



Presidential Address of the American Orthopaedic Society for Sports Medicine

Sports medicine: Past, present, and future*

H. ROYER COLLINS,† MD

President, AOSSM

Those of us who have been associated with athletics for many years as participants, coaches, and team physicians are well aware of the positive aspects of healthy competition. Fred Allman, on many occasions, has described these benefits as 1) a normal outlet for the aggressive drive of youth, 2) building character, self-esteem, and self-confidence as well as aiding the maturing process, and 3) teaching team work. He has stressed the physical and mental conditioning that is required in order to participate and the opportunity to learn true sportsmanship. He has also stressed the fact that in this day of easy living and affluence, this may be the only place where youngsters learn the discipline that is necessary in order to succeed. He has also stressed the fact that losing is also a part of competition, and the athlete must learn to rise again after having fallen. We must also realize that in many instances, athletics may be the only vehicle that will allow a youngster to get a college education. There are many in this audience, and I am one, who would not be here without the opportunity to get an education as the result of athletic participation.

Despite these obvious positive aspects of sports partici-

pation, there are those who talk about the psychological damage that can occur as a result of competition. There are also many who say that injury as a result of athletic participation is too high a price to pay. On the other hand, there are many other physicians interested in this field, and I happen to be among them, who favor competitive athletics even in the lower grades, provided that they are supervised, with the emphasis on teaching skill to all participants and allowing all of them to play rather than just the gifted few. This presupposes the proper emphasis on winning.

Certainly, there is also emotional trauma associated with not making the school play, the debating team, or not passing an examination. But these situations must be faced. We cannot rear our youth protecting them from everything that is unpleasant. Those who have studied the rise and fall of great civilizations have stated that a prime reason for weakening great nations leading to their ultimate downfall has been the weakening of their youth.

There is no question that some will be injured. This happens in any active form of recreation whether it be bicycling, skiing, or climbing. As Dr. Quigley of Harvard so eloquently stated, "Whenever young men gather regularly on green autumn fields, winter ice or polished wooden floors to dispute the physical possession and position of various

* Delivered at Traverse City, Michigan, June 21, 1989.

† Address correspondence to: H. Royer Collins, MD, 3320 North Second Street, Phoenix, AZ 85012.

leather and rubber objects according to certain rules, sooner or later somebody is going to get hurt." He has also stated, "It also seems that a human being fixed firmly to a six or seven foot length of metal or wood and racing at fabulous speed down an icy mountainous trail is inevitably destined for disaster."

In many European countries, various health clubs, hiking clubs, etc., serve to improve the physical conditioning of youth. But here in the United States where youth seem to rebel at anything smacking of regimentation, various types of organized athletics often serve as the only means for developing fitness. Since this is the situation, rather than outlawing athletics we should demand improvement of all organized athletics, and particularly the care of the athlete.

Physicians have been leaders in the development of sports and physical education ever since their early beginnings. George Snook in his 1984 treatise on the history of sports medicine mentions that Galen was considered the first team physician and contributed a great deal to our understanding of exercise physiology. In the United States, Edward Hitchcock, who became an instructor in physical education and hygiene at Amherst College in 1854, is considered America's first sports medicine physician. He was followed by other physicians such as Mal Stevens at Yale in the 1930s, and Augustus Thorndyke and Thomas Quigley at Harvard in the late 1930s and early 1940s. We are indebted to Dr. Quigley for his Athlete's Bill of Rights, which states the requirements of good athletic care, with the rights of the athlete taking precedence over all others.

During this period many physicians considered it undignified to sit on the bench at an athletic contest to take care of the athletes on the field. It was not until after World War II in this country that renewed interest in sports medicine occurred. The American College of Sports Medicine was formed in 1954 as a multidisciplinary approach to sports medicine so that there could be communication between physical educators, coaches, physiologists, and physicians. In 1960 the American Medical Association formed a Committee on the Medical Aspects of Sports to study problems related to the care of the athlete. In 1964 the American Academy of Orthopaedic Surgeons formed its Committee on Sports Medicine with Jack Hughston as Chairman. Sports medicine courses to educate orthopaedic surgeons were held at various locations around the country, often with many of the same faculty members contributing to each course.

