



# ATHLETIC TRAINING

THE JOURNAL OF THE NATIONAL ATHLETIC TRAINERS ASSOCIATION, INC.



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**William E. Newell**  
1920-1984

Volume 19  
Number 4  
Winter 1984

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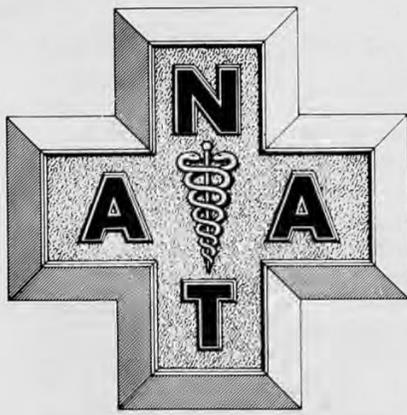


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# Editor's Comments



Steve Yates, ATC, M.Ed.  
Wake Forest University

It is a measure of the stature of the man that the organization he held so dear breaks from tradition and policy in commemorating William E. "Pinky" Newell in this issue of the Journal.

## Welcome . . .

It is with great pleasure that I announce Phil Callicutt as the new Book Review Editor to the Journal Committee.

## Addition . . .

Please take the time to read the abstracts accepted for the Free Communication section of our past annual meeting as approved by John Powell of the Research and Injury Committee.

## Thanks . . .

I certainly appreciate all the responses I have received regarding the Journal since our annual meeting in Nashville.

I trust the membership has had a successful and healthy fall season. It is encouraging, in this busy time, that issues brought forth at our annual meeting are finally receiving due attention.

I would like to thank those contributing members for their manuscripts, ideas and comments to the Journal in 1984. I would challenge all others to let me hear from you in some capacity in 1985.

## Best Wishes . . .

The staff of the Journal wishes you and yours the best holiday season and a healthy Happy New Year.

SY(SSSA)+

Pinky Newell was as close to being a "MR. NATA" to our profession as a person could possibly be. This profession will never again be positively influenced by one person as greatly as Pinky influenced the NATA from its inception. Those early days have come and gone. What remains is an 8,200-member living tribute to the total devotion and unselfish sacrifice that Pinky put forth.

From early on, Pinky wanted the Journal to be the showcase of the NATA — an instrument of education and information, as well as a vehicle demonstrating

that Athletic Trainers are professional through and through. Pinky was rightfully proud of what the Journal has become and I hope it will always be what he envisioned — a truly professional arm of the NATA.

Clint Thompson  
Editor

The entire profession of athletic training has had the good fortune to have been touched favorably through the efforts of William "Pinky" Newell. Many were even more fortunate to have had the opportunity to know him personally. In my case, he had been a good friend and advisor for over the past fifteen years. It always seemed to me that he would take what looked to be an insurmountable problem and make it appear quite simple and solvable. I will miss his steady influence and reassuring ways. But more than that, I can thank him for helping me see the tremendous good that those of us in this business represent. I am certain that our profession will continue to grow, thanks in large measure to the groundwork laid by Pinky, and eventually reach the status that he always had in mind.

Ken Wolfert  
Former Editor-in-Chief

## Letters to the Editor

### Dear Editor:

As a student trainer at Purdue University between 1979-83, I would like to express my sincere sorrow at the loss of Mr. William "Pinky" Newell. Mr. Newell was a great teacher and friend of the student trainer and unselfishly shared his precious time and vast knowledge with all of us. All of us that had the honor and privilege of working with Mr. Newell know just how special he was. I could continue endlessly with stories and praise for Mr. Newell, but I believe this little verse sums up what we all felt for this great man:

#### The Bridge Builder

An Old Man, going a lone highway,  
Came in the evening cold and grey,  
To a chasm vast and deep and wide,  
Through which was flowing a sullen tide.  
The old man crossed in the twilight dim,  
The sullen stream had no fears for him;  
But he stopped when safe on the other side,  
And built a bridge to span the tide.  
"Old Man," said a fellow pilgrim near,  
"You are wasting your strength with building here.  
Your journey will end with the ending day;  
You never again will pass this way.  
You've crossed the chasm deep and wide —  
Why build you this bridge at evening-tide?"  
The builder lifted his old grey head,  
"Good Friend, in the path I have come," he said,  
"There followeth after me today  
A youth whose feet must pass this way.  
This chasm, which has been as naught to me,  
To that fair-haired youth might a pitfall be.  
He, too, must cross in the twilight dim;  
Good Friend, I am building the bridge for him."

— Will Allen Dromgoole

He will be truly missed.

Sincerely,  
Derek Brock  
University of Connecticut

## EDITOR'S NOTE:

The following commentary was given by Leroy Mullins, Head Athletic Trainer, University of Mississippi, to the spouses at the 1984 NATA Clinical Symposium in Nashville, Tennessee. I am sure this commentary is in part a cohesive agent that binds us all in the athletic training profession. Thank you, Leroy.

(SY)

## Commentary

(Given at the 1984 NATA Clinical Symposium, Spouse's Program)

They finally let an expert get up here — an expert by my definition — an "X" stands for nothing; a "spert" — is a drip under pressure.

What am I doing up here? This is a unique position to be in — the only trainer on a panel to discuss family-stress when one member is involved in a very stressful occupation — athletic training. Barbara, my wife, and I do not have all the answers, we do not have all solutions, and we continue to have situations arise that require our handling with kid gloves. However, on Monday we will celebrate our 18th wedding anniversary, and I feel we have managed most of the problems fairly well.

Wives — does this sound familiar? Your husband comes home after a day in the training room. He walks in, turns on the T.V., picks up the paper, sits down in his favorite chair and goes into a shell for 20 to 30 minutes — **SOUND FAMILIAR?**

Why does he do this? It is not because he does not love you. It is not because he does not realize you have problems - that your day has been hectic as well - that you need to converse with an adult - that you simply need to be with him. He comes in and sits down for a few precious minutes so that he can love you more! What those 20 or 30 minutes do is allow him an opportunity to restore his sanity.

This is one profession where you never catch up. When he departed the training room the night before, there was work to do — and when he walked in that morning, if his training room is like mine, the work grew overnight.

There is very little time during the day when he is alone. It seems as if someone is in the training room all the time. Every person that enters, every person that calls, wants something — they want something for an illness, they want treatment for an injury, or they want information. Even the salesman that drop in — they want to make a sale. Every person your husband comes into contact with wants his attention and his time.

The majority of these people are "kids" — a little older, but still kids — and the trainer somehow becomes the temporary parent of every athlete.

To solve the problem of every person entering with a 'want' the trainer has to give time and attention to the problem. He must establish a line of communication. Working in a training room with a room full of people, all with individual needs, the trainer has to change personalities as quick as he can turn around — no two people can be handled the same way. All day long, someone is pulling at him. By the time one problem is solved, four more are coming to a head.

After 12 to 14 hours of this he needs a few minutes of peace and quiet. A period of time where he can kick his systems into neutral, allow everything to adjust to normal — allow a period of time to adjust to everyday problems.

When this 20 to 30 minute period is over, he is a totally different person. No longer wrapped up in the world of other peoples' problems, he is ready to become a husband, a father.

The sad thing is — the 20 to 30 minute period without someone pulling at him is a need of huge dimensions. He may come in, go to his chair and the wife goes through the ceiling. She wants 20 to 30 minutes alone. Her day has been full of problems. She may have a crisis that only he can handle. And all he does is come in and sit down! We now have a family under stress. When both adults are at each other's throat or they won't speak to the other, even the children are placed under stress.

Recently our church conducted a series of sessions on **FAMILY STRESS MANAGEMENT**. The speaker made a point which I feel is an excellent idea: "**MAKE AN APPOINTMENT TO ARGUE.**"

Let's revert back a moment. — Wives, you become upset because he comes in and sits down. Do you know his inner feelings? Does he know yours? You have your needs and if he comes in and sits down, you want to sit down, but you can't for the work in the house is never done. All day long you think about the problem, you mull it over in your mind and a decision is made — "When he comes in tonight, I'm going to tell him a thing or two" — or — "I'm tired of the way he just comes in and sits down. I'll let him just sit there. I won't say a word to him."

So, when he comes in, one of two things happens — he gets hit with the problem before he shuts the door or he doesn't even get a hello. If he is jumped, sure he is going to take offense and both parties end up saying things they wish they never said. If he is given a cold shoulder, he wonders — "What is wrong with her? — what did I do wrong?" and when he asks a question to find out — **GROWL.**

Maybe the ideal way to handle this and similar situations is to make an appointment to argue. "Hey, Honey, I'll meet you in the den. We need to discuss our family life." As an appointment is called for, add a time limit. "Hey, Honey, I'll meet you in the den at 9 to discuss our family life. We will break it off at 9:30."

By making an appointment to discuss the problem, each party gets their game plan together — puts their points in order. If one member has been mulling the situation over all day and the other member is "jumped" cold at the door, there is no discussion. The one jumped is going on the offense quickly and a full blown argument takes place. An appointment allows discussion, allows an opportunity to express points, interest, and inner most feelings.

Want to turn a discussion into an argument? — a full blown argument? Just point a finger and say, "**YOU.**" Someone better hide the butcher knives then!

Another tough issue is probably something like this — "My spouse works such long hours, leaving early in the morning, returning home late at night." There are times in the training room when the hours seem like days. There are times when a deadline must be met or when the midnight oil must be burned to keep your head above water. Or an emergency arises. I'll guarantee you this — If home is worth coming home to, then the problem will take care of itself.

Another complaint — "My husband is so short and snappy when I call him at the training room." What time did you call? Was it in the middle of taping? Hey, during taping time that trainer is up to his arm pits in alligators and he is trying to drain the swamp. Believe me — he is busy and everyone from the janitor to the president is going to get a short, snappy answer. Barbara and I have discussed this. Now if she calls after 1 p.m., I will break my neck getting to the phone for there is a real emergency at my house. She knows this is my busiest time of the day and just does not call unless it is an emergency. If my little daughter slips into the back room

*Continued on page 330*

# President's Message



Dear NATA Members:

The National Athletic Trainers' Association, Inc. mourns the untimely death of William E. Newell. His many contributions to the athletic training profession were in evidence at his memorial service, held October 17, 1984 in Lafayette, Indiana. Many of our members were in attendance as was Mary Edgerley from our National Office. Mrs. Connie Newell and their children asked that I express their deep appreciation for the comforting support of our members. At the next meeting of the Board of Directors, an appropriate memorial scholarship will be discussed.

The three public relations firms have made written presentations concerning the promotion of our profession. Each proposal will be given serious consideration at the 1985 Mid Year Meeting of the Board of Directors.

The National Office has received several responses from state licensure personnel. I urge you to send to the National Office the exact address, and the exact procedure to follow for ordering a copy of your states' legislation or proposed bill. Our efforts in the area of state regulations must continue in addition to other priorities.

Please continue to communicate with your District and National Officers.  
Best wishes for an enjoyable Holiday Season for you and your family.

Sincerely,

A handwritten signature in cursive script that reads "Bobby".

Bobby Barton, ATC

## Reflections on William E. "Pinky" Newell

Today a young athletic trainer asked me "Who was 'Pinky' Newell? *What* was 'Pinky' Newell that such a fuss is made at the time of his death?" The question saddened me, and brought to mind a quotation —

**How sharper than a serpent's tooth it is  
To have a thankless child!**

Shakespeare  
King Lear - Act I, Scene IV

Are not all present day athletic trainers "Pinky's" children, his inheritors, the walkers of the way he carved? Should not both young aspiring athletic trainers and older established athletic trainers look to what he was, and did, for wisdom and guidance? Isn't it more productive to look at all of the shapes and forms a wheel has gone through before becoming a wheel than to continue to reiterate those shapes and forms in effort to progress? Are we not all better off to learn the lessons of history instead of repeating and repeating, *ad infinitum*?

William E. "Pinky" Newell walked a road that no one else walked. He cleared out the brush and tangles and the wild boars so that all of us could ride in comfort. Did you ever think about the strength of character it took for this man to break ground with no road map and no sextant? Did you ever think about the fortress of resolve he must have had inside him to enable him to walk alone, always alone? Because he was alone, always alone. The first man, the ground breaker, is alone. Can any man alive today match his belief and his faith in the profession of athletic training? Would any of us have the fortitude to walk a new path without the amenities that establishment brings?

Those of us who are older know what "Pinky" did for us because we remember how it was before there was a real National Athletic Trainers' Association. Those of us who are younger should make it our business to learn about "Pinky" and the way it was when athletic trainers had nothing but their good hands, some uncommon sense and liniment on a rub table to work with.

A man like this is both the past and the future. The histories of all nations are full of men who came out of the hills to guide in a time of need. There is only one "Pinky" in the history of our Association. His conviction that the NATA was right and necessary formed most of our past history. All phases of our education programs are the natural outgrowth of his premise that the thorough education of an athletic trainer is essential to development and acceptance. His positive attitude and ethical dealings with all humankind will be a beacon of light in the unknown darkness of our tomorrows.

"Pinky" Newell was tireless in behalf of his causes and he dedicated his life to helping others. He was convinced that he had responsibilities to his fellow man and throughout his life he based his efforts on that conviction. His activities mirrored his dedication. He was steeped in the tradition of service. He was always ready to speak of and make appearances in support of the athletic trainer. Once a cause, no matter what it might have been, won his support it could be assured of his continuing interest to the end. He was not inclined to turn his back on things which were worthy if they were right, and they were right if he supported them, they could always depend on him.

We will remember "Pinky" Newell, a true friend to all of us, the man who walked alone.

Otho Davis, ATC

# 'Pinky' Newell: The Man Who Dropped the Bucket and Sponge

Gary Legwold

The following article from *THE PHYSICIAN AND SPORTSMEDICINE* (April 1983) is reprinted by permission. Mr. Legwold's work vividly captures the true essence of the man who was William E. "Pinky" Newell. *ATHLETIC TRAINING* sincerely thanks the author and *THE PHYSICIAN AND SPORTSMEDICINE* for enabling us to offer the article here in its entirety to the members of the National Athletic Trainers Association, Inc.

**Pinky Newell changed athletic training from a craft made up of 'eccentric characters' and water boys to a profession that is respected by the entire medical community.**

**H**e's as colorful as his nickname implies. William E. "Pinky" Newell, ATC, PT, peppers his language with four-letter words and salts his eggs too much for a man with heart problems. He smokes too much, and he used to drink and work way too much. But color can't cover integrity, and respect found a home with Newell long ago. By many accounts, this man of patience, barbed-wire toughness, common manners, and uncommon drive made the National Athletic Trainers Association (NATA).

"When Pinky was the NATA executive secretary from 1955 to 1968, he was a one-man operation as far as administration goes," says Otho Davis, MEd, ATC, executive director of the NATA and head athletic trainer for the Philadelphia Eagles. "There was a board of directors and all that, but Pinky provided the direction. I look at him as the father of modern-day athletic training—the NATA was kind of his child."

"Pinky was the bolt and thunder of the NATA at that time," says Tom Healion, ATC, head athletic trainer for the New England Patriots and Newell's assistant during much of Newell's term as executive secretary.



*In his heyday as executive secretary of the National Athletic Trainers Association, Purdue University's Newell was the 'bolt and thunder' of athletic training.*

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## So What's in a Name?

Pinky is a name that fits a clown or perhaps a Lenin lover. William E. "Pinky" Newell, ATC, PT, former athletic trainer at Purdue University in West Lafayette, Indiana, and former executive secretary of the National Athletic Trainers Association (NATA), is hardly either. He's respected as a professional and pioneer, and yet everyone calls him Pinky.

"I used to hate it," he says of the nickname. He got the name because of his ruddy complexion, he says. In his football days at Purdue, his hair was redder than

now, which of course added to his colorful countenance. And there was a big tackle on Purdue who played next to Pinky on defense. He also had red hair and also was called Pinky. "There was Big Pink and Little Pink. I was Little Pink," he says without a trace of a smile.

"But it has worked to my advantage. A lot of people can remember Pinky when they cannot remember my last name. It's embarrassing for them when they introduce me as Pinky. Then afterward they ask, 'Just what the hell is your first name?'"



'Little Pink,' Purdue's 150-lb. center from 1941 to 1943.

"He put the NATA on the map as a nationally recognized organization."

Howard Waite, ATC, head athletic trainer at the University of Pittsburgh for 30 years until he retired in 1968, was as active in the NATA as any charter member. He and Newell

wrote the constitution, and he drew up the NATA's first code of ethics. But Waite says Newell ran and molded the developing NATA. "I used to call him Mr. NATA. He was the ramrod," says Waite. And when Mike O'Shea, ATC, head athletic

trainer at the University of Miami, started digging for material for his book, *A History of the National Athletic Trainers Association*, the name Newell was everywhere. "If it wasn't for Pinky Newell, we'd still be carrying the water bucket and sponge."

Athletic trainers were bucket-and-sponge types when Newell was born in Enid, Oklahoma, in 1920. He once wrote that the early athletic trainer was "... an eccentric character, primarily a 'rubber' who used liniment, wisecracks, and rough inspiration for the treatment of almost everything..." But he wanted to be one as early as fourth grade in Stafford, Kansas, where he grew up.

When Newell was 6 years old, his father, a cook, died of a heart attack, and his mother went to work for the telephone company. "In a small town the people were wonderful then," he said recently. "I had a lot of fathers, but the person who took the greatest interest in me was the high school football coach, Ronald 'Stub' Mayo." Mayo put together three undefeated teams when Newell was in high school, and the games were an event, drawing as many as 10,000 fans to the town of 2,000. "They came from all over," chuckled Newell. "Hell, those old farmers would go to anything."

In spite of his size (a 150-lb center), Newell received a football scholarship from Purdue University in West Lafayette, Indiana. He was on the varsity team from 1941 to 1943, and the 1943 team went undefeated. Before practice Newell assisted Lon Mann, Purdue's head athletic trainer. "Everybody, including Mann, tried to talk me out of becoming a trainer," says Newell. "No money, it's not a profession," they'd say. But I felt that through a good education program you could improve the profession. I didn't know then that that was called raising standards."

After his senior year, Newell's advisers urged him to go to medical school. He ignored them and joined the US Marine Corps instead. Lt. Newell was part of the 29th Marines, 6th Division, that helped take Okinawa in 1945. He was discharged in 1946 and enrolled in the physical

therapy program at Stanford University in Palo Alto, California, in 1947. Stanford had one of the top physical therapy schools in the country and was one of the few that accepted men. "In those days physical therapy was called physical therapy for women," says Newell. "Except I didn't know that. And I didn't even know where Stanford was. But I applied and was accepted, and I crawled on a train to Palo Alto, California. I met a guy who went to Stanford, and I just followed him to the campus."

### First NATA Folds

He spent a year at Stanford and in 1948 was hired as an athletic trainer at Washington State University in Pullman at a salary of \$3,000 a year. The following year, 1949, Guy "Red" Mackey, Purdue's athletic director, offered Newell Purdue's head athletic trainer job and a \$300 raise, and Newell went home to his alma mater. A year later he married Connie Decker, a physical therapist he had met at Stanford, and they spent their honeymoon in Kansas City, Missouri, which just happened to be the site of new NATA's first annual meeting. "She'll never forgive me for that," says Newell with a wry smile.

The 1950 meeting was not the first attempt to organize athletic trainers. Charles Cramer of the then Cramer Chemical Co. of Gardner, Kansas, and Bill Frey, ATC, athletic trainer at the University of Iowa in Iowa City, had formed an association that met at the 1938 Drake Relays in Des Moines. But the war and regional bickering hurt the organization, and that first NATA folded in 1944. "There were many jealousies between Pacific Coast and New England trainers, and nobody knew who was doing what," says John Cramer, son of Charles and chair of the board of Cramer Products, Inc. "My dad went to an Eastern association meeting and they kept asking, 'What's your angle? Why would you help us organize? What's in it for you?'"

The Cramer Chemical Co. subsidized the second NATA from 1950 to 1955. Charles Cramer was the first executive secretary and served

until 1954, when poor health forced him to pass the position on to John, who served for a year. By 1955 the NATA decided that if it were to be looked at as a professional association, it would need to put more distance between itself and a commercial entity. So the NATA thanked the Cramers and elected Newell executive secretary.

There was a new wave of forward-looking athletic trainers in the NATA who were interested in raising the standards of the profession. To name a few: Waite at the University of Pittsburgh; Chuck Medlar, ATC, at Pennsylvania State University in University Park; Whitey Gwynne, ATC, at West Virginia University in Morgantown; Ernest Biggs, ATC, at Ohio State University in Columbus; Ken Rawlinson, ATC, at the University of Oklahoma in Norman; and Eddie Wojewicki, ATC, of Rice University in Houston. But Newell was the most obvious. Old-timers looked at him as an upstart, and the association may not have been ready for his leadership. First, he was both an athletic trainer and a physical therapist. He had anatomy, physiology, kinesiology, rehabilitative therapy, and the modalities in his background. And second, he had ideas, lots of them, and a willingness to work however long it took to realize those ideas. He was a threat to the "old boy" trainer image.

"When I first came to the Big Ten, one of my good friends and colleagues would go behind a post to tape an ankle so I wouldn't find out how he did it," recalls Newell. "There was no exchange of knowledge then. They were a little bit jealous of those with an education, and I think most of them were a little bit concerned about their backgrounds. Very few of them had any formal education. I think Lon Mann got kicked out of the eighth grade. They learned by doing. The older trainers in California discouraged me from going on in physical therapy. They wanted me to get into the training room and learn what was being done. A lot of the older trainers didn't want anybody with a formal education. They said they wouldn't work, they wouldn't do the menial tasks like

clean whirlpools, sweep up, things like that.

It was difficult for us to create a profession, so to speak — to raise people up by their bootstraps when they didn't want to help themselves. I remember when I became executive secretary, one of the things I asked the board of directors to do was to make a bachelor's degree one of the requirements for membership in the association. Now this is an accepted thing in a lot of professions. But it was very disturbing to a lot of our members. There was an awful lot of opposition for a good ten years."

But Newell took whatever heat there was. He didn't bad-mouth or patronize the resisters. "He was extremely tactful with them," says Loyal W. Combs, team physician at Purdue and Newell's long-time friend. "He'd go out and drink with them, and they got to know him as a rough, tough former Marine. And those old codgers were a rough, tough crowd. They became certified later through the grandfather clause and went into the trainers' hall of fame. They ate it up. Pinky was no dummy."

### 'The Damnedest Worker'

What Newell did best every athletic trainer understood: He worked hard and got things done. "He was in on everything," says Waite. "The damnedest worker. He'd finish his work at Purdue and go home and work late on NATA papers." If there was opposition to his ideas, Newell sought out the best people he knew and asked for their input. And then he decided and let those who complained about a one-man show or the NATA being controlled by Big Ten athletic trainers go their own way. "You can't make everybody happy and get anything done," says John Cramer. "It took somebody with leadership to say, 'This is the way it's going to be.' There are workers and there are riders, and Pinky is a worker."

When he wanted to, Newell could rule with a "convincing" manner, says Healion. Davis agrees: "Pinky would plant the seed and watch others tend it. But if it wasn't sprouting as fast as he thought it should, he'd put a little fertilizer to it."

## Don't Call Me Trainer Unless You Are One

William E. "Pinky" Newell, ATC, PT, once corrected a reporter who called him a trainer at Purdue University in West Lafayette, Indiana. A trainer, said Newell, is one who trains people, or even animals, to do tricks like make cross-body blocks, shoot jump



Health-care specialist Newell in 1958.

"Pinky appointed me chair of the committee on certification," says Lindsey McLean, ATC, head athletic trainer for the San Francisco 49ers. "I told him I had no experience to perform such a monumental task. He said, 'You want to see it done, and that's all that counts.' But from the start he did most of my work for me. Whatever we did was through his helpful encouragement and suggestions. And he's the kind of person who will not take credit for it. Sometimes I'd stay up half the night just so I wouldn't let him down."

Newell's work and leadership led to tremendous growth and development of the NATA between 1955 and 1968, the year he resigned as executive secretary. A journal was established in 1956 after earlier attempts had failed. That same year Waite read his draft of the code of ethics at

shots, or jump through hoops. A coach is a trainer. Newell said he was a health-care specialist, and the name trainer has followed his profession around like a bad habit.

"It used to bother Kenny Rawlinson, the long-time trainer — eh, athletic trainer — at Oklahoma, and some of the older guys," said Newell. "Then people would say he was a head trainer, which meant he was a trainer of heads. It bothered the hell out of those guys because they were all head trainers, so to speak."

To make matters more confusing, Oklahoma athletic trainers were fighting for licensing, and a head trainer was confused with barber instructors, who were also called trainers, said Newell. "Well, for us to be called head trainers just didn't add up."

So the title is always athletic trainer? "Anything written is always athletic trainer," said Newell with a smile. "But we all call each other trainers."

the annual meeting in Boston and got a standing ovation. Between 1957 and 1964 many organizations recognized the NATA as a professional association: The National Collegiate Athletic Association (NCAA); the US Olympic Association; the American College Health Association (ACHA); the then American Association of Health, Physical Education and Recreation; the US Track and Field Federation; the US Basketball Federation; and the American Physical Therapy Association. Also during that time the NATA approved an education program that included a college degree in physical education, a minor in a related field, a teaching certificate, and prerequisite courses for entry into schools of physical therapy.

In 1965 the first phase of certification was started, and certification

requirements were finally set in 1969. Newell worked very hard at setting up the Joint Commission on Sports Safeguards and Medical Aspects of Sports Committee in 1966. The joint commission was then made up of the ACHA, the NATA, the NCAA, the National Federation of State High School Athletic Associations, and the National Junior College Athletic Association.

### AMA Recognition: 'Marvelous'

But the achievement Newell is most proud of happened a year before he retired as executive secretary. For 13 years Newell worked closely with both Fred Hein, PhD, the then director of health education for the AMA, and the AMA Committee on the Medical Aspects of Sports. On June 22, 1967, Hein sent Newell a telegram that simply said that the AMA House of Delegates had voted to recognize the NATA as a professional organization. Newell read the telegram on his 47th birthday and found the real message between the lines: Athletic trainers had arrived.

"I would say it was an accomplishment," says Newell as he tries to restrain an ear-to-ear smile. "It was marvelous, and we haven't fully realized just how important it was to us."

"It's a professional organization giving respect to another professional organization," says Combs. "And I know how hard Pinky worked to get this. That's why he's nationally respected, not just by trainers but by the medical profession. And last year, the American Orthopedic Society for Sports Medicine gave him its first Distinguished Service Award."

Allan J. Ryan, MD, then chair of the AMA Committee on the Medical Aspects of Sports and now editor-in-chief of *THE PHYSICIAN AND SPORTS MEDICINE*, calls the recognition by the AMA a "breakthrough. The NATA might have faltered in gaining recognition had it not been for Pinky's energy, drive, and persistence. It also helped to broaden the outlook of the AMA to a lot of other public groups."

### Better Education

During Newell's reign as executive

secretary, NATA membership more than tripled. There were 1,511 members in 1968 (there are now more than 8,700), and the work was too much even for Newell and his staff of one secretary and a Lafayette mailing service. "It was too burdensome," says Newell. "For every member there were two or three letters a year. And I went to eight meetings a year representing the NATA [often paying his own expenses]. That's two months away from work, and somebody else was doing my job at Purdue. I'd also had the position for 13 years. We had grown, and we needed to reorganize to make progress."

Jack Rockwell, ATC, then head athletic trainer of the St. Louis Cardinals (football), served as interim executive secretary from 1968 to 1971 while Gary Delforge, ATC, head athletic trainer at the University of Arizona in Tucson, and William Chambers, ATC, head athletic trainer at Fullerton (California) Junior College, worked to reorganize the NATA. When the work was done, the executive secretary position was split in two: A president served as the official NATA spokesperson, and an executive director handled NATA business. Reorganization and growth also led to the establishment of a NATA office with a staff of eight workers in Greenville, North Carolina.

"Pinky did an excellent job with very little help," says Rockwell. "When I look at the office help the NATA has now and what Pinky and I had, well they're not doing a whole lot more than what Pinky did. And that's not a poor reflection on the staff; that's Pinky."

Newell has remained active in the NATA's committees on education and professional advancement. He has worked to increase the number of schools offering an NATA-approved curriculum for athletic training from four in 1958 to 75 today. He has continued to raise money for scholarships, and in 1970 the NATA awarded the William E. Newell Scholarship for the first time. The \$250 grant has since increased to \$500, and last year 20 students received aid. Newell hopes to increase

the number of scholarships by setting up an endowment fund.

It's no surprise that Newell is still interested in the young athletic trainer. He always was. "If Pinky had any inkling that a kid wanted to work as an athletic trainer, he went to any end to get him a position," says George Sullivan, ATC, PT, head athletic trainer at the University of Nebraska in Lincoln and Newell's co-worker in the past on the education committee. An example of this is McLean.

"There were two ways to get a job back then," says McLean. "Know the Cramers or know Pinky. He really helped me get a job at the University of Michigan. He was so well thought of all those years that he was the first guy many football coaches and athletic directors would call. He didn't know me, but I wrote him. And when a guy as busy as Pinky takes the time to write back, that's rare."

#### Problems After Retirement

Newell remained active in the NATA, but he missed the total involvement that went with the executive secretary position. "Hell

yes, I did," he says. "Trainers seem like a hard-nosed outfit, but we're very sentimental. At one time I knew every person in the NATA, and most of them I could call by first name. I lost that association."

He developed heart and back problems and "a personal problem I didn't understand" — alcoholism. His drinking affected his decisiveness on the field, and his friend Combs demanded that he get professional help. He did and has been dry for eight years. But his heart condition had reached a point where he couldn't run on and off the field without angina. In 1976 he was forced to walk away from the profession he had helped create. He remains chief physical therapist at University Hospital and assistant professor of physical education.

"You know, there's nothing that hurts a person more than to retire and 'pfft,' that's it," he says. "Everything was so work-oriented that along with becoming an alcoholic I also became a workaholic, which is not uncommon." He plays golf, bowls, and is active in the Boys Club of America, the Kiwanis Club, and a halfway house for men. But it's not



In 1982 friend and Purdue team physician Loyal W. Combs presented Newell with the American Orthopedic Society for Sports Medicine's first Distinguished Service Award.



athletic training.

Athletic training is growing and changing at a rate that surprises yet pleases Newell. And he knows that it is respectfully passing him by. "We're becoming involved in the biomechanical aspects of training rather than using the old tools we used for years, the taping and such," he says. "And the trainers are becoming more specialized as the MDs are becoming more specialized."

"I think we'll see great changes in athletic training. I've already seen it, and I've only been out a short time. They've completely bypassed in a short period of time the older trainer who hasn't been able to keep

up with them. It's an entirely different field.

"But it's the most marvelous feeling in the world. I remember in the olden days we used to sit around the lobby of a hotel and say, 'Who's going to take care of this when we're gone?' Well, by golly, you don't have to worry. You can walk into a meeting now and it's gratifying and pleasing to see the young people, men and women. They're nice-looking kids, they're responsible people, they're well educated and well trained. They're personable, and they have the dedication that *we just thought* we had. These are the people who are doing the job in athletic training.

They're the ones making the changes now."

What's left for Newell? He has his life at Purdue and West Lafayette. But retirement is getting closer. After that? "What I would love to do — and it's a very difficult thing to do, being married and all, and I'm not trying to get rid of my wife, you understand — I would love to work with US Olympic development. I wouldn't give a damn what I was doing, whether I was going around the country speaking or fund raising or working in athletic training or whatever. I'll tell you something: I'm nationalistic as hell, and there isn't any better forum for that than our Olympic athletes. I don't like the politics, but to be able to go out there and say, 'I'm an American,' that's great."

Pinky Newell made it possible for athletic trainers to go "out there" and say "I'm a professional." And that's not bad.

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# KEYNOTE ADDRESS

## REFLECTIONS ON ATHLETIC TRAINING

by  
William E. "Pinky" Newell

35th Annual Clinical Symposium  
June 11, 1984  
Nashville, Tennessee

Those of us who have the privilege of assembling here this week mark the thirty-fifth time that members of the National Athletic Trainers Association have met in annual conference. I use the word "privilege" because we are free to meet; we are free to decide for ourselves what we shall say, do, and hear this week; and we are free to take action which will contribute to the improvement of athletic health care and to the future of our profession, our Association, and the very society in which we live.

This week is an occasion for many things: we have come here to share and to gain new knowledge, to exchange ideas, to make decisions and take actions, to visit with friends, and to renew our vigor and dedication. Like the annual journey upstream for the salmon, this trip is necessary for the preservation of our species, and we must never forget that.

Today, I have a greater privilege: that of addressing this assembly. I have chosen as my theme, "The pursuit of excellence", for this Association has had only one goal - to be the very best that we can be.

I will not attempt a history today, as Mike O'Shea, NATA's historian, has written a superb history that I urge all of you to read, and there are others who lived it and made the history who are eminently more qualified than I.

I do have some comments to make about the Association and the profession, the problems that were faced, and the measures that were taken to solve them. The years can be divided readily into the organizing years of the fifties, the years of striving for credibility of the sixties, the years of fighting for accreditation of the seventies, and the tremendous growth years of the eighties.

The illustrations that I have chosen to provide historical perspective are highlights as I've perceived them.

A very wise woman once said, "The easy path in the lowland has nothing of grand or new; but a toilsome ascent leads on to a glorious view." Although these words were given in the opening address to another association, many years ago, they would still serve the pattern as the best argument ever given in behalf of work.

To a small group of men meeting together for the first time in Kansas City, on June 24, 1950, the long toilsome ascent lay ahead. The purpose of that first meeting was to form an association and to unite under one leadership all of the area associations that had formed the year before.

First of all, it was not an easy task to bring together men known, in many cases, only by reputation. Secondly,

there were varied standards of education and of techniques. It is to the credit of these men that the primary concern would be not only to raise the standards of the Association, but of the entire profession. The proclaimed purpose of the Association was to build and strengthen the profession of athletic training through the exchange of ideas, knowledge, and methods of athletic training.

One of our earliest concerns for our profession was that members must share with each other their experiences, their needs, their difficulties and their opinions.

Today, we must, most importantly, I believe, stay tuned to each other — we must hear and understand each other. We must give to each other and take from each other.

Then, as now, there were friends in the ranks of the medical profession. Many years ago, it was apparent that a large number of athletic trainers were in fact practicing medicine. This was undesirable, of course, and caused the medical profession to start taking a closer look at the activities of athletic trainers. It was not until after World War II that the American Medical Association took recognition of athletics and established a section on Sports Medicine.

Without our friends of medicine, the NATA might never have achieved the stature of credibility we enjoy today. Today thousands of physicians throughout the United States are working in closest cooperation with us. With the formation of the AMA's Committee on the Medical Aspects of Sports, Sports Medicine was taken to the grass roots in the 1950's. We owe much to The American Academy of Orthopaedic Surgeons, and we are very grateful to The American Orthopaedic Society For Sports Medicine, who have done more to promote and advance the athletic trainer than any other group. They have as their theme, accountability for the quality of sports medicine's actions, and through its committees is now an active influence on the quality of sports medicine across the nation. This society respects the vital role of the quality athletic trainer and gives the trainer a better environment in which to function.

The most significant action of the fifties, in my opinion, was the adoption of our Code of Ethics. This was later revised in 1972, but this action made the Association responsible. A professional code of ethics is, in a nutshell, a public statement of the expected behavior of any member of that profession. Our Code of Ethics, therefore, was descriptive of behavior we would commend to all athletic trainers, whether they are members of the Association or not.

