 20 and 30 years of age from July 1, 1983 to June 30, 1985. In a 24 month period, 5% (6/127) of rhegmatogenous retinal detachment cases in patients recorded were those of boxers.

Nathan Rickman
The University of North Carolina at Asheville


Transcutaneous Electrical Nerve Stimulation (TENS) relieves many types of pain, including rheumatoid arthritis and osteoarthritis. The mechanisms involving pain inhibition are unknown. The Melzak-Wall Gate Control Theory proposes that pain is reduced by presynaptic inhibition of small diameter afferent fiber input by large diameter afferent fiber input at the level of the spinal cord dorsal horn. Therefore, appropriate electrical stimulation enables selective stimulation of the large diameter afferent from skin and muscles as well as those in joint capsules and thus exerts a central pain suppressive effect. Alternative explanations for peripheral electroanalgesia are electrical excitability change, placebo effect, and TENS release of endogenous morphine-like substances. In general, the patient’s subjective response to therapy rather than the effect on the joint itself is the criterion for derived benefits. While alleviation of pain remains a primary objective, this form of therapy must be used cautiously as damage to the joint may be a side effect. These joint effects could be an alternative explanation for the joint analgesia produced by TENS. Therefore, we studied the effect of TENS on the joint itself. In a previous study on a normal rabbit joint we showed a significant increase in intra-articular (IA) temperature following TENS, suggesting the analgesic effect of TENS may partially be due to changes in IA temperature. The aim of this work was to evaluate possible influences of TENS on IA temperature and pressure and on synovial tissue of inflamed rabbit joints.

Louis A. Caliendo
UNC-Asheville


Twenty-five athletes with isolated PCL injuries with a minimum follow-up of two years are included in this study. Eleven acute injuries were seen primarily at our clinic. Fourteen patients with chronic injuries were seen either as members of athletic teams under our care, the diagnosis having been made or confirmed at a pre-season examination, or for second opinions concerning the instability of the knee joint. Acute injuries were treated with a program that consisted of early motion within the limits of pain, and intensive quadriiceps and hamstring progressive resistance exercises with an emphasis on the quadriiceps, followed by a return to athletic competition upon demonstration of confidence in the knee. This range of return to activity was three weeks to six months, averaging approximately six weeks. The patients with acute injuries were placed in a Lenox Hill brace with a stop to extension at 5° of flexion. The chronic patients had been treated in a variety of ways but with a common denominator of not having any surgical procedure. All patients were evaluated both objectively and subjectively by one examiner. The subjective examination consisted of a questionnaire completed by each patient and reviewed by the examining physician. The objective examination consisted of Cybex testing of the involved and uninvolved knees, radiographic studies, KT-1000 Arthrometer evaluation of the involved and uninvolved knees, and physical examination. Twenty patients (80%) were satisfied with their knees at follow-up. Seventeen (68%) had full return to their previous athletic functions without disability. Four (16%) returned to the previous sports, but felt their levels of performance were not quite as good as before the injury. Four patients (16%) were not participating in their previous sports but were involved in less vigorous physical activities. All patients were physically active. In our study, those patients who fully returned to sport and were fully satisfied with their knees had a mean torque for three velocities of testing (Cybex II) which was greater than 100% of the uninvolved quadriiceps. Conversely, those with limited return and those who were dissatisfied with their knees all had mean values less than 100%. We feel that a patient with PCL insufficiency must strive to attain and maintain at least 100% quadriiceps strength equality in order to maintain the high degree of knee function required in sports.

Dave England
University of Arkansas

“Functional Management of Stress Fractures in Female Athletes Using a Pneumatic Leg Brace,” Thomas B. continued on page 365
Calendar of Events

Jeff Fair, ATC, EdO, CCT

January 1988

10 Oklahoma Athletic Trainers Association Annual Meeting. Contact Dan Pickett, Athletic Dept., University of Oklahoma, Norman, OK 73019.

10-15 American College of Sports Medicine Clinical Conference, Breckenridge, CO. Contact Carol Le May, ALSM, 401 W. Michigan Street, Indianapolis, IN 46202.

15-16 The Baseball Team Trainer: Injury Prevention and Treatment Techniques, Orlando, FL. Contact Centinela Hospital Medical Center, 555 East Hardy Street, Inglewood, CA 90301.

23-30 17th Annual Temple University School of Medicine Diving and Sports Medicine Program, Cayman Brac, British West Indies. Contact Temple University School of Medicine, CME 3400 N. Broad Street, Philadelphia, PA 19140.

25-28 Universal Fitness Institute, Cedar Rapids, IA. Contact Universal Gym Equipment, P.O. Box 1270, Cedar Rapids, IA, or telephone 800/553-7901.

28-30 Annual Meeting of the American College of Sports Medicine, Southeast Region, Winston-Salem, NC. Contact Ronald Bos, Division of HPER, Memorial Gymnasium, Virginia Tech, Blacksburg, VA 24061.


February

13 UCLA Sports Medicine Symposium, Los Angeles, CA. Contact Lorita Granger, UCLA Women’s Athletic Training Room, 406 Hilgard Avenue, Los Angeles, CA 90024.

14-16 Injuries In Baseball, Birmingham, AL. Contact Dale Baker, American Sports Medicine Institute, 1127 12th St. South, 3-S, P.O. Box 550039, Birmingham, AL 35255-0039.


27-March 5 Annual Office Based Sports Medicine, Snowbird, UT. Contact University of California, Extended Programs in Medical Education, Room U-569, San Francisco, CA 94143-0742.

March

7-10 Universal Fitness Institute, Cedar Rapids, IA. Contact Universal Gym Equipment, P.O. Box 1270, Cedar Rapids, IA, or telephone 800/553-7901.

9-12 21st Annual Winter Clinical Symposium of the Great Lakes Athletic Trainers Association, Indianapolis, IN. Contact Steve Risinger, Program Chairman, Anderson College, Anderson, IN 46012.

11-12 California Strength and Rehabilitation Clinic, Torrance, CA. Contact: Jerry Simmons, University of Southern California, Athletic Dept., University Park, Los Angeles, CA 90089.

11-13 The Rocky Mountain Athletic Trainer’s Association 4th Annual Business Meeting and Clinical Symposium, Albuquerque, NM. Contact: James C. Newberry, 205 Second Street, SE, Rio Rancho, NM 87124.

ATHLETIC TRAINING will list events of interest to persons involved in sports medicine, providing items are received well in advance of publication. Please include the name and address of the person to contact for further information. Send items for the CALENDAR to Jeff Fair, Head Athletic Trainer, Athletic Department, Oklahoma State University, Stillwater, OK 74074. Refer to the following dates to ensure your event will appear in the desired issue. ©

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AOSSM Presents Retired Florida State Athletic Trainer With 1987 Distinguished Service Trainer Award

Don Fauls, retired head athletic trainer for Florida State University, has been presented with the 1987 Distinguished Service Trainer Award by the American Orthopaedic Society for Sports Medicine (AOSSM). He received the award during ceremonies held at the AOSSM Annual Meeting in Orlando, Florida.

Fauls served as head athletic trainer at FSU for more than 30 years, until his retirement last year. Known affectionately as "Rooster" to his friends, he became one of the most popular men ever connected with Florida State athletics.

As part of the award, AOSSM made a $2,000 contribution to the National Athletic Trainers Association (NATA) endowment fund in Faul's name. In announcing the donation, AOSSM President Dr. Bernard R. Cahill said, "We can't really put a price tag on Don's contribution to sports training, but this donation is made with respect and admiration for all he has done for the sports training field and the young athletes he's helped."

The Distinguished Service Trainer Award was created in 1982 through the cooperative efforts of AOSSM and NATA. Recipients must have been previously elected to the NATA Hall of Fame, helped improve the quality of athletic training practice and made a national impact with their work. Previous recipients have been Pinky Newell, Otho Davis, Fred Hoover, William Linskey, and Warren Morris.

A native of Ithaca, New York, Fauls earned a bachelor's degree in physiotherapy from Ithaca College in 1948. He later played minor league baseball with the Cincinnati organization and subsequently joined the St. Louis Cardinals' farm system as a trainer. He was offered the FSU job in 1954.

During his tenure with the Seminoles, Fauls became recognized as one of the top trainers in the country. He was frequently called upon for his expertise in sports training and did stints as a trainer for the United States Pan-American Team and as a member of the U.S. Olympic Trainers' Selection Committee. He gained nationwide attention during the 1960's as a leading exponent of isometric exercise, a then newly-developed method of muscle development.

He is not only respected for his abilities as a trainer, but also as a teacher. In fact, many of his former students now occupy head athletic trainer positions at both the college and professional levels.

He has been recognized on numerous occasions for his accomplishments, including induction into several sports halls of fame including the Ithaca College Sports Hall of Fame and Florida State's Athletic Hall of Fame.

The Chicago-based AOSSM is a professional organization comprised of more than 950 physicians, primarily orthopaedic surgeons, who devote a substantial portion of their practices to various aspects of sports medicine. The majority are team physicians for high school, college or professional athletic teams.

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7141 Sherbrook St-W-Loyola
Montreal Quebec
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Guide to Contributors

Athletic Training, the Journal of the National Athletic Trainers Association (NATA), Inc., welcomes the submission of manuscripts which may be of interest to persons engaged in or concerned with the progress of the athletic training profession. Manuscripts should conform to the following:

SUBMISSION POLICIES
1. Submit one original and three copies of the manuscript to the editor. Use the third person when referring to the third person.
2. We accept manuscripts for review with the understanding that they are original, have been submitted solely to Athletic Training, and are not under simultaneous review by any other publication. All manuscripts must be accompanied by a letter, signed by each author, containing the following statements. Manuscripts which are not accompanied by such a letter will not be reviewed.

"This manuscript contains original unpublished material that has been submitted solely to Athletic Training, is not under simultaneous review by any other publication, and will not be submitted elsewhere until after a decision has been made concerning its suitability for publication in Athletic Training. In consideration of the NATA taking action in reviewing and editing my (our) submission, the authors undersigned hereby transfer, as owner(s) of the copyright, all copyright ownership to the NATA, in the event that such work is published by the NATA."

3. Materials taken from other sources, including text, illustrations, or tables, must be accompanied by a written statement from both the author and publisher granting permission to reproduce the material. Photographs of individuals must be accompanied by a signed photograph release form. Accepted manuscripts become the property of the National Athletic Trainers Association. For permission to reproduce an article, or part thereof, published in Athletic Training, send request to the Editor-in-Chief.

4. Published manuscripts and accompanying artwork cannot be returned. Unused manuscripts will be returned when submission is accompanied by a stamped, self-addressed envelope.

5. Manuscripts are reviewed and edited to improve the clarity and effectiveness of communication between the author and the reader, and to assist the author in a presentation compatible with the accepted style of Athletic Training. The author accepts responsibility for any major corrections of the manuscript as suggested by the editor. The initial review process usually takes from six to 12 weeks.

6. Athletic Training utilizes a double blind review process. Authors should take care that they are not identified in any way except on the first title and biographical sketch pages.

STYLE POLICIES
7. Personal pronouns (I, we) and the active voice are preferred. Use the third person when describing what happened, "I" or "we" (if more than one author) for describing what you did, and "you" or the imperative for instructions.

8. Each page must be typewritten on one side of 8½ x 11 inch plain paper, double spaced, with one-inch margins on all sides. Pages of artwork cannot be returned. Unused artwork to be reproduced is of good quality and clearly presented. Photographs cannot be returned. Photographs of individuals must be accompanied by a signed photograph release form.

9. Manuscripts should contain the following information, organized in the order listed, with each section beginning on a separate page:
   a. Title page
   b. Biographical sketch
   c. 2nd Title
   d. Abstract
   e. Text (body of manuscript)
   f. References
   g. Acknowledgements
   h. Legend to illustrations
   i. Illustrations - each on a separate page

10. Titles should be brief and within descriptive limits (a 16 word maximum is recommended). The name of the disability treated should be included in the title if it is the relevant factor; if the technique or type of treatment used is the principle reason for the report, this should be in the title. Often both should appear. The title page should also include the names, titles, and affiliations of each author, and the name and address of the author with whom correspondence is to be directed. Both the title and biographical sketch pages should be numbered.

11. A brief biographical sketch of each author is requested.

12. A second title page which includes only the title and with no reference to the authors is text. Begin numbering the pages of your manuscript with this page as #1.

13. A comprehensive abstract of 75 to 200 words must accompany the manuscript. This abstract should succinctly summarize the major intent of the manuscript, the major approach used, and the author's summary and/or conclusions. To state in the abstract words to the effect of "the significance of the information is discussed in the paper," is unacceptable.

14. Begin the text of the manuscript with an introductory paragraph or two in which the purpose or hypothesis of the article is clearly stated. Highlights of the most prominent work of others as related to the subject at hand is often appropriate for the introduction, but a detailed review of the literature should be reserved for the discussion section. The body or main part of the manuscript varies according to the type of article (examples follow). Regardless of the type of article, however, the body must include a discussion section in which the importance of the material presented is related to other pertinent literature. Liberal use of headings and subheadings, charts, graphs, and figures is recommended.

The body of an experimental report consists of a methodology section, a presentation of the results, and a discussion of the results. The methodology sections should contain sufficient detail concerning the methods, procedures, and apparatus employed that others can reproduce the results. The results should be summarized using descriptive and inferential statistics and a few well planned and carefully constructed illustrations.

The body of a review of the literature article should be organized into subsections in which the major difference of others is presented and summarized. Each subsection should have a heading and a brief summary, possibly one sentence. Sections must be such that they progressively focus on the problem or question posed in the introduction.

The body of a Case Report should include the following components: personal data (age, sex, race, marital status, and occupation when relevant — but not name), chief complaint, history of present complaint (including symptoms), results of physical examination (example: "Physi-

cal findings relevant to the physical therapy program were . . ."), medical history (surgery, laboratory, exam, etc.), diagnosis, treatment and clinical course (rehabilitation until return to competition, criteria for return to competition, and deviation from the expected [what makes this case unique]). NOTE: It is mandatory that Athletic Training receive, along with the submitted manuscript, a signed release form by the individual being discussed in the case study situation. Incomplete or inadequate case studies cannot be reviewed if the release is not included.

15. The Reference page(s) accompanying a manuscript should list authors numerically and in alphabetical order. Citations in the text of the manuscript will take the form of a number in parentheses, (7), directly after the reference or name of the author being cited, indicating the number assigned to the citation. The list of references and citations should be in the following form: a) authors: article(s) (distall with family names then initials, title of article, journal title, volume and date of publication, page numbers of your manuscript with this page as #1). b) Authors: book(s): title of book: pages of citation.

16. Good quality color photography is acceptable for accompanying graphics but glossy black and white prints are preferred. Graphs, charts, and other artwork should be of good quality and clearly presented on white paper with black ink in a form which will be legible if reduced for publication. Tables must be typed, but not hand written. Photographs cannot be returned if the manuscript is published. Please refrain from putting paper clips on any photographs.