In 1972 the American Orthopaedic Society for Sports Medicine held its organizational meeting in Washington, D.C., with Don O'Donoghue as chairman and 75 founding members. I am proud to have been one of the founding members. It was felt that this Society was necessary in order to offer an opportunity for orthopaedic surgeons interested in the care of athletes to associate, compare notes, discuss problems common to all, and hopefully arrive at solutions. It would offer a forum for those young men interested in sports medicine to present their work and ultimately become faculty members for Academy courses. In Dr. O'Donoghue's first Presidential Address given 16 years ago, he stated the

purpose of this organization was "exclusively to foster, promote, support, augment, develop and encourage investigative knowledge of sports medicine and its many ramifications: to develop and encourage the teaching and education of the same by developing educational materials and to provide specialized training for orthopaedic surgeons to foster, promote, support, augment, develop and encourage education in allied professions; in recognition, prevention, and orthopaedic treatment of sports injuries."

By this time it no longer was undignified for a physician to associate with athletes and become involved in athletic medicine. During the past 35 years there has been increasing interest in athletics and athletic injuries among physicians and laity alike. The sports medicine physician plays an increasingly important role in the supervision of athletic programs. The responsibility for determining who is physically able to participate in competition, for directing all medical aspects of the athlete's supervision, and for the treatment of illness and injury among athletes must rest with the physician. In most states there are now joint advisory committees to the state high school athletic association composed of coaches, trainers, and physicians whose primary interest is the welfare of the student athlete.

To exercise this responsibility reasonably and intelligently, the sports physician should have a background of interest and experience in physical education and in sports. We all realize that we can best treat a patient by completely understanding the pathophysiology of the disease process. This is no less true in understanding the treatment of the athletic injury. The lay public and the majority of our profession have little knowledge of the actual process of training and the mechanics of injury as well as the demands placed upon the athlete by his sport. How many physicians know, for example, what we are talking about when we talk about spear blocking? How many know what we're referring to when we talk about crack back blocking? Due to the educational efforts of this society, much of this information has been dispersed to physicians, trainers, coaches, and the lay public. The Education Committee, under the leadership of Walt Curl and the late George Rovere, has assumed an increasingly active role. Workshops have been held in weight training, epidemiological studies, bracing, therapeutic modalities, and soft tissue injuries to name just a few, in an effort to gain a better understanding of these problems so that this information can be transmitted to the treating physicians.

The Research Committee, under the direction of Jerry Finerman, is also an extremely active committee, promoting both clinical and basic research. Because of the increased demands for educational programs and research grants, the Society thought it necessary to develop the Foundation for Sports Medicine Education and Research. As a result of grants from Aircast Incorporated, the International Knee Institute, donations from our membership, and by your willingness to increase your dues to help build a sound financial foundation, this is now a viable entity.

The Publications Committee, under the able direction of

Arthur Pearl, has developed several important pamphlets for your patients, to help understand what sports medicine is about, and to help in their care. This Committee has also been busy with the publication of manuscripts that have resulted from the various workshops of the Education Committee.

The American Journal of Sports Medicine, nurtured with tender loving care by Jack Hughston and his Board of Trustees, is now a major scientific publication that is owned by our society. I am sure that you will all agree that the quality of articles continues to improve with each issue.

The Liason Committee, under the direction of Fred Allman, is assuming a more and more active role in our Society. Representatives from each state have allowed a good flow of information and communication. At the present time, the Liason Committee is jointly sponsoring a project with the Little League aimed at educating coaches and lay public regarding the safety of these young athletes.

For a long time, Duane Messner has been involved with the care of the disabled athlete and is now chairing the Committee on the Disabled Athlete and busy encouraging members of our Society to become more involved in this worthwhile area.

We have seen a tremendous increase in the number of Fellowships now available for postgraduate study in sports medicine. These Fellowships range from short-term preceptorships to one year postgraduate programs. Some are University connected and many are not. In order to give some uniformity to the Fellowship training, the Fellowship Committee has been instituted to address such matters as core curriculum and minimal standards to ensure proper training of these young orthopaedic surgeons.