Of course, only NATA members are bound by the code. That is an agreement we make when we join. But we have a responsibility to the public and to our profession

to ensure that our Code of Ethics is truly representative. The Association, as recognized spokesmen for an entire profession, has a special responsibility to truly represent that profession.

At the Tenth Annual Meeting in 1959, there was a committee change that was to have far-reaching influence on the professional growth of the athletic trainer. The committee on gaining recognition became the committee for professional advancement. At this meeting, the Board of Directors adopted and approved the athletic training program presented to them by the committee that included a comprehensive program of education.

George Bernard Shaw, speaking as an Irishman, summed up an approach to life: "Other peoples", he said, "See things and say, 'why?' But I dream things that never were - and I say 'why not?'"

It is that quality of the Irish, the remarkable combination of hope, confidence and imagination, that is needed more than ever today. The problems of the world cannot possibly be solved by skeptics or cynics whose horizons are limited by the obvious realities. We need men who can dream of things that never were, and ask, why not?

These were the kinds of men who were on this committee. Two of these men were very special to me: "Bud" Miller became the father of athletic training professional education, and Lindsay McLean brought into being, with the professional examination service, NATA's certification procedures. As I recall our meetings — everytime I would say something couldn't be done, — both of those guys seemingly in unison would say, "why not?"

Certification of the athletic trainer has now been accepted on the same level as certification in any comparable profession. In 1968, the AMA's House of Delegates formally recognized The Standards of The National Athletic Trainers Association for Professional Competence and Certification, and encouraged its members to support the activities of the NATA toward implementation of these standards. The athletic trainer also has the support of higher education. By 1970, the first four collegiate programs were functioning in compliance with the new curricular standards required for NATA approval. Today, over 70 approved programs are functioning, and the approval procedures of the NATA have become well established, as have alternative routes to eligibility for certification examination.

We look to medicine for meaningful contributions to our educational programs, particularly for the knowledge which is both peculiar to the various medical and surgical specialties and relevant to the athlete's problems which athletic trainers are likely to encounter. We also look with similar high regard to the contributions of others outside medicine, and, of course, we look to the athletic trainers themselves for the largest and most essential portion of the curriculum.

In 1968, a new Executive Secretary was appointed by the Board of Directors to act on an interim basis while an Ad Hoc Committee searched and screened applicants for the position. It had become apparent that the original administrative organization, although basically sound, became functionally outdated and impractical. It seemed imperative that there be a critical analysis and evaluation of the administrative structure in an effort to ascertain whether or not it was still compatible with future growth and development.

After two years of study, refinement, and modification of a proposed plan of organization, the Association in 1970, made a major organizational change by accepting the most extensive structural reorganization since its

inception in 1950. This was designed in accordance with one central idea: to insure the members of the Association of continual advancement, improved service, and new projects for the present and future. The plan was structured to have officers, division directors, committee chairman, committee members, and district secretaries.

Otho Davis of Duke University was elected to the position of Executive Director of the NATA on January 11, 1971. By November, the membership census showed a record of 1,989 member, 808 of whom were certified.

Since then, the Association has had a phenomenal growth with continued advancement and service to the membership. The 1970's may be characterized as years of action. Some of it rather precipitous, but action nevertheless. By 1972, the NATA had a revised Constitution and By-Laws and a revised curriculum for an educational program for athletic trainers. It was instrumental in getting an additional number of colleges and universities with approved curriculum in athletic training. There was a realignment of the ten districts and the Code of Ethics was revised.

Also in 1972, the Congress of the United States became quite active in legislation that caused grave concern in the sports world. Congressman Dellums introduced the Athletic Care Act. In essence, the legislation amended two existing pieces of federal aid to education legislation, the Elementary and Secondary Educational Act of 1965, and the Higher Education Act. The Amendment would have provided that all schools which are engaged in interscholastic athletic competition must employ a certified athletic trainer and this was not feasible. The Occupational Safety and Health Act (OSHA) was revised to include the Athletic Safety Act of 1973, and the National Amateur Sports Foundation Bill or Federal Scholastic and Amateur Sports Act of 1973. Congress was getting into sports because it was popular.

On the bright side, the Professional Education Committee was making outstanding accomplishments in the development and substantiation of professionalism of the athletic trainer. The basic goals of our profession are the same ones that we have had from the beginning. They were appropriate then and are appropriate now. That we will deliver the highest quality care possible to the institution or organization we serve; and we will see that our profession is recognized as qualified, educated, trained, and competent. We want the nation to know that we deserve this trust. Our two basic goals therefore, are service and recognition. — It's just that simple.

The Association has struggled long and hard to establish its role in the accreditation process for Athletic Training Education. We have perhaps put a little too much emphasis on what is good about all this for the Association and its members. It is imperative that we take a wider view and clearly demonstrate that our role in the accrediting of athletic training education programs is indeed in the public interest.

Professionalism is a social phenomenon that characteristically sets our modern society apart from earlier societies. It is a process that seeks to clothe a given area with standards of excellence, rules of conduct, a sense of responsibility, criteria for recruitment and training. There should be a measure of protection for members, collective control over the area, and a position of dignity and social standing in society. The professional athletic trainer is and has been striving to address all of these factors. Possibly, however, our conflicts of today are in part a conscious or unconscious effort on the part of certain segments of our society to place restraints on the continued professionalization of athletic training.

One year ago, the Association's success in gaining

recognition as an accrediting agency was reported. This further indicated a commitment on the part of the Association to an accreditation program that reflected the quality education that we espouse. I ask that you accept the accreditation responsibility with sensitivity, flexibility, and strength without arrogance.

As we recognize the expansion of our roles and responsibilities in practice, we must place higher priority on defining what we are and what we do that differentiates our profession from others.

During the 1960's, the Association had made some progress in professional advancement. Educational program guidelines were being suggested. The active membership requirements were being established. Annually, many graduating young trainers of exceptional potential were denied opportunities for employment because their qualifications were going unrecognized.

Education always is one of the most pressing problems to be analyzed as any profession attempts to advance. This certainly was true in the field of athletic training. Certification in physical therapy had many advantages, but it had become obvious that it was not a realistic or perhaps desirable goal for all trainers to pursue. A masters degree likewise appealed to many, but not to all members of such a highly diversified profession. To adequately prepare trainers for teaching positions on the secondary and collegiate level as well as specialized positions on the university and professional levels, flexibility in educational objectives must always be recognized and encouraged. The value of apprenticeship as an educational experience had been recognized, and it was perhaps the one evaluation of professional competence all trainers approved and recommended.

There has been much discussion of a possible certification examination for the NATA. With such an evaluation of competence, the individual student trainer could plan his academic curriculum with the aid of his undergraduate advisor (and head athletic trainer) in such a manner that he or she could take such an examination with confidence upon graduation.

It was truly a marvelous experience to watch the work of Lindsay McLean and his committee on certification develop the certification examination and procedures for the NATA. The Board of Certification, made up of six athletic trainers and two medical doctors, started "grandfathering" the active membership in 1965, and gave the first written, practical, and oral examination to fourteen candidates in Waco, Texas, July 30, 1970. The certification program has met with outstanding success in acceptance and approval by the educational, medical, and sports communities.

Last year, under the leadership and direction of Paul Grace, the profession, through the national Association, has earned full membership in the National Commission for Health Certifying Agencies, for the process used to evaluate and certify future athletic trainers. This will help to assure consumer safety by quality control with respect to credentialing of individuals. From the standpoint of expertise in both athletic training and education, it is my opinion that the NATA is best equipped to accredit educational programs and to certify qualification in athletic training.

The basic fundamental preparation of the athletic trainer must prepare him or her for a variety of responsibilities he or she will face in his professional career. The knowledge and skills with which the new graduate should now be equipped go considerably beyond those required for the direct health care of the athlete.

The 1980's are hard to characterize. — There have been actions of importance for they are the years of

growth. — There will be many unfilled intentions and beginnings of frustrations and disenchantment in these years I'm afraid. Our society's involvement with liability and with product liability has made a jump of a magnitude inconceivable as recently as ten years ago. Life by litigation has impacted in sports medicine. It has impacted on the school scene, not only as it pertains to the physician and his relationship to the injured, but as it pertains to his relationship with those who also serve in paramedical roles. It impacts on the athlete, but also involves the excited spectator who might suffer a heart attack as the game approaches a fourth quarter turning point. It impacts on the responsibility of the athletic administration to assure adequate medical care for the athletes and again for those spectators who choose to utilize the facilities at the school.

Commensurate with this we have seen the rise in the appreciation for the need of athletic trainers. This has occurred from two changes in the sports world, not through the doing of trainers, but because of ancillary occurrences:

1. Increased fear by the physician in becoming closely involved with sports activity because of the potential for litigation;
2. A decrease in the number of physicians in the rural areas who are available.

In prior times, these activities could serve as donated services to the community, but now must be covered by all sorts of legal protection, including specific and special consents from the parents of the athletes, specific and special preseason evaluations and reports, specific and special attention to details and to the education of the student athlete and his/her parents lest lack of responsibility on the part of the physician and the administration be charged should any injury occur to a participant.

As we have moved with the advent of women's athletics, there have been increased difficulties within this area concerning the dispensing of information as well as the need for increased availability of physicians and paramedical care.

As the trainers have tried to increase in numbers to fit into this overall picture, they have tried to act most responsibly by trying to increase licensure, certification, and continuing professional education. But they have now been met with the fact that by the very act of increasing and certifying their higher level of capability, they may in fact assume a greater responsibility for proper dissemination of this information in the eyes of the legal world. Hence, they leave themselves open to greater potential for litigation as compared to the days when we were less structured and life was more simple.

Our mandate for a major program in 1986 clearly states that our present educational system is no longer adequate to meet the needs of the profession or of society; it demands change. Change is a process, and by the time it can be demanded openly by those who will be involved in that process, change is well underway.

Much responsibility and hard work will fall upon our program directors and our faculties. They will have to be able to convince the decision-making bodies of our academic institutions that change is necessary, feasible, and is well underway. Program directors will face obstacles and challenging encounters. These, however, should help strengthen our decision for change and help clarify our options and alternatives.

This will benefit our students, for students must have time to learn about the consequences of good and bad decisions. They need time to explore whether they really know what they think they know, and they need time to learn how to respond to gaps in knowledge in a creative

manner. Given that time, students will become decision-making professionals, comfortable in that role, and will be up front in their careers.

At the present time, there are more than twenty states with some form of state regulation or licensure for athletic training, and although the national Association does not take an active part in the legislative process, it is most supportive of those that seek state regulation.

We should always keep in mind that the standards we advocate, develop, and translate into an examination for licensure for persons entering the practice must be realistic. They must be thorough and comprehensive and at an appropriate level, but that level should never be excessive and unnecessary. We must guard against use of the licensure examinations as a protection for the licentiate and clearly demonstrate its value as a protection for the public.

As we move into licensing of athletic trainers, it has become apparent that not all athletic trainers have achieved the same level of competency. There is justification for assisting all athletic trainers to have the same opportunities in achieving the minimal level of competency. The NATA has other programs such as the Faculty Trainer Education Program which was designed to retrain existing faculty. It has been successfully tested in the Chicago area, West Virginia, and North Carolina, and has wide application to any region or state which chooses to undertake such a project. It is a three to five year plan to provide a large number of certified athletic trainers in a minimum of time. It is my opinion that in those states where this program has been mandated by state legislature, their graduates should not be denied NATA certification process or approval.

Direction for apprenticeship programs has been upgraded and strengthened with a high percentage of apprentices passing the certification examination.

The relationship between the licensure of athletic trainers, improved medical sports care to athletes, and national fitness and health are closely interwoven subjects. Licensure of athletic trainers would insure the practice of high level sports medicine throughout our athletic communities.

I believe that we as a profession are being naive in not recognizing that specialization is here. It is important that athletic training and physical therapy work together to complement each other, both in professional preparation and in the delivery of health care. There is so much both professions can learn and share with each other, with the public in general, and with athletes in particular as the beneficiaries. I think our profession should actively support the APTA's sports medicine sections' specialization because that will take care of the clinicians and by supporting it, we will further define our own situation. We have fought hard for qualification; it is essential that we qualify ourselves for any position or career we wish to pursue.

Much remains to be done if we are to make the Association an organization which is both maximally democratic and maximally effective; that is, both sensitive to the wishes of the membership and able to accomplish goals.

As we look at ourselves as a profession, we must ask if we are a truly unified group, or are we a group of individuals only concerned with issues which affect our own individual spheres of interest and professional involvement? Evidence suggests that we are a somewhat fragmented group. We seem to have great difficulty in recognizing that any issue which affects one special interest group has a potential impact on all our members.

Even if the inequities in membership rights were

abolished, in one way or another, not every member would be able to participate directly in the making of all decisions. That is physically impossible. Therefore, we must look to the adequacy of our internal decision-making structure and procedure.

The Association's Board of Directors makes policy which is representative of the voting membership. They are distributed geographically by Districts. While we may wonder from time to time how representative the representation is, there is no denying that the mechanism for effective representation is available.

Through the instrument of your administration, the President, the Executive Director, the Board of Directors, the Journal, and the Districts of NATA, we can give voice to what we are and what we can do. Our task is to do what we say, to do it well, and to perform in ways which are beyond reproach. I invite each of you personally and individually to that task.

The bottom line of everything I've said this morning can be summed up in one word - responsibility. It's the responsibility that comes with growth and numbers and power.

We have continually searched for a better tomorrow, we have often failed to acknowledge our gains — failed to accept the fact that we have experienced phenomenal growth and development. At times, it appears as though we have been fearful of the outcome of positive self-reflection and recognition, activities that I believe are important if we are to approach tomorrow with a more appropriate balance between recognized accomplishments and philosophy.

One of the most rewarding experiences of my career has been the accomplishments of the Association's Grants and Scholarship Committee. As our Association continued to grow and meet the challenges of a changing professional education, our Board of Directors recognized the great need for a scholarship program for students of athletic training which would recognize outstanding young men and women by assisting them with their academic objectives. With the awarding of our first scholarship award in 1971, at Baltimore, Maryland, the growth of the scholarship program has steadily improved. The annual presentation of educational grants and scholarship awards today represents much more than a listing of names. It represents the continuing faith that the Board of Directors and friends of the National Athletic Trainers Association have placed in our care. The honor roll has grown this year, both in number of individuals who have generously made contributions to these awards and in the amount of dollars those individuals have given.

An outstanding group of young men and women have shared in over \$100,000 in awards through the years. Joining with NATA are the greatest group of sponsors in the whole world, superior to those of any other national association. They are dedicated, loyal, and they believe in us. They certainly deserve the sincere thanks of our membership.

Starting in 1975, with a gift of \$500 by Otho Davis, the Association has been developing an educational endowment fund that has improved until it is now in excess of \$100,000. Since 1978, the Association has been the beneficiary of grants from The National Football League Charities that now total more than \$40,000. For this we are extremely grateful for it has been an incentive in attracting additional funding for the scholarship program. Each of you have a responsibility to see that this fund continues to grow by providing more opportunities through which others can express their interest in NATA.

*Continued on page 311*

## CEU Credit Quiz

# IMPACT OF HYDRATION AND ENERGY INTAKE ON PERFORMANCE

Arthur L. Hecker, PhD  
Keith B. Wheeler, PhD

Edited by:  
Don Kaverman, ATC

Nutrition is a critical part of an athlete's training program. Proper fluid and energy management during training and competition is essential to health and successful athletic development.

Water is an essential nutrient and an important component of the human body. Enough must be consumed every day so that the body can continue to function normally. Almost all processes in the body require water. Water is continually being lost from the body in urine, sweat and feces and during breathing (respiration). Failure to replace daily water loss from the body causes dehydration. Although the health risks of dehydration are well documented, many persons do not recognize when these circumstances exist. Most professionals know of the life-threatening consequences of severe dehydration; however, few are aware that even moderate levels of dehydration can compromise physical performance.

An equally important part of the nutritional management of athletes is the maintenance of adequate energy stores. Research has clearly identified that muscle glycogen (the stored form of carbohydrate in the body) and liver glycogen stores represent a critical energy system for the support of physical activity (1,2,3).

### Fluid Management

Water is the most abundant component of the body and the most critical as well. The body can tolerate complete starvation for weeks, but severe dehydration can be tolerated for only a few hours. For the body to be in water balance, water output must equal water intake.

Consumption of fluids is the main way water is supplied to the body. Certain foods also contain a

significant quantity of water. Table 1 shows the water content of various foods and drinks. In addition, the three main components of foods (fat, carbohydrate, and protein) all are ultimately broken down in the body to carbon dioxide and water (water of metabolism).

The average 70-kg (154 lb) man loses approximately 2½ quarts of water per day. This estimate assumes that the person has normal kidney function, is healthy, and is not very active, and that the environmental temperature and humidity are moderate. Most of the water is lost in urine. Smaller amounts of water are lost through the lungs during breathing and through the skin when sweating. Loss of water through the stool usually accounts for less than 5% of the total water output. Only in the case of diarrhea do fluid losses from the stool become significant.

During exercise, water continues to be lost by the same routes, but at different rates. Increased sweating and faster breathing become the major avenues of water loss. The body attempts to conserve water during heavy exercise by reducing the amount of urine produced.

Sweating is the main way water is lost during exercise. The amount of water lost by sweating is determined primarily by how much body heat is produced. The greater the intensity and duration of exercise, the greater is the heat production and, consequently, the greater is the perspiration rate. During intense exercise, more than 3 quarts of sweat can be lost in an hour, depending upon weather conditions and the type of clothing worn. Heat acclimated individuals may have sweat rates in excess of 3½ quarts per hour.

Figure 1 shows the typical 24-hr. output and intake of a healthy adult under two conditions: 1) while on a standard diet at normal ambient temperature and 2) during a day that includes a two hour bout of exercise in a warm environment. Note the dramatic differences in water lost in urine, sweat and expired air. In this example, water intake must increase from 1.1 quarts (1200 mL) to 3.4 quarts (3550 mL) during exercise to achieve water balance. If the lost water is not replaced before the next workout, dehydration will result.

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Acute dehydration can lead to severe physical symptoms such as heat cramps, heat exhaustion, heat stroke, coma and even death. However, even experienced professionals often do not appreciate that modest levels of dehydration can impair physical performance. Figure 2 illustrates the relationship between increasing dehydration and reduced performance. The percentages of body water loss are of significance considering that moderate perspiration rates of 2 quarts per hour can result in fluid losses exceeding 4% of body weight.

As the body approaches water losses of 3% body weight, muscular endurance times and strength are reduced (4). These issues can be particularly important in weight-control sports such as wrestling, boxing, rowing, gymnastics, etc. Unfortunately, in these sports, dehydration techniques are often used to achieve a lower weight classification.

Torranin and co-workers studied the effect of dehydration and subsequent rehydration on muscular endurance during isometric and isotonic exercise (5). Following a 4% loss of body weight from dehydration, muscular endurance time (averaged over all muscle groups) was 31% shorter during isometric exercise and 29% shorter during isotonic work. Four hours after rehydration with a volume of fluid equal to the weight loss from dehydration, isometric and isotonic endurance times, respectively, were 13% and 21% below initial levels. It is important to note that dehydration caused a significant reduction in the isometric and isotonic endurance time. In addition, four hours of rehydration was not sufficient to restore normal muscle endurance. This observation is particularly important in a sport such as wrestling. The 4 to 5 hours that typically separate weigh-in from competition are often used for rehydration, but this may not be adequate time to compensate for the adverse effects of water loss.

Bosco, Terjung and Greenleaf (6) demonstrated a decrease in maximal isometric muscular strength with progressive hypohydration. In this study the degree of dehydration was modest reaching levels of about 3% of body weight. Buskirk and associates documented increased pulse rates during and after walking and after running following a water loss of 5% body weight (7). The dehydration was associated with an equal reduction in maximum oxygen consumption. Their findings also suggested that physical conditioning reduced the detrimental effects of the dehydration. Aerobic and anaerobic capacity following dehydration has also been evaluated (8). At submaximal work loads no changes in oxygen uptake were detected after dehydration but heart rates were significantly higher (mean difference 13 beats per minute). With maximal exercise there were no significant changes in oxygen uptake or heart rate but work times decreased markedly.

Dehydration does not only affect power, aerobic or anaerobic parameters. Mental (cognitive) responses are also diminished. Strydom and associates using rifle marksmen demonstrated that following dehydration accuracy dropped 15% to 20% below control scores (9). Bell et al. (10) monitored visual and auditory alertness during exposure to hot and humid conditions. Results indicated that a greater proportion of signals were missed as body temperatures increased (as dehydration began to occur).

The incidence of dehydration can not simply be reduced by providing more fluids for the athletes. Athletes usually depend on thirst to tell them that they need to drink. This is a mistake. Thirst alone is not an accurate indicator of body water needs. A resting man who is accustomed to a particular climate (hot, humid, etc.) will maintain water balance by drinking enough

water to keep his thirst satisfied. When body weight is measured each morning before the day's work begins, it will be remarkably constant. In contrast, Dill (11) and Pitts et al. (12) have reported that thirst does not always cause an exercising individual to keep his water intake equal with water loss. This is especially true of individuals who are not accustomed to a particular climate. These individuals when working in the heat never voluntarily drink as much water as they lose sweat. In fact, their fluid intake is usually at a rate of about  $\frac{1}{2}$  to  $\frac{2}{3}$  of the water loss in sweat. Prevention of dehydration during work in the heat requires scheduled fluid intakes.

### Effects of Physical Activity on Electrolyte Requirements

Sodium and chloride are the primary electrolytes lost in sweat because of their higher concentration in circulating blood. The loss of potassium, magnesium, and calcium in sweat is smaller because these electrolytes and primarily located within the cells of the body. To make up for mineral losses some persons use concentrated electrolyte beverages or salt tablets during intense physical activity. Under most conditions, this is not necessary and can actually be detrimental to performance. Although electrolyte loss in sweat increases with exercise, water loss is larger. Because of this, sodium is already concentrated in the blood during exercise and excessive intake of salt causes even greater concentration. Because water moves toward the area of greatest ionic concentration it goes from the intracellular (i.e., the muscle cell) to the extracellular compartment (i.e., to the blood). As a result, muscle cells are deprived of the water necessary to carry out the normal chemical processes of muscular activity. If an athlete is eating a balanced diet to meet caloric demands (i.e., to maintain a stable body weight) he/she usually received adequate quantities of electrolytes from the food. The only modification that may be necessary under these circumstances is to make more liberal use of the salt shaker at mealtimes.

Costill and co-workers examined the need of supplemental sodium, potassium, and chloride in active subjects who were permitted to consume food and drink as desired (13). Subjects in the study were dehydrated (loss of 3% body weight) on five successive days of exercise and used only water to replace lost body fluids. Daily measurements of water and electrolyte content of sweat and urine showed a positive balance in body sodium, potassium and chloride. These results indicated that normal dietary habits were sufficient to account for electrolyte losses during moderate dehydration.

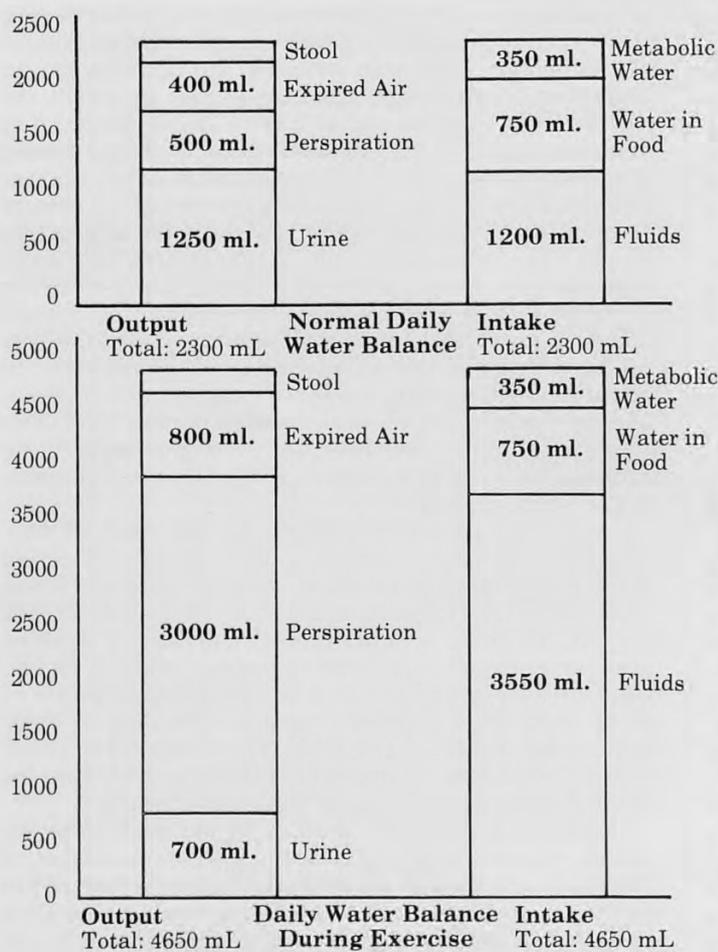
During some prolonged intense physical activities, an athlete may experience daily fluid losses in excess of 5%-6% of body weight. When individuals are exposed to this amount of body water loss day after day, there is a risk of an electrolyte deficit developing. The work of Lane et al. suggested that chronic heavy sweat losses (i.e., marathon training, in relatively hot and humid conditions) may produce a negative electrolyte balance (14). Under these kind of circumstances, some electrolyte replacement should be considered. Electrolytes should be consumed in small amounts during physical activity.

A good guideline to follow is the 1983 recommendation of the American College of Sports Medicine (ACSM) for electrolyte solutions to be consumed during a distance run to avoid heat injury. The ACSM recommends a maximum of 9.5 mEq (218 mg) of sodium, 9.5 mEq (337 mg) of chloride, and 4.7 mEq (183 mg) of potassium per quart of solution.

**Table I**  
Approximate Water Content  
of Representative Foods\*

Food	Percent of Water	Food	Percent of Water
<b>Fruit and Juices</b>		<b>Cereal Products</b>	
Apple, fresh	84	White, enriched bread	35
Apple juice	87	Cracker	5
Orange, fresh	87	Cornflakes	4
<b>Vegetables</b>		<b>Fats and Oils</b>	
Green beans, canned	84	Butter	15
Carrots, fresh	89	Corn oil	0
Corn, canned	76	<b>Dairy Products</b>	
Cucumber	96	Milk, whole	88
Lettuce	94	Hard cheese	30-40
<b>Meat</b>		<b>Beverages</b>	
Hamburger, cooked	54	Egg, raw	74
Chicken, broiled	68	Beer	90
Sirloin, lean	72	Wine	93
Veal	70		

\* Adapted from Watt BK, Merrill AL: Composition of Foods. Washington, DC: USDA, Agriculture Handbook No 8, 1963.



**Figure 1** Daily water balance in a healthy adult under normal circumstances and on a day that includes a prolonged bout of exercise. Exercise greatly increases total water loss through sweat and respiration and significantly reduces urinary output. Water intake must equal water output for balance to be achieved.

### Impact of Carbohydrate on Performance

Carbohydrate is an important energy source for the athlete who has high energy demands during physical activity. Glycogen is the form in which carbohydrate is stored in the muscle and liver. Glucose is a form in which

carbohydrate circulates in the blood. During moderate, prolonged exercise, glycogen and fatty acids (components of fat) are both used as energy sources. During high intensity exercise, however, muscle glycogen is the primary energy source. Active muscles also use circulating blood glucose as an energy source. This source is most important during prolonged, high intensity exercise. During exercise, the glycogen content of active muscles progressively decreases if carbohydrate is not replaced. There is much evidence suggesting that the depletion of this fuel store results in fatigue (15,16).

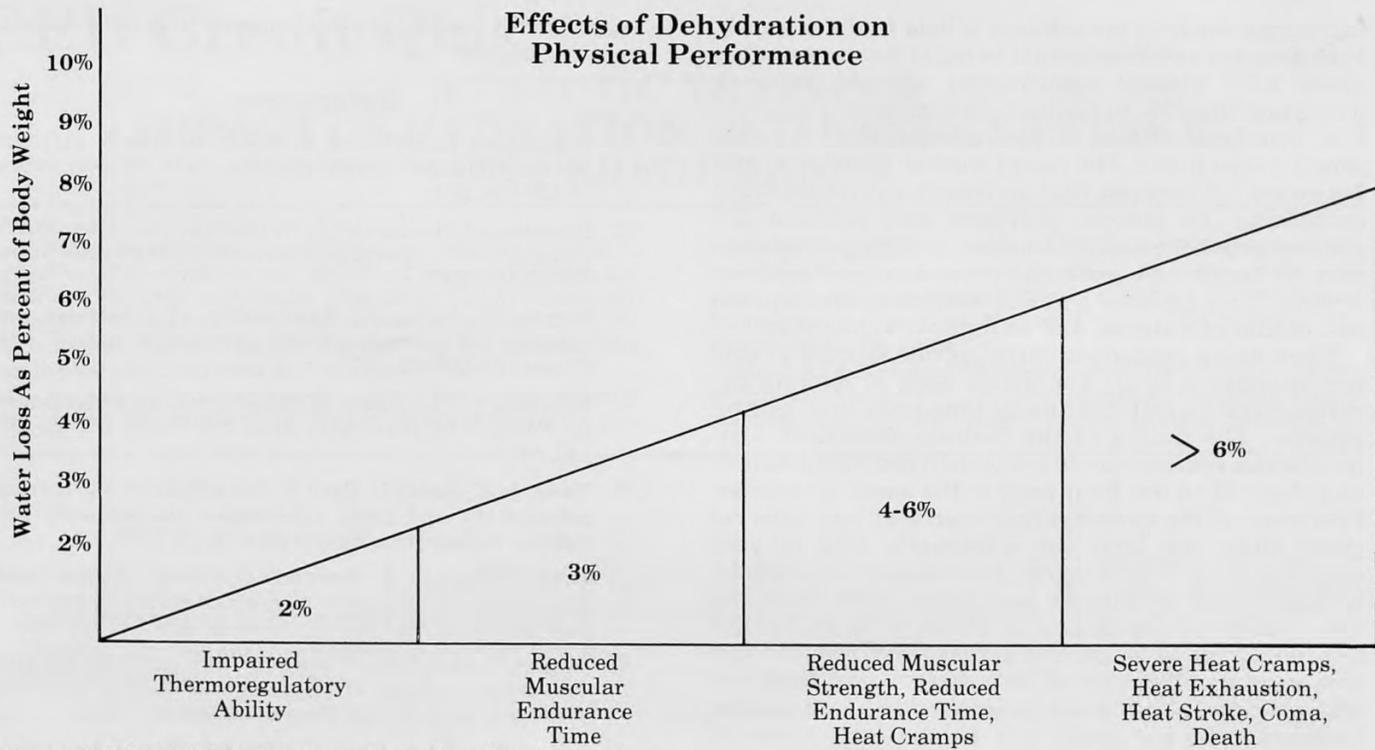
In contrast to high fat or high protein diets, a high carbohydrate regimen has been shown to enhance endurance performance. A high carbohydrate diet is associated with both a higher initial muscle glycogen concentration and a greater time to exhaustion than is either a high fat or a mixed diet (16). This relationship is most notable in prolonged submaximal endurance activities. Work by Costill and Miller suggested that a gradual decline in muscle glycogen may be related to the chronic fatigue often experienced by athletes during repetitive, strenuous training or competitive conditions (17). Chronic fatigue or "staleness" often limits an athlete's ability to comply with a progressive training program and subsequently to compete at maximum potential. Appropriate dietary management can minimize this effect. This relationship is illustrated in Figure 3. On a low carbohydrate diet there is a continual reduction in muscle glycogen levels with repeated daily exercise bouts. In contrast, a high carbohydrate regimen promotes a significant replacement of the glycogen stores to normal levels each succeeding day. Carbohydrate must be fed in the range of 60%-70% of total calories in order to elicit this response. It is also important that the athlete consume an amount of calories equal to total energy utilized. Athletes who burn more calories than they consume cannot produce glycogen efficiently. This reduced efficiency occurs even if the majority of calories consumed are in the form of carbohydrate. In addition, under hypocaloric circumstances there is always a chance that other nutrients are being consumed in insufficient quantities.

The form of carbohydrate used to maximize glycogen production (synthesis) is not critical. Work by Costill and Miller indicated that during the 24 hours following exercise the form of the carbohydrate (starch and simple sugar) had no significant effect on the rate of glycogen resynthesis (17). In general, complex carbohydrates are considered to be the carbohydrate of choice. However, when the situation does not allow for the use of such feedings, simple sugar will be satisfactory.

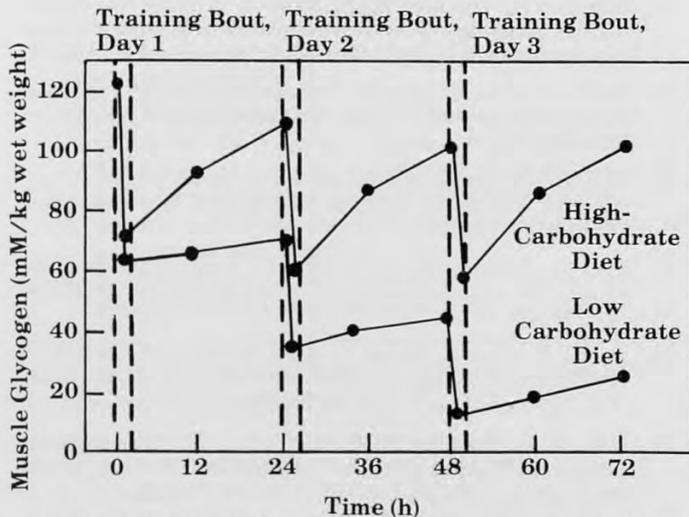
The consumption of carbohydrate during activity can also impact on performance. During exercise muscle glycogen serves as a limiting energy source. There is virtually no synthesis taking place during activity. Consequently during long term exercise the working muscle depends to some extent on blood glucose as a source of fuel. Felig and Warren reported that blood glucose may supply as much as 30% to 40% of total energy needs of exercising muscle (18). Therefore, if glucose declines from a normal blood concentration of approximately 90 mg percent to 50 mg percent or below, the exercising muscle fibers cannot obtain enough sugar to maintain activity. As a result more muscle glycogen has to be used, causing it to be reduced more rapidly. These interrelationships suggest that the maintenance of "normal" blood glucose could be beneficial in delaying the onset of fatigue, particularly during long term events.