All artwork to be reproduced should be submitted as black and white line art, with a Rapidograph or PMT process. Tonal values, shading, washes, Zip-a-tone - type screens effects, etc. are not to be used. All artwork to be reproduced in black plus one (or more colors) should be submitted as black and white line art (see above paragraph), with an Amberlith or similar-type overlay, employed for each additional color(s). Also, all areas of tonal value, shading, "washes," etc. should be supplied on a separate master, to be overprinted with an Amberlith overlay. In addition, all areas to be screened (in percent or tint of black or color) should be supplied on an Amberlith overlay. Artwork cannot be returned if the manuscript is published.

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Announcements

Tenth Annual N.A.T.A. Student Writing Contest

In an effort to promote scholarship among young athletic trainers, the National Athletic Trainers Association, Inc. sponsors an annual writing contest.

1. This contest is open to all undergraduate student members of the NATA.

2. Papers must be on a topic germane to the profession of athletic training and can be case reports, literature reviews, experimental reports, analysis of training room techniques, etc.

3. Entries must not have been published, nor be under consideration for publication by any journal.

4. The winning entry will receive a $100.00 cash prize and be published in Athletic Training with recognition as the winning entry in the Annual Student Writing Contest. One or more other entries may be given honorable mention status.

5. Entries must be written in journal manuscript form and adhere to all regulations set forth in the “Guide to Contributors” section of this issue of Athletic Training. It is suggested that before starting students read: Knight KL: Writing articles for the journal. Athletic Training 13: 196-198, 1978. NOTE: A reprint of this article, along with other helpful hints, can be obtained by writing to the Writing Contest Committee Chairman at the address below.

6. Entries must be received by March 1. Announcement of the winner will be made at the Annual Convention and Clinical Symposium in June.

7. The Writing Contest Committee reserves the right to make no awards if in their opinion none of the entries is of sufficient quality to merit recognition.

8. An original and two copies must be received at the following address by March 1, 1988.

NATA Student Writing Contest
Deloss Brubaker, ATC
U.S. Sports Academy
One Academy Drive
Daphne, AL 36526

Journal Deadlines/Designees

The Editorial Board will review papers submitted on an individual basis, work with the authors and prepare the papers for publication.

As stated in number 5 of the Guide to Contributors, this review process takes from 6 to 12 weeks. Send manuscripts, Case Reports, and Tips from the Field to:

Ken Knight, Editor
Physical Education Department
Indiana State University
Terre Haute, IN 47809

In order to avoid confusion and delays on other contributions to the Journal, the deadlines are provided below.

The deadlines are:

<table>
<thead>
<tr>
<th>Journal</th>
<th>Deadline</th>
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<tr>
<td>Spring Issue</td>
<td>December 15</td>
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<td>Summer Issue</td>
<td>March 1</td>
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<td>Fall Issue</td>
<td>June 15</td>
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<td>Winter Issue</td>
<td>September 15</td>
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Send material for Announcements, Letters to the Editor and Committee Forum to:

Steve Yates, Editor-in-Chief
P.O. Box 7265 - Sports Medicine Unit
Wake Forest University
Winston-Salem, NC 27109

Information on upcoming events for the Calendar of Events section should be sent to:

Jeff Fair, ATC
Athletic Department
Oklahoma State University
Stillwater, OK 74074

New Products should be sent to:
Barrie Steele, ATC
Head Athletic Trainer
University of Idaho
Moscow, Idaho 83843

Items for the Student Trainer Corner should be sent to:
Deloss Brubaker, ATC
U.S. Sports Academy
One Academy Drive
Daphne, AL 36526
1988 District Meetings

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<tr>
<th>Districts</th>
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<th>Contact Person</th>
<th>Exhibitor Contact</th>
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<tr>
<td>District 1 &amp; 2</td>
<td>January 10-12, 1988</td>
<td>Jim Gossett</td>
<td>Kerkor Kassabian</td>
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<tr>
<td></td>
<td>Kutsher's Country Club</td>
<td>Columbia University</td>
<td>Northwestern University</td>
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<tr>
<td></td>
<td>Monticello, NY</td>
<td>212/280-3178</td>
<td>617/437-3153</td>
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<tr>
<td>District 3</td>
<td>June 12, 1988</td>
<td>Andy Clawson</td>
<td>no exhibitor contact</td>
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<tr>
<td></td>
<td>Baltimore, MD</td>
<td>The Citadel</td>
<td>no exhibitor contact</td>
</tr>
<tr>
<td></td>
<td>(In conjunction with Annual Mtg. &amp; Symposium)</td>
<td>803/792-6867</td>
<td></td>
</tr>
<tr>
<td>District 4</td>
<td>March 10-12, 1988</td>
<td>Roger Kalisiak</td>
<td>no exhibitor contact</td>
</tr>
<tr>
<td></td>
<td>Adams Mark Hotel</td>
<td>Hoffman Estates High</td>
<td>no exhibitor contact</td>
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<tr>
<td></td>
<td>Indianapolis, IN</td>
<td>Hoffman Estates, IL</td>
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<td></td>
<td>312/882-8006</td>
<td></td>
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<tr>
<td>District 5</td>
<td>March 18-20, 1988</td>
<td>Jerry Weber</td>
<td>Duke LaRue</td>
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<td></td>
<td>Nebraska Center for Continuing Ed.</td>
<td>Univ. of NE - Lincoln</td>
<td>Univ. of NE - Lincoln</td>
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<tr>
<td></td>
<td>Lincoln, NE</td>
<td>402/472-2276</td>
<td>402/472-7490</td>
</tr>
<tr>
<td>District 6</td>
<td>July 21-23, 1988</td>
<td>Pete Carlon</td>
<td>Billy Pickard</td>
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<td></td>
<td>Arlington Convention Center</td>
<td>Univ. of Texas at Arlington</td>
<td>Texas A &amp; M</td>
</tr>
<tr>
<td></td>
<td>Arlington, TX</td>
<td>817/273-2261</td>
<td>409/846-8672</td>
</tr>
<tr>
<td>District 7</td>
<td>March 11-13, 1988</td>
<td>Jim Newberry</td>
<td>Billy Lyons</td>
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<tr>
<td></td>
<td>Clarion Four Seasons Hotel</td>
<td>Cibola High School</td>
<td>University of Wyoming</td>
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<td></td>
<td>Albuquerque, NM</td>
<td>Albuquerque, NM</td>
<td>307/766-2305</td>
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<td></td>
<td>505/897-0110</td>
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<tr>
<td>District 8</td>
<td>June 24-26, 1988</td>
<td>Bill Chambers</td>
<td>Bill Chambers</td>
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<td></td>
<td>Queen Mary, H.M.S.</td>
<td>Fullerton College</td>
<td>Fullerton College</td>
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<td></td>
<td>Long Beach, CA</td>
<td>Fullerton, CA</td>
<td>714/871-8000</td>
</tr>
<tr>
<td>District 9</td>
<td>July 11-14, 1988</td>
<td>Doug May</td>
<td>Chuck Kimmel</td>
</tr>
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<td></td>
<td>Southern Inn</td>
<td>Univ. of Tennessee</td>
<td>Austin Peay State Univ.</td>
</tr>
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<td></td>
<td>Chattanooga, TN</td>
<td>615/755-4275</td>
<td>615/648-6110</td>
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<tr>
<td>District 10</td>
<td>March 25-26, 1988</td>
<td>Rich DeChellis</td>
<td>Ed Elder</td>
</tr>
<tr>
<td></td>
<td>Red Lion of Eugene</td>
<td>Univ. of Oregon</td>
<td>Univ. of Oregon</td>
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<tr>
<td></td>
<td>Springfield, OR</td>
<td>503/686-4476</td>
<td>503/686-4477</td>
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Club Cybex '87

Club Med Turquoise may never be the same after 325+ rehabilitation and fitness professionals, including some notable NATA members and one four-time Olympic gold medal winner, converged there October 24-31 for CLUB CYBEX '87. The event, sponsored by Cybex, was designed mainly as a continuing educational experience for doctors, physical therapists, athletic trainers and fitness directors.

Cybex testing, rehabilitation and fitness devices were prominently displayed throughout the week. Between scheduled product demonstrations, participants had plenty of time for hands-on experience with the industry's premier sports medicine equipment. Among the participants was Pat Croce, PT, AT, and outspoken strength/conditioning coach for the Philadelphia Flyers and Philadelphia 76ers, and Al Oerter, Olympic gold medal winner in the discus.

Well-known doctors, physical therapists, athletic trainers and sports medicine specialists from all over the world attended seminars on back testing, rehabilitation and screening; orthopedic rehabilitation and sports medicine; fitness/wellness facilities management; and the rehabilitation and fitness connection. Many earned up to 4 CEUs for attending all four educational segments.

Even Club Med officials agreed this was probably the most active, health-conscious group they've ever hosted. There were very few smokers, drinkers or obese people present, yet the group ate extremely well. They burned off most of the calories by exercising, snorkeling, scuba diving, wind-surfing, swimming, playing tennis, volleyball and basketball.

Look for the next CLUB CYBEX to be held at a Club Med resort in the not-so-distant future. ©

MOVING?

Please notify the National Office of your new address as well as your old address (at least 30 days in advance of publication).
How to fit into a new fitness career.

Want to enter the dynamic new career fields of recreation and sports management, and exercise sciences? Want to join the leading edge of human development professionals who are in shape and in charge of the nation’s leading corporate fitness centers and health clubs, or providing for the prevention and care of athletic injuries?

Your springboard into all these new career opportunities can be the programs in Recreation Management, Athletic Training, and Cardiovascular Health and Exercise offered by Boston-Bouvé College at Northeastern University. Here, in the hub of Boston, the pros teach the pros how to go for it. How to develop the skills needed to be successful. These Master of Science programs offer a unique and proven balance of exercise science and practical business experiences. It’s an educational work-out that really works.

For more information, write: Graduate School, Boston-Bouvé College of Human Development Professions, Northeastern University, 107 Dockser Hall, 360 Huntington Avenue, Boston, MA 02115. Or call (617) 437-2708.

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College of Human Development Professions

NORTHEASTERN UNIVERSITY
An equal opportunity/affirmative action educational institution.
Committee Forum

Certification

Schedule of Sites and Dates

All regional sites are subject to a minimum of six candidates per site and limited to a maximum of forty candidates. Completed applications must be received by the Certification Office within the prescribed deadline for the examination date chosen.

**January 17, 1988** — Deadline for the receipt of application is December 11, 1987 at 5:00 pm E.S.T.

| Boston, MA | Montclair, NJ |
| Fort Worth, TX | Coral Gables, FL |
| Houston, TX | Granville, OH |
| Phoenix, AZ | Madison, WI |
| Costa Mesa, CA | Anderson, IN |
| Santa Clara, CA | Cheney, WA |
| Orlando, FL | Columbia, SC |
| Kansas City, MO | Richmond, VA |

**November 20, 1988** — Re-Exam only — Deadline for the receipt of application is October 7, 1988 at 5:00 pm E.S.T.

| Albuquerque, NM | Madison, WI |
| Costa Mesa, CA | Seattle, WA |
| Birmingham, AL | Greensboro, NC |
| Mechanicsburg, PA | New Britain, CT |

**May 22, 1988** — Deadline for the receipt of application is April 15, 1988 at 5:00 pm E.S.T.

| New Britain, CT | Mechanicsburg, PA |
| Fort Worth, TX | Montclair, NJ |
| Houston, TX | Minneapolis, MN |
| Denver, CO | Chicago, IL |
| Albuquerque, NM | Costa Mesa, CA |
| Santa Clara, CA | Seattle, WA |
| Lexington, KY | Portland, OR |
| Omaha, NE | Columbus, SC |
| Kansas City, MO | |

**July 10, 1988** — Deadline for the receipt of application is June 3, 1988 at 5:00 pm E.S.T.

| Boston, MA | Claymont, DE |
| Houston, TX | *Edinboro, PA |
| Denver, CO | Dayton, OH |
| Costa Mesa, CA | Holland, MI |
| Kansas City, MO | Anderson, IN |
| Omaha, NE | Eugene, OR |
| Mechanicsburg, PA | Greensboro, NC |

**July 11, 1988** — Deadline for the receipt of application is June 3, 1988 at 5:00 pm E.S.T.

| Chattanooga, TN |

You must submit a written request to receive the Examination Application Packet. “Certification Information Guide” is available for purchase by writing to the Certification Office.

The Examination Application WILL NOT BE ACCEPTED after the deadline.

If the Examination Application does not contain ALL required information, the application will be returned, and the individual will not be seated at that time.

Continuing Education

CONTINUING EDUCATION REQUIREMENTS AND APPEAL PROCESS FOR THE CERTIFIED ATHLETIC TRAINER

Units of Continuing Education shall be approved by the Continuing Education Committee of the National Athletic Trainers’ Association, Inc. Where it is applicable, the Continuing Education Unit (CEU) will be adopted as the unit of measurement to meet the Continuing Education requirements of the Certified Athletic Trainer of the NATA. The Continuing Education Unit (CEU) is defined as “ten contact hours of participation in an organized Continuing Education experience under responsible sponsorship, capable direction, and qualified instruction” (10 contact hours = one CEU).

To maintain Certification the minimum number of units to be accumulated each three (3) year Continuing Education period shall be 6 CEUs. Those Certified within the 3-year period shall have their CEU requirement prorated for that period only. The CE report periods are January 1, 1985 through December 31, 1987; January 1, 1988 through December 31, 1990; etc.

THE CERTIFIED ATHLETIC TRAINER is responsible for sending to the Continuing Education Office proof of completion of any Continuing Education Units (CEUs) and activities to be used in updating his/her record in a required period of THIRTY DAYS after completing the activity.
"THE NAME OF THE GAME IS PROTECTION"

The ANDERSON KNEE STABLER® was developed by George Anderson, Head Trainer of the Raiders, with the knowledge that long term player welfare requires lateral knee protection and that many knee injuries are preventable. The ANDERSON KNEE STABLER has an established reputation of being the most effective and widely used protective knee brace on the market today. It is endorsed by the NFL Players Association.

BI-AXIAL DESIGN
The Bi-Axial design* provides action, mobility and a protective center bar bridge to spread the load away from the knee in flexion. The Anderson still has a protective bridge compared to other braces. Single pivot or polycentric fixed track hinges give little or no protection in flexion.

MEDIAL FIXATION
The Medial Fixation Strap accessory system helps to retain the natural alignment of the knee joint. The force from an impact at the knee causes the brace to pull tension on the strap system which in turn pulls the medial pad against the knee in extension. The result is 3 point fixation as shown in the diagram.

If you are going to pay for protection make sure you get it.
THE CERTIFIED ATHLETIC TRAINER who does not accumulate the required number of CEUs during the designated 3-year period shall have his/her name turned over to Membership and Certification for appropriate action. Any action taken affecting the status of a Certified Athletic Trainer relating to Continuing Education may be appealed to the Board of Certification (Please refer to the Appeal Process section).