Guided by our great leaders of the past, our Society has grown over the past 16 years from 75 members to approximately 1000 members at the present time. The Board of Directors recognizes the fact that this is now a large society with many complex issues which cannot be solved as simply as they once were. It has become necessary to make two and five year plans so that we can anticipate the needs and wishes of the membership. A recent three day Board of Directors meeting was held to map out a game plan for our Society which, hopefully, will keep us in the forefront of sports medicine.

To ensure that no voice is left unheard, two new junior members will be appointed to the Board of Directors so that there will be better representation for all of you.

The European and Asian Traveling Fellowships have done much to cement relations with our colleagues around the world. Plans are presently being made for a combined Japanese Orthopaedic Society for Sports Medicine and American Orthopaedic Society for Sports Medicine meeting in 1991.

I need not mention all of the advances that have occurred in orthopaedic surgery over the last few years. Many of these advances have had their impetus and encouragement by orthopaedic surgeons who are involved with the care of the athlete. The use of the arthroscope has greatly aided reha-

bilitation and return to athletic participation. There are newer techniques for reconstruction of injured ligaments of the knee which again have improved results and have allowed our patients to continue an active lifestyle. New and exciting work is going on in the fields of meniscal replacement, cartilage transplantation, and artificial ligament development. We are still in the "Model T" era in many of these areas and much work needs to be done.

What about the future of sports medicine? Unfortunately, I don't have a crystal ball to give the answers. But I can say that much of this depends upon you. The future of athletics in this country faces some distinct problems. Over the past year, all of us have read much about steroids and their effects upon athletes. This was highlighted by the scandal in the Seoul Olympics when Ben Johnson was stripped of his gold medal in the 100 meter dash because of steroid use. We continually see articles in the newspapers and magazines about further steroid abuse, not just at the high levels of athletic competition, but even in the grade schools. Instead of using their Godgiven talents to the best of their ability, working hard to build their bodies and to hone their skills, athletes today often want the quick fix. If it is not the athlete who wants the quick fix, then it is often his coach who demands this quick fix, and perhaps if not the coach it is the parents. We have read of physicians dispersing steroids to athletes of all ages, many of them attempting to justify this practice. In some degree we're all responsible for this problem. Much of the information we have distributed is just negative information without any real scientific data to back up these statements. It is important that we learn more about the various drugs we know the athletes are using so that we can speak with knowledge that is based upon fact. Only then can we regain our credibility.

We are also aware of other abuses that are occurring, particularly on the college level, as we see one college program after another in football, basketball, and other sports being put on probation for illegal recruiting. Twenty-two schools are on NCAA probation including not only Oklahoma, but Houston, Oklahoma State, Texas A & M, and TCU in football, and NCAA champion Kansas and Kentucky in basketball for alleged recruiting violations and academic fraud. We are aware of the low graduating rate in many college programs. Recently on a national television program we saw testimony by a prominent National Football League defensive lineman stating that he was illiterate and still able to get through college. In the February 1989 issue of *Sports Illustrated* there were detailed stories of athletes being accused of rape, assault, break-ins, and drug trafficking. What can you do about this? With increasing commercialization of "amateur" athletics, schools and universities are not above blame. But you as the team physician for these schools can certainly exert your influence. If the coaches are not willing to listen, then this advice can be transmitted to administration, which is responsible for the program. I am not sure that we are ever going to be able to reverse the trend for larger and larger financial outlays for various athletic programs. I am not sure that we are going

to be able to get these programs back to where they started, and that was as an outlet for the student's energies and so that true student athletes could represent their universities and still be a real part of that educational institution.

With the added interest in sports medicine that has occurred recently, we have seen "sports medicine clinics" popping up on every street corner. These may be run by physical therapists, podiatrists, chiropractors, and naturopaths, many of whom have no experience in sports medicine, but find that the term is a catchy one and brings patients to them. Many physicians without any particular background are also putting up signs and advertising using the words "sports medicine," again to attract this patient population. This, unfortunately, often prevents the athlete from obtaining appropriate early care at a time when his injury could be best cared for.