Bergstrom and Holtman found that glucose infusions could delay muscle glycogen depletion by 24% during a

## Effects of Dehydration on Physical Performance

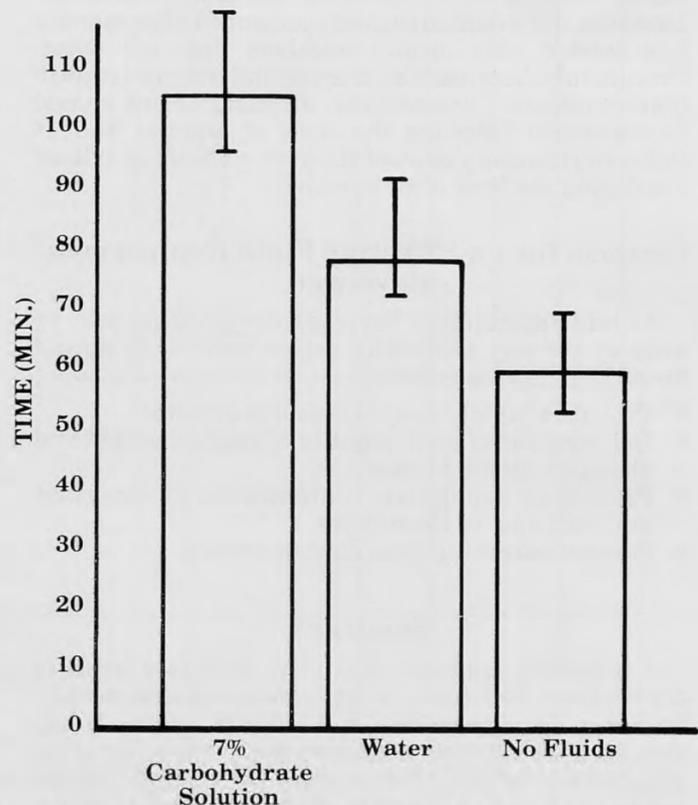


**Figure 2** Effect of dehydration on body function. A perspiration rate of 2 quarts per hour can result in fluid losses exceeding 4% of body weight.



**Figure 3** Effect of diet on muscle glycogen content during three successive daily 2-hour bouts of heavy training. Caloric compositions of diets were as follows: low-carbohydrate diet, 40% of total calories from carbohydrates; high-carbohydrate diet, 70% of total calories from carbohydrate. (Adapted from Costill DL, Miller JM: Nutritional for endurance sport: Carbohydrate and fluid balance. *Int J Sports Med* 1:2-14, 1980.)

60 minute bicycle exercise bout (15). In a later study with rats, Bagby found that glucose infusion slowed muscle and liver glycogen utilization and significantly increased endurance (19). Several investigations in humans using different exercise intensities have indicated that the ingestion of carbohydrate during exercise can delay the onset of exhaustion (20, 21, 22). Recent field trials have corroborated these findings (23, 24). Figure 4 shows the results of one of these studies (23). Not the dramatic increase in endurance performance when the group was provided with a carbohydrate source during the exercise bout.



**Figure 4** Average duration of exercise to exhaustion with a 7% carbohydrate solution, water, or no fluids in 12 long distance runners exercising on a treadmill. Thin lines represent standard deviation values.

How this information can best be practically applied to athletics is still unclear. Neither the specific type of carbohydrate that should be provided during activity, nor the best way to provide it, has been determined conclusively. In general, a carbohydrate system should be used that will give the athlete as much energy as possible without delaying the absorption of water by

increasing the time the solution is held in the stomach. Free glucose or sucrose cannot be fed at levels exceeding about 2.5% without significantly slowing stomach emptying time (25). In addition, this concentration is so low, beneficial effects of the carbohydrate probably would not be noted. The recent work of Seiple (26) and Macaraeg (23) suggest that an energy hydration drink containing 7% glucose polymers and fructose (5% glucose polymers and 2% fructose, weight per volume) may be compatible with the preceding carbohydrate criteria. They reported a gastric emptying time equivalent to that of water as well as improved endurance.

When using exogenous carbohydrate sources to support exercise it is not simply an issue of making the carbohydrate available at any time prior to or during exercise. The timing of the feedings is critical. Carbohydrate sources should not be delivered to the athlete any closer than one hour prior to the onset of exercise. Provision of the carbohydrate source at any interval closer than one hour can potentially lead to very compromising circumstances. For example, a moderately large (70-100 g) glucose load taken closer than one hour before exercise causes an elevation in the insulin level which promotes glucose uptake from the blood and suppresses mobilization of free fatty acids from the adipose tissue. This could be referred to as an insulin backlash. The net result can be the early onset of hypoglycemia and a premature utilization of glycogen stores leading to a decreased endurance capacity. However, if the carbohydrate is consumed after exercise has started, this insulin backlash does not occur. Presumably, because of an exercise induced reduction in insulin release. Consequently, an energy drink should be consumed following the onset of exercise (that is following the completion of vigorous warmup activities) not during the hour prior to activity.

### Criteria for an Effective Fluid Replacement Beverage

A fluid replacement beverage designed for use by athletes (or any physically active individual) should meet the following criteria.

- Provide a rapidly available source of water
- Deliver a significant quantity of easily digested and absorbed carbohydrates
- Provide an appropriate concentration of important minerals and/or electrolytes
- Possess refreshing taste characteristics

### Summary

It is readily apparent that even moderate levels of dehydration can have a detrimental impact on performance, be it anaerobic or aerobic in nature. It has also been well documented that the availability of an appropriate carbohydrate source to support muscle activity can also be limiting. Optimal training effects cannot be elicited if the athlete does not maintain an adequate fluid and energy regimen during the course of the entire training and competitive season. Considering time and emotional commitment to training and competition, it would indeed be unfortunate for an individual to limit his or her true potential by inappropriate fluid and energy management. The presence of an adequate dietary regimen is an obvious requirement for successful competition. However, if one takes an enlightened look at the physiological and biomechanical properties of certain essential nutrients (such as carbohydrates and fluids) and considers the importance of timing in

regard to the feeding of athletes, several beneficial facts can be realized.

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# CEU Credit Quiz

## ATHLETIC TRAINING IMPACT OF HYDRATION AND ENERGY INTAKE ON PERFORMANCE

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 tear out the test sheet, fill in your name, address and other information, and mail with \$12 for processing to: School of Continuing Education, Hahnemann Medical College, 230 N. Broad St., Philadelphia, PA 19102.

The NATA National Office will be notified of all members with passing scores over 70%. CEU credit will be issued to each member's record at that time. Participation is confidential.

### Questions

Questions		a	b	c	d	e
1. During exercise, rapid breathing is a major avenue of water loss.	a. True b. False					
2. During intense exercise, more than 3 quarts of sweat can be lost in an hour	a. True b. False					
3. Torranin and co-workers in studying the effect of dehydration and subsequent rehydration on exercise capacity found that	a. 1,3 b. 2,3 c. 2,4 d. 1,4					
4. Factors which have been found to be affected by dehydration include	a. mental or cognitive responses b. visual alertness c. auditory alertness d. a and b above e. all of the above					
5. The major electrolytes lost in sweat are	a. sodium and potassium b. potassium and chloride c. sodium and magnesium d. chloride and sodium e. chloride and magnesium					
6. If an athlete is eating a balanced diet to meet caloric demands, he/she usually receives adequate quantities of electrolytes from the food.	a. True b. False					
7. During high intensity exercise, the primary energy source is	a. protein b. fatty acids c. muscle glycogen d. liver glycogen					

8. A high carbohydrate diet is associated with a _____ than is a high fat or a mixed diet. a. higher initial muscle glycogen concentration b. greater time to exhaustion c. both a and b above d. neither of the above					
9. Complex carbohydrates must be utilized in order to maximize glycogen synthesis.	a. True b. False				
10. Several studies have demonstrated that the ingestion of carbohydrates during exercise can delay the onset of exhaustion.	a. True b. False				
11. Carbohydrate sources should be utilized by the athlete _____ prior to the onset of exercise a. immediately b. 1/2 hour c. one hour or more d. any time					
12. A fluid replacement beverage designed for use by athletes should 1. provide a rapidly available source of water 2. deliver a significant quantity of easily digested and absorbed carbohydrates 3. provide an appropriate concentration of important minerals and/or electrolytes 4. possess refreshing taste characteristics	a. 1,2,3 b. 1,3 c. 2,4 d. 4 only e. 1,2,3,4				

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# A Western States Survey of Certified Athletic Trainers' Use of Joint Mobilization in Treatment Programs

Angela E. Reasoner, ATC, LPTA, MS

*An investigative approach to the use of manual therapy in sports medicine (i.e. joint mobilization) was undertaken by questionnaire. Results indicated that although professional education of the ATC in joint mobilization was not prevalent, those who had formal education in the technique used it more often than those who has less formal preparation. Those who used it perceived themselves to possess more skill and knowledge than those ATC's who used it less.*

The professional preparation of athletic trainers has improved dramatically in recent years. This is evidenced by the recent surge in specialized rehabilitative techniques and expanded preventive medicine concepts. Procedures have been sought in an effort to decrease pain, increase range of motion and function while decreasing athletes' time losses from sport following initial injury. Many of the techniques, modalities and exercise programs found in athletic training treatment programs were originally cultivated in the field of physical therapy and have been used with increasing frequency by athletic trainers.

Manual therapy is one area gaining popularity in sports medicine. It is not considered a specific treatment singularly, but is an assemblage of "treatment techniques" manually applied to joints and surrounding structures for the purpose of relieving pain, increasing mobility, and preventing the recurrence of pain (2,7). The primary role of manual therapy is to improve mobility about a restricted joint (5,8,11,16,18). The mechanical effects of manual therapy are directed to the joint space and also to the immediately surrounding tissues of the joint by stretching or breaking adhesions and thereby improving range of motion (16). The treatment categories of manual therapy may be differentiated accordingly:

*Joint mobilization* - This is manually applied passive

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movement performed within the pathological limit of range of motion. The movement is performed within the voluntary control of the patient and may be in the form of oscillatory movements at different parts of the range of motion (11,15).

*Manipulation* - This is a movement, manually applied, past the limits of pathological range of motion. Movements may have a quick thrust to the anatomic limit and are not within the voluntary control of the patient (3,5,11).

## Purposes and Need For Study

Manual therapy is becoming increasingly popular in the field of physical therapy and athletic training. Consequently, the availability of specialized professional coursework has increased to supply the demand for further joint mobilization education. Courses are typically offered through weekend or more extensive one to two week programs. Such courses provide the basic framework of examination, techniques and assessment of each treatment (5,6). The introductory courses in manual therapy are formed essentially to expose and encourage students to further their education and clinical experience (6). Many proponents encourage considerably more clinical hours than these courses offer, and believe students need more than short term courses to reach a standard where they can be critical of their own work (3,4,6,9,10,13,18).

Questions arise as to the amount of joint mobilization utilized in sports medicine. To what extent are athletic trainers utilizing professional coursework to enhance their knowledge of techniques? How essential do they feel further joint mobilization education is for the refinement of techniques? What physiological benefits do patients and/or athletes receive from joint mobilization techniques? Therefore, the purposes of this paper are to present:

- 1) A summary of five major schools of thought on manual therapy, and
- 2) The results of an investigative study on the use of joint mobilization in sports medicine.

## Summary of the Five Major Schools of Thought

The particular manual therapy regime selected for use is generally determined by the desired effects to the joint

and is based on pain, range of motion, and the diagnosis. Specific diagnosis for which manipulations are indicated vary among the leading theorists. Even though there are numerous conflicts in terminology as well as concepts of diagnostic implications, each authority emphasizes the importance of a thorough evaluation to determine if manual therapy is indicated. In this brief review, indications and application of techniques are presented for the major contributors to the field.

*James Cyriax, M.D., M.R.C.P.:* According to Cyriax, the primary goal of any therapy should not be to relieve pain, but to evaluate and treat the pathology. Pain is a symptom of the dysfunction and therefore treatment should be directed at resolving the dysfunction (4,15). Therefore a thorough evaluation is necessary to identify the specific tissue injured and to ignore the referred pain (3,4). This is done by observing Cyriax's principles that all pain arises from a lesion and, therefore, all treatment must reach and exert a beneficial effect on the lesion (2,4).

Cyriax's evaluation is based on subjective and objective findings to determine if a contractile or inert structure is responsible for the pain. Passive motion determines the state of inert tissues while resisted movements determine contractile tissue (2,4). Results of passive motion provide "capsular patterns" which are limitations of motion in proportion to the type of pathology (2).

Spinal treatment is based on the type of problem causing the pain, which is frequently a disk pathology (1,5). A careful examination will determine the type of disk problem or whether the pain is from another source.

*Freddy Kaltenborn, L.O., R.P.T.:* Kaltenborn adopted the philosophy of Cyriax in treating peripheral joints in regard to evaluation of active and passive movements, neurological tests and pain pathology (2,7).

The Kaltenborn techniques are based on a thorough understanding of the biomechanical pathology of that joint and its motion so as to determine the most appropriate mobilization technique, position and direction needed to achieve the greatest benefit. The techniques require that one surface of the joint remains fixed while the other is free to be moved upon it. The "convex/concave rule" states that on a fixed concave surface, the mobilized convex surface is moved in the opposite direction of the restricted motion. The converse is true for a fixed convex surface (2,7). In mobilization techniques for peripheral joints, the free joint surface is moved in the appropriate direction, with respect to this rule, by the use of traction or parallel gliding movements as far as the soft tissues will allow (7). They are performed slowly and rhythmically in the loose packed different amplitudes through the available range of the joint and always within the control of the patient.

Treatments for spinal pathologies are guided by changes in mobility and presence of pain. Mobilization is believed by Kaltenborn to assist in the treatment of disk pathologies depending on the extent of disk prolapse (1).

*Geoffrey Maitland, M.A.P.A., F.C.S.P.:* Maitland's approach to the treatment of peripheral and spinal joint pain is nonpathological (10,11). Treatment is based on the signs and symptoms of the patient to determine whether the cause of pain is coming from a muscle or a joint. Following a subjective evaluation the objective peripheral joint evaluation is used to investigate pain, spasms, and resistance throughout joint range of motion by the use of passive physiological and accessory movements. The latter movements are small involuntary movements within the joint that allow normal voluntary joint motion to occur (11). The passive movements of

joint mobilization are used to work on these accessory motions which involve the intra-articular mobility of the joint (10,11). These movements can be performed at different amplitudes through the available range of the joint and always within the control of the patient. Maitland classifies these movements within the pathological range, into four oscillatory grades (1,2,9,10,11). Grades I and II are used primarily for pain reduction while grades III and IV are used to increase motion of a stiff, painless joint.

Pain and spasm are the major guides for all movement grades, and at the first sign of either, the movements are altered and/or stopped. Maitland suggests that passive movement techniques be utilized to treat pain before trying to increase the range of motion limited by stiffness (10,11).

*John McM. Mennell, M.D.:* Mennell's treatments are based on the pathology and diagnosis of joint dysfunction which may be described as a loss of involuntary joint play motion at a synovial joint (2,13,14). Joint play is the motion allowed by the joint capsule during the production of a voluntary motion (2,13,14). This motion is independent of voluntary muscle action and cannot be reproduced by voluntary motion (2,13,14). The amount of joint play allowed by the surrounding structures will determine if the joint is hypermobile, or normal.

According to Mennell, there are ten rules of technique for examination and manipulation for treating joint dysfunction. These should be followed closely as deletion of any might lead to damage of the joint. The indication for each finding is based upon the nature of the obstacle decreasing joint play, such as adhesions due to immobilization or a fracture fragment from intrinsic trauma. In the spine, when the examination reveals a lack of disk prolapse, evidence of muscle injury or systemic disease, or positive evidence of spinal joint dysfunction, the contraindications to treatment by passive movement have been eliminated (1,12).

*Stanley V. Paris, N.Z.S.P., M.C.S.P.:* The primary emphasis of Paris' therapy is to evaluate and treat the pathology of joint dysfunction and not to relieve pain (15). Frequently, pain may be relieved before the dysfunction is fully corrected (17).

Prior to the use of joint mobilization, an extensive examination, consisting of ten steps, is performed which includes a biomechanical and neurophysiological evaluation. The joint is then treated appropriately based on the type of restricted motion. Hypomobile joints are mobilized using articulatory techniques of stretch or oscillatory form (16).

Mobilizations are primarily used to assist in the restoration of full painless function. They may consist of either manipulation or articulatory techniques. These are primarily used to treat facet joint pathologies.

Five different schools of thought for manual therapy have been presented. The general concepts, evaluation regimes, treatment procedures, protocol, and terminology which vary among the schools were discussed. In general, the theorists maintain that an extensive evaluation prior to treatment is essential to determine the use of manual therapy.

## The Investigative Study

The purpose of this study was to investigate the relationships between the amount of joint mobilization professional preparation, frequency of use and benefit assessment of joint mobilization procedures among Certified Athletic Trainers. In addition, an attempt was made to determine the differences, if any, in the assessment of physiological benefits of joint mobiliza-

tion use between athletic trainers who have extensive joint mobilization educational preparation and those trainers who did not.

## Methods

The study was conducted by means of a questionnaire survey sent to Certified Athletic Trainers in seven western states. Specifically those trainers from the following states were involved: Arizona, California, Idaho, Nevada, Oregon, Utah, and Washington. Only those trainers using joint mobilization procedures were involved in the study. The questionnaire survey requested information regarding: 1) the percentage of trainers using joint mobilization; 2) joint mobilization educational background; 3) frequency of use in treatment programs; and 4) assessment of benefits with joint mobilization procedures. The final section of the questionnaire dealt with the trainers' perceived assessments of benefits with joint mobilization. A Likert scale was utilized in this section to obtain a score for the final analysis in the study.

A questionnaire packet was mailed to all Certified Athletic Trainers in the designated states to determine the use of joint mobilization in sports medicine. The packet contained a cover letter explaining the study along with a definition of joint mobilization. The questionnaire was returned in a self-addressed stamped envelope. The trainers were informed not to identify themselves on the questionnaire in any way, so that anonymity of the returns could be assured.

The trainers involved in the study had the opportunity to obtain results of the investigation upon completion of the study.

A pilot study was conducted prior to the mailing of the final questionnaire. Fifty-two (52) Certified Athletic Trainers in Oregon who used joint mobilization procedures were surveyed to determine the consistency in interpretation of the questions in the final study.

The following definitions were constructed for the purpose of the study to assist in categorizing the professional preparation of the trainer.

*Formal professional preparation* — Participation in seminars and coursework designed or sponsored by a professional organization specifically for the education and advancement of theories and procedures dealing with joint mobilization.

*Informal professional preparation* — Participation in unsponsored meetings and inservices with colleagues and/or utilization of current literature for the purpose of improving the understanding of theories and procedures of joint mobilization.

*Professional preparation classification* — The extent of professional preparation in joint mobilization:

1. High — The trainer has completed one or more formal professional courses dealing with joint mobilization and utilized informal professional preparation at least once a month.
2. Moderate — The trainer has completed one or more formal professional courses dealing with joint mobilization but utilizes informal professional preparation less than once a month, or has no formal course work but utilizes informal professional coursework at least once a month.
3. Low — The trainer has less than a moderate amount of professional preparation.

## Questionnaire Analysis

The data were collected between April and September of 1982. The trainers (n=463) in six western states were

surveyed regarding their opinions and assessments of joint mobilization in treatment programs. Of the 313 responding, 55.91% (175) indicated that they used joint mobilization to some extent. Because 14 of the questionnaires were returned incompletely, a total of 161 questionnaires were used for the data analysis.

## Parts I & II

The trainers were requested to supply information regarding their joint mobilization preparation and frequency of use in treatment programs.

The results of Part I provided data for the professional status frequencies of 63 trainers who had obtained professional coursework for joint mobilization use. The data are illustrated in Figure 1.

Results of Parts I and II of the questionnaire classified the trainer into one of nine groups according to the extent of preparation and use of joint mobilization in treatment programs. Figure 2 represents the sample population of individual groups ranging from high to low educational preparation and frequent to occasional frequency of joint mobilization use in treatment programs. There were no trainers noted in the low education preparation category for frequent and moderate frequency of joint mobilization use among the 161 completed questionnaires utilized in the study. The greatest number of trainers utilizing joint mobilization is evident in the occasional use/moderate preparation category.

## Results of the Study

1. Trainers' colleagues were the primary educational sources of reference for joint mobilization use.
2. Seventy-two percent of the trainers utilized their joint mobilization reference sources more than once a month.
3. Fifty-nine percent of the trainers surveyed who used joint mobilization procedures had no formal professional preparation in this area.
4. The primary facilities in which joint mobilization was utilized were sports medicine clinics and university settings.
5. Joint mobilization was used sparingly by the majority of the athletic trainers surveyed.
6. Eighteen chi square analyses were performed to determine the relationships between joint mobilization, frequency of use, and assessment of physiological benefits. The following statements summarize the finding based on the results of the chi square analyses.
  - a. The amount of joint mobilization education obtained by the Certified Athletic Trainer has a significant relationship to the frequency of use in treatment programs.
  - b. Those trainers with high joint mobilization education tended to use the procedures more than trainers with moderate and low education but still used them less frequently than would be expected for the population.
  - c. There is no relationship between the trainers' use of joint mobilization in treatment programs and their assessments of physiological benefits.
  - d. There is a marginal relationship between the trainers' level of education and their assessments of physiological benefits.
  - e. Trainers who used the procedures more frequently in treatment programs and had a higher level of joint mobilization education tended to perceive their clinical skill and theoretical knowledge to be greater than the trainers with less education and frequency of use.

## Conclusion

Within the limits of this investigation, the level of joint mobilization education obtained by the Certified Athletic Trainers was found to be related to the frequency of joint mobilization use in treatment programs. There appears to be a trend, at all levels of joint mobilization education, to use the procedures only occasionally. The frequency of occasional joint mobilization use tends to increase as the level of education decreases.

The lack of significance observed between the frequency of use and assessment of perceived physiological benefits may have been due to the trainers' difficulties in assessing the specific effect of joint mobilization while other modalities were simultaneously used to treat the same injury.

Trainers with a higher level of joint mobilization education and who used the procedures more frequently perceived themselves to be more skillful and have greater theoretical knowledge than those who used the procedure less and had less education for its use. This finding may indicate a greater need for further education and practical skill to maintain a particular level of standard with joint mobilization use.

## Recommendations for Further Study

Based on the finding of this investigation the author makes the following recommendations for further study:

1. Joint mobilization is a technical skill used not only for treatment programs but more importantly for

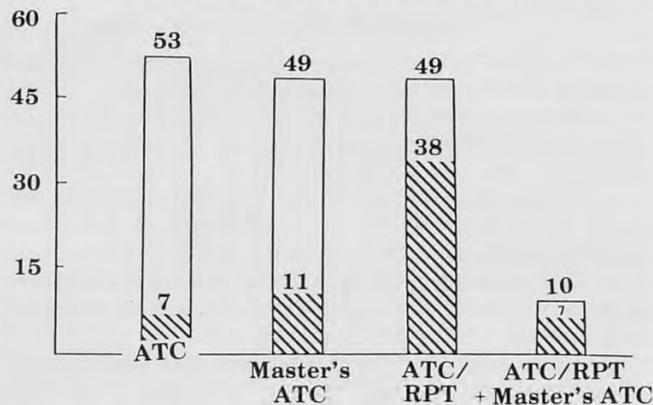


Figure 1. The frequency of trainers using joint mobilization according to professional status. Frequency numbers within the column correspond to those trainers who have completed professional coursework.

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evaluation prior to treatment. It is recommended that future investigators include the specifics of evaluation measures prior to the use of joint mobilization procedures as an objective scale for the assessment of perceived physiological benefits from a joint mobilization treatment program.

2. Accurate assessment of perceived physiological benefits is necessary to determine the positive and negative effects of the procedures. Because this study found marginal or no significant differences between the perceived benefits and joint mobilization education or frequency of use, it would be beneficial to construct a more objective scale, for the assessment of benefits, in order to eliminate subjectivity.

3. Joint mobilization is typically not used independently but in conjunction with other procedures and modalities. It is suggested that investigations be done on the types of various modalities frequently incorporated into a joint mobilization schema, and therefore construct specific protocols for the most beneficial method of mobilization combined with other modalities used in treatment programs.

Joint mobilization is a commonly utilized procedure in physical therapy, yet controversy exists as to its place and practice in sports medicine. The present investigation was an effort to identify relationships pertinent to further study. After more exposure of manual therapy in the sports medicine field, a demand for more extensive research will surely be indicated.

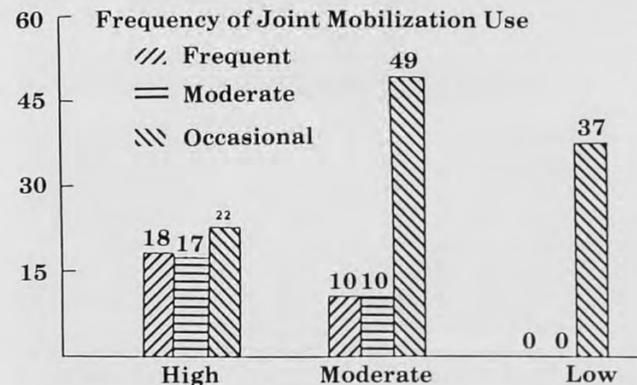


Figure 2. Frequency of use of Joint Mobilization according to high, moderate and low categories of professional preparation in joint mobilization.

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# Tibialis Posterior Shin Splint: Diagnosis and Treatment

Paul A. Scheuch, Jr., MEd, ATC

*Shin splints is defined and explored. Concentration is on the tibialis posterior problems. Specific detectable traits are explained to eliminate unnecessary treatments, with biomechanical causes explained. Effective treatment for this type of injury has been whirlpool, arch support, and oral anti-inflammatory medication 15 minutes before activity, with ice massage following activity. Useful strength and flexibility exercises are described in the rehabilitation process. Upon completion of rehabilitation, a progressive mobility test is recommended. The author believes that tibialis posterior shin splints need not restrict the athlete for an extended length of time if accurately diagnosed, treated and rehabilitated.*

Anyone who is actively involved in sports, either in the participation of sport or the practice of sportsmedicine, has heard the term "shin splint" used as a topic of conversation in the locker or training room. What this injury is that so affects so many athletes and what can be done about it has been the topic of considerable debate in the circle of sport for many years.

Shin splints, as defined by the American Medical Association's Standard Nomenclature of Athletic Injuries, is "Pain and discomfort in the leg from repetitive running on hard surfaces or forcible extensive use of foot flexors; the diagnosis should be limited to musculotendinous inflammation, excluding a fatigue fracture or ischemic disorder" (10). This definition has come under considerable debate in the past few years since research has shown shin splints to be a catch-all term and specific injuries to the lower leg have been investigated and defined. In the literature there have been many injuries that have been defined as shin splints. These injuries include tibialis posterior tendonitis, stress fractures, muscular tears and strains, periosteal strains, and vascular disorders such as compartment syndromes (1). The purpose of this paper is to take one of the specific injuries in the catch-all term of shin splints, tibialis posterior tendonitis, and investigate it as it applies to the practitioner of sportsmedicine.



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## Anatomy

The tibialis posterior muscle is situated deep beneath the gastrocnemius on the posterior aspect of the tibia. (Fig. 1) It has its origin on the upper half of the posterior surface of the interosseous membrane and adjacent parts of the tibia and fibula. The insertion of this muscle is on the inferior surface of the navicular with offshoots to adjacent bones. The tendon turns 90° at the medial malleolus and is a prime mover for inversion and assists with plantarflexion. One slip of the tendon of insertion inserts on the third cuneiform, from which, in part, the flexor hallucis brevis arises. The flexor hallucis brevis inserts on the sides of the base of the first phalanx of the great toe. This interconnection has been found to be uniquely human and serves to project the pull of the tibialis posterior to the metatarsophalangeal joint of the great toe where it is a major factor in bringing about arch raising. The two muscles contribute to the elevation of the arch during walking and add spring to the step (2).

## Diagnosis

When presented with an athlete who complains of pain in the lower leg, the examiner should ask the following questions:

- 1) Was there any sudden change in the intensity of the workouts, such as adding interval training or hill work to the workout?
- 2) Was there any change in the duration of running or weekly mileage of the athlete?
- 3) Was there any change in the frequency or number of times the athlete worked out per week?
- 4) Was there any change in equipment, such as new running shoes?
- 5) Was there any change in the terrain in the workout of the athlete?

If a yes response to any of the above is elicited, the examiner can start to suspect an overuse injury. The athlete who has tibialis posterior tendonitis will describe an aching pain along the medial border of the tibia with pain on palpation along the middle and distal thirds of the medial tibia. The aching pain is most common after a long run on uneven surfaces with inadequate foot support. Frequent running in one direction on banked tracks or roads may be an underlying cause (3). Eriksson and Mubarak stated in a report to the American Academy of Orthopedic Surgeons that medial tibial stress is not a

compartment syndrome even though it has symptoms similar to anterior tibial compartment syndrome. Eriksson found that there were no pathological elevations in deep posterior compartment pressures in patients with medial tibial stress. He also found no rise in the percent of water in muscle samples taken from medial tibial stress patients, so he concluded edema is not the cause of pain (8). Mubarak stated a stress fracture can be ruled out because faciotomies relieve the pain (8).

The examination, once the history has been established, should focus primarily on equipment examination, palpation, active resistance and evaluation of Feisses line. Feisses line will be described further in this article. The shoes should be inspected to see if the arch support is compressed or absent and if the heels of the shoes are worn and in need of repair (7). On medial palpation of the border of the tibia, the examiner might find a leathery, crepitant tenosynovitis in the flexor canal and along the posterior and medial tibial border with pain elicited on palpation. Active resistance of the foot when plantarflexing and inverting the foot will produce pain. DeLacerda found that isolated muscle action of the tibialis posterior when contracting against resistance produced the pain pattern characteristic of shin splints (4). Passive eversion and dorsiflexion of the foot has been found not to be a good diagnostic technique to determine pain in the tibialis posterior. On inspection of the heel cord, it should be determined if the athlete has pronated ankles while weight-bearing. Examination of the arch should be done by using Feisses line. A mark should be put on the distal medial malleolus, a mark on the navicular which is located on the medial aspect of the foot and on the base of the great toe. (Photos 1 & 2) On non-weight bearing these three points should be in a straight line. When weight bearing, the dot on the navicular should move inferior to the straight line between the malleolus and the base of the great toe. If this dot falls one half inch or more below the line, then the athlete needs support of the arch either by in-shoe orthotics or by various taping techniques to give the arch support.

The cause of tibialis posterior tendonitis is usually hyperpronation caused by forefoot varus (5). This hyperpronation may be accentuated by abnormal wearing of the shoe on the posterior medial heel. This can be corrected by repair of the shoe with commercial products. Compensation to allow the medial aspect of the forefoot to reach the ground is by pronation of the subtalar and midtarsal joints with secondary internal rotation of the lower leg. This compensation causes fatigue to the tibialis posterior muscle by subjecting it to premature contraction with too early pronation which leads to nonphasic function and chronic fatigue. The tibialis posterior works excessively to decrease abnormal transverse plane rotation and lowering of the medial arch which contributes to further fatigue. This chronic fatigue leads to abnormal running style which leads to an overuse injury.

When examining the medial aspect of the lower leg for tibialis posterior tendonitis some differential diagnoses must be ruled out. These differential diagnoses include stress fractures of the posterior medial cortex of the distal tibia. This can be done by x-ray of the tibia or by radioisotope bone scan. A posterior tibial compartment syndrome can be ruled out by taking an accurate history. Most compartment syndromes are chronic and usually start with leg pain after exertion. There may be some paresthesia in the lower extremity related to this pain (1). Special diagnostic equipment may be needed to diagnose this syndrome. A very common symptom of the

compartment syndrome is that the symptoms will increase while running. This is due to the increase of interstitial fluid pressure. Muscular injuries such as contusions and strains of the gastrocnemius and soleus can be ruled out again by taking an accurate history and then through palpation and active and passive movement determine the musculature involved.

## Treatment

The treatment of tibialis posterior tendonitis has been of considerable debate among practitioners of sports-medicine. Some practitioners prescribe only the use of ice in the treatment since it is felt that heat would raise the intercompartment pressure if in fact the shin splint was a compartment syndrome. As previously stated, Eriksson and Mubarak found no elevations in deep compartment pressures in patients with tibial stress. It is felt by the author and Houghlum (9) that the prescribing of superficial and deep heating modalities by the team physician is the treatment of choice for any tendonitis.

Once an accurate diagnosis of tibialis posterior tendonitis has been made, a treatment program must be initiated. This program should concentrate on the cause of the injury so that correction will eliminate the biomechanical factors involved in the injury. After the cause has been identified and corrected, then treatment of specific symptoms can be initiated.

If the cause of the injury is a collapsing medial arch then the arch must be supported by first taping the arch with a technique to give support to the arch which stops ankle hyperpronation due to arch collapsing. In some cases over the counter, non-prescriptive arch supports can be inserted in the shoe to support the medial arch if the arch support in the shoe is broken down or non-existent. Taping of the arch can be done by using the taping techniques in Photos 3 and 4. Arch taping will not stabilize the subtalar joint where pronation of the ankle takes place. If taping does not relieve the symptoms then orthotics must be prescribed to maintain the subtalar joint closer to its neutral position and limit the amount of pronation available to it (6). This is accomplished by orthotics in two ways: 1) Better osseous alignment at the subtalar joint minimizes rotary forces on the tarsal bones allowing osseous and ligamentary compression rather than muscular effort to stabilize both the subtalar and midtarsal joints, and 2) controlling the subtalar joint in the neutral position through the midstance period lends stability to the foot because the midtarsal joint locks firmly against the ground.

After the biomechanical cause of the injury has been corrected then the symptoms can be treated. According to Jackson, pain of shin splints can be classified according to severity (1). Grade 1 - Pain after athletic activity; Grade 2 - pain before and after activity but does not affect performances; Grade 3 - pain before, during and after activity which affects performances; and, Grade 4 - the athlete is unable to be competitive. The treatment of athletes with grade 1 and 2 pain should consist of relieving the pain by use of whirlpool at 110° F for 15 minutes, arch support, 10 gr. of aspirin or oral anti-inflammatory medication 15 minutes before activity and ice applied in the form of ice massage 10-15 minutes after the activity. Some limited benefit has been derived from the use of a walking analgesic balm hot pack but taping techniques of the shins seems to be ineffective. If the athlete progresses to grade 3 or 4 then a more aggressive program must be initiated. Whirlpool coupled with ultrasound at .8 - 1.2w/cm<sup>2</sup> was found to be very effective with an alternative activity provided to keep the athlete's cardiovascular endurance. These activities



**Description of the Taping Technique of the Medial Arch**

Apply an anchor of 1½" tape around the ball of the foot making sure that there is no wrinkle in the tape. Using 1" tape start on the medial side of the great toe and run the tape across the arch, around the lateral side of the calcaneus and back to the starting point. Next, start on the lateral side of the fifth toe and run the tape across the arch, around the medial side of the heel and back to the starting point. Apply two layers and anchor again with 1½" tape. (Photo 1)  
To complete the taping technique apply three layers of 2" elasticon tape around the arch, overlapping by half as the tape is applied anterior to posterior. Be careful not to apply the tape too tight as cramping might occur. (Photo 2)

include bicycle or ergometer riding and swimming.

**Rehabilitation**

After the pain has subsided then strength and flexibility exercises can be implemented in the rehabilitation program. Heel cord stretching should be done on an incline board. By placing the foot into dorsiflexion the tibialis posterior muscle as well as the gastronemius will be stretched. After normal, acceptable range of motion has been achieved then strength exercises are initiated. The exercises of choice should be exercises that allow for inversion, plantarflexion and internal rotation of the ankle joint. An exercise that an athlete can do at home is done by using a towel on a smooth surface. Place a

weight on the end of the towel (5 lbs.) and put the ball of the foot on the towel opposite the weight with the heel on the floor. By inverting the foot, pull the weight toward the foot by sliding the towel with the ball of the foot. (Photo 5) Do this 10 times, twice a day. Toe raises on stairs should also be used with the heels lowered to stretch the gastrocnemius and tibialis posterior and then spread apart at the top of the toe raise. (Photos 6 & 7) The athlete should work up to 75/session pain free.