Certified Athletic Trainers serving as members of the Armed Forces may request (in writing) a waiver of CEUs during their tour of active duty. The request will be granted at the discretion of the Continuing Education Committee. This waiver would apply only to time spent stationed overseas.

Certified Athletic Trainers who are not members of the NATA, Inc. should consult the Board of Certification Office for the recording of their CEUs and appropriate fees.

The Continuing Education Committee has developed the following definitions of acceptable Continuing Education for Certified Athletic Trainers:

A. NATA ANNUAL MEETING AND CLINICAL SYMPOSIUM: 2 CEUs for registration and attendance of each annual meeting.*

B. SCIENTIFIC WORKSHOPS OFFERED AT NATA ANNUAL MEETING AND CLINICAL SYMPOSIUM: 1 CEU for every 10 contact hours of workshop. (1 contact hour = .1 CEU.)*

C. NATA DISTRICT MEETINGS: 1 CEU for every 10 contact hours will be awarded for the scientific program content offered at the District Meeting. (1 contact hour = .1 CEU.)

D. SHORT TERM COURSES AND SCIENTIFIC MEETINGS: Clinics, workshops, seminars, or NATA approved courses, etc., endorsed by the Continuing Education Committee. One CEU will be awarded for every 10 contact hours. Maximum of 2.0 CEUs per meeting. (1 contact hour = .1 CEU.)

E. PUBLICATION OF ORIGINAL WORK: Publication of an original paper in the NATA’s quarterly publication ATHLETIC TRAINING will be awarded 1.5 CEUs per original paper. One CEU will be awarded per original publication in a state or national scientific journal or publication of a related professional organization. Newspaper/newsletter articles awarded .5 CEUs.

F. PROGRAM PARTICIPATION AT STATE, DISTRICT OR NATIONAL MEETINGS: Credit units will be awarded for the presentation of an original paper or program participation at State, District or National level NATA meetings. One CEU will be awarded per meeting.

G. PROMOTION OF ATHLETIC TRAINING: The presentation of athletic training, or any aspect thereof, to organizations, school groups, civic groups, etc. will be awarded .5 CEUs per meeting. This also includes participation in workshops/seminars/symposiums as a speaker.

H. TEACHING OF ATHLETIC TRAINING COURSES: .5 CEUs will be awarded for each credit hour of actual teaching that is not a part of your job description, not to exceed 2 per year.

I. STUDENT TRAINER SUPERVISION: (inclusive of high school trainers). .5 CEUs per year will be awarded for supervision of a student trainer program for a full calendar year. If more than one Certified Athletic Trainer is supervising the student trainer, each receives equal credit.

J. POSTGRADUATE STUDY: Any study completed after receiving a Bachelors degree may be submitted for consideration by the Continuing Education Committee. The study must be related to improving one’s Athletic Training skills and/or knowledge. There will be .5 CEUs awarded for each credit hour accepted, with a limit of 2.0 CEUs per year to be accompanied by a copy of the transcript and course description.

K. CORRESPONDENCE COURSES: Correspondence courses in ATHLETIC TRAINING, The Journal of the National Athletic Trainers Association, Inc. will be awarded .3 CEUs per course. Correspondence courses offered by other publications related to Athletic Training will need to be approved in advance by the Continuing Education Committee. All courses approved by the Continuing Education Committee will require an examination that certifies the satisfactory completion of the course.*

L. OTHER NATA ACTIVITIES:
1. Serving as a National or District Officer in the NATA will be awarded one CEU per year.*
2. Committee membership in the NATA at the National level and/or District level will be awarded one CEU per year. An additional .5 CEUs each year will be awarded for the chairmanship of the committee.*
3. Certification testing. Those members participating in the certification examination will be awarded .5 CEUs per testing date.*
4. Examiner Development Workshop. Completion of an NATA Certification Examiner Development Workshop will be awarded .3 CEUs.*
5. Official liaison activity. Those members participating in the capacity of a liaison for the NATA will be awarded .5 CEUs each year.
6. State Organizations. Those members serving as elected officers or committee chairpersons in a formally organized State Athletic Trainers organization recognized by the NATA shall receive .5 CEUs for each full calendar year served in that capacity. This would include those committee persons officially designated as working toward state licensure.
7. Visitation team members doing curriculum evaluations shall be awarded .5 CEUs per visit not to exceed 1.0 CEUs per year.

M. TAPES AND CASSETTES OF PROCEEDINGS: Purchase of audio cassette
tapes from NATA will earn .1 CEU per tape acquired. Proof of purchase is necessary to receive credit.

N. SPECIAL PROJECTS AND CONSIDERATIONS: All projects and educational activities must be submitted to the Continuing Education Committee District Representative for consideration. Projects such as development of, or participation in films, radio conferences, television programs or other audio-visual aids that may be used as a teaching aid or for public relations in the field of athletic training will be awarded .5 CEUs per project. Preparation and presentation of scientific athletic training exhibits at the local, District or National level: Limit .5 CEUs per exhibit. Current CPR and First Aid is creditable for .5 CEUs per year. Teaching CPR and First Aid is also creditable for .5 CEU's per session taught. EMT is creditable for up to 1.0 CEUs per Continuing Education period.

O. U.S.O.C. ATHLETIC TRAINING SERVICES: Any Certified Athletic Trainer who volunteers two (2) weeks service to any United States Olympic Committee sponsored training center will be awarded 2.0 CEUs. U.S.O.C. will validate CE credit to the National Office in December of each year.

*CEUs for categories A, B, K, L-1, L-2, L-3 and L-4 are automatically recorded and do not require individual reporting.

PLEASE REFER ALL QUESTIONS CONCERNING APPROVAL OF CEU PROGRAMS TO YOUR DISTRICT CONTINUING EDUCATION REPRESENTATIVE, ALONG WITH A SELF-ADDRESSED STAMPED ENVELOPE.

APPEAL PROCESS

The Certified Athletic Trainer will receive an annual statement showing the number of CEUs accumulated. CEUs earned in excess of requirements for the current period cannot be credited to the next recording period.

If a Certified Athletic Trainer has not earned, reported, and had recorded the appropriate number of CEUs for the current period, his/her name will be turned over to Membership and Certification for appropriate action.

A Certified Athletic Trainer who fails to accumulate sufficient CEUs will receive notice that his/her name has been turned over to Membership and Certification. The Certified Athletic Trainer may appeal this action.

An appeal may be filed by notifying the Board of Certification IN WRITING WITHIN SIXTY DAYS of the receipt of such notice. The appeal should be sent to the following address:

Committee on Continuing Education/Appeal
1001 East Fourth Street
Greenville, NC 27858

NOTE: All CEU requests should be sent directly to the National Office. Workshop, seminar, and/or course pre-evaluations should be sent to the Representative in whose district the event is to take place.

870901

Convention
The 39th Annual Meeting and Clinical Symposium will be held in Baltimore, Maryland next year. Dates: June 12-15, 1988. More information to follow.

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CEU REPORT FORM
National Athletic Trainers’ Association, Inc.
Continuing Education
1001 East 4th Street
Greenville, NC 27858

Certified and Associate members of the NATA are responsible for submitting to the National Office proof of completion of any Continuing Education Units (CEUs) and activities to be used in updating his/her record within THIRTY (30) DAYS of completing that activity. Failure to do so will mean no credit will be given for that activity.

ENCLOSE A COPY OF THE PROGRAM IF ADVANCE NATA APPROVAL HAS NOT BEEN GIVEN. INCLUDE A TRANSCRIPT IF APPLYING UNDER CATEGORY J, POSTGRADUATE STUDY.

I request CEUs for the following activity: ____________________________________________________

________________________________________________________
Total Contact Hours, excluding breaks, meals, etc: ____________________________
Category: ________ Date of Activity: ____________

(Name as printed in NATA record) ____________________________ (Membership number) ________________________
Address: __________________________________________________________________________

I certify that the above information is correct ____________________________
(Signature of applicant)

PHOTOCOPY THIS FORM FOR FUTURE USE

OFFICIAL USE ONLY
CEUs awarded: ____________

Ethics

CODE OF PROFESSIONAL PRACTICE

PREAMBLE

Our profession is a calling which requires application of specialized knowledge and skill for the benefit of others. The profession of athletic training also endeavors to promote the highest standards of conduct and integrity in professional service and in our activities. After considerable study and discussion, the National Athletic Trainers Association, Inc. (NATA) Board of Directors has identified several professional principles for emphasis and has revised its previous Code of Ethics which had been in effect since 1957 and last revised in 1983. The following text, consisting of three separate documents adopted in June 1987, is the result of that study.

In considering these principles, it should be remembered that these or any other statements of professional athletic training are not all-inclusive, are subject to interpretation and are subject to change.

In approving the NATA Ethical Principles, Membership Standards, and Certification Standards which follow, the Board of Directors believes that maintaining the standards and principles set forth herein can make a substantial contribution to the service of the profession and its members to athletics and sports medicine.

ETHICAL PRINCIPLES

By setting out several basic ethical principles for athletic trainers, the NATA seeks to encourage competent and honest professional practice. The principles which follow do not in themselves establish grounds for sanctions of members. However, athletic trainers should strive to reflect these characteristics as an expression of dedicated athletic training service.

Athletic trainers should have pride in their professional endeavors. Their obligation to act competently calls for higher motivation than that arising from concerns of civil liability or disciplinary penalty. Athletic training carries a significant responsibility to others and all athletic training services should reflect this recognition. Athletic trainers should make every effort to ensure that their services are rendered properly.

1. Athletic trainers should neither practice nor condone discrimination on the basis of race, color, sex, age, religion or national origin.

2. Athletic trainers should not condone, engage in or defend unsportsman-like conduct or practices.
I. Membership Standards
In applying for membership, an applicant agrees that:
A. The individual complies and will comply with all rules and standards of NATA and bears the burden for showing and maintaining compliance at all times.
B. The cards and logos of NATA, the name "National Athletic Trainers Association, Inc.", the term "NATA", the term "ATC", and abbreviations relating thereto are all exclusive property of the NATA and may not be used in any way without the express written consent of NATA.
C. The individual shall immediately relinquish, refrain from using and correct at the individual’s expense any outdated or other inaccurate use of any NATA card, logo, emblem and the NATA name and related abbreviations in case of suspension, limitation, cancellation by or resignation from NATA or as otherwise requested by NATA.
D. If the individual refuses to relinquish immediately, refrain from using and correct at his or her expense any misuse or misleading use of any of the above items when requested, the individual agrees that NATA shall be entitled to obtain injunctive relief, damages, costs and attorney’s fees incurred in obtaining any such or other relief.

II. Eligibility for Membership
A. No individual is eligible to apply for membership unless in compliance with all NATA rules and standards. NATA may deny, cancel or otherwise act upon membership where an individual is not in compliance with NATA rules and standards.
B. The individual must truthfully complete and sign an application in the form provided by NATA and shall provide additional information as requested. The individual must notify NATA of any change in address, telephone number, and any other facts bearing on eligibility or membership within thirty (30) days of such occurrence.
C. An individual convicted of a felony directly related to public health or athletic care or education shall be ineligible to apply for membership for a period of one year from the exhaustion of appeals, completion of sentence, or completion of parole, whichever is later. Convictions of this nature include but are not limited to felonies involving: rape; sexual abuse of an athlete or child; actual or threatened use of a weapon or violence; the prohibited sale or distribution of a controlled substance, or its possession with the intent to distribute; or use of position of athletic trainer improperly (i) to influence or attempt to influence the outcome or score of an athletic event or (ii) in connection with any gambling activity.

III. Membership Sanctions and Procedures
A. Grounds for Sanctions
When a person becomes a member of the NATA he or she assumes certain obligations and responsibilities. A member is responsible for dues as provided by the By-Laws. A member whose conduct is not in accordance with the following principles below may be subject to one or more of the sanctions set out in subpart F, below. These principles are:
1. Knowingly assisting another to obtain or attempt to obtain membership by fraud or deception;
2. Misrepresentation of NATA membership status, NATA affiliation or NATA approval;
3. Misstatement of material fact or failure to make statement of material fact in application for membership; or
4. The conviction of, plea of guilty or plea of nolo contendere to a felony which is directly related to public health or athletic care or education. This includes but is not limited to a felony involving: rape; sexual abuse of an athlete or child; actual or threatened use of a weapon or violence; the prohibited sale or distribution of a controlled substance, or its possession with the intent to distribute; or use of position of athletic trainer improperly (i) to influence or attempt to influence the outcome or score of an athletic event or (ii) in connection with any gambling activity.

B. Panels
1. The NATA Membership Committee by a majority vote shall elect persons who are NATA members to form (i) a Review Panel, (ii) a Hearing Panel and (iii) an Appeals Panel to consider alleged violations of any membership standard set forth in Section III A(1)-(4). These Panels may be established as standing panels.
2. Each of these Panels shall be composed of three full-voting members and up to four non-voting (substitute) members, whose terms shall run for three years and may be renewed. A full or substitute member may not serve more than two terms consecutively and may not serve on more than one membership or certification review, hearing or appeals panel at a time. If a full or substitute member serves as a member of one of these panels, he or she may not consider the same matter while serving on a different panel. A full or substitute member may not serve in any situation where his or her impartiality or the presence of actual or apparent conflict of interest might rea-
D. Hearing

If the applicant or member disputes the allegations or available sanctions or requests a hearing:

1. The Executive Director shall:
   (a) forward the allegations and response of the member to the Hearing Panel;
   (b) schedule a hearing of the Hearing Panel after the request is received;
   (c) send by certified mail, return receipt requested, a Notice of Hearing to the member. The Notice of Hearing shall include a statement of the time and place of the hearing as selected by the Executive Director after consultation with the Chair of the Hearing Panel.

2. The Hearing Panel shall maintain a verbatim oral or written transcript.

3. The NATA and the applicant or member may make opening statements, present documents and testimony, examine and cross-examine witnesses under oath, make closing statements and present written briefs as scheduled by the Hearing Panel.

4. The Hearing Panel shall determine all matters relating to the hearing. The hearing and related matters shall be determined on the record by majority vote.

E. Evidence

Formal rules of evidence shall not apply. Relevant evidence may be admitted. Disputed questions shall be determined by majority vote of the Panel.

F. Sanctions

Sanctions for violation of any NATA Membership Standard may include one or more of:

1. Denial or suspension of eligibility;
2. Cancellation;
3. Non-renewal;
4. Censure;
5. Reprimand;
6. Suspension;
7. Training or other corrective action;
8. Reports; and
9. Conditions relating to the above.

G. Appeal

1. If the decision rendered by the Hearing Panel finds that the allegations are not established, no further action shall occur.

2. If the decision rendered by the Hearing Panel is not favorable to the applicant or member, the applicant or member may appeal to the Appeals Panel by submitting a written appeals statement to the Executive Director who shall forward the matter to the Appeals Panel. NATA may file a written response to the statement.

3. The Appeals Panel shall render a decision affirming or reversing the decision of the Hearing Panel on the record below without oral hearing, although written briefing may be submitted.

H. Decision

The decision of the Hearing Panel and the Appeals Panel shall be rendered in writing following the hearing and any briefing. The decision shall contain factual findings, conclusions of law and any sanctions applied. It shall be transmitted to the applicant or member by certified mail, return receipt requested.