There are many competing disciplines today. The American College of Sports Medicine is giving courses with a certificate at the completion of the course entitling one to be called an athletic team physician. The American Academy of Family Physicians is considering certification in sports medicine, as is the American Osteopathic Association. Podiatrists have set up sports medicine clinics and are doing more and more, including doing arthroscopic procedures on ankles and hoping to work their way up the lower extremity. At a meeting several years ago I heard the guru of running physicians, Dr. George Sheehan, state before an audience that he does not know an M.D. who knows anything about running injuries, and a person with a running injury should go to see a podiatrist. If this is so, and I disagree, then we only have ourselves to blame as we have abdicated that role. I am sure that we have all heard many physicians saying that they don't like taking care of runners because "they take too much of my time and I don't get any surgery out of it." Maybe we feel the care of the foot is beneath us, no pun intended. We must remain true to the words of our founding fathers, that our Society was founded to better understand athletic injuries and to better care for the athlete. We must realize that the athlete is a patient that we are dealing with and must be aware of what athletics mean to him and what it takes for him to be able to do the things that he wishes to do. We must do everything in our power to help him stay healthy, so that he may compete. If we do not think of him as a human being but instead consider him just another foot, knee, back, or shoulder, then we have no right to consider ourselves sports medicine physicians. As John Gartland, in his editorial in the *Journal of Bone and Joint Surgery*, March 1989, stated, "Compassion, warmth, kindness, gentleness and concern for the welfare of patients are terms that should be used to describe orthopaedic practitioners."

It is obvious that we as musculoskeletal physicians cannot know everything about the medical care of the athlete. We must involve our colleagues in other disciplines to help us in this regard, but we must continue our leadership role, especially since most injuries occurring to the athlete involve this system.

As medicine is changing everyday with more and more

influence by the HMOs, PPOs, industry and governmental agencies, our voice needs to be heard. We must remember, however, that we are first orthopaedic surgeons who are interested in the care and prevention of athletic injury. I believe that we should support the American Academy of Orthopaedic Surgeons and avoid fragmentation of health care. As Newton C. McCollough III stated in his Presidential Address to the Academy of Orthopaedic Surgeons on February 13, 1989, "The primary challenge to orthopaedics continues to be the preservation of a unified specialty in the face of progressive subspecialization and enlarging organizational structure. The breadth and diversity of our specialty is at once our greatest strength and our Achilles heel." Certainly in the field of legislation we must let the Academy know our wishes, but we should also allow them to serve as our spokesman.

Much has been said during the past year regarding certification, recertification, and certificates of added qualification. Most of you are aware of the Academy's position, which was stated at the meeting in February of 1989. Resolution Three stated, "Resolved that the AAOS registered strong opposition to certificates of added qualifications as an appropriate mechanism in recognizing special skills in orthopaedic surgery at this time. Resolved that if traditional certificates of added qualification are proposed for consideration by the ABOS, that meaningful and jointly shared impact studies should be developed by the specialty societies, the AAOS and the ABOS, prior to submission to the ABMS. Resolved that AAOS directs its effort to all organizations in orthopaedics to prevent exclusivity with restrictive certificates of added qualifications." An ad hoc committee that was chaired by Bill Grana has prepared a great deal of information that has been sent to you and presented at this meeting. As our Past President George Snook said, "It is not the intention of the Board of Directors to make a decision which is not the decision of the membership—therefore, we ask that you consider these problem areas and make your wishes known."

Before I finish this address, I would like to extend a challenge to the young members of this Society to become active. I feel confident that our Society is in good hands and will continue to thrive. Much work has been done and much more needs to be done. I would caution against using this Society as a means of self-aggrandizement, but hope that we are in this Society for one purpose, and that is to ensure the best possible care for all those athletes who come to us with their problems.

I would like to express my thanks to Sandy Hill, Carol Rosegay, Sharon Rolek, Holly Albert, Marcia McIntyre, Bill Masheter, and all the members of our Society office, without whom this Society could not run. I would also like to thank all of you for the help that you have given me when I have called upon you, and particularly the members and chairmen of the various committees who unselfishly have devoted a great deal of their time to make certain that this Society runs well. I have been honored to be your President over the past year and I hope that I have served you well.