

# Presidential Address of the American Orthopaedic Society for Sports Medicine

## It Hurts When I Do This

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One is president only a short period of time and realizes that he is only a single cog in a wheel already possessing great momentum and direction in this Society. The long history and the many people involved have led this Society to its current robust and involved state. It is fitting to acknowledge some very important contributors to our current standing.

Irv Bomberger, executive director, is essential to our function and direction. Irv and Judy have faced a number of problems with the health of their son this year, and Irv has been a role model for his dedication to family and job.

Camille Petrick has exerted a constant, steady influence on our Society and plans our meetings and social events magnificently.

Janisse Selan is the director of education and has been invaluable in our rapidly expanding efforts in education.

Bart Mann has joined us this year as research director, and you will appreciate his efforts to help our committees expand what we can accomplish.

Louis Almekinders has done an exceptional job as the program chairman for this and the interim meeting, and I sincerely thank him and the Program Committee.

Clarence Shields as past president has done a great job of making changes in the Society to allow future leadership to be more effective.

Peter Fowler was our Society president last year and is a personal inspiration to me. Pete and Libby are unable to

attend this year due to the serious but stable condition of his daughter, Meghan, who was recently involved in an automobile accident. Our prayers are with them. I would also like to thank our invited presidential speakers this year.

Our Kennedy lecturer was Dr Frank Noyes: "Why Is It So Hard to Do the Right Thing?" Steven Blair is the president and CEO of the Cooper Foundation, and he will be the presidential guest speaker this year and will tell us, "What Should I Tell My Patients About Exercise?" A *special* thanks to my family and especially to my wife, Janice, who has been far more than an equal partner in raising this crowd. My mother, Almeade, is here and sons David, Mikey, and Jonathan with wives Kary and Laura and (potentially) Katy, along with nieces and Kirby, in-laws, and close friends. Thank them for coming.

Now I would like to show you just some of what "Your Society Is Doing for You." I will go through some highlights of our mission statement.

My outlook as the president of this organization has been profoundly influenced by the 9 years as the director of the American Board of Orthopaedic Surgery. For the past 6 years, the American Board of Orthopaedic Surgery has collected and accumulated all of the procedures performed by candidates for the oral part of the board examinations. We have the data on the procedures performed by approximately 700 candidates each year. Cases are recorded for the 6 months at the beginning of their second year in practice. This is a limited but exceptionally thorough database.

Here are the top 12 procedures performed by all candidates for the ABOS. These are not data from sports medicine fellows alone; they are the data from all orthopaedic candidates. The number one procedure for every year has been, by a wide margin, arthroscopic meniscectomy. The fourth most common procedure is arthroscopic chondral debridement of the knee. Number 5 is arthroscopic acromioplasty, and number 6 is reconstruction of the ACL. Four of the top 6 procedures performed by young orthopaedic surgeons come from the realm that we call "sports medicine." Of the 733 candidates undergoing the oral examinations last year, 388 considered their practice a general orthopaedic practice. Of the total candidates, 71 considered their practice as primarily sports medicine.

Look at the data stratified by those who describe their practices as sports medicine. We can see a very similar dis-

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tribution of procedures. Generalists are doing our sports medicine cases. Now look at what procedures are done by candidates who state a subspecialty practice of sports medicine. The distribution of procedures is very similar.

Consider the absolute numbers of procedures. In these data from 2003, we see that sports medicine specialists are doing only 24% of the meniscectomies and 30% of the ACL reconstructions. The procedure that once defined our Society in its beginning was the ACL reconstruction, and now it is done more frequently than prosthetic replacement for a femoral neck fracture.

Data from last year also show that shoulder arthroscopy and subacromial decompression is the second most frequently performed procedure for the candidates for part II of the board examination. So, even the relatively new realm of arthroscopic shoulder surgery in our Society is commonly done.

Why, then, do we now prepare for subspecialty certification in orthopaedic sports medicine? Those without subspecialization are capable of treating the conditions and doing the same procedures that make up the bulk of our practice.

We certainly must continue to perform and perfect procedures. After all, to be *more* than technically excellent surgeons we must first be technically excellent surgeons. The AOSSM must continue to provide opportunities for and promote the acquisition of new skill. Coupled with the skill, we must also provide research and education in *diagnosis* and *rehabilitation* techniques. This is our time-tested purpose, and we must continue to provide the opportunities to improve.

Andres Ericsson is a psychologist who studied expert and exceptional performance in individuals as diverse as chess players, musicians, computer programmers, bridge players, athletes, and physicists. He has brought a remarkable new insight to the age-old question of whether expert performance is because of exceptional talent (or nature) or because of long hours of effort usually led by parents or adults (or nurture). His conclusion covered areas as broad as motor performance in sports, music, and medicine, with the conclusion that *regardless of talent*, expert and exceptional performers achieved that status by effort. All have put in about 10 years and 10 000 hours of deliberate practice in their development. How does practice improve talent so much? We adapt to domain-specific restraints. We develop anticipatory skills. You know as a diagnostician what is possible or likely and learn to anticipate what we will find or do. Soccer and hockey goalies, for example, do not have better reaction times than do other players. Constant practice and accumulated knowledge allow them to anticipate shots. Their expertise is not a natural gift but a learned mastery of their craft.

Ten years and 10 000 hours of practice—that means 3 hours of practice per day. In addition, practice is not defined the same as performing what we already know. Lounge musicians who simply play are not getting better unless they are deliberately practicing; that is, doing work may not be considered fun but is a deliberate and concentrated effort to improve skills. Deliberate practice allows

distinctive memory skills specifically relating to the domain in which we practice, for example, sport, medicine, or music. This specific domain is now interacting with an expanded memory capacity to enable better planning, reasoning, and evaluation. We develop mechanisms to maintain and improve our performance.