I. Cancellation Procedures

1. If the Review Panel, the Hearing Panel and/or the Appeals Panel determines to cancel membership, the matter shall be submitted at the annual business meeting and membership shall be caused to cease upon two-thirds (2/3) vote of the members present.

2. A person whose membership is cancelled may furnish the Membership Committee with information relevant to reconsideration. The Membership Committee shall forward the information to the Board of Directors which shall determine the matter by majority vote.

IV. Release of Information

The individual applicant or member authorizes NATA and its agents to communicate all information relating to NATA application, membership, and review thereof to
Mobile and Stationary Whirlpools

Arrange your hydrotherapy center to fit your traffic needs. Mobile whirlpools move on heavy-duty casters to the water source. Stationary whirlpools can be recessed in the floor, mounted on a pedestal, or left free-standing. Both are made of satin-polished stainless steel for reliability.

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VII. Submission of information to NATA concerning possible violation of NATA standards
Persons concerned with possible violation of NATA standards shall identify the persons alleged to be involved and the facts concerning the alleged conduct in as much detail and specificity as possible with available documentation in a written statement addressed to the NATA Executive Director with a duplicate copy of such statement to the President of NATA, both by certified mail, return receipt requested. The statement should identify by name, address and telephone number the person making the information known to NATA and others who may have knowledge of the facts and circumstances concerning the alleged conduct. Supplementation relating to the content or form of the information may be requested.

CERTIFICATION, REVIEW OF CERTIFICATION, AND DISCIPLINARY PROCEDURES

I. NATA Standards and Review of Certificates
The NATA conducts a certification program for individual applicants and certificants, although it does not express an opinion on competence or warrant job performance of applicants and certificants. In applying for certification, an applicant or certificant agrees that:
A. The individual complies and will comply with all rules and standards of NATA and bears the burden for showing and maintaining compliance at all times.
B. The examinations, certificates, cards and logos of NATA, the name “National Athletic Trainers Association, Inc.”, the term “NATA”, the term “ATC”, and abbreviations relating thereto are all the exclusive property of the NATA and may not be used in any way without the express written consent of NATA.
C. The individual shall immediately relinquish, refrain from using and correct at the individual’s expense any outdated or other inaccurate use of any NATA certificate, card, logo, emblem and the NATA name and related abbreviations in case of suspension, limitation, revocation by or resignation from NATA or as otherwise requested by NATA.
D. If the individual refuses to relinquish immediately, refrain from using and correct at his or her expense any misuse or misleading use of any of the above items when requested, the individual agrees that NATA shall be entitled to obtain injunctive relief, damages, costs and attorney’s fees incurred in obtaining any such or other relief.

II. Eligibility for Certification or Recertification
A. No individual is eligible to apply for certification or recertification unless in compliance with all NATA rules and standards. NATA may deny, revoke, or otherwise act upon certification or recertification where an individual is not in compliance with NATA rules and standards.
B. The individual must truthfully complete and sign an application in the form provided by NATA and shall provide additional information as requested. The individual must notify NATA of any change in address, telephone number, and any other facts bearing on eligibility or certification within fifteen (15) days of such occurrence.
C. An individual convicted of a felony directly related to public health or athletic care or education shall be ineligible to apply for certification or recertification for a period of one year from the exhaustion of appeals, completion of sentence, or completion of parole, whichever is later. Convictions of this nature include but are not limited to felonies involving: rape; sexual abuse of an athlete or child; actual or threatened use of a weapon or violence; the prohibited sale or distribution of a controlled substance, or its possession with the intent to distribute; or use of position of athletic trainer improperly (i) to influence or attempt to influence the outcome or score of an athletic event or (ii) in connection with any gambling activity.

III. Score Reports
The NATA is concerned with reporting only valid scores. On rare occasions, misconduct or circumstances beyond the individual’s control may render a score invalid. If doubts are raised about a score because of these or other circumstances, NATA expects all individuals to cooperate in any NATA investigation. NATA reserves the right to cancel any examination score if, in the sole opinion of NATA, there is adequate reason to question its validity. In such a case, NATA in its sole discretion will (i) offer the individual an opportunity to take the examination again at no additional fee; (ii) offer the individual an opportunity to take the examination again in the ordinary course, including payment of all fees; or (iii) proceed as described in Section IV. Review of Applications and Certificates, below.

IV. Review of Applications and Certificates
A. Application and Certification Standards
NATA may revoke or otherwise take action with regard to the application or certificate of an individ-
3. Unauthorized possession of, use of or access to NATA examinations, documents or materials;
4. Material misrepresentation or fraud in any statement to NATA, including but not limited to statements made to assist the applicant, certificant or another to apply for, obtain or retain certification;
5. Habitual use of alcohol or any drug or any substance, or any physical or mental condition, to a degree which impairs competent and objective professional performance;
6. Gross or repeated negligence or malpractice in professional work;
7. Revocation, suspension, or other disciplinary action by a licensing board; or
8. The conviction of, plea of guilty or plea of nolo contendere to a felony which is directly related to public health or athletic care or education. This includes but is not limited to a felony involving: rape; sexual abuse of an athlete or child; actual or threatened use of a weapon or violence; the prohibited sale or distribution of a controlled substance; or its possession with the intent to distribute; or use of position of athletic trainer improperly (i) to influence or attempt to influence the outcome or score of an athletic event or (ii) in connection with any gambling activity.

B. Panels
1. The NATA Board of Certification by a majority vote shall elect persons who are certified athletic trainers to form (i) a Review Panel, (ii) a Hearing Panel, and (iii) an Appeals Panel to consider alleged violations of any Application or Certification Standard set forth in Section IV A(1)-(8). These Panels may be established as standing panels.

2. Each of these Panels shall be composed of three full-voting members and up to four non-voting (substitute) members, whose terms shall run for three years and may be renewed. A full or substitute member may not serve more than two terms consecutively and may not serve on more than one membership or certification review, hearing or appeals panel at a time. If a full or substitute member serves as a member of one of these panels, he or she may not consider the same matter while serving on a different panel. A full or substitute member may not serve in any situation where his or her impartiality or the presence of actual or apparent conflict of interest might reasonably be questioned.

3. A majority of full-voting members of a panel shall select their Chair at the beginning of each year.

4. A quorum consists of three full-voting members and panel action shall be determined by majority vote.

5. Where a vacancy of a full-voting member occurs in any of the panels as a result of resignation, unavailability or disqualification, the Chair of the Board of Certification Standards shall designate a full-voting member from the substitute members.

C. Review Procedures
Whenever the Executive Director receives allegations which raises an issue under Section IV A(1)-(8) of the Application and Certification Standards, the Executive Director shall transmit such allegations to the Chair of the Board of Certification, who shall then forward the allegations to the Chair of the Review Panel. If the Review Panel determines that no good cause exists to question eligibility or compliance with the Application and Certification Standards, no adverse action shall be taken. However, if the Review Panel determines by majority vote that good cause does exist, it shall direct the transmission of the statement of allegations by the Executive Director to the applicant or certificant by certified mail, return receipt requested, setting forth the applicable standard and a statement:
- Of facts constituting the alleged violation of the standard;
- That the applicant or certificant may request an oral hearing for the disposition of the allegations, with the applicant or certificant bearing his or her own expenses for such matter;
- That the applicant or certificant shall have fifteen (15) days after receipt of the statement to notify the Executive Director if he or she disputes the allegations, has comments on available sanctions, and/or requests an oral hearing;
- That the applicant or certificant may appear in person with the assistance of counsel, may examine and cross-examine any witness under oath, and produce evidence on his or her behalf;
- That the truth of allegations or failure to respond may result in sanctions including revocation;

D. Hearing
If an applicant or certificant disputes the allegations or available sanctions or requests a hearing:

1. The Executive Director shall:
   (a) forward the allegations and response of the applicant or certificant to the Hearing Panel;
   (b) schedule a hearing of the Hearing Panel after the request is received;
   (c) send by certified mail, return receipt requested, a Notice of Hearing to the applicant or certificant. The Notice of Hearing shall include a statement of the time and place of the hearing as selected by the Executive Director after consultation with the Chair of the Hearing Panel.

2. The Hearing Panel shall maintain a verbatim oral or written transcript.

3. The NATA and the applicant or certificant may make opening statements, present documents and testimony, examine and cross-examine witnesses under oath, make closing statements and present written briefs as scheduled by the Hearing Panel.

4. The Hearing Panel shall determine all matters relating to the hearing. The hearing and related matters shall be determined on the record by majority vote.

E. Evidence
Formal rules of evidence shall not apply. Relevant evidence may be admitted. Disputed questions shall
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be determined by majority vote of the Panel.

Sanctions
Sanctions for violation of any NATA Application or Certification Standard may include one or more of:
1. Denial or suspension of eligibility;
2. Revocation;
3. Non-renewal;
4. Censure;
5. Reprimand;
6. Suspension;
7. Training or other corrective action;
8. Reports; and
9. Conditions relating to the above.

Appeal
1. If the decision rendered by the Hearing Panel finds that the allegations are not established, no further action on the appeal shall occur.
2. If the decision rendered by the Hearing Panel is not favorable to the applicant or certificant, the applicant or certificant may appeal the decision to the Appeals Panel by submitting a written appeals statement within thirty (30) days following receipt of the decision of the Hearing Panel. NATA may file a written response to the statement of the applicant or certificant.
3. The Appeals Panel shall render a decision on the record below without oral hearing, although written briefing may be submitted.

Decision
The decision of the Hearing Panel and the Appeals Panel shall be rendered in writing following the hearing and any briefing. The decision shall contain factual findings, conclusions of law and any sanctions applied. It shall be transmitted to the applicant or certificant by certified mail, return receipt requested.

Summary Procedure
Whenever the Review Panel determines that there is cause to believe that a threat of immediate and irreparable injury to the health of the public exists, the Review Panel shall forward the allegations to the Hearing Panel. The Hearing Panel shall hear the matter by immediate telephonic or other expedited notice and hearing procedure. Following such notice and opportunity by the individual to be heard, if the Hearing Panel determines that a threat of immediate and irreparable injury to the public exists, certification may be suspended for up to 60 days pending a full hearing under the procedures in Section IV, above.

Release of Information
The individual applicant or certificant authorizes NATA and its agents to communicate all information relating to NATA application, certification and review thereof to state and federal authorities, employers, other applicants and members, training programs, and others by means of newsletter or otherwise.

Waiver
The individual releases, discharges and exonerates NATA, its officers, directors, employees, committee members, agents, and any person furnishing documents, records and other information relating to eligibility, certification or recertification from any and all liability and kind arising out of the furnishing or inspection of documents, records and other information and any investigation, evaluation, and communication made by NATA.

Reconsideration of Eligibility and Reinstatement of Certification
If eligibility or certification is denied for grounds set forth at II (A)-(C) or IV (A)(1)-(8), eligibility or certification may be reconsidered on the following basis:
1. in the event of a felony conviction directly related to public health or athletic care or education, no earlier than one year from the exhaustion of appeals, completion of sentence, or completion of parole, whichever is later; or
2. in any other event, no earlier than one year from the final decision of ineligibility or revocation.

In addition to other facts required by NATA, such an individual must fully set forth the circumstances of the decision denying eligibility or revoking certification as well as all relevant facts and circumstances since the decision relevant to the application. When eligibility has been denied because of felony conviction, the individual bears the burden of demonstrating by clear and convincing evidence that the individual has been rehabilitated and does not pose a danger to others.

Submission of information to NATA concerning possible violation of NATA standards
Persons concerned with possible violation of NATA standards shall identify the persons alleged to be involved and the facts concerning the alleged conduct in as much detail and specificity as possible with available documentation in a written statement addressed to the NATA Executive Director with a duplicate copy of such statement to the President of NATA, both by certified mail, return receipt requested. The statement should identify by name, address and telephone number the person making the information known to NATA and others who may have knowledge of the facts and circumstances concerning the alleged conduct. Supplementation relating to the content or form of the information may be requested.

Journal
The Journal Committee would like to express thanks to a number of people who have assisted Ken Knight with his editorial duties.

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356 Athletic Training • Winter 1987
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The Sys-Stim 207
Public Relations

1987 Status Report

John LeGear
Public Relations Director

Three key decisions made by the Board of Directors in 1985, and the continued support of those mandates by Board members since then, account for a steady stream of news coverage we’re witnessing in 1987 on athletic trainers, sports injuries and the NATA. What follows is a brief historical review describing how the NATA public relations program evolved, and what it has produced in recent months.

For 12 months prior to their mid-year meeting in San Antonio, Texas in 1985, the NATA Board of Directors investigated three separate proposals that would later interlock to create what has become a successful and self-perpetuating public relations program for the Association.

The first priority, Board members agree, was to launch a long-term public education program to increase awareness of the role played by athletic trainers in sports and sports medicine. The second recommendation was made by Jack Baynes, then District One Director, who proposed that Dr. John Powell, NATA Research and Injury Committee Chairman, conduct a three-year study to determine the rate and severity of injuries in high school sports. The third proposal was made by Executive Director Otho Davis and Dr. Robert Barton, who was President of the Association at the time. They recommended that, for the first time, the NATA accept funding support from corporate sponsors to defray the costs of public relations and research.

“We approved all three proposals and incorporated them into one overall program and the results speak for themselves,” said NATA President Jerry Rhea, who served on the Board in 1985 as representative of District Nine.

There is every indication today that the NATA public relations program is raising Americans’ awareness of the need for reducing thousands of needless injuries in high school sports. Dr. Powell’s research, which is fueled by the volunteer work of athletic trainers at 150 high schools across the U.S., is the reason why the NATA is widely recognized today as the central source of information relating to the risks associated with participation in high school sports. The NATA is also sought out for recommendations on how to reduce those risks.

An equally important component has been the development of the “NATA public relations network,” an army of 340 certified athletic trainers in all 50 states who convey NATA news and research to the media at the local level. Every effort is made by the NATA’s public relations staff to funnel important information into the network.

Finally, the once controversial corporate sponsorship program has been enormously successful. The Quaker Oats Company, maker of Gatorade Thirst Quencher, this year extended its sponsorship agreement with the NATA well into the 1990’s. And Johnson & Johnson, Inc., which has been supporting athletic trainers in one form or another for 50 years, has been equally generous. J & J will sponsor a new program at all district meetings in 1988 called “Athletic Training in the 1990’s.”

“Both Quaker and J & J have been sensitive to our needs to maintain the integrity and high ethical standards of the athletic training profession, as we knew they would,” explained Jerry Rhea. “I’m not sure any association could ask for more understanding than what we’ve received from these two companies.”

What’s ahead? Otho Davis said, “We’re making steady progress, but the injury toll in high school sports still exceeds one million per year. For that reason, the goals of our Association remain essentially the same today as they were three years ago. We will continue to combine research, corporate support and the volunteer efforts of athletic trainers to call attention for the need to institute better injury prevention and management programs for all interscholastic athletic programs.”