Once the rehabilitation process has been completed the athlete is given a mobility test which consists of 15 toe raises, 15 hops, lateral running for 20 yards using a crossover step, figure eight running starting for 20 yards and gradually making the "8" smaller and smaller, and



Figure 1. Tibialis Posterior muscle.



Photo 1. Feisse's line showing straight line between points on the distal medial malleolus, navicular and base of the great toe when non-weightbearing.



Photo 2. Feisse's line showing drop of navicular more than ½ inch below straight line when weightbearing.



Photo 3. Taping technique of medial arch using one inch tape. Apply an anchor around the distal foot. Start 1 inch tape under the head of the 1st metatarsal and cross to the lateral side of the heel, around the heel and back to the side of the great toe. Repeat starting at the base of the 5th metatarsal, cross to the medial side of the heel, around the heel and back to the side of the 5th metatarsal. Apply two layers and anchor.



Photo 4. Apply 3 layers of 2" elastic around the foot.

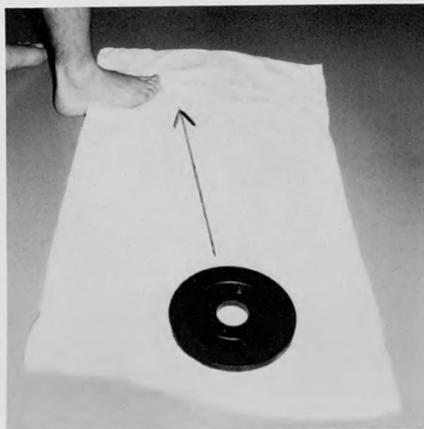


Photo 5. Exercise to strengthen tibialis posterior muscle.



Photo 6. Heel cord stretching on a step.



Photo 7. Toe raises with heels spread apart.

acceleration and deceleration running to determine if the athlete can return to activity. If it is noticed that a limp or favoring of the leg becomes obvious then the athlete must continue the therapy program until this mobility test can be done without any visual gait abnormalities.

### Conclusion

Tibialis posterior tendonitis is a very common type of shin splint which can affect any athlete at any time in his or her career. When an athlete complains of pain along the distal medial border of the tibia a careful, accurate history must be taken and a thorough examination of the leg conducted. Once this condition is diagnosed, the treatment consists of correcting the biomechanical insufficiency and treating the symptoms by using various therapeutic modalities. After this is done a rehabilitation program of strength and flexibility is initiated. This type of shin splint does not have to be suffered by the athlete for an entire season.

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## 36th Annual Meeting

San Antonio,  
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June 7 thru 11

# Crutch Use in Athletics

Dale Blair, MS, ATC

*The importance of properly fitting crutches to avoid unnecessary complications is presented. The reader is taken through a step by step process to reconstruct the crutch to the specific patient. Crutch walking, one crutch walking, cane use, and stair ambulation is covered. Correct use of crutches can decrease recovery time and aid in the healing process. The athlete will achieve the greatest benefits and prevent accidents and injuries if crutches are fitted and used correctly.*

The use of crutches is extremely important in the care of lower extremity injuries. An athlete should be fitted with crutches if he/she cannot walk without a limp (1,2,3,4,5). Limping may delay healing, cause muscle shortening and disrupt body alignment (1). Thus, it is important that the limping athlete be properly fitted with crutches to avoid such complications.

The crutches should be carefully inspected before fitting the athlete. They should be checked for cracking or warping that may make them unsafe when they are stressed. The crutches should always have soft, sponge rubber auxillary pads. Crutches without auxillary pads are uncomfortable and may cause soft tissue injury. If the crutches have small tips or ones that are worn through, they should be replaced by large (1½ inch) suction-type rubber tips which make better contact with the ground and prevent slipping (4). Metal tips with serrated edges should be used by athletes using aluminum crutches in snowy or icy conditions. One type of metal tip has a spring mechanism to lower it into place when walking in snow and ice and can be retracted when walking indoors.

## Crutch Fitting

1. The athlete should stand up straight against a wall, with heels close together against the baseboard.
2. The athlete should be fitted wearing the shoes that will be worn during crutch ambulation.
3. The shoulders should be relaxed and level, with the head held in an upright position.
4. The crutch tips should be placed approximately six inches lateral and two inches anterior from the antero-lateral aspect of the shoe when fitting the crutches.
5. The length of the crutches should be adjusted so there are two to three finger widths between the crutch top and the axillary fold.
6. The hand should be adjusted so the elbow is flexed 20



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-30 degrees. The wrist should be held straight when adjusting the hand piece. (Fig. 1)

It is also important to instruct the athlete on proper crutch use. The body weight should be borne primarily on the hands. The remainder of weight should be distributed by the lateral chest wall. Nerve and blood vessel damage may occur if the weight is carried by the axilla. This may result in "crutch paralysis" - a temporary or permanent loss of sensory and/or motor functions in the arms and hands (1).

It is important to have crutches available that can be adjusted to fit all athletes. Problems may arise when fitting crutches for taller athletes. Standard "extra-tall" crutches will extend to fit those up to 6'6" tall. Crutches to fit taller athletes must be special ordered.

## Crutch Walking

There are two main types of crutch gaits. The swing gaits are non-weight bearing gaits and remove all weight from one extremity. The point, or walking gaits are partial weight bearing gaits and assist in maintaining a near normal stride. The athlete should bear only enough weight to avoid limping, which will vary from light toe-touching to full body weight (1).

The swing-to gait consists of placing both crutches forward at the same time, then lifting the body so it swings to, but not beyond the crutches. This gait may be used to help the athlete gain coordination and balance. The swing-through gait is the most frequently used swing gait. The body weight is first supported by the uninvolved extremity with the crutches placed 12-24 inches ahead of the feet. (Fig. 2) The weight is then transferred to the crutches as the body is lifted and swung through the crutches (1). (Fig. 3)

The four point gait is commonly used by athletes with muscular weakness or those who lack coordination. The four point crutch-foot sequence consists of moving right crutch, left extremity; left crutch, right extremity. It is a slow gait and does not require a lot of space, thus it is a good gait to use in crowds or where space is restricted.

The two point gait resembles a normal walking pattern. It requires more balance because only two points are in contact with the floor at one time. The two point crutch-foot sequence consists of moving right crutch, left foot simultaneously; left crutch, right foot simultaneously.

The three point is the preferred partial weight bearing gait. The three point crutch-foot sequence involves moving both crutches and the involved extremity simultaneously forward 12-18 inches (Fig. 4); then the uninvolved extremity. (Fig. 5) Both crutches first bear the weight for the involved extremity, then the uninvolved extremity bears full weight.



Figure 1: Proper fit of crutches.



Figure 2: Swing-through gait. Crutches placed 12-24" ahead of feet.



Figure 3: Swing-through gait. Body weight lifted and swung through crutches.



Figure 4: Three-point gait. Crutches and involved extremity move together simultaneously.



Figure 5: Three point gait. Uninvolved extremity is moved forward.



Figure 6: Cane or one crutch ambulation. Cane moved with uninvolved extremity.



Figure 7: Ascending stairs. Uninvolved extremity lifted first.



Figure 8: Descending stairs involved extremity and crutches lowered to next step.

### One Crutch or Cane

The athlete who has a minor limp or needs some help with balance can use one crutch or a cane (4). The crutch or cane should be used on the uninvolved side. The crutch-foot sequence consists of moving the crutch or cane simultaneously with the involved extremity followed by the uninvolved extremity. (Fig. 6) When fitting a cane for an athlete, the top of the cane should come to the level of the greater trochanter of the femur (4). Another method of cane fitting involves adjusting the top of the cane to the same level of the ventral wrist fold with the arm resting at the side (3). The elbow should be in a slightly flexed position during cane ambulation.

### Stair Ambulation

The athlete should be instructed on the techniques of ascending and descending stairs (2). Ascending stairs, the athlete should lift the uninvolved extremity first. (Fig. 7) The body weight is then transferred to the uninvolved extremity. The involved extremity and crutches are then moved up to the step. Descending stairs, the involved extremity and crutches are lowered to the next step. (Fig. 8) The body weight is then carefully shifted to the lower step as the uninvolved extremity is lowered. When a handrail is present, it should be used in place of one of the crutches (2). Using the handrail, the athlete should place both crutches in one hand and use the railing in the other hand. The athlete should be instructed not to rest the elbow on the handrail.

When teaching stair ambulation, the athletic trainer should stand nearby and hold on to the athlete to prevent falls and help maintain balance. The athletic trainer should stand behind the athlete when practicing ascending stairs and in front of the athlete in descending. The athlete should also wear a belt that can be grasped by the athletic trainer if the athlete loses balance (2).

### Conclusion

It is important that the athlete practice all crutch ambulation techniques under supervision before setting out on his own. The correct use of crutches can decrease the recovery time and aid in the healing process. The athlete will achieve the greatest benefits and prevent accidents and injuries if the crutches are fitted and used correctly.

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# Reduction of Post Traumatic Ankle Edema with High Voltage Pulsed Galvanic Stimulation

Michael L. Voight, MEd, ATC, RPT

The incidence of ankle injuries in athletics is quite high, constituting up to 25 percent of all time-loss injuries in every running or jumping sport (7). When tissue is damaged by being stretched or torn, an inflammatory response occurs. The swelling that is secondary to the inflammation is the greatest enemy of healing. Therefore, the goal of early treatment should be to delay or minimize swelling. By limiting the swelling, pain, and muscle spasm, the magnitude of the injury is decreased.

Traditional therapeutic approaches for the treatment of edema consists of cryotherapy combined with compression and elevation. Adjunctive use of High Voltage Pulsed Galvanic Stimulation (HVPGS) may also help to retard the flow of blood and serum proteins into the extracellular space. The use of HVPGS for the reduction of post traumatic edema has been reported by many authors (1,3,4,5). These reports, however, are based on subjective evaluations and not on thorough research. This article will attempt to clarify the application of HVPGS for post-traumatic edema reduction. In particular, the reduction of edema that has formed as the result of an ankle injury will be addressed.

## Inflammatory Process

Inflammation is a normal response to injury whereby active peptides, histamine, prostaglandins, lytic enzymes, blood cells and plasma all enter the injured region. The active polypeptides are kallidin and bradykinnin. Both are vasodilators that produce edema. Histamine is released from mast cells. This relaxes the arterioles, thereby increasing their permeability. Prostaglandins are synthesized locally in the tissues from a fatty precursor, arachidonic acid. The prostaglandins are also potent vasodilators, less so than bradykinnin, but more potent than histamine. They induce erythema and increase the leakage of plasma from the vessels. Bradykinnin and histamine also act on endothelial cells of the post-capillary venules to increase permeability. The increase in local blood flow and the increase of the capillary permeability allows large quantities of fluid to



Mr. Voight is currently the Director of Sports Medicine at the S-P-O-R-T Clinic in Miami, Florida.

leak into the interstitial space (6). The protein content of the plasma decreases while the protein content of the interstitial fluid increases.

## Fluid Mechanics

The protein constituent of plasma plays a very important role in the maintenance of fluid equilibrium. The concentration of protein in plasma is roughly four times as much as that in the interstitial fluid. The reason for this difference is that plasma proteins leak only slightly through the capillary pores into the interstitial spaces. As a result, most of the plasma protein remains in the circulatory system, and that which does not leak into the interstitium is eventually returned by the lymphatic system. Because the proteins do not normally pass through the pores of the capillaries semi-permeable membrane, they exert an osmotic pressure at the capillary membrane drawing fluid inward through the membrane. Since the plasma proteins carry a negative charge, a large number of positively charged cations are attracted to the electronegative charge. This increases the number of osmotically active substances wherever the proteins occur, therefore increasing the total osmotic pressure (6). With increased capillary permeability due to injury, plasma proteins permeate the capillary wall more easily and thereby reduce the plasma oncotic pressure (11). Therefore, the accumulation of fluid in the interstitium is doubly augmented.

Under normal conditions, the proteins and fluid that fill the interstitial space are carried away by the lymphatic system. When an edematous condition exists however, there is a volume plateau beyond which lymphatic drainage cannot exceed. Guyton (6) cites two major reasons why lymph flow reaches a maximum limit:

1. Once the tissues become edematous, the lymphatic capillaries also become tremendously dilated. This causes the flap valves between the endothelial cells of the capillaries to become separated from each other so that they are no longer reliable and therefore the lymphatic pump begins to fail.
2. The interstitial fluid presses on the outside of the larger lymph channels to cause them to collapse; therefore the input pressures at the tips of the lymphatic capillaries are opposed by a compression of the lymphatic walls of equal magnitude.

While the removal of edematous fluid is limited, the lymphatic system plays a very vital role in the reabsorption of proteins from the interstitial space and consequently reduction of edema.

Since the goal of early treatment is to delay or minimize the edema formation, the reduction of plasma proteins flowing through the capillary membrane should be of prime concern. Clinically, it appears that High Voltage Pulsed Galvanic Stimulation does produce a change in capillary fluid dynamics with a resultant

The athlete's lower extremity may be placed in a dependent position as is the case with water submersion, or the extremity can be elevated and HVPGS be used in conjunction with a compression unit.



reduction in edema. There is however, much debate about how this physiological change comes about.

### Edema Reduction

There are currently several postulates concerning how HVPGS may assist in edema reduction at a sub-muscle contraction. The first goal in the prevention of edema formation is the retarding of blood flow into the extracellular space. Research in bioelectric effects on blood coagulation has been conducted by Sawyer and Pate (9). The researchers found that a thrombus formation occurred on the inside wall of the vessel beneath the positive charge and no thrombus formation under the negative charge. Other experiments have demonstrated that blood precipitates on the positive but not the negative electrode (10). Sawyer has also demonstrated that a negatively charged electrode applied to an injured artery retarded thrombus formation in the injured vessel more successfully than an uncharged electrode applied to a contralateral control vessel that was also injured (10).

Blood vessel vasoconstriction via the stimulation of the sympathetic nervous system may also help control hemorrhage into the extracellular space (8). With adrenergic sympathetic fiber stimulation at a constant flow, the capillary surface area available for solute exchange is reduced (2). This would decrease the amount of plasma proteins that could leave the capillary. Whether or not galvanic stimulation produces this somatic sympathetic reflex in peripheral nerves is still unclear to researchers.

Most supporters of HVPGS for the reduction of post traumatic edema rationalize their choice on the basis of an electro-osmotic phenomenon occurring. Stimulation over the traumatized area with a negative charge may create a repulsion effect on the negatively charged plasma proteins (8). Therefore, the number of proteins leaving the capillary can be minimized.

Another rationale, based upon electro-osmotic effect occurring, is the dispersion of edema within the tissues. The HVPGS may cause a repulsion movement of the negatively charged proteins and edematous material to another area, thereby decreasing the pooling and utilizing the already maximized venous-lymphatic system to a greater degree.

### HVPGS Application

While there are several theories about the physiological mechanism of how HVPGS works, there are also several methods of application. The athlete's involved lower extremity may be placed in a dependent position and the HVPGS treatment coupled with cool water to assist with the decreasing of blood flow to the involved area. The use of cool water to decrease circulation to the involved tissue is beneficial; however, placing the athlete's limb in a dependent position may negate the effect.

Another method of application involves placing the athlete's limb in an elevated position. The high voltage treatment can be combined with the therapeutic effects of ice, compression or both. This position would incorporate the three components of edema reduction — Ice, Compression, and Elevation (I.C.E.) with HVPGS.

The active electrodes may be secured directly on the ankle or immersed in water with the ankle. The dispersive electrode is placed on the back, opposite thigh or any large surface area.

The polarity of the electrodes surrounding the ankle can be either positive or negative. Using positive polarity may help with the thrombus formation at the injured capillary site acutely; however, because blood serum is

*Continued on page 311*

# In Memoriam



**Charles Cramer**  
**August 11, 1892 - April 15, 1984**

Charles "Chuck" Cramer died at his home in Gardner, Kansas on April 15, 1984. He was founder and board member of Cramer Products., Inc.

Chuck graduated from the University of Kansas and worked as a pharmacist. As a sideline, he began manufacturing and selling linament to area athletic teams. Becoming successful, he incorporated Cramer Chemical Company in 1920.

Chuck served as one of five athletic trainers in the 1932 Los Angeles Olympic Games. He was a founder of the National Sporting Goods Association and NATA Hall of Fame member. Chuck was also elected to the Helms Hall of Fame. In 1978 he received the Industry Leadership Award from "Sporting Goods Dealer" magazine.

Chuck is survived by his wife, Bessi; daughter, Annette; sons, Bill and John. He also leaves eleven grandchildren and eleven great-grandchildren.

Chuck will long be remembered for his major contributions to the care of athletes and the growth of our profession.

## In Memoriam



**Eugene L. Donnelly**  
April 2, 1932 - February 4, 1984

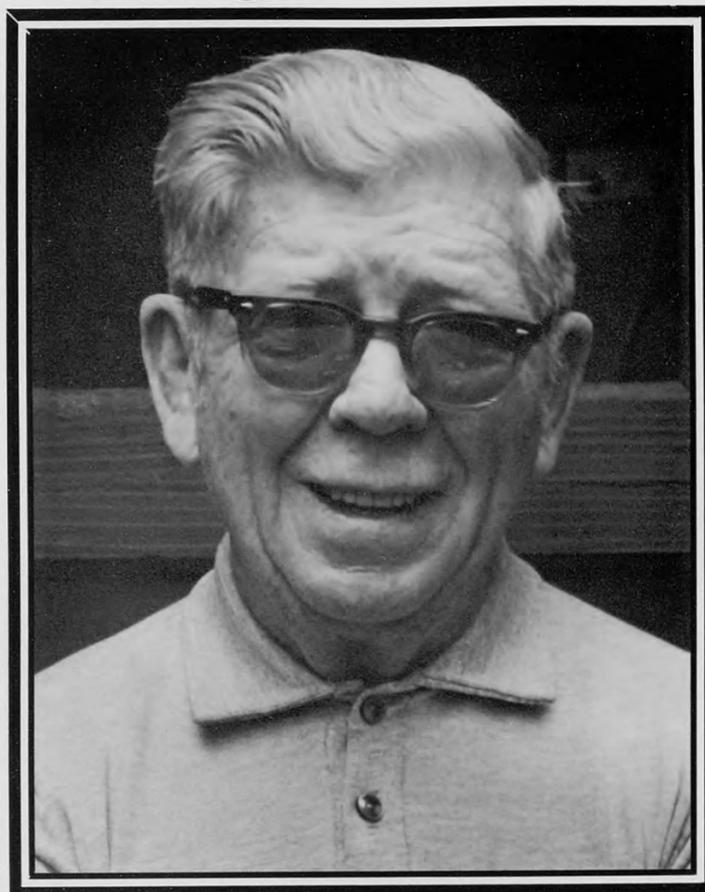
Eugene L. Donnelly passed away February 4, 1984 in Santa Ana, California after suffering a heart attack.

Gene received his degree from Colorado State University. He served as a student trainer after injuries ended his collegiate career. Gene coached track, wrestling and football during his early tenure with the Anaheim School District. At the time of his death, he was serving as trainer and track coach. Gene was the first athletic trainer for the Anaheim School District. He served from 1958 to his death.

Gene's interests outside of school included participation in VFW and American Legion activities. Surviving are his wife, Lorraine, and children Bill, Kevin, Byron, Diane, and Jackie.

Gene will be missed by his numerous friends and acquaintances in the Southern Section of District Eight.

## In Memoriam



**William F. X. Linskey**  
February 6, 1913 - April 2, 1984

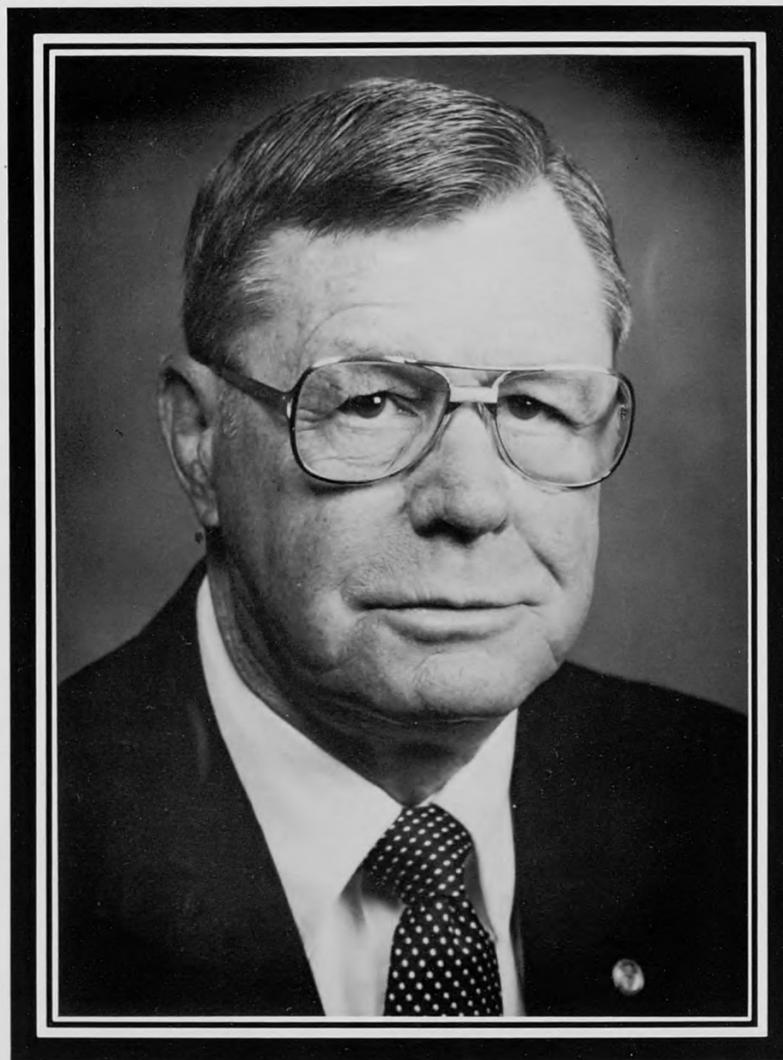
William "Doc" Linskey died April 2, 1984, in Cambridge, Massachusetts, after suffering a heart attack.

Bill graduated from Cambridge Latin High School and received his bachelors and masters degrees from Staley College. In the 1930's Bill worked as trainer for the Cantabs (a Cambridge semiprofessional baseball team). He then became trainer for the old Boston Olympics hockey team. During World War II, Bill was the trainer at Northeastern University football and interim hockey coach. Bill served as a medic during the war. He returned to the Cambridge public schools as trainer after the war and held that position until his retirement 35 years later.

Bill was a charter member of the NATA and held the offices of secretary and president. He was inducted into the NATA Hall of Fame. The Linskey Scholarship Fund was established for students in the Athletic Training Curriculum program at Northeastern University. The refurbished training room at Matthews Arena was dedicated to Bill.

Bill is survived by his wife, Emma, two brothers and four sisters. Bill will long be remembered by those who knew and worked with him as a very special person with a gift for making people laugh.

# In Memoriam



**William E. "Pinky" Newell**  
**June 22, 1920 - October 13, 1984**

A great loss has been felt with the passing of the often acclaimed "Father of Modern Athletic Training." Born in Enid, Oklahoma he grew up in Stafford, Kansas where he graduated from High School in 1939. He accepted a football scholarship to Purdue University and played Center on the Varsity from 1941 to 1943, despite weighing only 150 pounds. While earning his letter in football he also was tabbed with his famous nickname "Pinky" because of his ruddy complexion. After receiving his Bachelor's Degree in Physical Education he joined the U.S. Marine Corps during World War II as a Lieutenant with the 29th Marines, 6th Division. He served with valor in various landings in the Pacific Theater, including the one that helped take Okinawa in 1945. After his discharge in 1946 he attended Stanford University and earned a Postgraduate Certificate of Physical Therapy in 1948. Washington State University hired him as an Athletic Trainer in 1948 and the next year he returned to Purdue University to serve as Head Athletic Trainer from 1949 to 1978. Upon retiring his duties as an Athletic Trainer, he remained the Chief Physical Therapist for the University Hospital retiring from there in July of this year.

His career is full of many accomplishments including Athletic Trainer for the College All-Star game sponsored by the Chicago Tribune in 1953, 1954 and 1957. Internationally he was Athletic Trainer for the 1963 U.S. Pan-American Team in Brazil and U.S. Olympic Team Trainer for the 1980 Summer Olympic Games in Montreal. The Lake Placid Olympic Organizing Committee chose him as a Host Trainer for the 1980 Winter Olympic Games and he was representative of the Los Angeles Olympic

Organizing Committee to the Summer Olympic Games in 1984.

The membership owes a huge debt of gratitude and will long remember his many contributions to the organization. He attended the first meeting in Kansas City in 1950, becoming a driving force by helping to write the Constitution and drawing up the first Code of Ethics. He was Executive Director from 1955 to 1968, always trying to improve the educational standards of the profession. During his tenure certification of athletic trainers was conceived and initiated. He chaired the NATA Professional Advancement Division from 1968 to 1972. From 1972 until his death he worked unselfishly as Chairman of the NATA Grants and Scholarships Committee, showing his concern for helping the young athletic trainer become the future of the organization. In addition he worked hard to set up the Joint Commission on Competitive Safeguards and Medical Aspects of Sports and has held continuous NATA representation since its inception in 1966. He was a member of the NCAA Committee on Competitive Safeguards and Medical Aspects of Sports from 1968 to 1972. He chaired the Indiana Athletic Trainer Association Licensure Committee.

As a man of such stature deserves, Pinky Newell has received many prestigious honors. From the NATA he received the 25 Year Service Award in 1971, was inducted into the Helms Hall of Fame in 1972, and was the first recipient of the Distinguished Educator Award presented by the Professional Education Committee this year. The American Orthopaedic Society for Sports Medicine presented him their first Distinguished Service Athletic Trainer Award in 1982. He was a member of the Indiana Football Hall of Fame, received the John Purdue Club Distinguished Service Award and was presented the 1984 Meritorious Service Award by the Indiana Basketball Coaches Association.

His service to the community in Lafayette included being a member of the Boys Club Board of Directors and the Board of Directors of the Home with Hope.

He is survived by Connie, his wife of 34 years, two sons, Rick and Rex and two daughters, Colleen and Kim.

Pinky has called the highlight of his career receiving the following notification. It was something he worked hard to get for the profession calling it "the best damned day the trainer ever had!"

1967 June 21 AM 737

Mr. William E. Newell, R.P.T.  
Executive Secretary National Athletic Trainers Association  
3315 South Street, Lafayette, Indiana

On Tuesday, June 20, 1967, at its annual convention in Atlantic City, the American Medical Association adopted report G of the Board of Trustees urging that the House of Delegates approve the following recommendations:

- (1) The American Medical Association recognize the importance of the role of the professionally prepared athletic trainer as a part of the team responsible for the health care of the athlete:
- (2) The National Athletic Trainers Association be commended for its efforts to upgrade professional standards, since improved preparation and continuing education enable athletic trainers to work effectively with physicians in the health supervision of sports and
- (3) State and local medical societies and physicians individually be encouraged to help advance the professional goals of the National Athletic Trainers Association in their communities through appropriate liaison activities.
- (4) Complete copy of report G which was submitted to the House of Delegates through the Board of Trustees by the AMA Committee on the medical aspects of sports is being forwarded to you by airmail.

Fred V. Hein, Ph.D., Secretary,  
Committee on the Medical Aspects of  
Sports American Medical Association,  
Chicago, Illinois

The family has requested memorials should be sent to the NATA Grants and Scholarships Committee.



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# Notes from the National Office

"To inform and update the membership on various subjects of interest and answer the most frequently asked questions."

## ATTENTION! ATTENTION!

\*\*\*The dates for the June 1985 San Antonio Meeting will be JUNE 7-11 — NOT JUNE 8-12 as erroneously given in the Fall issue. *Be sure* to make the correction on your 1985 calendar if you have already entered the previously given incorrect dates.

SAN ANTONIO, 1985  
FRIDAY, JUNE 7  
THROUGH TUESDAY, JUNE 11

Please remind your colleagues of this correction.

## HONOR AWARDS

\*\*\*NATA Honor Award applications must be requested through the National Office. Applications are to be completed and returned to the National Office before February 1st, 1985. The following is a list of the three available applications with a briefing on the nominating party and any particular eligibility requirements: *Hall of Fame*: Nominated by the District Director of the nominee's district or the Board of Directors; only Twenty-Five Year Award members shall be nominated. *Honorary Membership*: Recommended by an NATA Certified Athletic Trainer. *Twenty-Five Year Award*: Recommended by an NATA Certified Athletic Trainer; must verify twenty-five years of service in the profession of athletic training after receiving his/her bachelor's degree. If you wish to make a nomination for any of these awards, you should request the appropriate application **AT ONCE** in order to make the February 1st deadline.

## APPROVED CURRICULUMS

\*\*\*In response to many requests the Careers Brochure was published in the Fall Journal in its entirety. The newly updated list of approved curriculums was not completed at the time the Fall Journal went to press; however, this current, amended list appears in this issue on page 317.

## CERTIFICATION OFFICE - IMPORTANT NOTICE

\*\*\*The March 17, 1985 exam site scheduled in Tucson, Arizona has been changed to Flagstaff, Arizona to coincide with the District 7 meeting.

The June 23, 1985 test site listed as Houston, Texas will actually be in a little Houston suburb called Katy. The listing, however, remains as Houston.

## MEMBERSHIP OFFICE NEWS

\*\*\*We appreciate the immediate response to the request for 5x7 pictures for your files. If you have not as yet sent your picture in, however, please do so. Continue to send them to the attention of Sandra Robinson.

The Membership Office has also been getting a lot of requests in response to the bulk application offer. Head Athletic Trainers are invited to use this service.

*Remember*: Members need not request a District Transfer form as in the past. This form is obsolete and no longer being used. The District is automatically changed when your address change is received. This is another service your National Office is able to do for you. NOTE, Students: You are a member of the District in which you are *attending school* — not your permanent home address!

## PLEASE PROOF!

\*\*\*When contributing material to any department of the Journal, please proof-read your material carefully before mailing it out. Proper names, especially, are problematic to the staff proofreader. If the submitted material does not give the correct spelling, that person's name will appear in print incorrectly. Contributors who dictate research material for later transcription should **always** read the final typed manuscript. The author of any given work can more readily spot mistakes than the typist.

## VISITORS

\*\*\*The National Office Staff is always delighted to have visitors come in to see the Association's facilities here in Greenville. Members and any interested persons are welcomed and encouraged to drop in and see us. Recent visitors were: Steve Bair and Joan Salmon of Temple University, Philadelphia, PA; James Titsworth, Richmond High School, Rockingham, NC; Jerry Robertson, East Tennessee State University, Johnson City, TN; and Michael R. Brown, U.S. Modern Pentathlon, San Antonio, TX. James Gallaspy, Mr. & Mrs. E.L. Harrington and Gary Harrelson of the University of Southern Mississippi, Hattiesburg, MS. Why don't YOU plant to visit us soon too?

## GRAFFITTI

\*\*\*Welcome Phil Callicutt, the Journal's new Book Review Editor.

\*\*\*No comments have been received concerning the new format introduced in the Fall issue. Didn't anyone notice, or are there just no opinions?

\*\*\*Telephone number for the CEU office is 919/752-0378.

\*\*\*It helps us tremendously in processing the hundreds of pieces of mail received daily if the envelope reflects the departmental destination. If you are unsure of exactly where your letter should go, even a reference outside the envelope is a great assistance. For example: "Re: Plaque Orders" or "Re: Address Change."

\*\*\*And speaking of address changes: Mail to the National Office should be addressed to 1001 East Fourth Street, Greenville, NC 27834 — not to the post office box previously used.

## Schedule of Future Sites and Dates NATA Certification Examination

All regional sites are subject to a **minimum** of six candidates per site and limited to a maximum of **thirty** candidates.

Completed applications must be received in the Certification Office by the deadline for the date chosen. However, this does not guarantee the site and date selected. Applications are accepted and scheduled in order of receipt.

**March 17, 1985** — DEADLINE FOR RECEIPT OF APPLICATIONS: February 4, 1985

Boston, MA	Lincoln, NE
Harrisburg, PA	*Flagstaff, AZ
Springfield, VA	Sacramento, CA
Chicago, IL	Richmond, KY
Holland, MI	Boise, ID

\*indicates change from previous listing

**June 23, 1985** — DEADLINE FOR RECEIPT OF APPLICATIONS: May 13, 1985

New Britain, CT	Maryville, MO
Montclair, NJ	Houston, TX
Philadelphia, PA	Denver, CO
Raleigh, NC	Nashville, TN
Columbus, OH	Seattle, WA
Madison, WI	

**July 14, 1985** — DEADLINE FOR RECEIPT OF APPLICATIONS: June 3, 1985

Boston, MA	Lawrence, KS
Harrisburg, PA	Costa Mesa, CA
Anderson, IN	Knoxville, TN
Holland, MI	

Application requests must be in written form. Telephone call requests cannot be honored. To obtain an application write to:



NATA Board of Certification  
Application Request  
1001 East Fourth St.  
Greenville, NC 27834

## TO MECCA

When Jim Viola of Johnson & Johnson learned of "Pinky" Newell's retirement he asked what J&J could do for "Pinky". I told him "Pinky" had always wanted the visit the National Office and he could present him with airline tickets so he and Connie could fly to Greenville. When Jim asked "Pinky" if he would be interested in making the trip, his answer was "Everyone wants to go to MECCA!"

Since my return from Nashville and learning of this decision I have been making preparations for the visit. When "Pinky" returned from his visit to the Olympics and West coast he called and informed me he was learning to do things like mow the lawn, etc., but he would soon be here. I continued to plan and prepare for his visit. I had not prepared myself for his death and it has been extremely difficult for me to accept for selfish reasons. There are so many things I wanted to do for him and with him. I wanted to show him the visible aspect of what he had built.

After the memorial service in Lafayette, I had lunch with Ed Crowley. I told Ed that I felt when "Pinky" died a part of me died. Ed agreed and expressed the same feeling, however, he assured me that a part of "Pinky" lived in all the lives he had touched. He paid me one of the finest compliments that I have ever received in

my life: saying he could see a part of "Pinky" living in me. Knowing Ed as I do, I likewise could see that a part of "Pinky" still lives in Ed.

"Pinky" has gone to MECCA, but he still lives with each of us who have been fortunate to have been touched by his life.

Mary (Please)

## "GOODBYE PINKY"

That was the last thing I said to him after receiving his big bear-hug and promise to "see you soon in Greenville" as goodbyes were being said in Nashville. But the visit to the National Office we were so looking forward to was not to be.

Others will eulogize his many attributes of character, strength, talents and dedication (to mention only a very few). We here in the National Office will always remember him with love. To us he was the definitive "crusted creampuff." A lovable curmudgeon.

If, as some believe, heaven is an extension of the earthly pursuits in which one was happiest and most fulfilled, then he is probably organizing and refining a celestial training room while developing an astral association.

Go for it, Pinky!