If we consider as our domain the field of orthopaedic sports medicine, none of us will have the requisite 10 years and 10 000 hours of practice when we start our professional lives.

We are obliged then to engage in deliberate efforts or practice to improve our skills. I do not mean simply surgical skills. There are the deliberate efforts (not always fun) to expand our knowledge base of basic science, study of pathologic processes, diagnostic skills, and now the entire domain of outcomes analysis. Those who study expert and exceptional performance know that good feedback or knowledge of outcomes is essential for performance improvement.

We have all seen the physician who finished training at a young age and rarely advances beyond that skill level. Others constantly read, study, and attend continuing education meetings. Unfortunately, in our rapidly changing field, we can achieve an expert performance level and lose it without continued practice.

This is our Society's function. We want to provide leadership in expanding the opportunities for you to practice or to deliberately engage in efforts to improve performance and move to the level of expert or exceptional performance.

We will all agree that our field is not stagnant and that new diagnoses, new scientific knowledge, and new techniques confront us frequently. We must be deliberate in our efforts to evaluate the science, evaluate the diagnosis, think critically about the technique, and demand the careful and critical evaluation of our outcomes. In the human performance field, knowledge of results is an essential element to improving performance.

Our Society is now engaged in a monumental effort to help our members and even nonmember orthopaedic surgeons to prepare for subspecialty certification in orthopaedic sports medicine. A curriculum has been developed. Self-assessment examinations, a preparatory course, and enduring CME products will come from this. This will be a large addition to our already considerable efforts at education and research.

For my last remarks today, I would like to expand toward a field that would benefit our Society, our patients, and public health in general in North America. We often think of our sports medicine effort as involving primarily teams of young people, mostly adolescent and young adults, and of getting these youngsters back to the team. We have another purpose. We should be the professional society involved with keeping all adults active and exercising. We have great opportunity as a society to expand our basis and to make a huge impact in this arena. A number of health care impact studies show that the biggest dangers to the health of our nation are obesity and inactivity. One of the main reasons for not exercising is musculoskeletal pain. Feet hurt; knees hurt; the shoulder

hurts; there is some arthritis here or there. There is often the concept that exercising will lead to arthritis or worsening arthritis.

Steven Blair, our presidential guest speaker tomorrow, has been a world leader in proving the huge benefits to individual and public health from a regular exercise program. There is widespread evidence that mild to moderate exercise including running does not cause arthritis and that those with arthritis do better in terms of pain and cardiovascular risk factors if they are involved in a regular exercise program. So, in dealing with our older population who tell us, "It hurts to do this," our old answer was, "Don't do this." Our new answer must become, "Do it anyway." If our patients are not damaging themselves further, they may continue. No one has taught me this more than orthopaedic surgeons with pain. Bob Leach is bone-on-bone in the medial compartment of his knee and said, "It hurts when I play tennis once a week. It is much better if I play 7 days a week."

If playing with pain is not an option for the patient, then we can try intervention ("get it fixed"). This may require medication, rehabilitation, surgery, or other options. If we cannot intervene and control the pain of running, then we can advocate cycling or swimming or rowing. Look for alternative ways to exercise. "Do something else." Our treatment can affect more than musculoskeletal pain. Mild and moderate exercise help to avoid obesity, hypertension, diabetes, and atherosclerotic heart disease, all of which cause mortality. We can readily advance the relevance of our Society by advocating and enabling exercise in our adult patients.

Look at the ABOS data on ages of patients treated by candidates for part II of the boards. For ACL reconstructions, certainly the procedures are most frequent before college graduation. We spend great effort in getting athletes back to sport. But look at how many out of their teens and college years are being treated. More than half are older than 25 years. Many are much older. We must promote their return to exercise as well as return to competitive sports.

Look at the distribution of ages for people with meniscus injury. The average age is 45, and we must concentrate more effort on the need to keep this population active and exercising. Perhaps the best reason for the surgery we do

in this age group is to enable exercise. For us to do our job, we must emphasize the need to exercise. We cannot cure arthritis or all joint problems, but we can cure inactivity. We must be proactive in getting these patients exercising again or for the first time. We must take a leadership position among the physicians who promote exercise not just as the technician to clean up the knee but as the source of knowledge on the benefits of exercise.

So our Society has always had the purview of the young people and the team sports. Our biggest impact on the public health of this nation can come when we truly become the physicians who promote and enable exercise across all ages. In our adult patients, we must not only make the joint stop hurting; we must make the joint start working regularly, and we should spend the time and deliberate practice to learn and deliver this advice.

As I conclude my remarks, let me summarize. Our AOSSM is (to borrow a quote from Carol Teitz) in "aossm" shape. In our core missions of education, research, fellowship, and communication, we have much to show and the resources to do more. We have the reality of subspecialty certification in the near future to help to make us all better. My challenge today is to expand our efforts to a much larger degree to the field of the aging exerciser or "would-be" exerciser. We must be the advocate of regular exercise and have the knowledge to convey its great benefits and small risks. This is the need of our greater society, and we are well positioned to exert our leadership and resources there. In addition to being the physician to the sports teams, we must be the society of physicians with the ability and responsibility to keep people of all ages active and exercising for their own health and for the health of our nation.

Ladies and gentlemen, it has been a wonderful year for me to serve as your president. We have so many people with good minds, great ideas, keen insight, and enormous energy. It has been a tremendous experience and a truly meaningful honor. In many ways, a year only awakens one to the talent and potential of this Society. I thank our board, the dedicated staff, our friends in industry, and all of you for allowing me and blessing me with this year.

Thank you. It has been a challenge, an honor, and a privilege.