* * * * *

Following are some highlights that resulted from the NATA public relations program in the latter half of 1987:
Venerable Head Coach Tom Landry of the Dallas Cowboys hosted public service announcements for the NATA during the 1987 football season that continue to be seen on television this winter. Some 250 television stations across the United States carried the Landry testimonial calling for more athletic trainers in U.S. high schools.

A. Publicity

1) Two NATA public service announcements, hosted by Dallas Cowboys' head coach Tom Landry, have been broadcasted by 250 television stations across the U.S. since August, 1987. Landry's testimonials on behalf of placing athletic trainers for the protection of high school athletes have been seen by an estimated 30 million Americans. Coach Landry agreed to host the NATA "commercials" at the request of Dallas assistant trainer Ken Locker.

2) The NATA's "Injury Management" campaign was the lead story September 12 on ABC-TV's network program "The Health Show." NATA President Jerry Rhea was interviewed for the five-minute segment, which was aired on all ABC stations in the U.S. Viewers were invited to call the NATA "800" number for a free pamphlet. As a result of this program and the NATA/Landry commercials, NATA office manager Mary Edgerley reported receiving as average of 300 calls per week for more than a month.

3) The NATA's "high school sports injuries" issue was the focus of a three-page story October 5, 1987 in U.S. News and World Report magazine. U.S. News has a circulation of 2.4 million and some six million readers. In addition, news relating to the NATA public education campaign has been carried by an estimated 400 news organizations since the summer, among them:

THE ASSOCIATED PRESS
USA TODAY
NEW YORK TIMES
THE NEW YORK DAILY NEWS
THE CHICAGO SUN—TIMES
AMERICAN MEDICAL ASSOCIATION NEWS
LOS ANGELES HERALD EXAMINER
MINNEAPOLIS STAR
PHYSICIAN AND SPORTS MEDICINE

4) “The Today Show” featured a story October 12 about the need for athletic trainers in U.S. high schools. The spokesperson was Dwight Thomas, head football coach at a Pensacola, Florida high school where a player died as a result of a neck injury earlier this season. Coach Thomas studied news stories and research provided by the NATA prior to making his national television appearance. He was advised by NATA-certified trainer Larry Gurchiek to contact us for information. Coach Thomas' appearance generated dozens of calls to NATA headquarters for more information.

5) Paul Grace, Chairman of the NATA Certification Committee, appeared July 13 on the ABC network's "Sportsnight" program to offer an athletic trainer's perspective on the AIDS crisis.

6) A full-page black and white advertisement promoting purchase of the 24-minute NATA film documentary, "The Injury Factor," appeared in the Fall issue of Athletic Training and the September issue of Physician and Sports Medicine. Two hundred copies of the NATA film have been purchased since its release on videotape this year. Cost of the film is $30 to NATA members and $40 to non-members (please see add in this issue of Athletic Training for more information).

7) Some 250 “news” and “all talk” radio stations carried NATA public service announcements this fall.

B. Membership Program

1) Johnson & Johnson Products, Inc., in conjunction with the NATA, will unveil “Athletic Training in the 1990s,” at all district meetings in 1988. The 90-minute presentation is intended to give members a look at what the athletic training profession will be like 10 years from now. Everyone is encouraged to attend the “1990’s” presentation at their district meetings.

2) The NATA is investigating the feasibility of forming a coalition with other organizations to strengthen its public education campaign to reduce high school sports injuries. Among organizations that have either written position papers recently or reaffirmed their support of the NATA's campaign are The American Trauma Society, The American Orthopaedic Society for Sports Medicine and The National Association for Sports and Physical Education (a division of AAPEHRD).

3) Dr. Bill Prentice from the University of North Carolina at Chapel Hill, who volunteers his time to manage the NATA display booth used for important meetings and conventions, has upgraded it with new photos, a television monitor and video cassette recorder.

C. Corporate Sponsorship

1) The Quaker Oats Company, maker of Gatorade Thirst Quencher, extended its corporate sponsorship agreement into the 1990’s with the NATA.

2) Sixty-four percent of NATA-certified trainers in the U.S. responded to an NATA survey sponsored by corporate sponsor Johnson & Johnson in April. Significant results of the survey can be found in this issue of the Journal on page 323.
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- Compact, portable design. ARTU measures 39” x 21½” x 27” and weighs 145 lbs.
- Available in 110V 15 AMPS 60 Hz or 220V 10 AMPS 50 Hz.
- Full year limited warranty.

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POSTER PRESENTATIONS

CALL FOR ABSTRACTS
JUNE 1988

Each year during our National Convention, members are continually sharing ideas, procedures, techniques, innovations in and for the profession of athletic training. Most of these conversations are among small groups of members and much of the information exchanged would be highly meaningful for the larger group. Many of these ideas have been developed through systematic data collection and observations made by the athletic trainers in the performance of their responsibilities. The accumulation of this information represents an important form of applied research.

With this in mind, the NATA Research and Injury Committee will offer a Free Communications Section and a Poster Presentation at our National Meeting in Baltimore, June 1988. In order to provide organization to these sessions, the Committee is issuing a CALL FOR ABSTRACTS from the NATA membership. The titles of the projects to be presented will be available to members prior to the convention so that they will know which topics will be discussed and at what time during the session. All selected abstracts will be published in the Summer Edition of Athletic Training.

The response to these sessions has been excellent. We encourage each member to participate in these information exchanges. So please submit your abstract soon and we look forward to seeing you in Baltimore.

Members may submit more than one abstract but no member will present more than once.

Instruction for Completion of Free Communication Abstract

Please read all instructions before preparing abstract. Carefully develop your abstract so that it will be within the boundaries of the space provided on the application.

DIRECTIONS: Mail one clearly typed original prior to January 22, 1988. Photocopy the application and complete, within the boundaries, as indicated.

1) Type title of paper or project in all capital letters.
2) Type the name of all authors with the author that will make the presentation listed first.
3) Indicate presenting author's affiliation.
4) Indent three spaces on a new line and type the text of your paper.

Outside the boundaries:
1) Type the name of all authors with the author that will make the presentation listed first.
2) Indicate presenting author's affiliation.
3) Indicate that presenting author is a member of the NATA.
4) Indicate any audio-visual aid required.
5) Type the mailing address of only the presenting author.
6) Telephone numbers of only presenting author.
7) Indicate whether your preference is the Free Speech, Poster Presentation, or either format.

continued on page 379

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Volume 22 Number 4 — Winter 1987 • Athletic Training 361
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BALTIMORE, JUNE 1988

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Research and Injury Committee - Free Communications
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**Book Review**

Phil Calliourt, ATC, EdD

**Mosby's Manual of Emergency Care**
Susan A. Budassi and Janet Barber
The C.V. Mosby Company
11830 Westline Industrial Drive
St. Louis, MO 63146
1984 Second Edition
675 pages: 415 Illustrations

As the profession of athletic training evolved from the days of white pants and “horse liniment” our athletes and the general public have come to expect a higher degree of skills, knowledges, and professionalism from the Certified Athletic Trainer. One big expectation is our ability to deal with the true medical emergency, whether it be to our star quarterback or to a student in our intramural program. The manual is written by two individuals who have vast experience in the field.

In my role as an athletic trainer and Emergency Medical instructor, I am always in search of a text with wide coverage. As I reviewed the text I was impressed with the wide variety of subject matter covered. At times the contents became very technical, but it was well written. Some of the information would apply only to EMTs, but with the increasing numbers of ATCs who have been certified as Basic and Advanced EMTs, all information is appropriate.

The manual is divided into five units containing twenty-seven chapters and medications appendix. I found units two and three the most interesting. Unit two dealt with cardiac and pulmonary emergencies, neurologic emergencies and the unconscious patient, abdominal pain, and genitourinary emergencies. Unit three dealt with trauma emergencies such as head trauma, spinal cord trauma, chest trauma, and an overview of multiple trauma. The authors did an outstanding job in their chapter on limb trauma.

Chapter twenty-seven on psychiatric emergencies was enlightening. Our society with its many stresses has produced a large number of individuals experiencing psychiatric problems. The authors have covered this area in a common sense fashion with the end result being a better knowledge of these conditions and their immediate care. Many texts do not even attempt to have a section covering this very important facet of emergency care.

If we were all to be truthful, throughout our careers as Certified Athletic Trainers we dread the occurrence of a truly life threatening medical emergency. Above all we must have the skills and knowledges to provide the athletes under our care the correct emergency treatment to sustain life and minimize permanent damage. The Mosby's Manual of Emergency Care is an excellent source of concise information for dealing with emergency type situations that we hope will never happen. By utilizing the information contained in this text we can have the knowledge to react to these situations, should they arise, in a professional manner. ©
ROLE OF THE NATA CURRICULUM DIRECTOR, from page 303


ABSTRACT, from page 333


Thirteen consecutive females, ranging in age from 14 to 40 years, complaining of gradual onset of lower extremity pain were evaluated. The pain was usually localized to the lower one-half of the leg, either over the tibia or fibula. The pain was increased with activity. Three of the athletes complained of bilateral leg pain. Physical findings were limited to point tenderness over the tibia or fibula. Routine x-rays and bone scan were used to document the presence or absence of stress fractures. Following the initial evaluation a pneumatic leg brace was applied to the symptomatic leg or legs and the athlete was allowed to continue to participate in her sport at whatever level the pain would permit. The pneumatic leg brace used is a commercially available Air-Stirrup Leg Brace that is commonly used to control ankle inversion and eversion in acute or chronic ankle sprains or ankle instability. The athlete was instructed to wear the brace while participating in sports, and if the symptoms were present during the day, to wear it with the activities of daily living such as going to classes, etc. Of the 13 women engaged in this study, 10 had either a bone scan or a plain film positive for stress fracture of either the tibia or fibula; there were three bilateral tibial stress fractures. Of the 16 fractures there were 13 tibial fractures and 3 fibula fractures. All of the athletes were able to return immediately to their sport and to compete at the same level as before the onset of symptoms.

David England
University of Arkansas ©

MEDICAL UPDATE, from page 319

weight by using drugs, they are in the process of causing irreversible detrimental effects on their bodies that will endanger them in the years to come.

References


For any further information regarding safe weight gain, contact either:

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Current Literature

Brian Barry, ATC, MA


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Coping With Wintertime Skin

**Good Health Digest**

The temperature needn't plunge below freezing for the winter to take its toll on your skin. Even the mild climate of the Sunbelt undergoes enough seasonal change to make winter skin a problem. Frederick D. Malkinson, M.D., D.M.D. of the Rush-Presbyterian-St. Luke's Medical Center staff, discussed the causes of and remedies for winter-bitten skin in Promise, a Medical Center publication.

Two of the prime causes of dry skin are decreased humidity and excessive use of soap and water. Lower temperatures during the winter months naturally decrease the humidity in the air, and the indoor environment becomes less humid each time the thermostat is turned up. Daily use of soap and water speeds the skin-drying process. "Soap removes the outer layers of fat produced by our oil glands inside the skin and by epidermal cells," explains Dr. Malkinson. "Fat helps retain water in cells, and when this outer fat layer is reduced or lost, the water present in the skin cells evaporates more quickly."

Malkinson recommends taking the following precautions: Shower, if possible, rather than bathe — it takes less time and cuts down on the skin's exposure to soap and water. Use super-fatted soap, which will be less drying on your skin. Lubricate your skin with creams or ointments — especially before going to bed. Use a humidifier to add extra moisture to the air.

Beating The Sniffles

**An Apple A Day**

*Published by Cambridge Associates*

The common cold is a viral infection of the upper respiratory passages. Symptoms may include: sore throat, runny nose, earache, cough, fever, watery eyes, and weakness — an impressive list for a virus that is one billion times smaller than a normal human cell.

The best way to skirt a cold virus is also nearly impossible: avoid contact with sick individuals. Your next best bet: stay warm. Cold viruses don't avoid warm climates, but becoming overly chilled will decrease your ability to fight off the virus. Proper nutrition and
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Our analyzer measures blood lactate levels, which allows you to determine each athlete’s anaerobic capacity and respond with appropriate training. Then, with periodic testing, you can measure the effectiveness of the training and adjust it as needed. No guesswork. No overtraining.

With the YSI Lactate Analyzer, you don’t need a lab or trained technicians. A simple prick of the finger or ear lobe provides enough blood for analysis. The instrument’s display tells you what to do and when to do it, with results in 45 seconds. And you can use this compact analyzer wherever you train—at the pool, the track or in the gym.

Find out more about how our Lactate Analyzer can help you increase the effectiveness of your coaching with our affordable lease/purchase plan. Call YSI Scientific Customer Service toll-free, 800.343-HELP (or 513.767-7241), or mail the coupon.

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Adequate rest are advisable, but won’t necessarily prevent you from catching a cold. The role of vitamin C in preventing and curing the common cold has not been clearly defined.

Unfortunately, treatment of a cold is primarily symptomatic. Decongestants, antihistamines, and aspirin can bring welcome relief from the symptoms you’re experiencing, but they won’t kill the virus. Doctors insist that rest and fluids are two of the most effective ways to combat winter’s scourge.

**An Ounce of Prevention**

Good Health Digest

A Brookings Institution study raises the question: “Is an ounce of prevention worth more than a pound of cure?” The 129-page study found that preventing disease is not necessarily cheaper than curing it.

The study does not, however, ignore the fact that preventive measures hold great potential for improving health. Study author Louise B. Russell says in The Boston Globe, “…even when prevention does not save money, it can be a worthwhile investment in better health, and this — not cost saving — is the criterion on which it should be judged.” Russell suggests that physicians and consumers work together to decide when preventing disease is worth the extra cost.

Many national health care experts are convinced that preventing disease is the most effective way to reduce skyrocketing health care costs.

**Be-Attitudes**

Berry Publishing

The coward does right because it is SAFER to do so. The overly ambitious do right if it is to their ADVANTAGE to do so. The miser does right when it is CHEAPER to do so. The common person does right because it is EXPECTED.

But blessed is the person who does right because it is RIGHT. ©

**CURRENT LITERATURE, from page 366**


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ARI-MED
Edwin “Doc” Farrell was 82 years old. Prior to his service at the Institute, Mr. Farrell served as trainer for NYU for twelve years and Northern Valley Regional High School in Demarest, New Jersey for eight years. He also worked at the U.S. Olympic Training Center in Colorado Springs.

A resident of Closter, New Jersey for twenty-four years, he was very active in the community. “Doc” served as President of the Kiwanis Club several times and President of the Board of Education on four different occasions. For over 60 years he was associated with the Dykes Lumber Company in Weehawken, New Jersey. This past summer Edwin Farrell was honored at the N.A.T.A. Convention in Columbus, Ohio with his 25 year award.

“Doc” Farrell will be sorely missed by not only the Stevens faculty, staff and students by also by the Closter community. Described as a warm and giving person, his efforts have helped many.

Surviving are two sons, Donald and Brian, a daughter, Barbara, and two grandchildren, Scott and Christy.
Richard “Doc” Iliano
May 1, 1916 - June 12, 1987

When Richard “Doc” Iliano, former trainer at John Carroll University, passed away last summer he left behind a lifetime of goodwill, friendship and professional dedication.