Love,  
Barbara

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by Michael O'Shea

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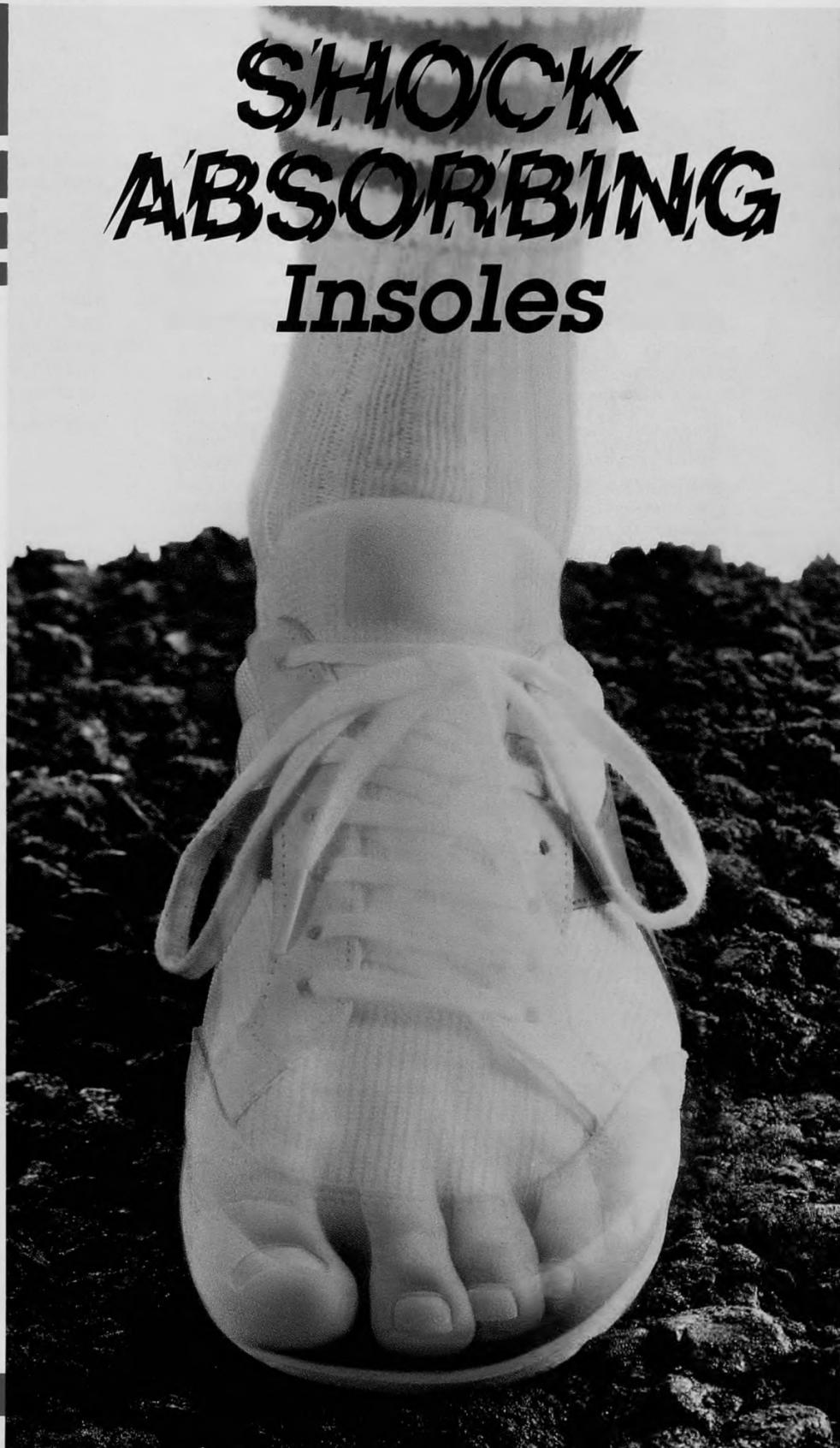
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# Abstracts



John Wells, ATC, PT, PhD  
UNC-ASHEVILLE

Future members of the NATA will never have the privilege of personally knowing Pinky Newell. For those of us who have been members of the NATA since its inception, Pinky is the NATA. Pinky may no longer be with us physically, but his spirit will always be with the NATA.

JW

---

"Orthopedic Pain: What does it mean?" Jane Farrell, *American Journal of Nursing*, 466-469. April 1984.

When an orthopedic patient complains of pain, giving an analgesic may be the first action or it may be the last. The question is: Is the pain a normal response to trauma, surgery, or inflammatory, infectious, neoplastic, metabolic or degenerative disease? Or, does the pain signal an impending complication? Volkmann's ischemic contracture is one example of the sometimes tragic consequences of leaving these questions unanswered when the patient has had injury to or surgery on the elbow or forearm. The first sign is pain that increases when the fingers are passively extended. Failure to recognize the pain can result in compartment syndrome. Sometimes the position of the affected part or the patient needs to be changed. Immobilizers or dressings on knee can be slightly loosened when pain is associated with constriction. If the patient in traction complains of pain, it may mean the traction force and the line of pull need to be adjusted. The patient should also understand that pain may accompany the healing. Pain is unique to the person who complains of it. Assessment and effective management of pain require a partnership between one who understands the nature and causes of orthopedic pain, and the patient, who knows how it feels.

Troy Kauffman

\* \* \*

"Heart Rate and Blood Pressure Response to Several Methods of Strength Training," Marjorie Greer, et al., *Physical Therapy, The Journal of The American Physical Therapy Association*, 64: 179-182, February 1984.

Physical therapists frequently design and implement muscle-strengthening programs for patients with cardiovascular disease. These programs may include isotonic, isometric, or isokinetic exercise. Concern arises because isometric exercises have a reputation for producing a

marked increase in blood pressure (BP), which causes excessive strain on the heart. Blood pressure and heart rate (HR) have been shown to rise steadily throughout the time the muscle contraction is maintained, if the contraction is greater than 15 percent of Maximum voluntary contraction. It has been hypothesized that during heavy-resistance exercise, when isotonic, isokinetic, or isometric muscle contractions are used, (1) HR and BP would increase in proportion to the intensity of the exercise; (2) HR and BP would progressively increase throughout an exercise session, and (3) exercise providing frequent periods of relaxation would have less of an effect on HR and BP responses than exercises in which no relaxation is allowed. We found that for the healthy subjects we tested, isotonic exercise with free weights produced less of a demand on the heart than isokinetic or continuous isometric exercise. When exercising with free weights, the muscles being trained are in continuous concentric or eccentric contraction, but a muscle exercising isokinetically alternates concentric contraction with periods of relaxation when the antagonist is contracting. The continuous muscle contraction that occurs when exercising with free weights might be expected to result in a greater HR and BP response. In the study the isokinetic exercises were greater than those in which free weights were used. The result of the study provide data to support the hypothesis that HR and BP responses to heavy exercises are proportional to intensity of effort. The study did not support the hypothesis (2): HR and BP did not always progressively increase during the course of a short exercise session.

Troy Kauffman

\* \* \*

"Weight Gain: A Sensible Approach," Jeannette Pichulik, *Clinical Update: Sports Medicine*, 1:1, 11-12, January-February 1984.

Athletes who need to gain weight may feel pressured into using heroic and sometimes questionable measures to accomplish their goals. They should be aware that weight gain and muscle buildup can be achieved without gimmicks through a combination of diet and exercise. The objective of a sensible program is to gain one to two pounds of lean muscle per week. To assure that most new weight is muscle and not fat, a sound program employs a combination of proper training to boost muscle development and strength along with correct nutrition to provide deposition in the body. The use of anabolic steroids to enhance strength or performance is discouraged because of the many failures to show improved muscular strength, lean body mass, or body weight. Excessive protein intake in the form of powdered protein is not necessary and may be harmful. Not all these products are made up of high quality protein, which contains all eight essential amino acids necessary for building muscle and other body cells. Exercise and rest, include high-intensity exercise, stimulates the growth of muscle tissue. Sufficient rest and sleep are important in a weight gain program. A well balanced diet includes daily selection from all four food groups.

Troy Kauffman

\* \* \*

"Forearm Pain Secondary to Compression Syndrome of the Lateral Cutaneous Nerve of the Forearm," Gerald Felsenthal, MD, et al., *Archives of Physical Medicine*

and Rehabilitation, 65: 139-141. March 1984.

Compression of the lateral cutaneous nerve of the forearm, the termination of the musculocutaneous nerve, is a rarely recognized but clearly definable syndrome. The musculocutaneous nerve, which is derived primarily from the fifth and sixth cervical roots, takes origin from the lateral cord of the brachial plexus. Two to five centimeters above the elbow crease it is situated beneath the deep fascia, lying between the bicipital tendon and brachioradialis muscle, emerging as the lateral cutaneous nerve of the forearm. At this level it supplies cutaneous branches to the skin of the lateral elbow and continues distally to supply sensation to the radial aspect of the distal forearm. Patients present with pain, paresthesia, dysesthesia or numbness. The pain may be over the lateral epicondyle, distal radial aspect of the forearm or both areas. The dysesthesia can radiate proximally and some patients may complain of a vague aching discomfort in the forearm. The patient often admits to a history of vigorous exercise of the upper arm or direct injury to the antecubital fossa or lateral forearm. They may also have a positive Tinel sign over the nerve and tenderness directly over the nerve. When entertaining the diagnosis of compression of the lateral cutaneous nerve of the forearm, one must also consider the other possibilities, median nerve compression and a ruptured biceps brachii muscle or tendon. Treatment options include resting the extremity, retraction, splinting, ultrasound, TENS, and surgical decompression. This syndrome is clearly defined and easily but infrequently recognized.

Troy Kauffman

\* \* \*

**EDITORS NOTE: The following abstracts were presented at the 1984 NATA Annual Meeting as a part of the Free Communication Section sponsored by the Research and Injury Committee.**

#### A National Survey of Employment Opportunities for Athletic Trainers in the Public Schools

The purposes of this study were to determine 1) what combination of academic preparation and/or professional qualifications gives the athletic trainer optimal job marketability in the public high schools, and 2) specific job responsibilities and salary range of the entry level athletic trainer/teacher in the public high schools. A 21-item questionnaire was constructed and mailed to 2,000 high school principals who were randomly selected from over 25,000 principals across the nation. After a follow-up letter was sent to those not responding to the initial mailing, a final total of 39% of the principals surveyed returned the questionnaire. Each item was analyzed descriptively to determine a percentage of total number responding to that particular item. Additionally, various combinations of items were analyzed to determine greatest preference. Results are still being studied but the following preliminary conclusions can be made with regard to optimal academic preparation and professional qualifications 1) the trainer should be a graduate of an athletic training education program, 2) should have either a Bachelors or Masters Degree, 3) should be certified by the NATA, 4) should have 1-3 years of previous clinical experience, 5) should have a major in P.E., math, or science, 6) it is not necessary for the individual to have a major in athletic training. Preliminary conclusions regarding specific job

responsibilities and salary range suggests 1) the trainer will also have teaching responsibilities in some other academic area, 2) the starting salary range would be 13-16k with a Bachelors degree and 16-20k with a Masters degree.

This project was funded in part by the Board of Directors of the National Athletic Trainers Association, Inc.

Bill Prentice, PhD, ATC  
Brad Mishler, ATC

\* \* \*

#### An Evaluation of the Professional Preparation of High School Athletic Trainers in the State of North Carolina

The purpose of this study was to evaluate the professional preparation of high school athletic trainers in the State of North Carolina.

Sixty-five high school athletic trainers completed and returned a questionnaire that consisted of seventy questions. Categories covered in the questionnaire included academic background, current teaching responsibilities, past and present athletic training experiences, job longevity and professional advancement.

Results from the survey concluded that 76% of the athletic trainers were employed prior to assuming athletic training duties. Other results showed limited knowledge in the following areas: therapeutic modalities, nutrition, and adaptive physical education. Surprisingly, only fifteen had taken the NATA certification exam.

Based on the data, this study reinforces the importance of becoming an NATA certified athletic trainer.

Kenneth E. Wright, ATC

\* \* \*

#### Rewarming of the Ankle and Forearm Following 30 Minutes of Ice Water Immersion

It has been demonstrated that the ankle and forearm rewarm much less quickly following ice water immersion than the finger (Athletic Training 15:248-250, 1980; JCATA 8(2):15-17, 1981), but the time required for complete rewarming has not been established. In the present study, the forearms and ankles of 12 subjects were immersed in 1.1°±9°C water for 30 minutes on separate days. Surface temperature of the experimental and contralateral limbs was measured every five minutes prior to, during, and for 240 minutes post-application. Neither the arm nor the ankle rewarmed to pre-immersion temperatures, but both were within .3°C of their contralateral limbs; the arm at 165 minutes and the ankle at 205 minutes post-application. The ankle, both experimental and contralateral, was colder than the arm at all times except during immersion (see table below). These results support the use of intermittent application of cold during immediate care procedures. Since local temperature remains depressed, we can surmise that metabolism and secondary hypoxic injury also remain depressed between cold applications. This also lends further support to the idea that cold induced vasodilatation does not occur during therapeutic applications of cold.

Continued on page 293

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	Exper	Contra	Diff	Exper	Contra	Diff	Exper	Contra	
0	33.3 ± .3	33.0 ± .3	.3 ± .9	32.2 ± .4	32.3 ± .4	.1 ± 1.2	1.1 ± 1.7	.7 ± 2.1	
30I	5.7 ± 2	32.4 ± .6	26.7 ± 2.1	6.6 ± .7	31.8 ± .4	25.2 ± 1.7	-.9 ± 3.6	.6 ± 1.5	
10P	21.2 ± .9	32.4 ± .2	11.2 ± 3.6	18.6 ± .4	31.9 ± .4	13.3 ± 1.4	2.6 ± 3.0	.5 ± 1.4	
60P	27.8 ± .9	32.0 ± .3	4.2 ± 2.8	23.4 ± .5	31.0 ± .4	6.6 ± 1.5	4.4 ± 3.3	1.0 ± 2.2	
120P	30.9 ± .6	32.4 ± .3	1.5 ± 1.8	26.5 ± .7	30.0 ± .4	3.5 ± 1.8	4.4 ± 3.7	2.4 ± 1.5	
180P	32.2 ± .5	32.1 ± .4	0.1 ± 1.2	28.6 ± .8	29.3 ± .6	0.7 ± 2.3	3.6 ± 3.7	2.8 ± 1.9	
240P	32.1 ± .5	32.4 ± .2	0.3 ± 1.7	29.2 ± .8	29.5 ± .6	0.3 ± 1.6	2.9 ± 4.1	2.9 ± 2.1	

Kenneth L. Knight, PhD, ATC  
L.W. Carmody, ATC

\*\*\*

The Effect of Deep and Superficial Heat Application on Isokinetic Strength

The effect of deep and superficial therapeutic heat treatments on isokinetic strength of the quadriceps muscle was examined on eight offensive football linemen and two male powerlifters. The deep heat treatments given were ultrasound and shortwave diathermy. The superficial heat treatments given were a warm whirlpool and Hydrocollator hot pack. A placebo control treatment consisting of detuned microwave diathermy was also given. An analysis of variance with repeated measures (groups by trials) was performed on the data and showed no significant differences in isokinetic strength occurred (as defined by peak torque produced). This indicated that dynamic strength does not seem to be significantly affected by an increase in muscle temperature. Thus, it is recommended that the application of deep or superficial therapeutic heat treatment before athletic competition may not be a hindrance to athletic performance.

Brian E. Hilty, MS, ATC  
Chris L. Smith, ATC, RPT

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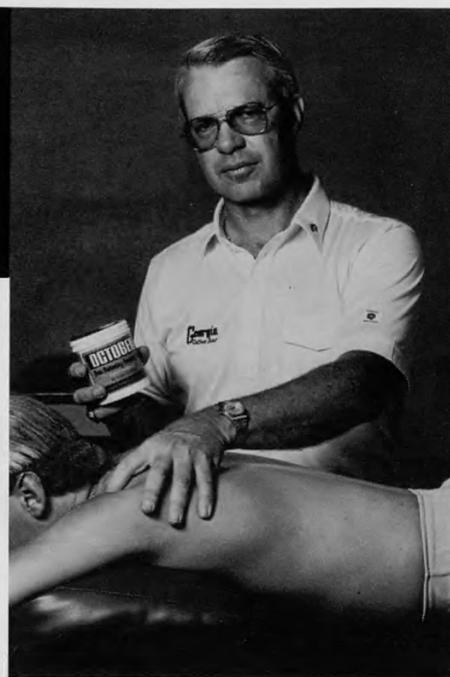
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# Announcements

## Kentucky Placement Service for High School Athletic Trainers

In an effort to promote Certified Athletic Trainers at the High School level in Kentucky, a placement service has been established.

The thoughts behind establishing this service were to replace teacher openings in school systems with Teacher/Athletic Trainer positions. This service is available to any school administrator who would like to consider the Teacher/Athletic Trainer concept. From a cost standpoint, only the Athletic Trainer Stipend would be needed because a teaching position would already exist.

This service will be provided through the Sports Medicine Program at Paul G. Blazer High School, Ashland, Kentucky which will utilize their own computer system for filing. Any administrator inquiring with regards to a specific teaching area of certification will be

given all those who match their request.

This by no means intends to be in conflict with the N.A.T.A. placement service, but rather to better meet the needs and to promote athletic training at the high school level in Kentucky.

Included is a copy of the questionnaire used. Anyone interested in being included should copy this form, fill it out and return it to the address listed. Also, please include a \$1.00 fee to cover costs.

Once we have established our file we will be able to notify all school administrators that our service is available. Not only will this service help those graduating from college but also those with experience, to find jobs.

### KENTUCKY HIGH SCHOOL PLACEMENT QUESTIONNAIRE

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Grad School: \_\_\_\_\_ Grad. Date: \_\_\_\_\_

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College Phone: \_\_\_\_\_

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Home Phone: \_\_\_\_\_

Years Teaching Experience: \_\_\_\_\_

Teaching Majors: \_\_\_\_\_

Teaching Minors: \_\_\_\_\_

N.A.T.A. Certified? \_\_\_\_\_ Date Taking Exam: \_\_\_\_\_

Hold Kentucky Athletic Trainer Licensure? \_\_\_\_\_

Additional Qualifications and skills, (work experience, coaching, etc.)

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I \_\_\_\_\_ give my consent to have the above mentioned information given to anyone who inquires with regards to my areas of qualification. I also realize that it is my responsibility to contact the Kentucky High School Placement Service by August 1st each year if I want my file to remain active.

**\* A fee of \$1.00 will be charged to cover costs. Make fee payable to — Ashland Sports Medicine. FEE SHOULD ACCOMPANY QUESTIONNAIRE!**

## Grants and Scholarships

The NATA offers three separate categories of grants and scholarships to student athletic trainers. They are:

1. Undergraduate Scholarships — for students who have completed their sophomore or junior years;
2. Athletic Training curriculum students — for students in an approved curriculum who have completed their sophomore or junior years; and
3. Post Graduate Scholarships — for senior students, enrolled in a graduate program.

Each applicant must have performed with distinction as a member of a student athletic trainer program.

NOTE: THE DEGREE OF THE STUDENT'S ATHLETIC TRAINING ACHIEVEMENT SHALL BE WEIGHED AT LEAST EQUALLY WITH THE DEGREE OF HIS/HER ACADEMIC PERFORMANCE.

## Nominating Instructions

1. To be eligible a student must be a member of NATA for one year prior to receiving the scholarship.
2. Each Certified Athletic Trainer may submit one candidate per year.

Please send requests for applications to the National Office at the following address:

NATA Office  
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1001 East 4th Street  
Greenville NC 27834

Be sure to indicate the type of application desired. Once completed, the application with supporting academic transcript must be mailed to your District Director prior to February 1, 1985. +

## NOCSAE Approved Helmets Mandatory For Baseball And Softball In '85

According to National Federation baseball and softball rules, beginning in 1985, each on-deck batter, batter and runner shall be required to wear a baseball/softball head protector that carries the NOCSAE stamp. With this in mind, a question frequently asked is, "What should schools do with their old protective helmets?" To be on the safe side, all helmets not carrying the NOCSAE stamp should be destroyed. Old helmets should not be used in practice, given to the junior varsity or to Little League teams, etc.

Although there is a procedure for getting NOCSAE football helmets recertified, a program for recertifying batting helmets has not been established. However, there is a possibility that NOCSAE might initiate such a procedure in the future. Additionally, NOCSAE is presently studying the possibility of having catcher's helmets certified.

Whenever the inside padding of the batting helmet wears out, a school may replace the padding on its own. However, under no circumstances can an uncertified helmet be brought up to the standards of a NOCSAE helmet.

Listed below are baseball/softball batting helmets that are NOCSAE certified.

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George Frost Company, BH510, BH710, BH520  
Gladiator Athletic, ABH, BH5  
Homesafe, Homesafe  
Hutch Athletic Goods, Inc., RX1, RX2, RX3, 470  
Bill Kelley Athletic, Inc., PBHE, E285, E380  
MacGregor Athletic Products, B10, B12, B14, B17, B13  
Maxpro, MBH, MLL, MPCE  
Nocona, HSC, LLC, LLC-5  
Rawlings, PL75, PL90, PL95, PL-C Medium & Large sizes  
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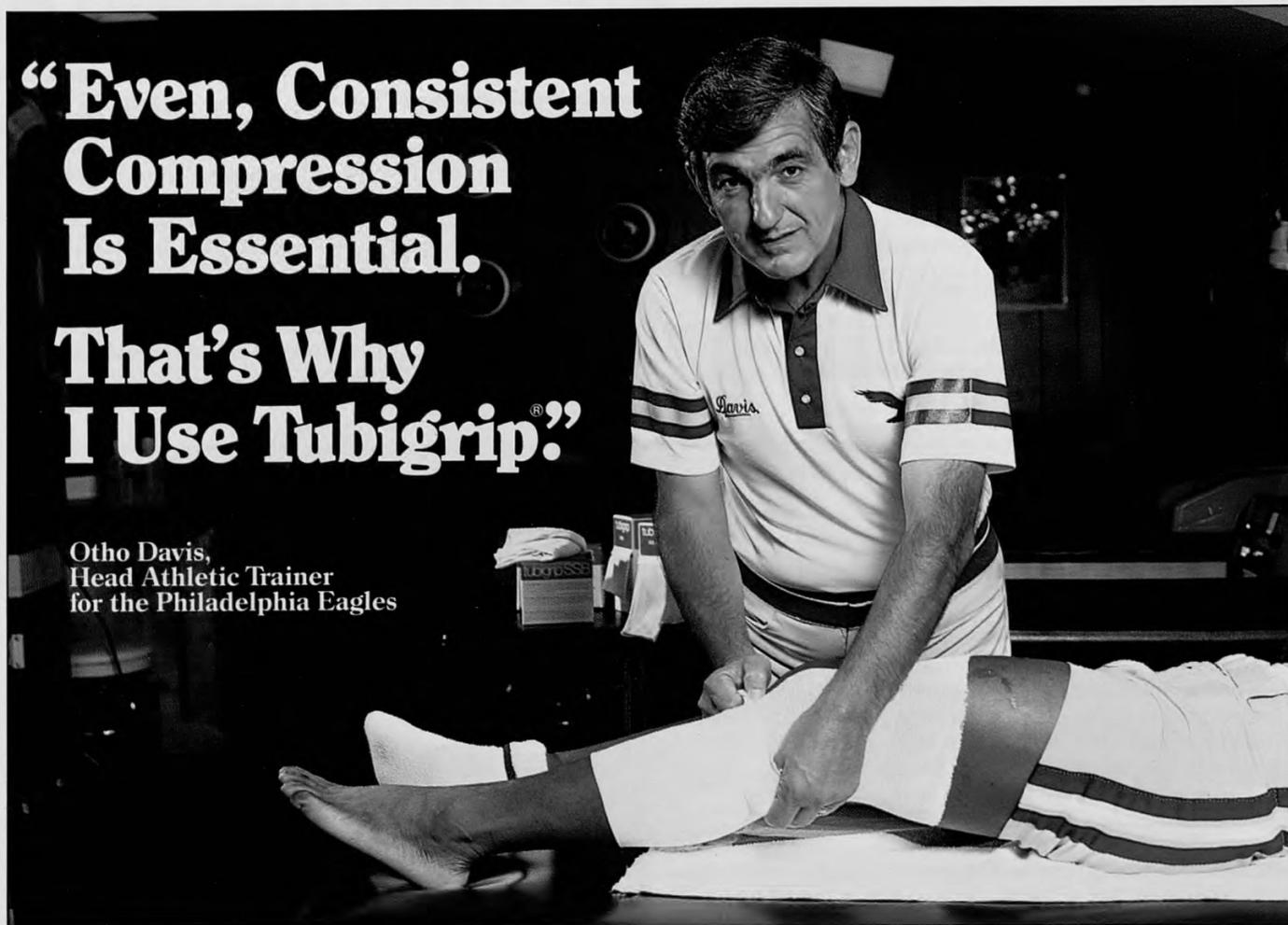
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# Association Activities



David G. Yeo, DPE, ATC  
Montgomery County  
Community College  
Blue Bell, PA

The following summary of the "Distinguished Athletic Training Educator Award" was submitted to the *Journal* prior to the notification of Pinky's unexpected death in October. His sudden passing intensifies our awareness of his leadership and the meaning of his contributions in professional education. Pinky's influence will be carried on by curricula and programs of the highest standards, worthy of the highest esteem. Pinky forged the way. We will follow and feel his presence, with immense gratitude.

DGY

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## Newell Receives Inaugural "Distinguished Athletic Training Educator Award"

William E. "Pinky" Newell was presented the NATA's first Distinguished Athletic Training Educator Award at the Student Awards Banquet in Nashville last June. An outgrowth of the Professional Education Committee, the objective of the new award was to specifically honor an individual who has greatly excelled in that which has become such an integral and vital aspect of what athletic training is today — teaching and education.

Pinky Newell's lasting contributions to athletic training education over the past thirty-five years are unmatched. In 1955, while serving as Executive Director of the NATA, he formed the Professional Advancement Committee with the charge from the Board of Directors of developing an educational curriculum that would be acceptable to colleges for the professional preparation of athletic trainers. It was primarily through Pinky's efforts that an acceptable curriculum was approved in 1959. This educational guideline was to direct educational efforts for athletic trainers over the next decade, through which Pinky continued to serve as the committee chairman.

In 1967, Newell developed two sub-committees of the Professional Advancement Committee, education and certification, chaired by Sayers "Bud" Miller and Lindsay McLean. Over the next five years Pinky directed the growth and development of these committees with inspiration and countless input until each was able to be autonomous in 1973. Pinky's leadership in those formative years was instrumental in making the Professional Education Committee and the Certification Committee what they are today.

Over the last ten years, Pinky's tireless efforts with

the Committee on Grants and Scholarships has afforded yet another dimension to his contributions in athletic trainer education. By emphasizing scholarship and academic achievement, his work has contributed greatly to educational achievement in the athletic training curriculums that he helped establish. His persistence to secure funding for additional scholarships gave countless students a chance to gain an education in athletic training where they might otherwise have faced insurmountable financial burdens. (Today, the scholarship fund totals over \$107,000.00.)

In June, 1984, the "Distinguished Athletic Training Educator Award" was named in honor of Sayers "Bud" Miller. Pinky wanted the award to be presented at the Student Awards Banquet to enable the students to see the recognition and emphasis given to education. Pinky states, "There hasn't been a more rewarding experience than working with these fine kids over the years. They will be a real credit to the profession. I didn't deserve the award. I received an awful lot of help from a lot of different directions. I just hope the award gets some good publicity so that it will become one of the most coveted awards in the future because the value of quality education must be recognized." Retired as Chief Therapist from Purdue University Student Hospital since July 1, 1984, Pinky has no immediate plans for retirement.

It is important that the NATA honor those educators who have been truly outstanding in their contributions. It is only fitting that the first "Distinguished Athletic Training Educator Award" go to William E. "Pinky" Newell, the "father of professional athletic training education."

\* \* \*

Edgar (Hal) Biggs has been inducted into Bucknell University's Athletic Hall of Fame. Biggs, the head athletic trainer at the University since 1948, is the first active coach or administrator to be elected to the Hall of Fame. The immediate past president of the Pennsylvania Athletic Trainers Society, Biggs is on the Board of Directors of the NATA (District 2, Director), and was inducted into the NATA Hall of Fame last year. Recipient earlier this year of the Distinguished Service Award of the Pennsylvania Athletic Trainer's Society, Hal is a 1948 graduate of the Ohio State University.

\* \* \*

Steve Black, ATC, of START (Sports Therapy for Athletic Rehabilitation) in Springfield, Massachusetts, is working with a local cable television station in the production of a series entitled "Perfectly Fit". The program combines a talk-show format with an aerobic exercise segment. As the show's host, Black interviews noted health and fitness specialists, and then continues with an appropriate exercise routine. Topics on the half-hour show, shown three times a week, have ranged from nutrition, weight training, and prenatal exercise, to an overview of sports medicine and the prevention and treatment of injuries. Black is a graduate of Springfield College, Massachusetts.

\* \* \*

Theodore J. Becker, PhD, RPT, ATC, has been presented the first annual NATA Research Award for his paper, "Kinetic and Kinematic Parameters of the Dance Leap and Jump Landing." The study was

*Continued on page 304*

# Calendar of Events



Jeff Fair, ATC, MS  
Oklahoma State University

## January 1985

**3-6** Third Annual National Conference on Injuries to the Throwing Arm, Phoenix, AZ. Contact Mary Margaret Newsom, Department of Education Services, Sports Medicine Division, 1750 E. Boulder Street, Colorado Springs, CO 80909-5760.

**10** Conference on the Medical Aspects of Soccer, Washington, DC. Contact Mary Margaret Newsom, Department of Education Services, Sports Medicine Division, 1750 E. Boulder Street, Colorado Springs, CO 80909-5760.

**10-13** First National Conference on Physiological Performance Evaluation: Overreaching vs Overtraining, Colorado Springs, CO. Contact Mary Margaret Newsom, Department of Educational Services, Sports Medicine Division, Colorado Springs, CO 80909-5760.

## February

**9** Sixteenth Annual Medical Aspects of Sports Seminar, Newark, DE. Contact C. Roy Rylander, Athletic Department, University of Delaware, Newark, DE 19711.

**9-16** Sports Medicine Now V, Maui, HI. Contact Stuart Zeman, MD. 2999 Regent Street, #203 Berkeley, CA 94705.

**11-13** International Symposium on Fitness and Health Education, Las Vegas, NV. Contact Fitcom Corporation, 737 Westchester Pike, Havertown, PA 19080.

**16-23** Office Based Sports Medicine, Park City, UT. Contact Extended Programs in Medical Education, Room 569-U, University of California, San Francisco, CA 94143.

**25-28** Emergency Treatment of Orthopedic and Sports Injuries, Stowe, VT. Contact Department of CME, Boston University School of Medicine, 80 E. Concord Street, Boston, MA 02118.

**25-March 1** LaCrosse Cardiac Rehabilitation Workshop, LaCrosse, WI. Contact LaCrosse Exercise Program - Education Services Unit, 221 Mitchell Hall, University of Wisconsin-LaCrosse, LaCrosse, WI 54601.

## March

**7-17** The American Academy of Podiatric Sports Medicine Third Annual Winter Symposium, Paris,

France and Zermatt, Switzerland. Contact Pajo Travel, 5841 "B" Westminster Avenue, Westminster, CA 92683.

**14-16** GLATA (District 4) Sports Medicine Symposium, Holiday Star Plaza, Merrillville, IN. Contact Rod Moore, Athletic Department, Valparaiso University, Valparaiso, IN 46383.

## August 1985

**7-10** Sports Medicine Congress and Exposition, Indianapolis, IN.

### 1985 DISTRICT MEETINGS

Districts 1 & 2 (EATA)	January 12-15, Grossingers, NY
District 3 (MAATA)	May 17-18, Virginia Beach, VA
District 4 (GLATA)	March 14-16, Merrillville, IN
District 5 (SWATA)	March 15-17, Lincoln, NE
District 6 (SWATA)	July 25-27, Waco, TX
District 7 (PCATA)	March 15-17, Flagstaff, AZ
District 8 (PCATA)	June 21-23, San Diego, CA
District 9 (SEATA)	June 27-29, Suwanee, GA
District 10 (NWATA)	March 16-17, Boise, ID

Contact the District Secretary for further information on these listings.

*Athletic Training* will list events of interest to persons involved in sports medicine, providing the information is received **at least two months in advance of publication**. Please include all pertinent information and the name and address of the person to contact for further information. This information should be sent to: Jeff Fair, Head Athletic Trainer, Athletic Department, Oklahoma State University, Stillwater, OK 74078.+

# Book Reviews

## "Rehabilitation of the Surgical Knee"

RONKONKOMA, NY — CyPress, the publishing group of Cybex, has published *Rehabilitation of the Surgical Knee*, an up-to-date manual of post-surgery knee treatments. Edited by George J. Davies, *Rehabilitation of the Surgical Knee* has been derived from speeches given by such leading clinicians as Terry Malone, Robert Mangine, T.A. Blackburn Jr., Lynn Wallace, William "Sandy" Quillen, and Davies at an annual meeting of the American Physical Therapy Association. This edition contains the latest developments and treatment modalities for rehabilitation of the knee following surgery for various pathologies.

The soft-cover, 100-page book is available postpaid through CyPress at \$25 for a single copy, \$20 each for 2-5 copies, \$15 each for 6 or more. Only prepaid orders will be accepted. Mail checks or money orders (payable to Cybex) to: Cybex, CyPress Publications, 2100 Smithtown Ave., Ronkonkoma, NY 11779. +

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<b>COTTON ANKLE STRAPPING</b> -2" x 72 yds. herringbone	16.00	14.00	13.50	13.50#
<b>POLYESTER ANKLE STRAPPING</b> -2" x 72 yds. herringbone	18.25	16.61	15.22#	14.05#
<b>POLYETHYLENE HEEL &amp; LACE PADS</b> -2000, 3" x 3", die cut	15.00	13.50	11.59	11.59
<b>FOAM ASSORTMENT</b> -5, 1", 8, 1/2", 12, 1/4", 12" x 12"	15.00	12.20	11.00#	9.98#
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SLO-SALT-K 1000	15.00	SUPAC 1000	32.50	S.T.A. 1 GAL.	48.00
SLO-SALT 1000	15.00	EQUILET 100	3.00	COMPETITION LEMON-LIME	28.50
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# Potpourri



Dennis Aten, ATC, RPT, MS  
Eastern Illinois University

We all know or have heard of the fantastic contributions that "Pinky" has made to the profession. Pinky was special, to me, in the way he made his contributions. He didn't seem to work for his own recognition but for friendship and loyalty. He was a friend to athletic training. He was a friend to athletic trainers. He was a friend to me. Maybe someday I can repay a portion of his kindness and friendship by making some small contribution of my own. What a living legacy if all who have been influenced by Pinky will continue to contribute in his name! . . . And who can ever forget William "Pinky" Newell, *my Friend*.

DA

## Dieting?

### *Release From Contemporary Nutrition*

There are many "ifs" that all prospective dieters should be aware of in judging various diet programs. AVOID A DIET IF IT . . .

- Promises fast and easy solutions to your weight problems. There is no simple and easy solution.
- Promises to help you achieve ideal weight without mental inspiration and perspiration. Do not believe this. All accomplishments in life need both inspiration and perspiration.
- Favors one food as the answer to weight problems. Avoid it! The promoters are either ignorant of the basic daily metabolic needs of the body or they are capitalizing on your overwhelming desire to lose weight. Such a diet is dangerous to both your health and wealth.
- Promises to reveal to you a "secret formula" that was developed in some unknown laboratory. We can guarantee that it was developed in their effort to make money! Stay away from them. They do not deserve your attention.
- Promises you that your fat will "melt away" without a lot of boring, strenuous, grueling exercise and without giving up all the foods you really love, with no rigid diet, no hunger pains, no leaving the table still craving a bit more. Do not let them insult your intelligence. Turn your back and go on.