Dick attended Baldwin Wallace College as an undergraduate student. Following his graduation he pursued a Masters degree at Case Western Reserve. After graduation he began his 36 year career at John Carroll University.

Doc Iliano developed deep seated roots during his tenure at John Carroll. He worked as trainer, teacher, and coached sports including golf, tennis, and wrestling. His contributions were so outstanding that in 1971 he was inducted into the John Carroll University Hall of Fame.

For 20 years Richard Iliano worked with the Cleveland Browns during training camp and on game days. He was awarded the NATA 25 year award also.

As a friend and a man, Dick will be missed. But for those whose life he touched, he will always be remembered.
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Q. What is a subungual hematoma and how is this condition treated?

A. A subungual hematoma is a benign, tumor-like mass formed from an effusion of blood between the nail bed and nail plate. Usually traumatic in origin, the result of a crushing-type injury or direct blow to the area, a subungual hematoma may also arise from persistent, unrelenting pressure of athletic footwear of insufficient length, depth, or flexibility; or from running sports involving sudden stops; or even occasionally from excessive downhill running or jogging. A chronically hyperextended hallux may predispose the athlete to this painful condition.

The symptoms are easy enough to recognize. As blood effuses from the nail bed and accumulates beneath the nail plate, there being no readily available escape route for it, a red to reddish brown mass is noted. If a compression-type injury is involved, striking the hallux directly with a hockey stick, for example, the blood mass forms immediately, and is noted when the athlete removes his shoe and sock. (Severe trauma with excessive effusion may even result in the lifting of the nail plate from the nail bed.) Pain increases as the hematoma enlarges, and the athlete may relate that he can “feel his heart beat” under the nail plate, the pressure having become so great. If, on the other hand, the hematoma has formed over a period of days, it may take on a much darker aspect, reddish brown to brownish black upon examination, which is the result of blood coagulation or partial clotting. In either instance, dramatic, even instantaneous relief may be obtained by extruding the blood through a hole drilled or melted through the nail plate. The method chosen depends entirely upon the degree of pressure the athlete can withstand, and from the athletic trainer’s own experience in treating this particular type of injury.

If the subungual hematoma is of recent origin, which is usually the case, the athlete seeks immediate relief from the discomfort. Some athletic trainers prefer first to attempt “drilling” a hole in the nail plate with a #10 or #11 sterile scalpel blade. This is accomplished by placing the point of the blade directly over the center of the mass and twisting it from side-to-side, or round-and-round, until the blade pierces through the nail plate. If you are careful in regulating the pressure on the blade against the nail, keeping it as even as possible, the blade will not puncture the nail bed as it passes through the nail plate; if you are not careful, however, you may cause the athlete additional discomfort by jabbing the sharp blade into the already traumatized nail bed.

If the hallux nail is quite thick or hard, or if it has become too painful to the touch of the blade, you may prefer to melt through it with a paperclip that has been heated red hot (this is the author’s preferred method in most instances). Begin by straightening out an uncoated paperclip and lock it within the jaws of a hemostat. Heat the paperclip with a fluid or gas cigarette lighter until it glows red. Then quickly, before the paperclip cools down significantly, apply it to the nail plate surface over the hematoma and gently push it through (usually two or three seconds will suffice). Occasionally a particularly thick nail may require additional reheatings and applications of the paperclip through the hole already started. Again, a steady, even pressure insures a minimum degree of discomfort to the athlete.

The result of your effort is always dramatic and instantaneous, whether you have drilled or melted through the nail plate. There is usually a spurt of blood as the area is decompressed, and a feeling of total relief to the athlete. Very few procedures that you are called upon to perform will afford such immediate and gratifying results. Additional blood may be extruded at the time of the procedure by the gentle application of pressure to the nail plate surface around the hole. The athlete should be advised that blood and/or serous fluid may continue to drain from the hole for several days.

For the next 72 hours, the athlete is advised to

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soak the affected foot three times daily in warm Epsom salts or Domeboro solution (two tablets per gallon of water). The nail plate should be painted with benzin or Merthiolate and kept covered with a Band-Aid or cloth adhesive tape. Advise the athlete that the area might remain somewhat sore for a matter of days owing to the original trauma, not (it is hoped) to your ministrations. You should advise him that the nail may fall off within several weeks or months, but more times than not, a healthy, normal nail replaces the old one. The trainer should see to it that the nail plate is held securely in place with tape or a Band-Aid for as long as possible, to protect the sensitive nail bed beneath it.

There are two final warnings and a concluding note. First, if severe pain or extreme discomfort persist after the hematoma has been reduced, or if function is impaired, x-ray examination by the team physician for a possible phalangeal fracture may be indicated. Second, on rare occasions it has been noted that if a subungual hematoma of the hallux has gone untreated (that is, has not been reduced) for a period of 5-7 days, a streptococcal infection may develop beneath the nail plate, with the possibility of further complication from lymphangitis. Use all caution, then, in regarding the athlete who comes to you for treatment up to a week post-traumatically; be wary of infections, and do not hesitate to call on the team physician for back-up.

It should be noted in conclusion that, while subungual hematomas usually occur in the mid-to proximal aspect of the nail, and can be reached only through the nail plate, that occasionally they are, in fact, distally located and may be treated with the ease of a simple blister. A portion of the hematoma likely presents itself at the distal nail edge, so that all that is necessary is a puncturing of the hematoma with a #11 blade, followed by gentle pressure against the nail plate to complete the extrusion. This procedure should be absolutely painless. Occasionally the athletic trainer may discover, to his chagrin, that he has gone after a distally located subungual hematoma by drilling or melting through the nail plate when all that was necessary was the simple insertion of a #11 blade beneath the nail plate surface. Observe the situation carefully before selecting the procedure most appropriate.

Stuart Wright, MA, FSSCh, MBChA
Consultant, Sports Medicine Unit
Bowman Gray School of Medicine
Wake Forest University
Winston Salem, North Carolina

LETTER TO THE EDITOR, from page 288

who are able to compete, the team’s chances for success are diminished. Setting aside the athletes, the athletic trainer is the first person that other department and campus personnel seek out for personal injury problems. This increases both workload and legal liabilities. As athletic trainers we usually do not have any responsibilities toward non-athletes unless stated within our job description; however, we usually treat these people without question, thereby taking needless risks.

A good trainer is as important to an athletic program as a good head coach and should be treated as such. The head athletic trainer should be in the same base salary range as a head coach and (based on education and experience) assistant athletic trainers should make as much or more than the assistant coaches.

How do we protect ourselves from being taken advantage of? When looking at a job, athletic trainers should not look only at the money, but also at the benefits. Benefits to be requested should include: insurance (health, dental, liability), registration, convention expenses, moving expenses, maternity leave, complementary tickets, car or gasoline allowance, clothing allowance and business cards. For example, if insurance is not offered, the base salary should be increased to compensate for this. Also, if your employer wants you to maintain certification, time and money should be provided for attendance at clinics and conventions so that CEUs may be obtained. Obviously depending upon place of employment (i.e. high school, college, clinic or professional) all of these benefits may not be available but if you don’t ask, you certainly won’t know.

When looking at a job, make sure that the job description is clearly defined. This job description should contain only those duties that are within the scope of athletic training. Any duties or responsibilities not directly relating to athletic training should either be deleted from the job description or appropriate compensation provided. As long as we accept dual roles and compromise the athletic training profession, administrators will continue to perpetuate the second class status of athletic trainers.

Are we too nice? Yes, we are nice, we are also caring, thoughtful and concerned with our athletes. We can’t lose those special qualities because they help make our profession what it is. But, at the same time, those special qualities could destroy our profession unless we exhibit some self-preservation. If athletic trainers don’t push for the things they work for and deserve, no one else will.

Sincerely,

Patrick Sexton, MS, ATC
Assistant Athletic Trainer
University of Wyoming
Laramie, Wyoming
Rhonda Harding, MS, ATC
Sportsmed Center
Lafayette, Indiana

RESEARCH & INJURY, from page 361

REMEMBER: Your abstract should be of the informative type and should contain:

A. Sentence stating the specific objective of the project.
B. Brief statement of methods.
C. Summary of results/implementations.
D. Statement of Conclusion/recommendations.

All submitted abstracts are sent to a sub-committee consisting of members of the NATA Research and Injury Committee. Each member of this group will independently review and rank each abstract submitted without benefit of the author’s name or affiliation. Final selection of the abstracts for presentation are determined by the review committee’s order of merit and the amount of time allotted for Free Communication Sessions at the Annual Symposium. Each presenter will have fifteen minutes in which to deliver his/her topic. Notification will be made in plenty of time for the preparation of your topic.
The following agenda items were considered and actions taken by the NATA Board of Directors at its meeting held at the Hyatt Regency Hotel, Columbus, Ohio, beginning on Thursday, June 11, 1987 and terminating on Tuesday, June 16, 1987 with Mr. Jerry Rhea, President, presiding and with the following in attendance:

Mr. Jerry Rhea, President
Mr. Otho Javara, Executive Director
Mr. Bruce Milin, Parliamentarian
Mr. Charles Bedmond, District 1
Mr. Joseph Godek, District 2
Mr. Andy Clason, District 3
Mr. Dennis Miller, District 4
Mr. Denis Issor, District 5
Mr. Jerry Weber, District 5
Mr. Paul Zeek, District 6
Ms. Janice Daniels, District 8
Mr. James D. May, District 9
Mr. Paul Zeek, District 6

I. REAPPROVAL OF MAIL ITEMS:

A. Appointment of Nina Partin, Stephen F. Austin University (District 6), to the Journal Committee.

B. Robert J. Murphy, M.D., Ohio State University, to receive the 1987 President's Challenge Award.

C. 1987 Honor Society Membership:
   1. Tony Adame, M.D., Kent, Ohio
   2. J. Pat Evans, M.D., Dallas, Texas
   3. Ned Barney Hein, M.D., Toledo, Ohio
   4. Richard C. Mariani, D.D.S., Miami, Florida
   5. Evelyn P. Mundy, Detroit, Michigan
   6. Robert J. Murphy, M.D., Columbus Ohio
   7. Robert T. Tanner, O.D., Miami, Florida
   8. 1987 Twenty-Five Year Awards to:
      1. Sam Ayoub
      2. Ralph W. Berlin
      3. J. Rodney Bimson
      4. Howard Max Crowder
      5. Edwin L. Farrell
      6. Larry (Lawrence) James Gardner
      7. Anthony (Tony) Jonassit, Jr.
      8. Charles F. Martin
      9. Jim I. Price
      10. C.F. (Frank) Randell
      11. Reginald G. Speak
      12. John J. Timman
      13. Carl L. Williams, Jr.
      14. Thomas Woodcock
      E. 1987 NATA Hall of Fame to:
         1. Joseph R. Altott (District 1)
         2. Earnest L. Harrington (District 9)
         3. L. Davis “Sandy” Sandlin (District 9)
         4. Frank J. Wichebe (District 2)
         5. Resignation of Gary Delforge, University of Arizona (District 7), Chairman of Professional Education Committee, effective June, 1987.
         6. Appointment of Peggy Houghlin, University of California (District 8), to Professional Education Committee.
         7. Resignation of Troy Young, Arizona State University (District 7), Chairman of International Games Committee.
         8. Resignation of Tony Adamle, M.D., Kent, Ohio
         9. Appointment to the Certification Committee:
            1. Katherine Pirog
            2. Daniel Libera
            3. George Roberts
            4. Richard Eugene Gueter
            5. Resignation of Gary Delforge, University of Arizona (District 7), Chairman of International Games Committee.
            6. Appointment of Bruce Kola, The Colorado College (District 7) as Chairman of International Games Committee.
            7. Appointment of Ron Medlin as Chairman of the Placement Committee.
            10. Appointment of Ron Medlin as Chairman of the Placement Committee.

II. APPROVAL OF INFORMATIONAL ITEMS:

The following reports containing no recommendations or requests for action, were, in accordance with motion made by District 5, seconded by District 9 and carried 9-0, accepted as information:

National Federation of State High School Associations
N.O.C.A.R.E.
National Strength and Conditioning Association
Athletic Training Services, Inc.

In accordance with motion made by District 5, seconded by District 8 and carried 9-0, the following items were noted as having furnished no report:

American College of Sports Medicine
American Running and Fitness Association
National Association for Girls and Women in Sports
National Association of College Directors of Athletics
American Sports Health Association
American Trauma Society

III. CAREER INFORMATION AND SERVICE:

Moved by District 8, seconded by District 4 and carried with Districts 1, 4, 5, 7, 8 and 9 voting in the affirmative; Districts 3 and 9 abstaining and with District 2 not being present, that this committee be expanded to include one person from each of the districts.
V. GRANTS AND SCHOLARSHIPS:
Moved by District 7, seconded by District 8 and carried 9-0 that this report be accepted for informational purposes.

VI. PLACEMENT COMMITTEE:
Moved by District 10, seconded by District 5 and carried 9-0 that this report be accepted for informational purposes.

VII. PUBLICATIONS:
It being indicated by District 8 that this report would be presented by the individual District report to be made by Public Relations, it was the consensus that no further considerations be given this item at this time.

VIII. AMERICAN COLLEGE HEALTH ASSOCIATION:
Moved by District 6, seconded by District 9 and carried 9-0 that this report be accepted for informational purposes.

IX. NATIONAL ACADEMY OF SPORTS VISION:
Moved by District 6, seconded by District 6 and carried 9-0 that this report be accepted for informational purposes.

X. PRESIDENT:
The Board, after considering the five applicants selected to be on the ballot for the forthcoming election for the next President, by secret ballot elected Mr. Andy Clawson (District 10) to be placed on the ballot for election by the membership.

XI. VICE PRESIDENT:
Mr. Andy Clawson was unanimously elected to the office of Vice President.

XII. EXECUTIVE DIRECTOR:
The Board unanimously ratified the reappointment of Mr. Otho Davis for another term.

XIII. SCHERING CORPORATION:
The Board accepted consideration of the topic for the National Office professional staff person for the National Office, to be charged with the hiring of at least one full-time professional staff person for the National Office, to be in place and working within one year of a move to another site.

XIV. RELATIONSHIP WITH CANADIAN ATHLETIC TRAINERS:
Mr. Smaha presented a brief verbal report on his effort toward establishing better relationships between the NATA and Canadian Athletic Trainers, indicating that slow progress was being made. It was moved by District 6, seconded by District 9 and carried 9-0 that this report be accepted for informational purposes.

XV. FORMATION OF NEW STANDING COMMITTEES:
Upon the suggestion of Mr. Davis to form three new Standing Committees, i.e., a Student Trainer Committee, a High School Professional Trainer Committee and a Committee for the Clinical/Industrial Trainer in order to give more attention to these areas of athletic training, it was moved by District 6, seconded by District 5 and carried 9-0, 1, with District 2 abstaining, that steps be taken toward the development of these committees.