## A Good Diet

A logical weight-reduction program should include:

- A nutritionally balanced caloric intake from all major food groups

- A reasonable increase in physical activity
- An understanding of behavior modification methods accompanied by cue control techniques and practical experience of relaxation training.

**SUMMARY:** Generally, it is wise to stay away from any crash diet. All tend to be nutritionally unbalanced. Although all may cause great temporary weight losses in short periods of time, over the long term, the only thing they accomplish is the addition of another cycle of frustration and disappointment for the dieter.

## Responding To Exercise

### *October, 1983 Good Health Digest*

Over the past several years, a number of studies have revealed that joggers and others who exercise strenuously regularly exhibit symptoms similar to those that characterize the acute phase of the human physiological immune response to infection. As reported in Science News Magazine, these symptoms are fever, an increase in white blood cells, lowered blood plasma levels of zinc and iron, and heightened plasma levels of certain proteins.

When University of Michigan physiologists Joseph G. Cannon and Matthew J. Kluger injected rats with the blood of humans who had just exercised, the animals exhibited the immune response. This suggests that when people exercise, they produce a substance that causes this response. Researchers believe that the immune response to infection is triggered by an "endogenous pyrogen," a substance released by white blood cells in response to invading microorganisms. While many believe it is also the substance involved in the response to exercise, because it is so difficult to isolate from the blood, it is not clear exactly what endogenous pyrogen is, and the significance to runners is not known.

## Look For The Good In Video Games

### *Good Health Digest*

Video games can be good for you. According to Dr. Arnold Sherman, chairman of the Sports Vision Optometric Association, prowess at Pac-Man can improve visual skills in nine different ways simultaneously. However, overdoing it at the computer screen can result in eyestrain. Avoid "focus spasms" by resting five minutes every half hour and looking at distant objects.

## Coffee Can Affect Iron Absorption

### *November, 1983 Good Health Digest*

Drinking coffee during or after meals decreases iron absorption and should be avoided by persons who suffer from anemia, according to a recent study at the University of Kansas Medical Center.

Dr. James Cook, director of the center's hematology division, said that the finding follows earlier studies of tea, which showed that the substance reduced iron absorption by as much as 87 percent when consumed with a meal. He explained that while the "chemical mechanism" remains unknown, tests of 37 persons showed a decrease in iron absorption by 39 percent when coffee was consumed with a meal. Similar results were found when the beverage was taken one hour before eating. No "statistically significant" difference was found between drip and instant coffee, Dr. Cook noted, but doubling the concentration of instant coffee caused an additional 45 percent decrease in absorption.

"While the long-term implications of the study are not

known," Dr. Cook said, "women, who are more susceptible to iron deficiency, would be better off to separate coffee consumption from their meals."

### Inactivity Hastens Aging Exercise May Slow It Down

Aging may result more from lack of exercise than from the number of years one can count on the calendar, concludes Walter Bortz, MD.

"A great deal of what passes as change due to age is not really that at all, but rather the result of inactivity," says Dr. Bortz, president of the American Geriatrics Society and co-chairman of the American Medical Association's Committee on Aging.

Exercise is now listed as valuable for numerous medical conditions, including coronary artery disease, hypertension, obesity, diabetes, osteoporosis, and depression.

"No single medical prescription bears such an impressive list of benefits as does exercise," Bortz writes. "Until recently a physician who prescribed exercise for a patient was labeled a kook. In the near future, a physician who doesn't prescribe exercise under certain circumstances will be guilty of malpractice."

Osteoporosis, a bone disease affecting older people, particularly women, is significantly retarded through exercise, explains Bortz. The condition is characterized by a reduction in bone density accompanied by increasing porosity and brittleness — the cause of many broken bones in older adults. Thought to result partly from a loss of calcium in the bones, osteoporosis is now often

treated with exercise, which has been shown to diminish calcium waste.

Exercise also affects brain function by generating catecholamine and moradrenaline, chemicals that stimulate the nervous system, and dopamine, which affects a person's brain responses.

"Endurance exercises such as long-distance running increase these neurostimulants, which in turn may improve a person's mood, attention span, memory, and other basic brain functions," Bortz says. "The brain, no less than the rest of the body, is subject to the 'use it or lose it' law. As we allow ourselves to settle back into the brain-numbing existence found in many older life patterns, senility cannot be far behind."

Bortz, who cites studies in his article showing that 40 years' worth of inactivity can be recovered through exercise, reconditioning the heart and lungs of a 70-year-old to those of a person in his or her 30's, gives the following advice to those who would rather ride than walk: "If we really want to find a fountain of youth, it seems very clear that we have a much better chance of finding it if we search on foot — rapidly!" +

#### WESTERN STATE SURVEY from page 270

16. Paris SV: Mobilization of the Spine. *Physical Therapy* 59:988-995, 1979.
17. Paris SV: *Extremity Dysfunction and Mobilization*. Institute Press, 1980.
18. Stoddard A: Osteopathic Techniques of Manipulation. *Physiotherapy* 56:29-30, 1970. +

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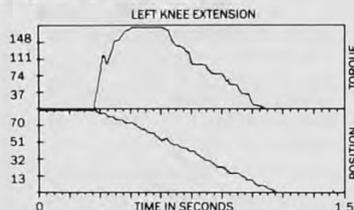
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**REPETITIONS AND MAXIMUM TORQUE.** Isoscan's Repetitions routine

Isoscan's comprehensive analysis includes graphs, summary reports and comparisons



NAME: JOHN STEVENS TEST DATE: 10/16/83  
 WEIGHT: 173 INJURY DATE: 10/1/83  
 HEIGHT: 72 SURGERY DATE:  
 MOVEMENT: LEFT KNEE EXTENSION  
 LEVER ARM: 1.2  
 MAXIMUM TORQUE = 185.43 LBS-FT  
 AVERAGE TORQUE = 117.1 LBS-FT  
 MAX TORQUE/BODY WT = 1.07  
 POSITION OF MAX TORQUE = 74.98 DEGREES  
 RANGE OF MOTION = 97.5 DEGREES  
 MAXIMUM FORCE = 154.52 LBS  
 AVERAGE FORCE = 97.5 LBS  
 ANGULAR WORK = 237.27 FT-LBS  
 ANGULAR IMPULSE = 92.6 LBS-FT-SEC

collects data for any number of repetitive movements. It is used as a first step in testing. When abnormalities appear, you'll move on to Comprehensive Analysis.

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Cybex with Isoscan and computer

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# For Less.

# Student Trainer Corner



"From the student, for the student, about the student"

Deloss A. Brubaker, EdD, MS, ATC  
United States Sports Academy

## Menarche

Nancy Carlin

The article published in the Fall issue, authored by Scott Barker and Andrew Winterstein (*Rotator Cuff Injuries: The Need for Specific Exercises in A Prevention and Treatment Program*, page 214) was the winning paper in the Sixth Annual Student Writing Contest. This announcement was inadvertently omitted on the introductory page, although Mr. Barker and Mr. Winterstein were credited as the winners of the contest in the Association Activities department of the Fall issue. The following article was Runner-Up in the Student Writing Contest.

DAB

Today in the United States, the mean age at normal menarche is estimated to be  $12.3 \pm 3$  years. However, it has been reported that pre-menarchial trained athletes begin menstruation at a later age than post-menarchial athletes (1).

Early research has shown that intense physical activity could delay menarche. Comparison of athletes to non-athletes links the beginning to training with the beginning of menstruation. Also, intense physical activity before menarche was found to contribute to irregular or non-existent menstrual cycles (4).

The purpose of this paper is to discuss the effect of exercise on menarche in women athletes and a random sample population. There is emphasis placed in the areas of dysmenorrhea and amenorrhea. Data was collected, analyzed and compared to current literature.

The two most common irregularities of menarche are dysmenorrhea and amenorrhea. Dysmenorrhea is simply defined as painful menstruation. It is often considered as any type of discomfort that occurs at any

phase of the menstrual cycle. For the majority of women who experience dysmenorrhea, the painful period is just prior to or during menses. Some of the most common symptoms are abdominal swelling, headache, depression, breast tenderness, water retention, backache, irritability and cramping of the lower abdomen (2).

Amenorrhea refers to the absence of menstruation. This is generally divided into two classifications, primary and secondary amenorrhea. Primary is the absence of menarche or when a female does not begin to menstruate within the normal age range. Secondary is the absence of menstruation after a period of regular, normal menses (2).

It is known that dysmenorrhea has a physiological basis (5) but the effects of exercise on dysmenorrhea seem to be very positive. Different theories have been suggested for this. One such theory is the distraction that exercise offers in that the body is too busy with activity to think about the actions of one relatively small muscle. Dr. Robert Brawn from the University of Virginia notes that exercise is effective in preventing premenstrual syndrome by eliminating some of the excess water and sodium that accumulates with the premenstrual syndrome.

Also, women who participate in sports experience a higher incidence of menstrual irregularity and amenorrhea than the more sedentary general population (5).

A questionnaire was developed at Oregon State University and distributed to varsity athletes ( $N = 66$ ) and random population ( $N = 66$ ). The data were tallied for athletes by sport and by the overall group.

The average age of the athletes was 19.6 years. The average age of the random population was 21.2 years. The average age for starting of menarche for random population was 13.0 years compared to 14.6 years for athletes. Of the random population, 50 percent had mentioned that at one point in their life their menstrual cycle had stopped, and of that percentage, 66 percent

*Ms. Carlin is a Graduate of Oregon State University and is attending the University of Arizona's Graduate Program.*

had only stopped once or twice.

Of the athletes, 46 percent mentioned that at one point they had stopped menarche and of that percentage, 38 percent had stopped once or twice. Of the athletes surveyed, 70 percent had regular menstrual cycles and of the random sample, 53 percent had regular menarche.

The most consistent statistic seemed to be that 65 percent of the athletes suffered from some type of menstrual discomfort and 62 percent of the random sample had suffered discomfort. Evaluation of the surveys and the discomforts mentioned showed that more of the random population women had mentioned greater problems and discomfort than women athletes.

The data shown in the results were similar to that found in the literature. Results show that there was a difference between the athletes and a random sample population. Athletes had a more regular menarche but less discomfort problems as the random population. The mean age for menarche was the same as seen by Malina et al. (3).

As a trainer, coach, or teacher one must be prepared to counsel athletes on various health concerns. Menstrual irregularities to the female athlete is no exception.

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### ASSOCIATION ACTIVITIES from page 297

completed during graduate work at Indiana University, Bloomington, Indiana. Becker is Director of Rehabilitation Services - Sports care, The Washington Orthopedic and Fracture Clinic, Centralia, Washington.

\* \* \*

Jeff Middleton, Secretary/Treasurer of the New Jersey Athletic Trainers Society, was recently honored at the New Jersey Interscholastic Coaches Association Awards Banquet. He was presented with the association's Honor Award for distinguished service in athletic training at the high school level.

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**3 Foot Injuries** 20:00 Running and jumping cause a tremendous impact on the foot. Dick D'Oliva, of the Golden State Warriors, discusses stress fractures which are the cumulative result of repeated force to the foot. Other trainers discuss stress on arches, toe injuries including "turf toe," heel bruises, severe stress on the bottom of the foot, inflammation of the Achilles tendon, blisters, calluses, ingrown toenails, and remedial techniques.

**4 Knee Injuries** 23:00 The four principal ligaments of the knee are discussed, as well as the kneecap, cartilage placement and arthroscopic surgery. Jeff Snedeker, of the Milwaukee Bucks, describes five common knee problems and the tests which check for knee damage. In addition, immediate treatment of knee injuries and rehabilitation programs are discussed, as well as taping procedures, sleeves, braces and casts.

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# Question-Answer

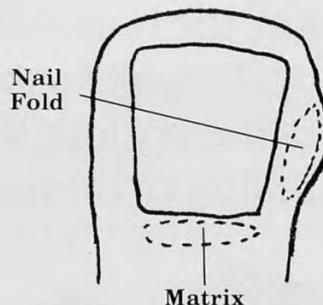
Stuart Wright, MAEd, MA, FSSCh(Brit.), MBChA  
Wake Forest University  
Winston-Salem, NC

**Q.** What are ingrowing nails, and what is the best way to treat them?

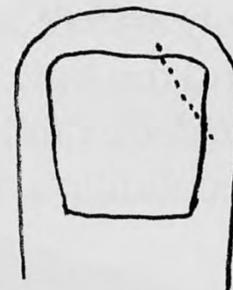
**A.** Ingrowing nails (*onychocryptosis*) may result from any one or combination of the following etiological circumstances: 1) improper cutting of the toe nails (rounded instead of straight across); 2) constant jamming of the toe(s) against the shoe box in running sports; 3) a thin-edged lateral nail border; 4) chronically soft, sweaty skin folds around the sides of the nail; 5) pressure from shoes that are too tight. The athlete usually presents with a swollen and reddened nail fold or matrix and complains of sharp pain at the point where the nail is growing in and often around it as well. A straw-colored exudate or pus may be observed in the nail groove. Not only does the presence of inflammation or infection indicate penetration of the nail into surrounding tissue but also the rejection of a foreign body (the in-growing portion of the nail). While such conservative measures as warm water soaks and topical antibiotic ointments in and of themselves may bring about a degree of relief from the inflammatory process, to achieve more certain, if not dramatic result resolutions of the discomfort, the offending portion of the nail should be excised. This procedure is quite simple to perform, but its success is altogether dependent upon a good pair of surgical nail nippers (obtainable from any surgical supply company). *A good nail nippers should be standard equipment in any training room.*

1. Have the athlete soak his foot in warm, soapy water for 15-20 minutes. This not only cleanses the area but softens the nail as well.
2. Paint the entire digit and nail area with betadine.
3. Insert the nippers under the distal aspect of the nail at a 30-45° angle, and at one and the same time *push and snip* downward to a point just proximal to where the nail is growing in. Make no mistake about it: this will probably be an uncomfortable experience for the athlete, but the pain is momentary and fleeting. Withdraw the nippers.
4. Grasp the tip of the nail with a hemostat and, using a gentle side-to-side motion of the wrist, dislodge the triangular cut of nail. *Note:* You will probably observe the fishhook-like projection that has been growing into the skin fold at the

**A. Common Sites of Infection**



**B. Angle for Partial Nail Excision**



side of the excised portion of nail.

5. Remove any debris or nail slivers that remain in the sulcus, taking care to determine if all of the ingrowing portion of nail has been removed.
6. Flush the area with hydrogen peroxide, dry with a sterile gauze pad, then fill the sulcus with antibiotic ointment. Pack is lightly with wisps of cotton and cover with a sterile dressing or coverlet.

While the relief afforded the athlete is usually considerable — like removing the thorn from the lion's paw — he must follow up by soaking his foot in warm water with Epsom salts or Domeboro tablets, three times daily for twenty minutes each time, for up to a week subsequently. A tube foam coverlet over the nail may provide additional relief. Daily painting with benzoin or merthiolate will assist in drying and hardening the sulcus. Antibiotic ointment should be continued until all localized redness has disappeared.

Finally, here are some pointers to remember. Never trim your nails too short nor allow them to grow too long. As a general rule, however, too long is better than too short. Cut the nails straight across. Always wear shoes that are long and wide enough to accommodate the foot comfortably, but without squeezing it. If the nail is just beginning to grow in, do not wait until it becomes badly inflamed or infected before you decide to remove the offending portion. Prevention by early partial excision is certainly preferable to a bad infection and days missed from practice. +

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## POST TRAUMATIC ANKLE EDEMA *from page 279*

known to carry a negative charge, it may also enhance the leakage of plasma protein into the interstitial space (12). Likewise, using the negative polarity may cause the repulsion effect to prevent edema formation; it may also increase the time of thrombus formation. Therefore, the treatment should alternate the use of the positive polarity for blood coagulation followed by the negative polarity to repel plasma protein movement into the tissue spaces.

The pulse rate is usually set in the range of 60 to 80 pulses per second, but it can be varied if another setting is more comfortable.

The voltage is gradually increased to the athlete's tolerance or a sub-muscular contraction, whichever comes first. It is important that the intensity be kept at a sub-muscular level during the acute stages. This is to insure that no further aggravation of the tissues takes place. Twenty to 30 minutes of total treatment time appears to be standard (3). Whether or not this is the most effective time is still unknown.

### Conclusion

The physiological mechanisms for the use of HVPGS in the reduction of post traumatic edema is quite complex and its use clinically in the field is not yet standardized. The main rationale for the use of HVPGS seems to be the suppression of hemorrhage and the reduction of edema based on the current knowledge of direct current on blood and plasma proteins. I believe that consistent clinical results will add HVPGS as a powerful modality in the combating of acute edema.

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## KEYNOTE ADDRESS *from page 259*

Those visionary people who started and nourished the Association, almost thirty-five years ago, aspired to placing athletic training on firm scientific footing, along with service and education. The aspiration has continued and still stands as one of the functions of the Association. Once we are well on the way to achieving this aspiration, perhaps we can stop calling ourselves professional and start being professional in the sense that our founders envisioned.

I could not close this presentation without thanking a very special group today. I would acknowledge the members of the Athletic Trainers Hall of Fame. I stand in awe of their service to the profession and thank them for their dedication and loyalty to athletic training. Their pursuit of excellence has been superb.

On a day-to-day basis, the changes in our Association in the future will be neither dramatic or sudden. Their impact will be historical, not contemporary. They will come if we exercise the kind of wisdom, prolonged effort, and patience that go with looking ahead to what the profession and the Association will be ten years or even another thirty-five years from now. We must work diligently and honestly for what many of us may not live to see. Perhaps this is all any man can really mean when he says: "I have a dream . . .".

Edwin Markham in his "Leaves of Gold", had this to say, "Great it is to believe the dream. When we stand in youth by the starry stream; But a greater thing is to fight life through and say at the end, 'The dream was true'."

W. E. Newell  
June 1984

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# 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 every three (3) years Continuing Education period shall be 6 CEUs.

**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 completion.

**THE CERTIFIED ATHLETIC TRAINER** who does not accumulate a recorded number of 6 CEUs during the designated 3-year period (82/84, 85/87, etc) shall have his/her Certification placed on probation. Those Certified within the 3-year period shall have their CEU requirement prorated for that period only. Any action taken affecting the status of a Certified Athletic Trainer relating to Continuing Education may be appealed to the Continuing Education Office (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 Board of Certification.

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. **NATA APPROVED 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.
- 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 TO OTHER GROUPS:** The presentation of athletic training to nonrelated organizations and civic groups will be awarded .5 CEU per presentation.
- H. **TEACHING OF ATHLETIC TRAINING COURSES:** .5 CEU will be awarded for each credit hour of actual teaching that is not a part of your job description, not to exceed 1 per year.
- I. **STUDENT TRAINER SUPERVISION:** (inclusive of high school trainers) .5 CEU 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 CEU 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 CEU 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 CEU 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 CEU per testing date.\*
4. Examiner Development Workshop. Completion of an NATA Certification Examiner Development Workshop will be awarded .3 CEU.\*
  5. Official liaison activity. Those members participating in the capacity of a liaison for the NATA will be awarded .5 CEU each year.
  6. State Organizations. Those members serving as elected officers or committee chairpersons in a formally organized State Athletic Trainers organization recognized by NATA shall receive .5 CEU 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 CEU per visit not to exceed 1.0 CEU 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 CEU per project. Preparation and presentation of scientific athletic training exhibits at the local, District or National level: Limit .5 CEU per exhibit. Current CPR is also creditable for .5 CEU per year. EMT is creditable for up to 1.0 CEU per Continuing Education period.

\*CEUs for categories A, B, K, 1-3, L-4 and M 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 reporting period, their Certification will be placed on probation.

As CEUs are reported, they will be recorded to make up the deficiency first. When the deficiency is satisfied the remaining and subsequent CEUs reported will be recorded for the current period. The person must earn six (6) CEUs for the current 3 year period as well as making up for deficiency.

A Certified Athletic Trainer who is put on probation for failure to earn sufficient CEUs may appeal. The Certified Athletic Trainer who fails to accumulate sufficient CEUs will receive notice that their Certification has been placed on probation.

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

Board of Certification/Appeal  
1001 East Fourth Street  
Greenville, NC 27834

Revised 841110

### CEU REPORT FORM

**National Athletic Trainers' Association, Inc.**  
**Continuing Education**  
**1001 East 4th Street**  
**Greenville, NC 27834**

Certified 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 the 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.

I request CEUs for \_\_\_\_\_

\_\_\_\_\_ Conference, Meeting, workshop, etc.

(Total contact hours attended) \_\_\_\_\_ (category) \_\_\_\_\_ (Date of activity) \_\_\_\_\_

(Name as printed in NATA record) \_\_\_\_\_ (Membership number) \_\_\_\_\_ (Classification) \_\_\_\_\_

(Address) \_\_\_\_\_

I certify that the above information is correct \_\_\_\_\_  
(Signature of member)

**PHOTOCOPY THIS FORM FOR FUTURE USE**

# National Athletic Trainers Association, Inc. Continuing Education Committee

James B. Gallaspy - Chairperson  
University of Southern Mississippi  
P.O. Box 5105  
Southern Station  
Hattiesburg, MS 39406-5105  
(601) 266-5577

## DISTRICT REPRESENTATIVES

**DISTRICT 1**  
Connie Bauman  
Wellesley College  
Mary Hemenway  
Wellesley, MA 02181  
(617) 235-0320, Ext. 2023

**DISTRICT 2**  
Don Kessler  
Princeton University  
P.O. Box 71 Athletic Department  
Princeton, NJ 08544  
(609) 452-3518

**DISTRICT 3**  
Carla Stoddard  
North Carolina State University  
Athletic Department Box 8501  
Raleigh, NC 27695-8501  
(919) 737-2111

**DISTRICT 4**  
Fred Turner  
1816 W. 170th  
Hazelcrest, IL 60429  
(312) 335-1415

**DISTRICT 5**  
Reginald Speak  
Bettendorf Senior High  
3333 18th St.  
Bettendorf, IA 52722  
(319) 332-7001, Ext. 265

**DISTRICT 6**  
Ron Carroll  
Arkansas State University  
P.O. Box 1225  
State University, AR 72467  
(501) 972-3342

**DISTRICT 7**  
George Goodridge  
Northern Arizona University  
Box 15400  
Flagstaff, AZ 86011  
(602) 523-4151

**DISTRICT 8**  
Dan W. Bailey  
Cal State University  
Athletic Department  
Long Beach, CA 90840  
(213) 430-5791

**DISTRICT 9**  
Linda Arnold  
Memphis State University  
Athletic Office Building  
Memphis, TN 38152  
(901) 454-2340

**DISTRICT 10**  
Jackie Smaha  
PO Box 8645  
Moscow, ID 83843  
(509) 332-1919

**NOTE:** Please send approval requests to the Representative  
in whose district the event is taking place.

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# Seventh Annual N.A.T.A. Student Writing Contest

In an effort to promote scholarship among young athletic trainers, the National Athletic Trainers Association 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 Meeting 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, 1985.

**Deloss Brubaker  
U.S. Sports Academy  
P.O. Box 8650  
Mobile, AL 36608**

# NATIONAL ATHLETIC TRAINERS' ASSOCIATION, INC.

## APPROVED ATHLETIC TRAINING EDUCATION PROGRAMS

Programs listed here are approved by the National Athletic Trainers' Association, Inc. For detailed information, write to the program director whose name is given in parentheses in the listing. Two basic plans of education for athletic training are listed in the following key:

- (1) Undergraduate Athletic Training Education Programs
- (2) Graduate Athletic Training Education Programs

### ARIZONA

UNIVERSITY OF ARIZONA (2)  
Department of Physical Education  
Tucson, Arizona 85721 (Gary Delforge)

### CALIFORNIA

CALIFORNIA STATE UNIVERSITY, FULLERTON (1)  
Department of Health, Physical Education & Recreation  
Fullerton, California 92634 (Jerry Lloyd)

CALIFORNIA STATE UNIVERSITY, LONG BEACH (1)  
Department of Physical Education  
Long Beach, California 90840 (Keith Freeseemann)

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE (1)  
Department of Physical Education  
Northridge, California 91330 (Dale A. Rudd)

CALIFORNIA STATE UNIVERSITY, SACRAMENTO (1)  
Department of Physical Education  
Sacramento, California 95819 (Doris E. Flores)

### DELAWARE

UNIVERSITY OF DELAWARE (1)  
Department of Physical Education & Athletics  
Newark, Delaware 19716 (Roy Rylander)

### IDAHO

BOISE STATE UNIVERSITY (1)  
Department of Physical Education  
Boise, Idaho 83725 (Ron Pfeiffer)

### ILLINOIS

EASTERN ILLINOIS UNIVERSITY (1)  
Department of Physical Education  
Charleston, Illinois 61920 (Dennis Aten)

ILLINOIS STATE UNIVERSITY (2)  
Department of Health, Physical Education & Dance  
Normal, Illinois 61761 (William Kauth)

SOUTHERN ILLINOIS UNIVERSITY (1)  
Department of Physical Education  
Carbondale, Illinois 62901 (Sally Rouse Perkins)

UNIVERSITY OF ILLINOIS (1)  
Department of Physical Education  
Urbana, Illinois 61801 (Gerald W. Bell)

WESTERN ILLINOIS UNIVERSITY (1)  
College of Health, Physical Education & Recreation  
Macomb, Illinois 61455 (Valerie Lindbloom, Acting)

### INDIANA

BALL STATE UNIVERSITY (1)  
Department of Men's Physical Education  
Muncie, Indiana 47306 (Mary E. O'Carroll)

INDIANA UNIVERSITY (1,2)  
Department of Physical Education  
Bloomington, Indiana 47405 (John W. Schrader)

INDIANA STATE UNIVERSITY (1,2)  
Department of Physical Education  
Terre Haute, Indiana 47809 (Kenneth Knight)

PURDUE UNIVERSITY (1)  
Department of Physical Education, Health & Recreation  
Studies  
West Lafayette, Indiana 47907 (Dennis Miller)

### IOWA

UNIVERSITY OF IOWA (1)  
Department of Exercise Science and Physical Education  
Iowa City, Iowa 52242 (Dan Foster)

### KENTUCKY

EASTERN KENTUCKY UNIVERSITY (1)  
College of Health, Physical Education, Recreation & Athletics  
Richmond, Kentucky 40475-0933 (Robert M. Barton)

### MASSACHUSETTS

BRIDGEWATER STATE COLLEGE (1)  
Department of Health, Physical Education & Recreation  
Bridgewater, Massachusetts 02324 (Marcia Anderson/  
Matthew Gerken)

NORTHEASTERN UNIVERSITY (1)  
Department of Health, Sport & Leisure Studies  
Boston, Massachusetts 02115 (Kerkor Kassabian)

SPRINGFIELD COLLEGE (1)  
Division of Health, Physical Education & Recreation  
Springfield, Massachusetts 01109 (Sherrod W. Shaw)

### MICHIGAN

CENTRAL MICHIGAN UNIVERSITY (1)  
Department of Physical Education  
Mount Pleasant, Michigan 48859 (Ronald A. Sendre)

GRAND VALLEY STATE COLLEGE (1)  
Department of Physical Education & Athletics  
Allendale, Michigan 49401 (Douglas P. Woods)

WESTERN MICHIGAN UNIVERSITY (2)  
Department of Health, Physical Education & Recreation  
Kalamazoo, Michigan 49008 (Jack Jones)

### MINNESOTA

GUSTAVUS ADOLPHUS COLLEGE (1)  
Department of Health, Physical Education & Recreation  
St. Peter, Minnesota 56082 (Gary D. Reinholtz)

MANKATO STATE UNIVERSITY (1)  
Department of Physical Education  
Mankato, Minnesota 56001 (Gordon Graham)

#### MISSISSIPPI

UNIVERSITY OF SOUTHERN MISSISSIPPI (1)  
Department of Athletic Administration & Coaching  
Hattiesburg, Mississippi 39406-5105 (James B. Gallaspy)

#### MISSOURI

SOUTHWEST MISSOURI STATE UNIVERSITY (1)  
Department of Physical Education  
Springfield, Missouri 65802 (Gary Ward/Ivan Milton)

#### MONTANA

UNIVERSITY OF MONTANA (1)  
Department of Health & Physical Education  
Missoula, Montana 59812 (Russell J. Cagle)

#### NEBRASKA

UNIVERSITY OF NEBRASKA (1)  
Department of Health, Physical Education & Recreation  
Lincoln, Nebraska 68588-0618 (Roland E. LaRue)

#### NEVADA

UNIVERSITY OF NEVADA—LAS VEGAS (1)  
Department of Physical Education, Recreation & Dance  
Las Vegas, Nevada 89154 (A.G. Edwards)

#### NEW JERSEY

KEAN COLLEGE OF NEW JERSEY (1)  
Department of Physical Education, Health & Recreation  
Union, New Jersey 07083 (Gary Ball)

WILLIAM PATTERSON COLLEGE OF NEW JERSEY (1)  
Department of Movement Sciences and Leisure Studies  
Wayne, New Jersey 07470 (Jim Manning)

#### NEW MEXICO

UNIVERSITY OF NEW MEXICO (1)  
Department of Health, Physical Education & Recreation  
Albuquerque, New Mexico 87131 (L.F. "Tow" Diehm)

#### NEW YORK

CANISIUS COLLEGE (1)  
Department of Physical Education  
Buffalo, New York 14208 (Peter Koehneke)

STATE UNIVERSITY OF NEW YORK AT CORTLAND (1)  
Department of Physical Education  
Cortland, New York 13045 (Daniel M. Gorman)

ITHACA COLLEGE (1)  
Department of Health, Physical Education & Recreation  
Ithaca, New York 14850 (Kent Scriber)

#### NORTH CAROLINA

APPALACHIAN STATE UNIVERSITY (1)  
Department of Health, Physical Education & Recreation  
Boone, North Carolina 28608 (Ronald W. Kanoy)

EAST CAROLINA UNIVERSITY (1)  
Department of Health, Physical Education, Recreation & Safety  
Greenville, North Carolina 27834 (Rod Compton)

MARS HILL COLLEGE (1)  
Department of Health, Physical Education & Recreation  
Mars Hill, North Carolina 27854 (Herb Amato)

UNIVERSITY OF NORTH CAROLINA (2)  
Department of Physical Education  
Chapel Hill, North Carolina 27514 (William E. Prentice)

#### NORTH DAKOTA

NORTH DAKOTA STATE UNIVERSITY (1)  
Department of Health, Physical Education, Recreation & Athletics  
Fargo, North Dakota 58105 (John Schueneman)

UNIVERSITY OF NORTH DAKOTA (1)  
Department of Health, Physical Education & Recreation  
Grand Forks, North Dakota 58202 (Mark Healy)

#### OHIO

BOWLING GREEN STATE UNIVERSITY (1)  
School of Health, Physical Education & Recreation  
Bowling Green, Ohio 43403 (Bill Jones)

MARIETTA COLLEGE (1)  
Department of Sports Medicine  
Marietta, Ohio 45750 (Paul Spear)

MIAMI UNIVERSITY OF OHIO (1)  
Department of Health, Physical Education & Recreation  
Oxford, Ohio 45056 (Patricia Troesch)

OHIO UNIVERSITY (1)  
Department of Health & Sport Sciences  
Athens, Ohio 45701 (Charles "Skip" Vosler)

UNIVERSITY OF TOLEDO (1)  
Department of Physical Education  
Toledo, Ohio 43606 (Jim Rankin)

#### OREGON

OREGON STATE UNIVERSITY (1)  
Department of Physical Education  
Corvallis, Oregon 97331 (Richard F. Irvin)

UNIVERSITY OF OREGON (2)  
Department of Physical Education  
Eugene, Oregon 97403 (Louis R. Osternig)

#### PENNSYLVANIA

CALIFORNIA UNIVERSITY OF PENNSYLVANIA (1)  
College of Education  
California, Pennsylvania 15419 (William B. Biddington)

EAST STROUDSBURG UNIVERSITY (1)  
Department of Professional Physical Education  
East Stroudsburg, Pennsylvania 18301 (John Thatcher)

LOCK HAVEN UNIVERSITY (1)  
Department of Health & Science  
Lock Haven, Pennsylvania 17745 (David J. Tomasi)

PENNSYLVANIA STATE UNIVERSITY (1)  
College of Health, Physical Education & Recreation  
University Park, Pennsylvania 16802 (John W. Powell)

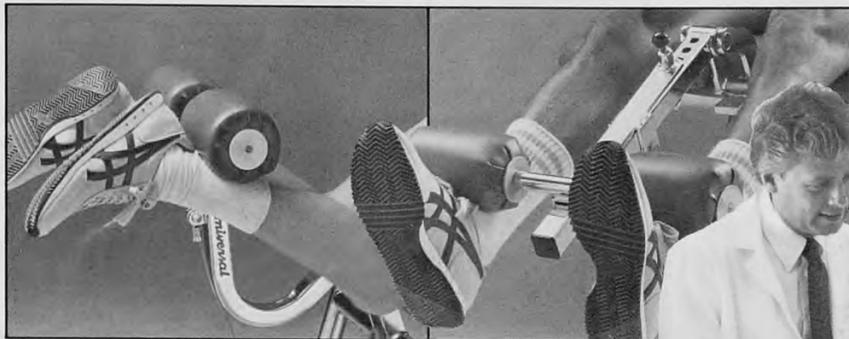
UNIVERSITY OF PITTSBURGH (1)  
Department of Health, Physical Education & Recreation  
Pittsburgh, Pennsylvania 15261 (David H. Perrin)

SLIPPERY ROCK UNIVERSITY (1)  
Health Sciences Department  
Slippery Rock, Pennsylvania 16057 (James R. Pennell)

WEST CHESTER UNIVERSITY (1)  
Department of Physical Education  
West Chester, Pennsylvania 19383 (Phillip B. Donley)

*Continued on page 320*

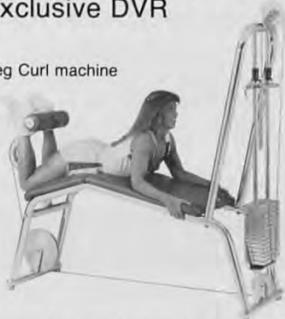
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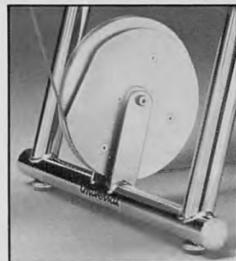


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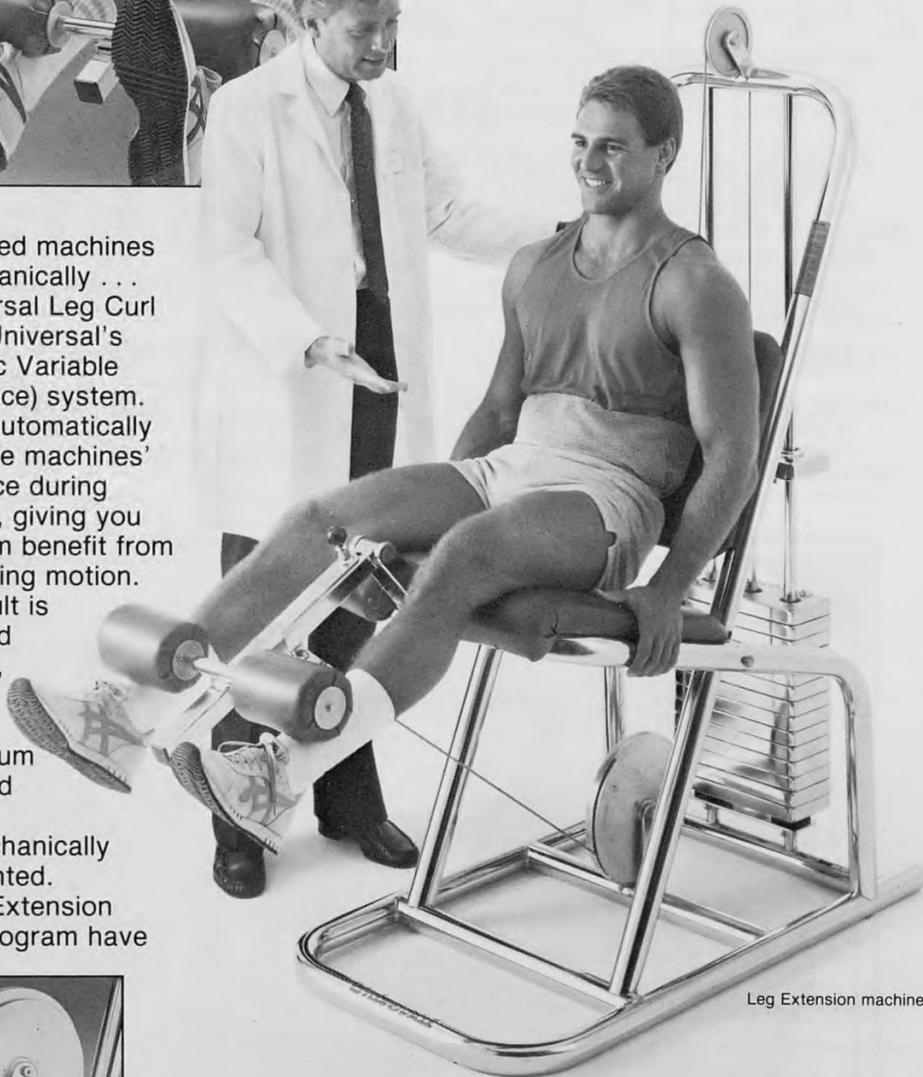
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**ATHLETIC TRAINING PROGRAM** from page 317

**SOUTH DAKOTA**

**SOUTH DAKOTA STATE UNIVERSITY (1)**  
Department of Health, Physical Education & Recreation  
Brookings, South Dakota 57007 (Jim Booher)

**TENNESSEE**

**EAST TENNESSEE STATE UNIVERSITY (1)**  
Department of Physical Education & Recreation  
Johnson City, Tennessee 37614-0002 (Jerry Robertson)

**TEXAS**

**LAMAR UNIVERSITY (1)**  
Division of Health, Physical Education & Dance  
Beaumont, Texas 77710 (Paul Zeek)

**SOUTHWEST TEXAS STATE UNIVERSITY (1)**  
Department of Health & Physical Education  
San Marcos, Texas 78666 (Bobby Patton)

**STEPHEN F. AUSTIN STATE UNIVERSITY (1)**  
Department of Health & Physical Education  
Nacogdoches, Texas 75962 (Sanford E. Miller)

**TEXAS CHRISTIAN UNIVERSITY (1)**  
Department of Kinesiological Studies  
Fort Worth, Texas 76129 (T. Ross Bailey)

**UTAH**

**BRIGHAM YOUNG UNIVERSITY (1)**  
Department of Physical Education Sports  
Provo, Utah 84601 (Earlene Durrant)

**VERMONT**

**UNIVERSITY OF VERMONT (1)**  
Department of Human Development Studies  
Burlington, Vermont 05405 (Roger T. Bryant)

**VIRGINIA**

**JAMES MADISON UNIVERSITY (1)**  
Department of Health & Physical Education  
Harrisonburg, Virginia 22807 (Ronald Stefancin)

**OLD DOMINION UNIVERSITY (2)**  
Department of Health, Physical Education, Recreation & Athletics  
Norfolk, Virginia 23508 (Martyn Bradley)

**UNIVERSITY OF VIRGINIA (2)**  
Department of Health and Physical Education  
Charlottesville, Virginia 22903 (Joe H. Gieck)

**WASHINGTON**

**WASHINGTON STATE UNIVERSITY (1)**  
Department of Physical Education, Sport & Leisure Studies  
Pullman, Washington 99164 (Douglas Sebold)

**WEST VIRGINIA**

**WEST VIRGINIA UNIVERSITY (1)**  
Department of Professional Physical Education  
Morgantown, West Virginia 26506-6116 (Jim Rudd)

**WISCONSIN**

**UNIVERSITY OF WISCONSIN — LA CROSSE (1)**  
Department of Health, Physical Education & Recreation  
La Crosse, Wisconsin 54601 (Karen R. Toburen)



Four members of the athletic training profession have been recognized as one of the best by their peers, the 4,500 certified members of the National Athletic Trainers Association. Voted Trainer of the Year, for their contributions to the profession, are: (left to right) Professional Division-Ronnie Barnes, New York Giants; Collegiate Division-Bobby Barton, Eastern Kentucky University; Junior College Division, Elisa Camillone, Mercer County

(NJ) Community College and High School Division-Roger Kalisiak, Hoffman Estates (IL) High School. NUTRAMENT is proud to honor the entire Athletic Training Profession through our sponsorship of the Trainer of the Year Awards. We take this opportunity to call attention to the highly skilled and dedicated trainers whose care of athletes promotes conditioning and injury prevention as well as emergency care and rehabilitation.

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John Wm. Perry, MD  
Medical Director



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# Guide to Contributors

*Athletic Training*, The Journal of the National Athletic Trainers Association, 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.

## The following recommendations are offered to those submitting MANUSCRIPTS:

1. Four copies of the manuscript should be forwarded to the editor and each page typewritten on one side of 8½ x 11 inch plain paper, triple spaced with one inch margins.
2. Good quality color photography is acceptable for accompanying graphics but glossy black and white prints are preferred. Graphs, charts, or figures 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, not hand written. Personal photographs are encouraged; however photographs cannot be returned if the manuscript is published.

All artwork to be reproduced should be submitted as black and white line art (either drawn with a Rapidograph [technical fountain pen] or a velox stat or PMT process) with NO tonal values, shading, washes, Zip-a-tone — type screen effects, etc. used.

All artwork to be reproduced in black plus a second (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 area of additional color(s). Also, all areas of tonal value, shading, "washes", etc. should be supplied on a separate clear or frosted acetate or Amberlith® overlay. In addition, all areas to be screened (a percent or tint of black or color) should be supplied on an Amberlith® overlay. Artwork cannot be returned if the manuscript is published.

3. The list of references and citations should be in the following form: a) books: author, title, publisher with city and state of publication, year; b) articles: family names, initials and titles of all authors, title of article, journal title, with abbreviations accepted as per Index Medicus, volume, page, year. Citations in the text of the manuscript will take the form of a number in parentheses, (7), directly after the reference or name of author being cited, indicating the number assigned to the citation. Example of references to a journal, book, chapter in an edited book, and presentation at a meeting are illustrated below. Reference page accompanying manuscript should list authors in alphabetical order numerically.

- a. Knight K: Preparation of manuscripts for publication. *Athletic Training* 11 (3):127-129, 1976.
- b. Klafs CE, Arnheim DD: *Modern Principles of Athletic Training*. 4th edition. St. Louis, CV Mosby Co. 1977 p. 61.
- c. Albohm M: Common injuries in womens

volleyball. *Relevant Topics in Athletic Training*. Edited by Scriber K, Burke EJ, Ithaca NY: Monument Publications, 1978, pp. 79-81.

- d. Behnke R: Licensure for athletic trainers: problems and solutions. Presented at the 29th Annual Meeting and Clinical Symposium of the National Athletic Trainers Association. Las Vegas, Nev., June 15, 1978.
4. In view of *The Copyright Revision Act of 1976*, effective January 1, 1978, all transmittal letters to the editor must contain the following language before manuscripts can be reviewed for possible publication: "In consideration of the NATA taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns or otherwise conveys all copyright ownership to the NATA, in the event that such work is published by the NATA." We regret that transmittal letters not containing the foregoing language signed by all authors of the manuscript will necessitate return of the manuscript. Manuscripts are accepted for publication with the understanding that they are original and have been submitted solely to *Athletic Training*. Materials taken from other sources, including text, illustrations, or tables, must be accompanied by a written statement from both the author and publisher giving *Athletic Training* permission to reproduce the material. Photographs must be accompanied by a signed photograph release form.

Accepted manuscripts become the property of the Journal. For permission to reproduce an article published in *Athletic Training*, send request to the Editor-in-Chief.

5. Manuscripts are reviewed and edited to improve the effectiveness of communication between the author and the readers and to assist the author in a presentation compatible with the accepted style of *Athletic Training*. The initial review process takes from six to eight weeks. The time required to process a manuscript through all phases of review, revision, and editing, to final publication is usually six to eight months depending on the timeliness of the subject. The author accepts responsibility for any major corrections of the manuscript as suggested by the editor.
6. It is requested that submitting authors include a comprehensive abstract, a brief biographical sketch and acceptable black and white glossy photograph of themselves. Please refrain from putting paper clips on any photograph.
7. Published manuscripts and accompanying artwork cannot be returned. Unused manuscripts will be returned when submitted with a stamped, self-addressed envelope.

Address all manuscripts to:

Clint Thompson  
Jenison Gym  
Michigan State University  
East Lansing, Michigan 48824

## The following recommendations are offered to those submitting CASE HISTORIES:

1. The above recommendations for submitting manuscripts apply to case studies as well but only two copies of the report need be sent to the Editor-in-Chief.
2. All titles should be brief within descriptive limits. The name of the disability treated should be included in the title if it is the relevant factor; if the technique or kind of treatment used is the principal reason for the report, this should be in the title. Often both should appear. Use of subtitles is recommended. Headings and Subheadings are required in the involved report but they are unnecessary in the very short report. Names of patients are not to be used, only first or third person pronouns.
3. An outline of the report should include the following components:
  - a. Personal data (age, sex, race, marital status, and occupation when relevant)
  - b. Chief complaint
  - c. History of present complaint (including symptoms)
  - d. Results of physical examination (Example: "Physical findings relevant to the physical therapy program were...")
  - e. Medical history — surgery, laboratory, exam, etc.
  - f. Diagnosis
  - g. Treatment and clinical course (rehabilitation until and after return to competition) use charts, graphs when possible
  - h. Criteria for return to competition
  - i. Deviation from the expected
  - j. Results — days missed
4. **Release Form**  
It is mandatory that *Athletic Training* receive, along with the submitted case, a signed release form by the individual being discussed in the case study injury situation. Case studies will be returned if the release is not included.

## The following recommendations are offered to those submitting material to be considered for TIPS FROM THE FIELD:

1. The above recommendations for submitting manuscripts apply to Tips From the Field but only two copies of the paper need be submitted.
2. Copy should be typewritten, brief, concise, in the first or third person, and using high quality illustrations and/or black and white glossy prints.

## The following guidelines must be met for submission of papers or material to the "STUDENT TRAINER CORNER."

1. Author must be an undergraduate student member of NATA.
2. Topics must relate to athletic training. (case reports, experimental reports, suggestions, new ideas, tips and/or specifics for a given problem)
3. Articles should be no more than 2 to 3 pages in length, double spaced.

# Journal Deadlines

In order to avoid confusion and delays on contributions to the Journal the deadlines for various sections are provided below.

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

The deadlines are:

Journal	Deadline
Spring Issue	December 15
Summer Issue	March 1
Fall Issue	June 15
Winter Issue	September 15

Send material for "Announcements", "Case Histories", "Letters to the Editor", "New Products" and miscellaneous items to:

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

Send manuscripts to:

Clint Thompson  
Jenison Gym  
Michigan State University  
East Lansing, MI 48824  
(517) 353-4412

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

"Tips From the Field" should be sent to:

Dave Burton  
Duncanville High School  
Duncanville, TX 75116

Items for the "Student Trainer Corner" should be sent to:

Deloss Brubaker  
U.S. Sports Academy  
PO Box 8650  
Mobile, AL 36608

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# PROCEEDINGS of the BOARD OF DIRECTORS NATIONAL ATHLETIC TRAINERS' ASSOCIATION, INC.

June 7-12, 1984  
Opryland Hotel  
Nashville, Tennessee  
SUMMARY OF ACTIONS  
NATA BOARD OF DIRECTORS

The following agenda items were considered and actions taken by the NATA Board of Directors at its meetings held at the Opryland Hotel, Nashville, Tennessee, commencing at eight-twenty o'clock, a.m., on Thursday, June 7, 1984 and terminating Tuesday, June 12, 1984 at three-thirty o'clock p.m. with Mr. Bobby Barton, President, presiding and with the following present:

Mr. Bobby Barton, President  
Mr. Otho Davis, Executive Director  
Mr. Bruce Melin, Parliamentarian  
Mr. Jack Baynes, District 1  
Mr. Hal Biggs, District 2  
Mr. Hunter Smith, District 3  
Mr. Andy Clawson, District 3  
Mr. Gordon Graham, District 4  
Mr. Frank Randall, District 5  
Mr. Denis Isrow, District 5  
Mr. Paul Zeek, District 6  
Mr. Dan Libera, District 7  
Mr. Roger Dennis, District 8  
Ms. Janice Daniels, District 8  
Mr. Jerry Rhea, District 9  
Mr. Mark Smaha, District 10

#### I. REAPPROVAL OF MAIL ITEMS:

Moved by District 8, seconded by District 3 and carried, that the mail vote actions taken by the District Directors during the interim between Board meetings be ratified and approved, as follows:

A. Appointment of Doug Reeland, Hobart College (District 2), to Ethics Committee.

B. Approval of Squincher - USFL Trainers' Society Postgraduate Scholarship Award.

C. Approval of "Agency Orientation" investigation and concept by Creswell, Munsell, Fultz & Zirbel, Inc. (CMF & Z) Public Relations, Cedar Rapids, Iowa with a \$10,000.00 limit to the project.

D. Approval of \$200.00 stipend for Murray State University for redesign of NATA logo.

E. Resignation of Richard Irvin, Oregon State University (District 10) from the Certification Committee.

F. Approval of \$10,096.25 for purchase of a new Xerox copy machine.

G. Appointment of George Young, John Marshall High School, San Antonio, Texas (District 6), to Placement Committee.

H. Approval of Cybex, Division of Lumex, Inc., Postgraduate Scholarship Award.

I. Appointment of Dan Wathen, Youngstown State University (District 4), as liaison representative to the National Strength and Conditioning Association.

J. Appointment of Janet Sails, Bates College (District 1), to Memorial Resolutions Committee.

K. Appointment of Bobby Barton, Eastern Kentucky University (District 9), to International Games Committee.

L. Approval of improvement of Robert H. Gunn, Undergraduate Scholarship Award; Sayers J. Miller, Jr., Undergraduate Scholarship Award; and Otho Davis, Postgraduate Scholarship Award from \$500 to \$1,000.00.

M. Appointment of Ted Lane, Boulder, Colorado (District 7), to Ethics Committee.

N. Resignation of Bob Behnke, Indiana State University (District 4), as Chairman of Licensure Committee.

O. Approval of Hall of Fame Nominees:  
James H. Goostree (District 9)

University of Alabama  
Tuscaloosa, Alabama  
Louis K. Greville (District 6)  
Lubbock Coronado High School  
Lubbock, Texas

Walter A. Grockowski (District 1)  
Wesleyan University  
Middletown, Connecticut  
Fritz Massmann (District 2)

New Jersey Nets Basketball Club  
East Rutherford, New Jersey

Joseph J. Stanitis (District 1)  
Amherst College

Amherst, Massachusetts  
Raymond V. Uliński (District 2)

Pennsylvania State University  
University Park, Pennsylvania

Joe Worden (District 9)  
Vanderbilt University

Nashville, Tennessee  
P. Approval of Honorary Membership Nominees:

Raymond Mauro  
Spokane, Washington

John M. Miller, M.D.  
Indiana University

Bloomington, Indiana  
Frederick Mueller, Ph.D.

University of North Carolina  
Chapel Hill, North Carolina

Q. Approval of Twenty-Five Year Award Nominees:  
Donald R. Cochren (District 6)

Dallas Cowboys Football Club  
Dallas, Texas

George H. Crow (District 6)  
Goose Creek School District

Baytown, Texas  
Fern R. Hitchcock, Jr. (District 3)

Western Maryland College  
Westminster, Maryland

Carl E. Nelson (District 1)  
Colby College

Waterville, Maine  
Joe E. Richardson

Stephen F. Austin State University  
Nacogdoches, Texas

Sherrod Shaw (District 1)  
Springfield College

Springfield, Massachusetts  
R. Resignation of Jim Rudd, Kansas State University

(District 5) as Chairman of Memorial Resolutions Committee.

S. Approval of naming the NATA Post-Graduate Scholarship sponsored by Cybex in honor of Dean Nesmith, University of Kansas.

T. Appointment of Ned Ehrlick, Philadelphia, PA (District 2) to Ethics Committee.

U. Approval of Professional Baseball Trainers'

Society Scholarship Award.

V. Approval of 1984 Scholarship Awards.

#### II. ACCEPTANCE OF INFORMATIONAL REPORTS:

There being no actions or recommendations indicated, it was Moved by District 1, seconded by District 2 and carried, that the following reports be accepted as information:

Publications  
Research and Injury  
American College of Sports Medicine  
American Corrective Therapy Association  
National Association for Girls and Women in Sports  
National Association of Collegiate Directors of Athletics  
National Football League Alumni  
National Head and Neck Injury Registry  
President Barton  
Legal Counsel  
"Who Speaks For Sports Medicine"  
President's Council on Physical Fitness and Sports

#### III. CAREER INFORMATION AND SERVICES:

Moved by District 7, seconded by District 1 and unanimously carried that this report be accepted as informational.

The report is as follows:

TO: Board of Directors  
FROM: Charles O. Demers  
DATE: April 13, 1984  
RE: Career Information & Services Committee Report

#### I. Committee Report

Publication of a relevant and factual brochure on the profession of athletic training is the main concern of the Committee. The "what" and "how" of athletic training continues to be a popular question of the athletically oriented students of secondary schools and a good number of college undergraduates searching for an area of specialization. The brochure is an attempt to inform these individuals as to the opportunities in our profession and to broadly describe the mechanics of this particular pursuit.

It is our responsibility to keep this publication updated and accurate. This objective is facilitated by ongoing coordination with the Professional Education and Certification Committees.

During the past year the NATA office has filled requests for approximately 20,000 brochures. We could double the distribution of the publication should we decide to initiate a mailing to the secondary school placement offices as we had done a number of years ago.

#### II. Committee Concerns

The Committee feels we presently have an attractive and effective publication. We will continue to make revisions and additions to the present format to reflect changes in

education requirements and certification procedures and to reveal achievements of the Association (i.e., professional affiliations).

I would like to ask the Board at this time: Should we consider seeking professional evaluation of our brochure? Could we possibly be better served by a change in the format?

The publication timetable prevents the implementation of any drastic overhaul in the 1984-85 printing. Should the Board recommend the evaluation mentioned, we would not be able to incorporate a new model until the 1985 printing.

#### IV. DRUG EDUCATION

Moved by District 10, seconded by District 5 and unanimously carried that there be a wider range of Drug Education programs incorporated into the national meetings beginning in 1985.

Moved by District 6, seconded by District 7 and unanimously carried to accept the report for informational purposes.

The report is as follows:

April 15, 1984

#### Report of Drug Education Committee

1. At the request of the Board of Directors, information was gathered regarding NCAA Resolution 163. This information was distributed to the Board members by April 15, 1984, as requested.
2. The latest Drug Education report, "Androgens and Anabolic Steroids" has been submitted to the Journal. A pre-publication copy has been distributed to Board members.
3. The next Drug Education Committee report will deal with drug testing.
4. No request for additional funds at this time.

Respectfully submitted

John Wells, Chairman

Please note new mailing address:

John Wells  
Athletic Department  
UNC-Asheville  
Asheville, NC 28804

TO: John Wells  
FROM: Scott Biron  
DATE: March 5, 1984  
RE: Phone conversation concerning NCAA Proposal #163 in 1984

I spoke with Eric Zemper, Research Coordinator at the NCAA Office. He informed me that he would forward a copy of proposal #163 which I will pass on to you. He gave me an explanation of what has been stated, saying that the PAC Ten made this proposal and that it is very vague. The vagueness surrounds whether all athletes should be tested, just athletes participating in NCAA championships, or a 25% sample of the population of the NCAA athletes should be tested for drug use. They are trying to clear up this vagueness because they have to put this on the floor before July 1, 1984.

A small breakdown of the financial situation that would be created if #163 is passed would look like this:

If all athletes had to be tested, it would cost approximately 50 million dollars to set the lab up and to do the first year of testing. It would then cost 20 million dollars for each year following. If just the NCAA champions were to be tested, it would cost approximately 6 million dollars to set the lab up and 2 million dollars for each year following. If just a 25% sample of the NCAA population was tested, the need for a lab would not be created. Testing per year would be 1/2 million dollars. The lab at UCLA would be utilized at this point for the testing.

Mr. Zemper also mentioned that the current budget for the NCAA is only 36 million dollars. Referring to that, I do not see where they can justify spending 50 million dollars to set the lab up and to do the drug testing. One of their biggest problems is that it is hard to test for testosterone and the only lab in the country set up to do that is the lab at UCLA. It looks as if they would like to get involved with using that particular lab.

I also tried to get some other drug information. He will forward as much as he can to me, possible setting up a literature mailing list. Anything dealing with drugs that comes by his desk, he will forward to me. This will create a channel for an NATA Drug Committee to pick up on the NCAA drug information just as quickly as it gets published or printed.

It sounds like the NCAA Drug Committee is aiming in one direction, that is dealing with Drug Education, recommending policies and setting up guidelines that the member institutions can use.

It would be nice if somehow there could be a trainer

involved on the NCAA Drug Education Committee. I have looked into this but they do not have a position open. They do not even have a trainer on the committee. The committee is made up of several doctors and student-athletes. Perhaps you and I could get involved at some level with their NCAA DEC and possibly create a better way to be involved with what is actually going on inside the NCAA DEC. It is inevitable that the athletic trainers are going to be involved in whatever they decide to do on the drug testing level. So it may not be a bad idea to get involved fairly soon so that we could be right on top of what is going on. The only way for someone to get involved is to change the by-laws from the appointing committee. John Taner, Head of the NCAAS and Ted Tow, Assistant Executive Director, should be contacted regarding this. I will go ahead and contact them to see if there is a possibility that you or I could get involved with this if you think this is a direction we should take.

#### No. 163 Resolution: Drug Testing

All divisions, common vote

"Whereas, the use of controlled substances and allegedly performance-enhancing drugs represents a danger to the health of students and a threat to the integrity of amateur sport;

"Now, Therefore, Be It Resolved, that the NCAA Executive Committee be directed to develop an ongoing program of drug testing to identify those students involved in intercollegiate athletics competition who have used either controlled or allegedly performance-enhancing drugs; and

"Be It Further Resolved, that when fully implemented, the program would include sanctions against those students who were found to have used prohibited drugs; and

"Be It Further Resolved, that the NCAA Executive Committee shall inform each member of the Association of all details of the proposed testing program, including a list of prohibited substances, before July 1, 1984; and

"Be It Finally Resolved that the NCAA Executive Committee present the proposed program and legislation necessary to implement it to the 1985 Convention."

Source: All 10 members of the Pacific-10 Conference.

#### V. INTERNATIONAL GAMES

Moved by District 7, seconded by District 6 and unanimously carried to accept this committee's written report for informational purposes.

#### VI. MEMBERSHIP

Following the presentation of several suggested membership changes concerning Associate Membership, it was moved by District 10, seconded by District 2 and carried that those proposed changes be accepted by the Board and that Mr. Bruce Melin, Chairman of the Membership Committee, prepare these changes in adequate form to again be brought before the Board at its mid-year meeting.

#### VII. MEMORIAL RESOLUTIONS

Moved by District 10, seconded by District 2 and unanimously carried that the report be accepted for informational purposes.

Moved by District 4, seconded by District 1 and carried, that Dennis Helwig, University of Wisconsin, be the new Chairman of this committee.

The National Office has been informed of the following deceased members during the past year:

Byron Bird, Oklahoma State University  
Robert Birnbaum, Rio Hondo Junior College, California

Joe Blankowitsch, Retired, Allentown, Pennsylvania

Edward Block, Baltimore Colts

Wallace Bock, Retired, Cleveland Indians

Tasha Bolton, Northwestern University

Bobby Brown, Houston, Texas

Jay Colville, Retired, Miami University, Ohio

Eugene Donnelly, Anaheim High School, California

Ronald Harris, St. Pauls School, New Hampshire

Blandford Jones, Atwater, California

William F.X. Linskey, Cambridge, Massachusetts

George "Doc" Nelson

James Nolan, St. Norberts College, Wisconsin

Edward O'Donnell, Retired, Yale University

Dan Olesевич, Ontario, Canada

Eugene Paskiet, Notre Dame University

Ed Reutinger, Oak Park, Illinois

Robert Spackman, Southern Illinois University

Larry Sutton, Clemson University

Charles "Doc" Turner, New York City, New York

Robert V. Wilson, El Toro, California

#### VIII. NATIONAL HIGH SCHOOL ATHLETIC COACHES ASSOCIATION

Moved by District 8, seconded by District 10 and carried, with District 5 voting to the negative, that the NATA cooperate and work with this group in any way that the two groups could cooperate.

#### IX. NATIONAL CONVENTION

Moved by District 1, seconded by District 2 and

carried to adopt the following proposal for site selections concerning National Conventions, this proposal to include three areas of the country delineated by District of the Association as follows: The Eastern portion of the country to be composed of Districts 1, 2, 3, and 9; the Central portion to include Districts 4, 5, and 6; and the Western portion to include Districts 7, 8 and 10; this change to become Policy 20 in relation to National Conventions. It is further understood that this would not change the present rotation policy and that this change would not go into effect until 1989.

The Board listened to a presentation from a representative of the Houston Convention Bureau concerning the advantages and accommodations for the Association holding future conventions at Houston.

It was moved by District 9, seconded by District 3 and carried that the Convention Committee, rather than the Program Committee, will be responsible for the planning, coordination and receive the credit for the pre-convention workshops.

Moved by District 6, seconded by District 8 and carried that Mr. Hoover's recommendations for the 1988 convention to be held at Washington, D.C., the 1989 convention at Fort Worth, the 1990 convention at Indianapolis, the 1991 convention at Houston and the 1992 convention at San Diego, with suggested back-up sites and with arrangements to be made by the Fegusy Travel Agency, be approved.

Moved by District 1, seconded by District 3 and unanimously carried that Mr. Hoover and his entire committee be commended for their excellent job done concerning the Nashville Convention.

#### X. STANDARDS OF PRACTICE

Attention of the Board was called to a Standards of Practice document written by Mr. Jack Baynes and Mr. Paul Grace. Following a brief discussion as to the merits and necessity of this document, it was the general consensus of the Board that the Directors discuss this with their various districts for further report and consideration at a subsequent Board meeting.

#### XI. LIAISON ACTIVITIES REPORT FORM

Following a brief discussion concerning the merits of the establishment of a liaison activities report form to be completed by NATA liaison representatives to the various allied organizations, it was moved by District 3, seconded by District 10 and unanimously carried to accept the NATA Liaison Activities Report Form as a document to be given to all liaison representatives, to be submitted to the Board at least six weeks before the annual meeting for the Board's use in evaluating future liaison expenditures.

#### XII. JOB DESCRIPTION FOR EXECUTIVE DIRECTOR

As a matter of information, Mr. Barton called attention to the formation of a committee to undertake the formation of a job description for an Executive Director, he suggesting that the Directors make this information known to their respective districts and if there were any strong feelings on the part of the individual members, that they communicate this to the staff for consideration of this committee.

#### XIII. ELECTION OF VICE-PRESIDENT

Mr. Jack Baynes, by secret ballot election, was declared to be elected NATA Vice-President for the ensuing term.

#### XIV. WORLD SPORTS AND FITNESS EXHIBITION

Moved by District 5, seconded by District 1 and carried that the NATA permanent display be sent to the exhibition to be held at New Orleans, provided that entry was still possible and that there could be procured sufficient members to man the exhibit at no cost to the Association other than meals.

#### XV. ATHLETIC TRAINER OF THE YEAR

Moved by District 3, seconded by District 5 and carried that Mr. Roger Dennis head up a committee to prepare a criteria for the Trainer of the Year Award, a report to be made back to the Board at its winter Board meeting in 1985.

#### XVI. LOGO REDESIGN

The Board reviewed several redesigned NATA logos, the Board not being favorably impressed with the designs submitted, it was moved by District 4, seconded by District 9 and carried, that the logos as prepared be referred back to the designers with the request that new presentations be submitted by January 15th.

#### XVII. AMERICAN ACADEMY OF FAMILY PHYSICIANS

There being no recommendations made in the report, it was moved by District 9, seconded by District 6 and carried that the report be accepted for informational purposes.

The report is as follows:

TO: Dr. Robert Barton, President NATA

FROM: R.F. Malacrea

DATE: April 10, 1984

RE: Liaison with the Committee on Sports Medicine of the American Academy of Pediatrics

## Annual Report

I wish to reintroduce to the Board the questions posed to your liaison representative regarding the proposition to invite A.A.P. liaison activity at the District level. We should refer to the Mid-Year Report of January 4, 1984 and to the separate communication to President Barton on that same date. (see attachments)

Dr. Thomas Shaffer (Chairman of the Committee on Sports Medicine) will be in Nashville for the meetings of the Joint Commission and would be more than willing to come before the Board to clarify the issues and assist in arriving at a resolution and plan of implementation.

The issue of Down's Syndrome and the incidence of atlanto-axial dislocation was outlined in the Mid-Year Report. At this point the Committee has arrived at agreement, after exhaustive consultation, on a statement that should be approved at the Spring meeting. This information should be available to all athletic trainers engaged in the care of the disabled or sport for the disabled. It would seem that the POTPOURRI section of the Journal would be an appropriate place for a reference or abstract of this nature. A draft of the document to be presented to the Committee is enclosed.

The statement regarding boxing as a sport is still being developed and will probably be presented to the Committee at the Spring meeting. The tone of the drafted material and direction of the discussions would seem to indicate that the statement will take a strong stand against boxing as a sport for the youth and adolescent. Dr. Eugene Luckstead (Des Moines, Iowa) is responsible for drafting the statement.

The Spring meeting of the Committee will be held in Chicago a few weeks after the filing of this report. The minutes of that meeting will be incorporated into the Mid-Year Report for 1985.

### XVIII. AMERICAN COLLEGE HEALTH ASSOCIATION:

There being no recommendations presented, it was moved by District 6, seconded by District 10 and carried that the report be accepted for information.

### XIX. AMERICAN ORTHOPAEDIC SOCIETY FOR SPORTS MEDICINE:

There being no recommendations presented, it was moved by District 3, seconded by District 10 and carried that the report be accepted for informational purposes.

The report is as follows:

#### MEMORANDUM

TO: Board of Directors, NATA  
FROM: Joe Gieck, Liaison, AOSSM  
RE: 1984 Interim Meeting  
DATE: February 22, 1984

The American Orthopaedic Society for Sports Medicine met in Atlanta February 7-9, 1984. Dr. Robert Leach is the current president.

Research papers and symposium presentations on a wide variety of orthopaedic topics were given. There were approximately 1100 people in attendance for the meeting.

Of interest to the NATA was:

1. Bill Linskey was named to receive the AOSSM Distinguished Service Award for Athletic Training for 1984.
2. The AOSSM has undertaken the presentation of the NATA pre-convention symposium.
3. The AOSSM and NATA are working together toward the World Congress of Sports Medicine in 1985.
4. The book on sports medicine they have been working on for athletic trainers should be ready by the end of the year.

This group is most receptive to all ideas presented to them by the NATA and is one of our closest liaisons, as is shown by their continued \$2,000 support yearly in conjunction with the Distinguished Service Award.

### XX. N.O.C.S.A.E.:

There being no recommendations presented, it was moved by District 10, seconded by District 2 and carried that the correspondence received be accepted for informational purposes.

### XXI. EXECUTIVE DIRECTOR'S REAPPOINTMENT:

Moved by District 6, seconded by District 5 and unanimously carried that Mr. Otho Davis be reappointed as Executive Director.

### XXII. DISTRICT REPORTS:

It was moved by District 2 that members of NATA curriculum programs or internship programs who are non-members of the National Association be allowed to attend the convention as students at a reduced fee. The motion was declared dead for lack of a second.

It was moved by District 4, seconded by District 10 and carried that the policy concerning Board travel be a per diem of \$80 per day, plus coach class airfare to and from meetings. A vote on the motion indicated Districts 1, 4, 5, 6, 7, 9 and 10 as being in favor; Districts 3 and 8 voting in the negative and District 2 abstaining.

the Chairman declaring the motion as having been carried.

It was moved by District 4, seconded by District 7 and carried that the By-Laws be changed to delete the University of Colorado from District 5 and add it to District 7.

### XXIII. AUDIO VISUAL AIDS:

It was moved by District 9, seconded by District 10 and carried that the report be accepted.

### XXIV. GRANTS AND SCHOLARSHIPS:

Moved by District 9, seconded by District 4 and carried that the committee be asked to reevaluate the criteria used in selecting the scholarship award winners and enter a report by the mid-year meeting of the Board.

Moved by District 8, seconded by District 1, that a person can no longer be awarded a scholarship two years in a row. A vote on the motion indicated Districts 4, 5, 6, 7, 8 and 10 as being in favor and Districts 1, 2, 3 and 9 being in opposition.

Moved by District 4, seconded by District 8, and carried, that student athletic trainers applying for NATA scholarships must be student members for at least one year prior to submission of their applications.

Following an appearance and discussion with Mr. Frank George, it was moved by District 4, seconded by District 5 and unanimously carried that Mr. Frank George be approved as Chairman of the Grants and Scholarships Committee to succeed Mr. William E. Newell who retired.

### XXV. PLACEMENT COMMITTEE:

Moved by District 4, seconded by District 1 and unanimously carried, that the Board approve Mr. Wayne Vaupeal as the new District 4 representative to the committee.

Moved by District 10, seconded by District 9 and carried, that the notices of job vacancies being currently sent to the District Representatives, also be sent to the District Secretaries and Board Members as well.

Moved by District 6, seconded by District 1, and carried, that the report of the Placement Committee be accepted.

### XXVI. ETHICS COMMITTEE:

Moved by District 5, seconded by District 8 and unanimously carried, that the Ethics Committee, in reviewing the ethics consider consultations of training programs by individuals with the consideration of developing an Evaluation Committee similar to the curriculum evaluation teams.

Moved by District 5, seconded by District 6 and unanimously carried, that the report of the Ethics Committee be accepted.

### XXVII. HONOR AWARDS:

Moved by District 9, seconded by District 10 and carried, that the report of this committee be accepted.

Moved by District 1, seconded by District 10 and unanimously carried, that there be created a Certificate of Service Award for presentation to individuals having to leave the NATA because of illness or other extenuating circumstances after a minimum of fifteen years of service.