Moved by District 10, seconded by District 6 and unanimously carried that in relation to each of the newly formed committees it be as has been indicated, that there be a Chair and one person from each of the NATA districts to serve as a committee person; that pro bono be recommended by the individual District Directors that they serve, and that recommendation be sent to the President and Executive Director for approval and subsequently sent to the Board for final approval.

With regard to the new Committee for the Clinical/Industrial Trainer, it was moved by District 10, seconded by District 5 and carried 9-0, with District 4 abstaining, that Roy Don Wilson be appointed as chairman of the new committee.

XVI. DIRECTORS LIABILITY INSURANCE:
The Board unanimously carried that the present status pertaining to Directors Liability Insurance following which it was moved by District 7, seconded by District 8 and carried 9-0, that this report be accepted as information.

XVII. ETHICS:
The Board was again furnished with an updated version of and listened to a brief presentation by attorney Kim Zeitzin concerning the present revised material pertaining to changes involving the Code of Ethics, following which it was moved by District 5, seconded by District 10 and unanimously carried that these changes be accepted.

Moved by District 9, seconded by District 5 and unanimously carried that the Board approve in principle the Code of Ethics as presented and discussed be approved.

X. LAWYERS:
The Board was presented, by Mr. Kim Zeitzin, attorney, with his letter of June 6, 1987, detailing various proposed technical changes to the By-laws to bring them into conformity with other documents to which they refer as which it was moved by District 5, seconded by District 10 and unanimously carried that these changes be accepted.

Moved by District 10, seconded by District 9 and unanimously carried that the By-laws be adopted with minor changes that the Board and officers of the NATA and others to the maximum extent permitted by the laws of North Carolina, which will be included in the compliance.

XX. NATA HEADQUARTERS:
The Board received a verbal presentation from representatives from Kansas City calling attention to all of the facilities housing in Kansas City for the location of the National NATA Headquarters.

The Board again listened to additional facts and information, in answer to previously unanswered questions, presented relative to the Texas site for NATA Headquarters, following which an extended discussion then ensued concerning the value of the appraisal reports presented concerning this property, following which it was moved by District 5, secondarily and unanimously carried that an independent appraiser in Dallas be employed to furnish an independent appraisal of this property.

Moved by District 7, the Executive Director, Brooks McIntyre and Legal Counsel continue to monitor the purchase of property in Grand Prairie, Texas, this particular matter pending Board approval and if when finalized, that the National Office be moved to Grand Prairie, Texas. A vote on this motion indicated Districts 2, 3, 5, 6, 7, 8, 9 and 10 voting in the affirmative and Districts 1 and 4 voting against, the motion therein carried.

Moved by District 2, seconded by District 8 and unanimously carried that the Executive Director be charged with the hiring of at least one full-time professional staff person for the National Office, to be in place and working within one year of a move to another site.

XXI. AAHPERD:
Mr. Irwin presented a very brief informational report concerning the activities of this organization since the last Report being moved by District 6, seconded by District 10 and unanimously carried that this report be accepted for informational purposes.

XXII. INTERNATIONAL GAMES:
The Board was presented with various recommendations from District 7 regarding operation of these games. It was moved by District 6, seconded by District 5 and carried 9-0 and carried unanimously, that the Board approve in principle the recommendation of Mrs. Davis with regard to Dr. Leach in support of the role of the Athletic Trainer in the professional medical program be endorsed by the Board. The report is as follows:

USOC SPORTS MEDICINE VOLUNTEER PROGRAM
(Olympic and Paralympic Games) (OTC) Selection Procedures

Preface:

Volunteer physicians and athletic trainers complement USOC's core medical staff. Recruitment is necessary to attend effectively to the hundreds of athletes from any of the 38 Olympic and Pan American Sports registered to participate at Olympic Games, Pan American Games, World University Games, and World Championships in either the medical staff for the US. Pan Am and Olympic Teams or as individual consultants. Volunteer applications are encouraged to provide consistently excellent ratings by athletes, coaches, and sports administrators.

The number of applicants for such services exceeds USOC's opportunity to utilize the volunteers in any given time frame. Therefore, the following criteria are utilized to fairly place each applicant in an order for consideration. NGB physicians and athletic trainers are encouraged to participate. Those with greater than three years' NGB experience will be given priority consideration in the coming year.

Criteria Considerations:
1. Physician applicants must possess a current active medical license.
2. Applicants must be available for a continuous two week assignment.
3. Applicants must demonstrate service during the immediate past five years as a varsity team physician or certified athletic trainer with on-the-court/field medical management responsibilities, not merely as a consultant or an athletic therapist.
4. All applicants must be U.S. Citizens.

In addition to Volunteer Criteria:
Non-NGB identified physicians are given priority in program entry. The following procedures are part of the selection process:

1. NGB-identified physicians who turn down their first assignment will have their application placed in the regular listing by date of application.
2. Other physicians who turn down their first assignment will have their application returned in a similar fashion as above, one time only.
3. Two unaccepted assignments will automatically drop the applicant from consideration. Rejections will be considered as non-priority-first time applicants and placed in numerical order of dates receipt of all materials.

Process:
When all required materials (application, information form, and curriculum vitae) are received, the application will be dated and placed in the numerical order of their arrival for an OTC volunteer assignment. All candidates’ licenses will be screened by the USOC Sports Medicine Staff to determine compliance with temporary licensure requirements in Colorado and New York.

2. Whenever possible two team members, one representing orthopedics and the second the primary and sub-specialty areas of medicine, will be appointed for concurrent duty to provide the most advantageous medical base to accommodate the various teams in residence.

3. Selection procedures that for legitimate reasons must reject assignments as candidates may be given time frame. This is a new requirement.

The program steps are as follows:

1. Two weeks (14 consecutive days) in the OTC program. Board and room only provided by USOC.
2. Appointment, at USOC's invitation, to a U.S.Olympic Festival or World University Games. (This may require 2-3 weeks of service with transportation, board and room provided by USOC.
3. Appointment, at USOC's invitation, to either an American Games, Winter Olympic Games, or Summer Olympic Games. (This may require three to nine weeks of service with transportation, board and room provided by USOC.

Evaluations are made at each program level by medical, administrative, and volunteer staff to determine their medical skills, rapport with athletes, cooperation with rules and policies of the Sports Medicine Committee, and demonstrated support of NGB and administrative officials. This is to assure selection of the most compatible future medical team.

A volunteer may request reassignment in the next following quadrennium if there is need as determined by the Sports Medicine Division, except for those who had been appointed to any of the major Games in the preceding quadrennium. The USOC will reserve the right to return, however, one veteran M.D. and one veteran athletic trainer, if
necesary, for program continuity.

6. Applicants who have met selection criteria may receive incomplete (sufficient qualifications have been met).

The excellent ratings of the 1981-84 participants by athletic Coaches and sports administrators demonstrate that this program has worked exceedingly well and has served the U.S.A. and NATA exceptionally well qualified Olympic medical volunteers.

XXIII. AMERICAN PHYSICAL THERAPY ASSOCIATION:

The Board received presentations from the cities of Salt Lake and Phoenix for consideration for 1992 convention sites. Moved by District 2, seconded by District 1 and unanimously carried that the Board identify the Texas Sports Hall of Fame, located at 402 East Safari Parkway, Grand Prairie (Dallas County) Texas, 75060, and other alternatives for use at NATA Hall of Fame National Headquarters. Moved by District 6, seconded by District 7 and unanimously carried that the Research and Injury Committee be informed that the Board will continue to support their efforts.

XXXVII. RESEARCH AND INJURY:

Moved by District 6, seconded by District 5 and unanimously carried that the Committee Report be accepted for informational purposes.

XXXVIII. CONTINUING EDUCATION UNITS:

Moved by District 8, seconded by District 10 and unanimously carried that the Board of Directors charge the Clinical Training Committee to work with District Directors to appoint committee members for each district and to set goals and objectives, functions and responsibilities for the committee, to be submitted to the Board of Directors at the mid-winter Board Meeting.

XXVIII. AMERICAN ACADEMY OF PEDIATRICS:

Moved by District 7, seconded by District 10 and unanimously carried that this report be accepted for informational purposes.

XVII. MINORITY TRAINERS COMMITTEE:

Moved by District 7, seconded by District 10 and unanimously carried that this report be accepted for information.

XXIX. JOINT COMMISSION OF COMPETITIVE SAFEGUARDS AND MEDICAL ASPECTS OF SPORTS:

Moved by District 6, seconded by District 1 and unanimously carried that the report be accepted for informational purposes.

XXX. AUDIO VISUAL AIDS:

Moved by District 5 and unanimously carried that Edward J. Ryan be accepted to be District Representative to the Audio Visual AIDS Committee.

Moved by District 5, seconded by District 9 and carried by a vote of seven to five to accept the resignation of Jerry Nosnewick from the Audio Visual AIDS Committee.

Moved by District 10, seconded by District 4 and carried unanimously to name Robert Gray as replacement for Mr. Nosnewick.

XXXI. REPORT OF TREASURER:

Moved by District 9, seconded by District 7 and unanimously carried that the Treasurer carry both the written and verbal report of the Treasurer.

XXXII. COMMITTEE ON LICENSURE:

Moved by District 5, seconded by District 9 and unanimously carried to accept the resignation of Tom Abdomino, Weber State College, District 7.

Moved by District 9, seconded by District 10 and unanimously carried to accept Mr. Ed Seiler, Denver, Colorado as District 7 on this committee.

XXXIII. MODEL LEGISLATION:

Moved by District 9, seconded by District 4 and unanimously carried to accept the document on Model Legislation as presented.

XXXIV. NATA JOURNAL:

Moved by District 9, seconded by District 5 and unanimously carried that the telephone numbers of District Directors and Secretaries be included in the Journal.

Moved by District 9, seconded by District 7 and carried by a vote of 9-0, with District 8 being absent, that the written report be accepted for informational purposes.

Moved by District 4, seconded by District 6 and unanimously carried that the Journal Committee be permitted to determine an appropriate form for the presentation of all memoral resolutions, with this form to be subsequently brought to the Board for its approval.

Moved by District 6, seconded by District 2 and unanimously carried that the report be accepted and to coordinate with the Drackett Company in the selection of the Athletic Trainer of the Year.

Moved by District 6 and District 8 and unanimously carried to accept this report for informational purposes.

XXXVI. PUBLIC RELATIONS:

Moved by District 6, seconded by District 8 and unanimously carried to accept this Committee's report for informational purposes.

Moved by District 6, seconded by District 2 and unanimously carried to continue to conduct both the report and continue to report on the progress of the newsletter.

XLI. HALL OF FAME:

Moved by District 8, seconded by District 9 and unanimously carried that the 800 clock hour clinical experiences required for a period of one year, effective June, 1987, concerning twelve Guideline violations as reported by the committee.

Moved by District 6, seconded by District 2 and carried by a vote of nine in the affirmative and with District 2 abstaining, that the probationary status of the University of Delaware, West Chester University (Pennsylvania), Miami University (Ohio), California State University (Sacramento), University of Nebraska, University of Nevada (Las Vegas), Lock Haven University and University of Virginia be removed effective June, 1987 due to demonstrated compliance with NATA Guidelines.

Moved by District 6, seconded by District 2 and unanimously carried, that Recommendation No. 3 in Gary Delforge's memo of May 28, 1987 concerning minimum professional and personal qualifications for future PEC Chairmen be rejected.

Moved by District 6, seconded by District 7 and unanimously carried that the seeking of officers for visitations be worked out between the PEC and the Executive Director.

Moved by District 6, seconded by District 10 and unanimously carried, that Recommendation No. 3 in Gary Delforge's memo of May 28, 1987, namely, that a permanent NATA ad hoc committee be established for the specific purpose of fund generation and coordination on matters concerning education and credentialing of athletic trainers and that this committee be composed of at least three members of the Professional Education, Certification, Continuing Education and the Licensure Committees, the NATA President, Executive Director and a consultant attorney be accepted for informational purposes.

Moved by District 6, seconded by District 8 and unanimously carried that 800 clock hour clinical experience requirement in NATA approved undergraduate curriculum not be changed to allow a student to accumulate clinical experience hours in an "allied clinical setting" (i.e., to be used to meet certification requirements) be proposed.

Moved by District 10, seconded by District 6 and unanimously carried that a certificate of NATA recognition of a health care experience in an approved allied clinical setting be issued on a yearly basis upon receipt of annual payment by a clinic and with the further proviso that this be predicated on the Allied Clinical Study.

continued on page 387
This year, for financial presentation purposes, we combined the NATA, Incorporated, which includes the Board of Certification and the NATA Foundation. The additional information included in your packet includes information on Grants and Scholarships.

With regard to the former, the assets of the corporation combined amount to $1,099,827, up twenty-six percent as compared to the prior year.

Revenue of $1,357,437, up seventeen percent, generating net earnings of $225,158, which was up twenty percent as compared with prior years.

The strength of the organization continues to grow and that concludes my report.

Thank you.

PRESIDENT RHEA: Thank you very much, Brooks. Do we have discussion?

At this time, I would like to entertain a motion that we accept the Treasurer’s report as presented.

MR. FRANK GEORGE: ... I so move.

PRESIDENT RHEA: The motion has been duly seconded. The motion was duly made and seconded.

At this time, I would like to call on our Executive Director, Mr. Otho Davis for some presentations.

MR. JACK WEAKLEY: Thank you, Jerry. Jack, would you please come forward, please.

We are pleased to have Jack Weakley. If you do not know him, by all means, stop by the J and J booth and introduce yourself.

Jack has been very instrumental in working with us and getting the corporate sponsorship organized and in place with J and J.

We wish to thank Jack and Johnson and Gatorade.

At this time, I would like to call on Brooks McIntyre, our Certified Public Accountant of Pawleys Island, South Carolina.

MR. BROOKS McINTYRE: Thank you.

The organization continues to sustain a high level of growth. I might add, growth is an inherent problem in any organization and this organization has done an excellent job in controlling it.

All of us, including our Board of Directors, have been wondering what is going on with these corporate sponsorships. Believe me, they have certainly enhanced our total program, have allowed us to do a lot more things than we have done in past years. They have given us new life in the future.

During this past week, I had the privilege of negotiating with Mr. Bill Schmitt of Gatorade-Quaker Oats and it is an extreme pleasure to announce to the NATA membership that our Board of Directors has approved negotiations we have just completed with Quaker Oats through the efforts of Bill Schmitt. We now have a new contract, a multi-year contract with a $1 million agreement with Gatorade.

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We are not talking chicken feed, we are talking mega bucks and these people have helped us enormously build. (Applause)

MR. BILL SCHMITT (Gatorade): Thank you, Otho. Two years ago in San Antonio, we stood before you, from Quaker Oats and Gatorade Thirst Quencher and through the efforts of Bobby Barton, Otho Davis and Jerry Rhea, we collectively, NATA and Quaker Oats, as well as in partnership with Johnson and Johnson, established a corporate sponsorship with the NATA.