### XXVIII. JOURNAL COMMITTEE:

Moved by District 5, seconded by District 7 and unanimously carried, that the present procedure of the printing of the picture of a deceased member in the Journal be retained.

Moved by District 5, seconded by District 8 and unanimously carried, that the members of the organization be requested to furnish a five by seven black and white glossy picture to be put in that individual's file for use in connection with publicity concerning possible achievements reached by the individual.

Moved by District 10, seconded by District 6 and unanimously carried, that the report as presented by the Journal Committee be accepted.

### XXIX. WORKSHOP SYMPOSIUM PROPOSAL:

The Board reviewed the Workshop/Symposium proposal submitted, following which it was moved by District 6, seconded by District 10 and carried that the report be received for further study by the Board with the reaction of the Board members to this report to be further presented at the mid-year Board meeting.

### XXX. N.C.H.C.A.:

Moved by District 1, seconded by District 6 and unanimously carried that the report be accepted as information.

### XXXI. PROFESSIONAL EDUCATION COMMITTEE:

Moved by District 6, seconded by District 4 and unanimously carried that the April, 1984 report of the committee be approved.

Moved by District 10, seconded by District 2 and carried, that the June, 1984 revision of the Manual, Guidelines for Development and Implementation of

NATA Approved Graduate Athletic Training Education Programs be approved.

Moved by District 6, seconded by District 5 and carried that NATA approval of the athletic training education programs (curriculums) at the following institutions be granted for an additional five-year period, from June 1984, to June, 1989: Bowling Green University; Central Michigan University; Eastern Illinois University; Grand Valley State College; University of Illinois; Southwest Missouri State University; University of Iowa; Texas Christian University; California State University (Fullerton) and Oregon State University.

Moved by District 6, seconded by District 7 and carried, that the athletic training program at Washington State University be approved for an additional five-year period, from June, 1984 to June, 1989.

Moved by District 10, seconded by District 9 and carried, that the following schools be put on probation for the reasons cited.

1. University of Vermont — Sections II, F, 1; II, G, 2, c; II, G, 3.
2. Appalachian State University — Sections II, B, 4; II, C, 1, c; D, 3; II, I.
3. Ball State University — Sections II, C, 1, a; II, C, 1, c.
4. University of North Dakota — Sections II, H; II, G, 2; II, I.
5. Slippery Rock State University — Sections II, C, 1, c; II, I.

Moved by District 4, seconded by District 1 and carried that the probationary status of the following athletic training education programs (curriculums) be removed effective June, 1984, due to demonstrated compliance with NATA Guidelines: Ithaca College; Ohio University; Indiana University (Graduate) and Mars Hill.

Moved by District 4, seconded by District 5 and carried that NATA initial approval be granted to the athletic training education programs at the following institutions for a five-year period from June, 1984 to June, 1989: Marietta College and Gustavus Adolphus.

Moved by District 4, seconded by District 6 and carried, that action on the proposal by Marshall University for an NATA approved undergraduate athletic training education program (curriculum) be tabled until the June, 1985, PEC meeting.

Moved by District 6, seconded by District 7 and carried, that NATA approval of the undergraduate athletic training education program (curriculum) at Louisiana State University be withdrawn effective June, 1984, due to failure to bring their program into compliance with Section I, A, Section II, H and Section II, I of the undergraduate Guidelines, 1980 edition, as required by the end of their June, 1983 to June, 1984, probation period.

Moved by District 2, seconded by District 3 and carried, that the following individuals be appointed to the Professional Education Committee for an additional one-year period, effective June, 1984: Gerald Bell, L.F. "Tow" Diehm; Dan Foster; Janet Guilfoyle; Pete Koehneke; David Leigh; Ken Murray; Lou Ostering; David H. Perrin; Bill Prentice; Jack Redgren and Glen Snow.

Moved by District 1, seconded by District 2 and carried, that effective June, 1984, the Professional Education Committee assume the responsibility for approval of "allied settings" for use by athletic training intern students in partial completion (maximum 200 hours) of their 1800 hour internship requirements.

Moved by District 6, seconded by District 5 and carried, that effective June, 1984, the Distinguished Athletic Training Educator Award be titled the "Sayers 'Bud' Miller Distinguished Athletic Training Educator Award."

Moved by District 10 that individuals enrolled in colleges and universities as full-time graduate students be eligible for student membership in the NATA. The motion was declared dead for lack of a second.

Moved by District 5, seconded by District 3 and carried that in the future the state of any university included in the PEC report be identified unless the title of the university makes that evident, such as the University of Michigan.

### XXXII. CERTIFICATION:

Moved by District 3, seconded by District 6 and carried, that the report as presented by Mr. Grace be accepted as information.

Moved by District 4, seconded by District 1 and carried, that the following recommendations as submitted by Mr. Grace be approved.

1. That the Board of Directors approve the nomination of Bob Grams as the Certification Committee Representative from District 10.
2. That the Board of Directors approve the nomination of Diane Murphy as the Certification Committee Representative from District 1.
3. That the Board of Directors approve the following members for reappointment to the Certification Com-

mittee: Steve Bair, Ned Ehrlich, Edward Matthews, Steve Risinger, Richard Ray, Harold Bennett, Ben Davidson and Al Green.

### XXXIII. LICENSURE:

Moved by District 2, seconded by District 10 and carried to change the Licensure Committee By-Laws to conform to the same membership appointment procedures as required of other committees.

Moved by District 6, seconded by District 8 and carried, that this report be accepted for informational purposes.

TO: Nata Board of Directors  
FROM: Robert Behnke, Licensure Committee  
RE: Spring, 1984 Committee Report  
DATE: April 1, 1984

As has been my practice in the past, I am enclosing copies of each committee member's spring report so that the Directors who have appointed these individuals can personally observe the work their appointees are doing. Please consider these committee member reports as the *Spring, 1984 Licensure Committee Update*.

The second enclosure is the concensus of those committee members who submitted suggestions for proposed revisions of the *NATA Model Act for Licensure of Athletic Trainers*. Several committee members felt such regulatory legislation is strictly a state issue and no universal model was necessary or felt the current *Model Act* is written in a manner which provides a broad interpretation allowing individual states to adapt the *Model Act* to their individual situations. The revisions are presented by each committee member allowing the NATA Board of Directors to discuss and consider adoption of any, all, or none of the proposed revisions. Since the document is the property of the NATA, the Licensure Committee felt final revisions were the prerogative of the Board of Directors.

The third enclosure is the letter of resignation of the Committee Chairperson and District #4 representative on the committee.

### ACTION FOR BOARD APPROVAL:

1. Spring, 1984 Committee Update
2. Discussion of proposed revisions to the *Model Act* and the re-writing of the *Model Act* including any approved revisions
3. Acceptance of the resignation of the Committee Chair and District #4 representative to the Committee

### LICENSURE CHAIRPERSON'S COMMENTS, SUMMARY, & SUGGESTIONS

As the Board of Directors can well see from the committee member's suggestions, there seems to be no one issue which screams for approval. The time, effort, and in many cases money that committee members have expended in their respective districts and states seems to indicate the *NATA Model Act* has served well as what it was intended to be: a *model*.

The Chair has consulted many lawyers, legislators, lobbyists, and legislative aides over the past twelve years during efforts to seek legislation in both Illinois and Indiana. The first version of the *NATA Model Act* was the combined efforts of an Illinois legislator, senator, an attorney specializing in regulatory legislation, and three athletic trainers. The one constant throughout the effort was to continually remember to write "the broadest type of legislation to allow for refinement at the state level." In other words, let the model be broad and then let the state refine it to suit its own situation.

The 1979 revision of the *Model Act* was accomplished from the results of the NATA-APTA Joint Task Force on Licensure and the experiences of committee members from their respective states. Again, emphasis was placed on writing a model which was broad enough in definition to cover all aspects of athletic training, thereby providing the states the opportunity to revise to fit their particular situations.

The Chair does not believe any *NATA Model Act* should suggest any limitation of where an athletic trainer can perform or function. Our Model can provide a framework to suggest who can practice athletic training, but upon the advice of attorneys, I have been led to believe if we limit athletic trainers to where they can practice, this could subject any proposed legislation to litigation before ever being enacted.

Based upon what has been learned from others' experiences, I believe the *NATA Model Act* should:

- merely define an athletic trainer as "one who possesses an established level of competency in the knowledge and skills defined by the NATA Professional Education Committee's Competencies."
- no attempt to be made to establish where an athletic trainer practices in the *Model Act*. If individual states choose to restrict the practice of an athletic trainer to certain settings, let these states be ready to defend their action. For the

NATA to suggest this would place the organization in a position where it is suggesting something which quite likely will lead to legal difficulties for those following the suggestion.

— consider a very broad definition of "athlete" if it is felt necessary to include such a suggestion at all. Should we consider an "athlete" as someone participating in what our society calls "sport"? How can we limit this to "organized sports" when a sprained ankle incurred while playing recreational tennis is nor more or less an athletic injury than an ankle sprained while playing basketball for "an educational institution or professional athletic organization?"

Current problems around the country seem not to be in the areas of definition as much as with two other problems: "grandfathering" and "reciprocity."

With "grandfathering" I believe the *NATA Model Act* must not try to limit such action. Licensing everyone currently engaged seems to be the most liberal approach. Those states wishing to "toughen up" the initial group to be licensed have the obvious right to do so, but this is not appropriate in a *Model Act*.

Reciprocity should be simply handled in the *Model Act* by suggesting those states with similar requirements accept individuals licensed in those states. If we can promote the NATA Certification process as the universal licensing qualification, reciprocity can become a very simple process.

In summary, the Board should avoid having its *Model Act* state WHERE one can practice athletic training. Also, serious consideration should be given to avoiding a definition of "athlete." This could be also interpreted as "limiting" the practice of athletic training. Let us push to have the NATA establish a "model" that defines "WHO" an athletic trainer is and let the states, if they wish, determine "WHERE" and upon "WHOM" an athletic trainer may practice. The consensus of the NATA Licensure Committee appears to be just this! For the NATA to suggest "WHERE" and upon "WHOM" an athletic trainer may practice would result in too restrictive legislation in some states, conflict with existing legislation in other states, and possibly place colleagues in litigation with other professions in other states.

The Board can see from the committee's responses, asking the committee to define "Athletic Trainer," "Athletic Training," "Athlete," "WHERE" and upon "WHOM" it is performed is an extremely difficult, if not impossible, task. Different geographical areas provide either very "permissive" or very "restrictive" interpretations of legal definitions. This really again indicates how much regulatory legislation is a "STATE" issue.

The current *Model Act* has served the membership well as is reflected by how similar the eleven states who have enacted legislation have patterned their legislation after the model. The Board now has the individual committee member's suggestions. Please consider them. If the Board feels specific revisions are warranted, please let the committee know exactly what they are and the *Model Act* can be revised. If the Board can live with the current *Model Act*, fine. If not, please tell the Licensure Committee what revisions you now desire (in light of the committee's recommendations) and the *Model Act* will be re-written according to the Board's recommendations. If the Board approves the *Model Act*, it is something we all live with and support as NATA members. This is not a statement of the Committee, it is a statement supported by the entire membership through its elected officials.

### MODEL ACT REVISIONS

#### Committee Member Suggestions:

District #1: John Cottone, Castleton College, Castleton, Vermont 05735  
(802) 468-5611

John has recently joined the Committee and has not received committee files from the previous District #1 committee member, Lou DiNitto. John writes that Jack Baynes is assisting him find Mr. DiNitto and the files.

District #2: John Sciera, S.U.N.Y. at Cortland, Cortland, New York 13045  
(607) 7534962

It has been reported John has been ill and away from his position during the 1983-1984 school year. Mr. Sciera has answered none of the Chair's letters requesting revisions of the Model Act.

District #3: John J. Bush, University of Maryland, College Park, Maryland 20740  
(301) 454-4819

Mr. Bush suggests two possible revisions for consideration:

Change Section 2 to read:

as used in this Act (1) "Athletic Trainer"

means a person with the specific qualifications set forth in Section (10) of this Act, who, upon the direction of his team physician and/or consulting physician, carries out the practice of prevention and/or physical reconditioning of injuries incurred by only those athletes participating in the athletic program being conducted by the educational institution, professional athletic organization, or Board sanctioned amateur athletic organization or event employing the Athletic Trainer.

(Chairperson's note: Mr. Bush does not limit where an athletic trainer may practice, only upon whom he may practice. Any State "Board" would have to be ready to continually review requests to "sanction" amateur athletic organizations and/or events. Questions remaining: How do you define "athlete" and is an athletic trainer in the clinical setting "not" practicing "athletic training" under this definition?)

Change Section 10 to read:

an applicant for an Athletic Trainer license must possess the following qualifications: (1) be certified by the National Athletic Trainers Association, (2) and submit proof of active engagement as an Athletic Trainer in the State as set forth in Section (18) of this act.

(Chairperson's note: Some states will not allow a national organization, particularly a private one, to be written into state statutes. While the Committee and the NATA hope states will utilize the NATA Certification process as their credential, it may not be allowed to be actually written into some state's legislation. Also, proof of active engagement, while desirable, will be a highly controversial subject. Many states are currently having difficulty with such "grandfather clauses.")

District #4: Robert Behnke, Indiana State University, Terre Haute, Indiana 47809  
(812) 232-6311 ext. 5631

Comments and suggestions appear in the summary part of this report.

District #5: Ed Crowley, University of Iowa, Iowa City, Iowa 52242  
(319) 353-4096

Mr. Crowley's complete revision follows on the next six pages. Mr. Crowley has done an excellent job and has been one of the hardest working committee members, particularly on the task of revising the *NATA Model Act*.

Please note Mr. Crowley's suggestions in the following areas:

Section 2. This definition of "Athletic Trainer" allows much leeway for practice and essentially says what an athletic trainer actually does. Part (2) of Section 2 defines "athlete" and this might be a more acceptable way to "limit" the practice of an athletic trainer than to attempt to define "where" an athletic trainer may practice.

Section 18. While some may consider this "grandfather clause" too broad, most states seem to readily accept this type of wording. This may permit the regulation of individuals without credentials of the "NATA-Certified" athletic trainer, once this section is terminated through use of an expiration date, the fully qualified athletic trainer will be the only one being regulated. Competition from the truly qualified individual will eventually eliminate anyone who initially was qualified only because they were "actively employed" at the time the legislation was passed. Also, if rules and regulations are promulgated which require some form of "continuing education" for renewal, the unqualified will either become qualified, or fall by the wayside.

(Chairperson's note: A phone conversation 3-29-84 with District #5 Director

Frank Randall revealed Mr. Randall is replacing Mr. Crowley on the NATA Licensure Committee with Barb Moran, South Dakota State University. The Chair would like to take this opportunity to thank Mr. Crowley for all of his efforts while on the Licensure Committee. Mr. Crowley's reports were the most extensive, his efforts within his District for licensure has resulted in four states passing legislation, and his participation in committee projects and discussions during committee meetings have been extensive and of the highest professional level. Thanks Ed, your efforts will be missed!

District #6: Spanky Stephens, University of Texas, Austin, Texas 78712 (512) 471-5513

"Athletic Trainer" means a person with specific qualifications, as set forth in Section 10 of this Act, who, upon the advice and consent of his team physician or physicians, carries out the practice of prevention and/or physical rehabilitation of injuries incurred by athletes. To carry out these functions the Athletic Trainer is authorized to use physical modalities such as heat, light, sound, cold, electricity, or mechanical devices related to rehabilitation and treatment."

Mr. Stephens states "on where the athletic trainer 'does it', as long as he or she works under the advice and consent of a physician it then takes the legalities out of the athletic trainer's hands into the physician's hands who sends patients to the athletic trainer." Mr. Stephens states "I feel very strongly that an athletic trainer who works in a private clinic should work with a physical therapist. This way all avenues are covered as long as the athletic trainer works only on athletes. The term 'athletes' is very large and covers from the trained and skilled athlete to those people who are working out for their health."

Mr. Stephens feels that Section 10 regarding clinical experience needs to be revised to require 1600 hours of experience over a minimum of a three year period. The reason for this is that there is a definite need for the athletic trainer to have more clinical experience. There is no need to rush the student trainer out into the professional world without the clinical experience that Mr. Stephens feels is necessary.

District #7: Steve Antonopoulos, 5700 Logan Street, Denver, Colorado 80216 (313) 296-1982 Denver Broncos Football Club

Mr. Antonopoulos suggests the following definitions for "athlete":

- I. Athlete means a person who participates in any extracurricular athletic event sanctioned by public or private school or institution of higher education, professional athletic organization or other organized sporting activities.
- II. Athlete means a person who participates in sanctioned athletic events.
- III. Athlete means a person who participates in athletics in a public or private school or institution of higher education or professional athletic organization.
- IV. Athlete means a person who participates in extracurricular sports programs authorized by a public or private school and an institution of higher education or professional athletic organization.

District #8: Jerry Lewis, Antelope Valley College, Lancaster, California 93534 (805) 943-3241

Mr. Lewis's letter of March 15, 1984 (See Committee Update Report) indicates he sent his "rewritten model legislation last week." As of the filing of this report (April 1, 1984) the chair had not received the above mentioned revision.

District #9: Jim Murphy, McNeese State University, Lake Charles, Louisiana 70609 (318) 477-2520

Mr. Murphy has stated previously that he believes the *Model Act* is satisfactory and any changes or revisions of it should be strictly a matter for each individual state group.

District #10: Jim Whitesel, 5305 Lake Washington Blvd., Kirkland, Washington 98033 (206) 827-9777 Seattle Seahawks Football Club

Mr. Whitesel believes that "each state has to sit down and test the water so to speak, form an ad hoc committee with therapists and concerned physicians and work together with the model legislation and produce something that works. There is nothing magic about sitting down and negotiating workable legislation, however, the hard part is passing legislation. Personally, I think this is a 'states' right' type of question. Maybe licensure is not the right thing for some states as they are approaching this problem presently. NATA Guidelines are important, but should be established without fences so that appropriate legislation can be molded to a particular state's needs."

#### XXXIV. PUBLIC RELATIONS:

The Board listened to proposals concerning public relations programs for the Association from representatives from Grody/Tellem Communications, Inc. and from Carl Byoir & Associates. It was moved by District 6, seconded by District 5 and unanimously carried that Mr. McIntyre contact the three companies who had made public relations proposals to the Board and have each of them present a list of three organizations of their clientele, similar in size to the NATA, so that the NATA might, through its own initiatives, check the feelings of these companies as to the services they had received from these organizations and that this report be rendered to the mid-year Board meeting.

It was moved by District 1, seconded by District 8 and carried, that the President serve as liaison to public relations firms having presented public relations proposals to the Board until a final decision is made by the Board.

#### XXXV. BY-LAWS APPROVALS:

It was moved by District 1, seconded by District 6 and carried, with District 3 abstaining, that the By-Laws concerning Article 30, Sections 2,3,4 and 5, as amended, be approved.

#### XXXVI. CONTINUING EDUCATION:

It was moved by District 8, seconded by District 6 and carried, that commencing in 1985, concerning continuing education, that Associate Members will be handled in the same manner as Certified Members.

Moved by District 1, seconded by District 4 and carried, that the two-year probation period be removed from the Continuing Education requirements. All members would be required to receive the six units in a three-year period beginning with the 1985-1987 reporting period.

Moved by District 6, seconded by District 10 and carried, that the Continuing Education Committee rewrite the appeals procedure with specific guidelines for the appeals, with a report to be submitted in June of 1985.

Moved by District 7, seconded by District 8 and carried, that Mr. George W. Goodridge, Assistant Athletic Trainer of Northern Arizona University, serve as District 7 representative to replace Ms. Patty Davenport.

#### XXXVII. FINANCE REPORT:

Mr. McIntyre presented a detailed analysis of the June 1984 Annual Financial report following which it was moved by District 10, seconded by District 4 and carried, that the report as presented be accepted.

Moved by District 8, seconded by District 2 and carried that Mr. McIntyre plan to incorporate into the budget planning the money that it would require to begin a public relations program.

#### XXXVIII. LIABILITY INSURANCE FOR DIRECTORS:

Following the statement that efforts were still in process relative to the provision of liability insurance for the Board and National Officers and that as soon as the proper package had been procured, that there was a desire to proceed at that point, it was moved by District 1, seconded by District 4 and carried that the Executive Director to be directed to pursue a liability insurance package to include the Board of Directors and National Officers.

#### XXXIX. AMERICAN ACADEMY OF PEDIATRICS:

Dr. Tom Shaeffer, representing the American Academy, stated the desire of the Academy to cooperate with the NATA in the meaningful and involved way,

then asking for the comments of the Board concerning wording used in relation to the certified athletic trainer in a document being written by the Academy entitled, "Self-Appraised Check List for Health Supervision."

Following brief comments and suggestions offered by the Board, it was the consensus that the President would further communicate with Dr. Shaeffer in terms of wording he would like used concerning the athletic trainer with regard to this proposed check list.

It was moved by District 5, seconded by District 6 and carried, that the joint reports of Mr. Malacrea and Dr. Shaeffer concerning the Academy's activities be approved.

President Barton reported on a subsequent conversation with Dr. Shaeffer concerning his interest in further continuing relations with the NATA on a state by state and district by district procedure. Mr. Barton then further indicating Dr. Shaeffer's reiteration of the policy of his Academy concerning their requirements for liaison with various groups.

It was moved by District 3, seconded by District 10 and unanimously carried that the Academy be requested to strike the term "Student Trainer Aid" from their survey questionnaire and that the NATA continue its liaison with this group on the basis of this group's aid in the matter of public relations for the NATA.

#### XL. AMERICAN PHYSICAL THERAPY ASSOCIATION:

There being no recommendations presented, it was moved by District 9, seconded by District 4 and carried that the report be accepted for informational purposes.

#### XLI. NATIONAL ASSOCIATION OF INTERCOLLEGIATE ATHLETICS:

There being no recommendations presented, it was moved by District 6, seconded by District 10 and carried that the report be accepted for informational purposes.

#### XLII. N.C.A.A. FOOTBALL RULES COMMITTEE:

There being no recommendations presented, it was moved by District 1, seconded by District 7 and carried, that the report be accepted for informational purposes.

#### XLIII. RESEARCH AND INJURY COMMITTEE:

It was moved by District 1, seconded by District 2 and carried to accept the following report.

Research and Injury Committee  
Report  
June, 1984

The Research and Injury Committee has added three new members during 1983-84, Bradley Sherman, Russ Cagle and Gil Etheridge. These individuals will make the task of preparing Free Communication Programs more effective and allow for experience of projection. Their expertise in the area of athletic training research will be very beneficial as our Outstanding Research Award Program grows.

The Outstanding Research Program is well underway. Bob Moore has received several completed research projects and they are in the final review by Committee members. Once their review is complete the top six projects will be sent to the Final Selection Committee for review. Their recommendation will be returned to Bob Moore and he will announce the winners. We would like to make the presentation of the Award during the Annual Business Meeting. We feel this is a more appropriate place than the Awards Banquet. If the Board feels differently, we are open to suggestion.

Over the past years we have had excellent response to our programs. Thus I feel our smaller response for Free Communication was down this year due to the delays in distributing the Call for Abstracts. This year's delays were due to re-organized budgets for the Committee. The cost of distributing the Call for Abstracts and the Research Award information was added to the Committee budget and the proposed budget was insufficient to cover expenses. My thanks to the Board for providing the additional funds for the projects. I feel that the overall response to our Free Communication Session at the Convention has been steadily increasing and I would like to be able to continue to develop more enthusiasm for research among our members.

On Sunday, June 10th our Committee will have its Annual Meeting. During that period we will put the finishing touches on the Outstanding Research Project as well as discuss future funding. I know the new Committee will provide positive ideas for growth. We will discuss future direction for the Committee and I will prepare an addendum to this report after the June 10th meeting.

Thank you for your support.  
Respectfully submitted,  
John W. Powell, Chairman  
Research and Injury Committee

XLIV. There being no further business, the Board Meeting was adjourned.

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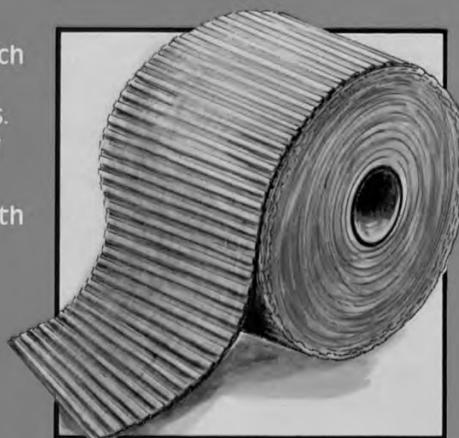
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## EDITOR'S COMMENTS from page 247

and calls and asks for her Daddy, I'll talk — those are precious moments.

Last week, in our local paper, was a cartoon that summed up a lot our family stress problems.

The first frame shows Dagwood coming home from work. Blondie is standing at the stove. Dagwood says, "What's for dinner?" Blondie replies, "Applesauce, peas, and baked potatoes."

The second frame shows Dagwood saying, "You forgot the most important thing." Blondie replies, "So did you."

The third panel shows Dagwood taking Blondie into his arms, sweeping her off her feet and planting a real huge kiss on her. Blondie says, "Pork roast."

The fourth panel shows Dagwood hanging up his coat and he says, "That's communication."

Communication is the key to successful stress management in the home — two people living and working in tune with each other.

A few things that I have learned:

1. Give her a call — at least once in the day — to show that you love her and that you are thinking about her.
2. Have some common point in the family structure that everyone can rally around. Something everyone enjoys doing. It may be church activities, Johnny's little league baseball or Susie's ballet lessons.
3. Each night, especially in the time when the hours are long, I try to call home before leaving the office. This lets Barbara know I am on the way and if there is anything I need to pick up like bread, milk, eggs, etc.,

I can do it.

4. Simply ask "Is there anything you want me to do?" This is a form of communication. I don't mind being asked to do something because I may never notice it needs done. I don't mind being given a "Honey Do" list. Honey-do this; Honey-do that. PROGRESS is lines through a list!

5. Marriage is a 50-50 situation. If both partners agree to give up 50% and allow the other to take 50%, then a lot of stressful situations will be cured.

Personally, I don't hunt, fish, play golf or play tennis. I basically have no hobbies outside the home. My personal belief is if my family is going to sacrifice so I can enjoy my profession, then I can sacrifice any outside interest to be at home with them. I do have a little shop and I enjoy making sawdust out of wood — but if my family needs me, I am there.

Barbara, she is super! She is supportive of my profession. She is understanding of my profession. But most important, she understands *me*. She is the one that makes our marriage tick and all success I have enjoyed belongs mostly to her.

Thanks —

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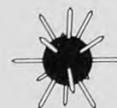
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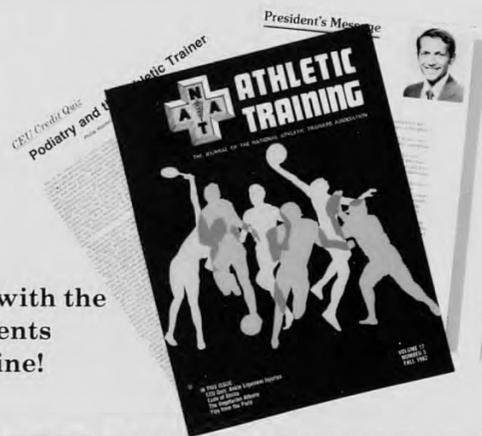
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# NATA Professional Education Committee

## SAYERS "BUD" MILLER

### DISTINGUISHED ATHLETIC TRAINING

### EDUCATOR AWARD

Nominations are being received for the annual **Distinguished Athletic Training Educator Award** to be presented by the NATA Professional Education Committee in recognition of excellence in athletic training education:

#### I. Qualifications

To be nominated for the award, educators must have the following qualifications:

1. Current member of the National Athletic Trainers Association, Inc.
2. Member of a teaching faculty in the area of athletic training/sports medicine for at least ten (10) years.
3. Minimum of ten years of outstanding service in the area of athletic training education and research.
4. Recognized excellence in the field of athletic training education.
5. Outstanding service in district, state or national professional organizations concerned primarily with the field of athletic training.
6. Evidence of quality in publications and public speaking on topics in athletic training/sports medicine.

#### II. Nomination Procedures

Nominations may come from any certified athletic trainer, athletic training student, or faculty member of a college or university. The nominator must submit the following materials.

1. the candidate's current personal resume which includes:
  - a. academic background
  - b. employment background
  - c. published research and other publications (journal articles, books, etc.)
  - d. course work taught (during past five years)
  - e. classroom teaching innovations
  - f. course work/curriculums developed
  - g. professional memberships
  - h. positions on state, district, or national level of the National Athletic Trainers Association, Inc.
  - i. positions on state, district, or national level of related sports medicine professional organizations
  - j. consultant work
  - k. speaking engagements on community, state, regional, and national levels
  - l. community service
  - m. college or university service (i.e. committee involvement, thesis advising, etc.)
  - n. any other pertinent materials
2. A minimum of three letters (additional letters may be submitted) from professional colleagues, administrators, or students providing detailed rationale in support of the candidate's nomination.

Nominations including the above materials should be sent to the Professional Education Committee Project Director, Honors and Award, and must be received by **March 1, 1985**. Presentation of the award will be made to the recipient at the 1985 NATA Annual Meeting and Clinical Symposium in San Antonio, Texas. Send nominations to:

Ken Murray  
Athletic Department  
Texas Tech University  
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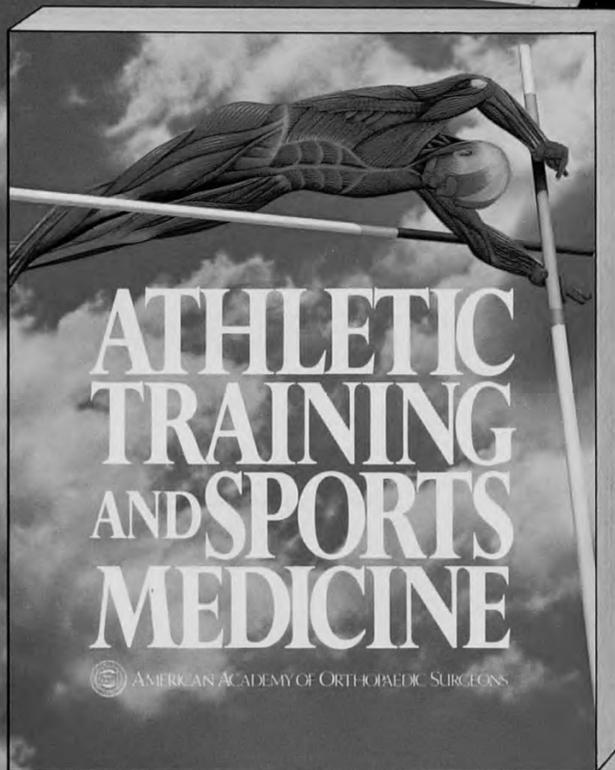
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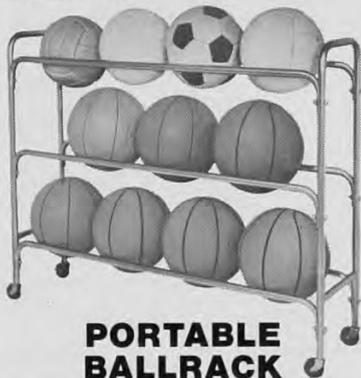
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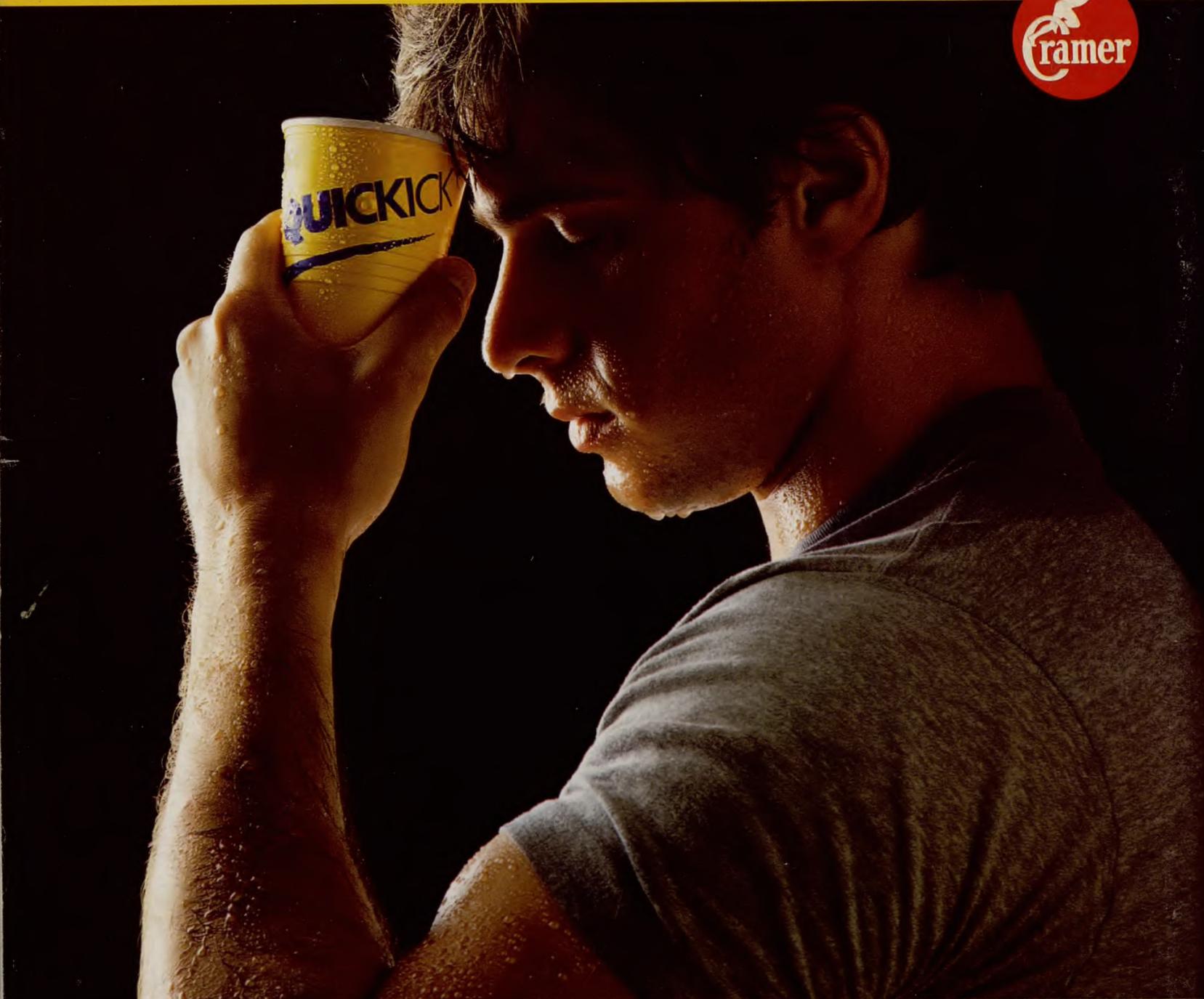


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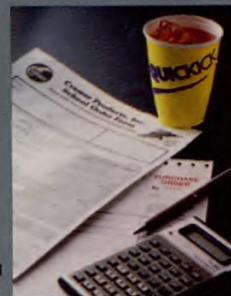
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