It was a new era for us, it was an opportunity for us to go ahead and establish a close relationship with this organization. In the past, we have never prostituted that relationship nor do we intend to in the future. Your Executive Director, Otho Davis, your President, Jerry Rhea, your past President, Bobby Barton, and the Board of Directors are to be congratulated not only for what they have done for the future. You now have the insights going into the 1990s and it is a program addressed to your needs.

We are proud to be able to sponsor a fund, for those particular goals and objectives, to see they are well taken care of and well thought out and achieved in the 1990s.

At this time, I would like to call Jerry and Otho forward.

Initially, before we started our negotiating, I conceived this presentation as well.

At this time, on behalf of the Quaker Oats Company, makers of Gatorade Thirst Quencher, as a sign of our continued support now and in the future, I would like to take this opportunity to present a check to NATA for $100,000 so they can achieve the projected plans and goals well into the future.

Thank you very much.

Presentation of check and applause ensued.

PRESIDENT RHEA: Well, that makes us feel good. At this time, I would like to call on our Executive Director again to give his report of the business affairs that have been conducted by this Board of Directors.
Starting on Thursday night and ending about an hour ago.

MR. DAVIS: First of all, the Check that Bill just presented to us is not part of the negotiations of the contract. This was in appreciation of good will from Gatorade to the NATA.

The Board of Directors’ meeting began late on Thursday afternoon. Prior to coming to the Convention, we had received many items by mail vote and I will not get into all of those covered by mail vote. That will be a very short report.

One of the more significant items that was covered was the resignation of Gary Delforge as our Chairman of our Professional Education Committee. Gary, would you stand, please?

Rising applause ensued.

MR. DAVIS: The final item of business we took care of this morning pertaining to the Professional Education Committee was naming his replacement. None of us can quite understand why he would even want to do it and we all figured he was an ideal candidate but we might as well have our say in the head at times for wanting this challenge. He is a man who is well known to all of you, a man that has been a driving force on other committees in our Association and we welcome Dr. Robert Behnke as the new Chairman of the Professional Education Committee.

Instead of going on and on in your time this morning, all of the items that were discussed and the action taken will be published in your Journal. They will be covered, therefore, be covered at your various district meetings today. The only thing we did get through, with much delight, was the approval by our Board of Directors for a comprehensive professional liability policy covering all our national and district Officers, Committee Chairpersons and the key staff members of the Association. This was worked on for about a year. Kim Berlin of Linneman in Washington, D.C., was finally able to hammer this negotiation out after going through several insurance companies.

Other items will no doubt be of some interest to you in the selection of candidates for the Office of President. Five candidates submitted their names for the Office of President. The two candidates selected by the Board of Directors for Office are Paul Zeek of District 6 and Mark Smabek of District 10. Their resumes will be presented in our Journal and the ballot for election for our new President will be coming to you during the late winter.

There was discussion on topics for next year’s Scherwing Symposium. This will not be new yet. You will have an opportunity to discuss with your Directors and come back with suggestions for next year’s Convention.

We had presentations from representatives from Kansas City, Phoenix, Salt Lake City as to future Convention sites.

In conclusion, I would like to say that your staff and Officers will continue to devote all their time and energy to making the National Athletic Trainers Association and I take my hat off to each and every one of you, the Board of Directors and the Committee Chairmen and committee members that are serving, and I take my hat off to those of you that are not an Association. The thing that comes before me in my travels and talks before different organizations throughout the country, people wonder how in the world you people, as athletic trainers, employed full-time by other organizations, how you can organize, develop and grow as well as you have and the strides you have made and it all comes from each and every one of you in this room, each of our Brothers and Sisters who could not be here today for whatever reason it may be.

It is you, the members, who have made this Association strong and vital as it is and through people like our good friends, Johnson and Johnson and Gatorade, the corporate sponsorship and our exciting and coming to the Convention and make all this possible. Thank you. (Applause)

PRESIDENT RHEA: I will entertain a motion to accept the Executive Director’s report as given. The written minutes will appear in the winter issue of Athletic Training. The Journal of the National Athletic Trainers Association, Incorporated.

MR. AL GREEN (District 9): I so move.

MR. DENNIS HELWIG: The following is the list of Memorial Resolutions:

William Black
Charles H. Dicks
Tami Herb
Kurt Langlotz
Gregory Moore
Fred C. Reynolds
Thomas Sullivan
Raymond Wood
Raynaud Mauro
John Nieren
Lloyd Stein

If there are any others, that anyone knows of, come to the nearest microphone and let us know at this time. If not, I ask you all to stand for a moment of silence.

The audience arose and observed a moment of silence.

MR. HELWIG: May the families and friends find comfort and perhaps, as they have said, in this attitude. Also, while we are in this attitude, I would like you to remember the Board member from District 2, Mr. Ralph Rich, who was unable to be here with us. This would have been his last Board meeting with us. He is going off the Board. He is back in Pennsylvania, but Mr. Rich would not be with us. So remember him and any other of our friends and loved ones who were unable to come because of illness.

Sarah Paxton of the Drackett Company will announce the Nutrament “Athletic Trainer of the Year” Award.

MS. SARAH PAXTON: Thank you, Mr. President. On behalf of Nutrament and the Drackett Company, I wish to express our continued pleasure to be associated with NATA in sponsorship of the Athletic Trainer of the Year Awards.

Our two organizations got together eleven years ago to create an award with two purposes. First was to honor outstanding members, of which you have many, and, second, to promote public awareness of your profession through publicity of this award.

Subsequently, thirty of your members have been recognized as one of the best—they have received peer recognition from you, the members of your profession. That is a high honor indeed and we are proud to be a part of it. As you know, voting takes place at the end of each year and awards are presented at a formal dinner in Cincinnati for recipients and spouses.

Additionally, we are pleased to honor the recipients before the Convention each year, and it is my pleasure to do that at this time.

First, I would like to tell you about the High School Recipient, Hal Hillmer.

Hal has spent his entire career, to date, at John Hersey High School in the Chicago area, where he trains all sports and teaches adapted physical education. He says proudly that he has been able to make it through the NATA Placement Service.

He is active in NATA. He is in his fourth year as District IV Representative to the Board of Certification and served three years as State Secretary of the Illinois ATA. Additionally, he has volunteered his professional expertise to the Prairie State Games since 1984 and for the Illinois Athletic Congress Youth Track and Field competition.

Recently, Hal was named to the 1986 list of Outstanding Young Men in America.

Hal, please stand and be recognized by the Convention.

The University College Athletic Trainer of the Year is Chip Marchbank.

Chip is Head Athletic Trainer at Golden West College, Huntington Beach, California. Originally from Kankakee, Illinois, Chip moved West to California a little over two years ago.

Chip was attracted with folks during his youth and he became interested in athletic training as an alternative to his competitive sports. To be truly in mind, he enrolled at Fullerton Junior College where he would have the opportunity to train with the renowned Bill Chambers.

After a year as Assistant Trainer at Northwestern University, Chip returned to California, accepting a position at Westminster High School, Chip was the first paid athletic trainer in the school district. They did not even have a training table, so Chip’s father built one.

At Golden West College, Chip is responsible for twenty sports. He also developed a very successful rehabilitation program for stroke, heart attack, Parkinson’s disease and multiple sclerosis patients through the community service program at Golden West College.

The success of the program allowed the school to recently build a new Charles Johnson Wellness facility with the stipulation that Chip be able to use it to practice his first love—athletic training.

Chip and his wife, Katie, have three sons.
Excellence in Athletics...It Starts with Explosive Leg Power.

The abilities to jump higher, throw farther, accelerate faster, to swing, kick, and stroke more powerfully, all begin with explosive leg power. Plyometric training and conditioning provide that extra edge that's the difference between ordinary and excellent, between winning and losing.

Jump Training Systems was developed by Doug Beal, coach of the USA Men's Volleyball Team which was the 1984 Olympic gold medalist and the 1986 World Champions. With jump training and an aggressive playing strategy, he developed the team into the best on earth. His Ph.D. is in exercise physiology.

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The equipment consists of the Russian Leaper, the Jump Box, and the VERTEC vertical reach trainer.

Jump Training Systems is much more than special equipment, however. It's a thoroughly-researched, carefully-designed, and completely-tested training and conditioning program. Improvement in athletic performance is measurable... and often dramatic.

Jump Training Systems is sold exclusively in the United States by Sports Imports, specialist in equipment and systems for high school, collegiate, and international team sports and events.
member of the profession, Mr. Otho Davis.

Don's interest in athletics dates back to his high school days when he participated in three sports and wanted to be a football player. He enrolled at State College to pursue the idea of pursuing that goal. But fate intervened — Don met Kent State Trainer Otho Davis and the rest is history.

We were especially pleased to learn that while a member of Otho's training staff, Don spent a year enrolled in a home economics class to learn about nutrition.

There were ninety-five women, mostly nurses, in the class. He says the teacher questioned his motives, but he convinced her that nutrition was an important part of athletics. The fact that he so readily admits this part of Otho's training program on how to meet girls.

In 1975, Don accepted his current position at Syracuse. In addition to the training program, Don serves as Adjunct Professor in the Physical Education Department.

In the NATA, Don is serving his second three-year term as Secretary of the Young Professionals Committee. He has assumed Chairmanship of the NATA National Membership Committee.

He is a past member of the New York State Athletic Trainers Association and received that group's Thomas Sheehan Award in 1975.

In addition, Don served as trainer for the 1983 Pan American Games, the 1985 USA Select Basketball Team and the 1980 Olympic Games.

Don wrote and consulted for the well regarded textbook on training, Athletic Training and Sports Medicine by the American Academy of Orthopedic Surgeons.

Last night, a group of Don's former students presented him with a book bound in each of which had a written letter telling Don how much he personally contributed to them in their career. When he first presented the book, each other were appreciated, and it happened in Don's case and I know it happened in the case of many of the donors over the years. We truly know that our goal has been accomplished.

Mr. President, a trainer with a large following among his former students is the collegiate winner, Mr. Jerry Weber. Jerry, please stand. (Applause)

Mr. President, I am pleased to present a check for $7,000 in honor of the Athletic Trainers of the Year. (Applause)

Mr. Davis: We have some outgoing committee members.

MR. DAVIS: Dennis Isrow, District 5.

MR. DAVIS: Mr. Davis, please come forward.

MR. DAVIS: We have some outgoing committee members who wish to remain anonymous.

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Sponsor, National Athletic Trainers Association.

Chuck Cramer Scholarships:

Canda Ann Edwards, Southwest Missouri State University.

Sponsor, Cramer Products, Incorporated.

Frank Cranmer, Georgia State University.

Sponsor, Johnson and Johnson Products, Incorporated.

William E. Livingstone, New Mexico State University.

Sponsor, National Athletic Trainers Association.

Michael McCutcheon, University of Nebraska.

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Sponsor, National Athletic Trainers Association.
various committees and we certainly appreciate what you have done for us.

Presentation of awards and applause ensued,

MR. DAVIS: There are these other individuals I would like to recognize.

Bob Gray, Program Chairman; Bob, along with Tim Kerin and Tim Carr, put together the program for us this year.

Assisting with our banquet, Tim Carr, Jerry Whetstone, Registration

Bill Davis, Entertainment — and then some

Dale Gooring, Awards

Abbie Hart, Sponsor Program

Mill Baggs, Sponsor Program

Les Border, Sponsor Program

Gary Lake, Program Committee

... Presentation of awards and applause ensued...

MR. DAVIS: I would like to have Billy Hill recognize his local committee and the individuals who worked so hard in coordinating the program for you.

MR. BILLY HILL: This is the Local Committee. As I call your names, please stand. Hold your applause until we finish.

Bill Mohn, Program, Linda Daniel, Program, Paul Miller, Brian Siddell, Mike Bordner, Rich Burke, Jim Moore, Bill Jones, Bill Kujla, Tod Georff, Jeff Will, Mike Willetta, Tom Ortiz, Mike Kluse, Pay Jayson, Skip Vosler, Mary Kay Brauschweiger, Bill Tessendorf, Dan Razor, Cindy Barres, Greg Behrens, Becky Bower, Pat Graman, Mike Hanley.

... The above-named individuals arose and applause ensued...

MR. HILL: I know these names sound like a lot, but believe me, there was a lot of work involved. (Applause)

PRESIDENT RHEA: These things just do not happen, do they? A lot of people do a lot of work.

The people that Bill just read off of the Local Committee, if you will come forward at the end of the business meeting, you can pick up your plaques up here.

Is Andy Clary here? Andy is the athletic trainer for Miami University, Florida and Frank George, Andy has appreciation for you.

MR. ANDY CLARY: We organized an Athletic Trainers Golf Classic kind of a small number, but hopefully next year in Baltimore we will have a good turnout. All the proceeds of the tournament are going to go to the NATA Scholarship fund.

We have eighteen hole sponsors and everybody played and we want to give a check for $600 to the NATA Scholarship fund.

... Presentation of check to Mr. Frank George ensued

MR. FRANK GEORGE: I appreciate the check very much. I would almost rather have someone cut my slice ball; though. Thank you. (Applause)

PRESIDENT RHEA: That is the first productive thing I have seen come out of golf. (Laughter)

Is there any new business at this time?

There being none, I have about three minutes for comments.

First of all, through this past year, I have traveled and seen most every district meeting, all except District 7. I will be there next year. I met a lot of people. I have learned a lot from you.

I have enjoyed the communication that has flowed both ways, from you to me. I appreciate the phone calls, the letters, the conversations, the stopping me in the hall and saying "hello." I think communication makes all the work a whole lot better. You cannot cure a problem if you do not know it is there. Sometimes you cannot cure it then, but it is nice to know you have enough trust that you will still call thinking maybe we can help, but you have to let us know.

It has been an exciting year. This Board of Directors you see us up front has gone with the rookie, helped get him through this year. I have had two guiding forces — Mary Edgerley and Otho Davis have kept me in line. (Applause)

My guiding force has been Mary Edgerley. I have met a lot of people. I have learned a lot from you.

We need to continue to grow. We need to believe in ourselves. We need to believe in each other. We need to believe in this organization.

We are not small potatoes any more. We are big, big business. We have a place, an opportunity to move forward and we cannot slow down for anyone.

At this time, though, and I am going to do it again next year, I would like for everyone who serves on any committee, any assignment they have with the National Athletic Trainers Association, your district, your state, your local committee, to stand. Would you please stand if you do any job for anybody at any level.

... Those serving in any capacity arose...

PRESIDENT RHEA: This is why it works, folks. (Applause)

We twelve people up here just got to sit a little higher on our own podium, that is all.

Thank you so much. We appreciate your support. Stay with us. Do not forget, you are somebody and do not fail, ever, to tell somebody else you are somebody. Our Public Relations Campaign, along with our Research and Injury Committees, we had the first press conference in New York in February. What a success that was and how much we thank John LeGear and Bobby Barton for their direction. There is another press conference this afternoon to release the information from the Girls' Basketball Study and we hope we get equal play in our meeting with them.

You are dismissed. Except Kent Falb, he is coming back to the lectures. (Applause)

... Whereupon at twelve-o clock p.m., the Business Meeting was adjourned...
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