Meet Our ACSM Past Presidents

Howard G. Knuttgen, PhD, FACSM
ACSM Past President, 1973-1974

Education:
BS, Springfield College, 1952; MS, Pennsylvania State University, 1953; PhD, The Ohio State University, 1959; Fulbright Research Scholar, University of Copenhagen, 1959-1961

Current or most recent affiliation:
Department of Physical Medicine and Rehabilitation, Harvard University Medical School

Honors & Awards:

1971 Service Award, Boston Hospital for Women
1974 Service Award, Massachusetts Heart Association
1977 Honorary Member, Sociedad Boliviana de Medicina del Deporte
1980 Honor Citation, American College of Sports Medicine
1982 Peter V. Karpovich Memorial Lecturer in Physiology, Springfield College
1982 Alumni Fellow, The Pennsylvania State University
1983 Kirrane Award for Excellence in Teaching, Sargent College, Boston University
1985 Honorary Member, Sociedad Chilena de Medicina del Deporte
1985 Recognition Award, U.S. Army Research Institute of Environmental Medicine
1986 Howard G. Knuttgen Lectureship - keynote lecture established in November 1986 by the New England Chapter of the American College of Sports Medicine and presented each year.
1986 Honor Award, New England Chapter of the American College of Sports Medicine
1989 Honorary Member, Czechoslovak Society of Sports Medicine
1989 Commander's Medal for Civilian Service, U.S. Army Research Institute of Environmental Medicine (Natick, Massachusetts)
1994 Philip Noel Baker Research Award, International Council of Sport Science and Physical Education
1996 Honorary Member, Saudi Arabia Sports Medicine Association
1999 Distinguished Alumnus Award, Springfield College
2000 Olympic Order, conferred by Pres. Juan Antonio Samaranch and the International Olympic Committee (IOC), Lausanne

Professional Interests: Exercise physiology, physical medicine, sports medicine, rehabilitation

ACSM and International Sports Medicine Service: American College of Sports Medicine (ACSM): Fellow, 1961-present; Member, Board of Trustees, 1966-70, 1971-84; Vice President for Physiology, 1967-69; President Elect and Program Chairman, 1972-73; President, 1973-74; Editor-in-Chief, *Medicine and Science in Sports*, 1974-79; Chairman, Committee on International Relations, 1978-84; Fédération Internationale de Médicine du Sport (FIMS): United States Representative, FIMS Council of Delegates, 1978-86; Member, Scientific Commission 1982-1990; Co-Chair, Scientific Commission 1986-90; Member, Executive Committee 1990-1998; Secretary General, 1994-1998; International Olympic Committee (IOC): IOC Medical Commission; Coordinator of Scientific Publications, 1987-present; Production of the *Encyclopaedia of Sports Medicine*, 1987-present; Production of the *Handbooks of Sports Medicine and Science*, 1987-present; Scientific Advisor, The Olympic Museum Library (Lausanne), 1996-present; Confederación PanAmericana de Medicina del Deporte (COPAMEDE): Member, Executive Committee, 1979-2006; Vice President, 1983-87; Treasurer, 1987-1998; Chair, Scientific Commission, 1998-2006

What first inspired you to enter the exercise science/sports medicine field?

I was originally inspired by the study of human physiology and the physiology of exercise during my undergraduate years (1948-1952) at Springfield College under Prof. Peter V. Karpovich. I also served as a teaching assistant and a research assistant for Prof. Karpovich.

What made you decide to pursue your advanced degree and/or line of research/service?

I became fascinated by the possibilities that studying the responses and adaptations of the human organism to general physical exercise and organized sport could contribute to the understanding of human biology, physical performance and health. Further, I have been involved in competitive sport all of my life and consider sports to be one of the most important parts of my living.

As a student, who were your mentors and what role did they play in your professional development? As a professional, was there anyone who was also instrumental in your career development?

As described earlier, Peter V. Karpovich (Springfield College) lit the original fire during my undergraduate studies between 1948-1952.

From 1959-1961, I was engaged in research in exercise physiology as a Fulbright Scholar in the laboratory of Prof. Erling Asmussen at the University of Copenhagen. He was one of the leading scholars internationally in exercise physiology, and he greatly influenced my early development. Conducting individual research and projects in collaboration with Danish investigators during that period provided invaluable experience and resulted in six published articles in scientific journals. While in Denmark, I also had the opportunity to establish both contact and friendships with Scandinavian researchers Per-Olof Åstrand, Bengt Saltin (Sweden) and Lars Hermansen (Norway).

I had great exposure to these and other European researchers, and upon returning to the U.S., I obtained a faculty appointment at Boston University in 1961. In 1963, I organized an international group of young researchers with the informal title of "Young Exercise Scientists" to collaborate on research projects. Eventually, we organized a symposium on exercise science at Boston University that was presented in August 1968. The participants were myself, Bengt Saltin (Sweden), Lars Hermansen (Norway), Klaus Klausen (Denmark), Gunnar Grimby (Sweden), Jan Snellen (The Netherlands), Phillip Gollnick (U.S.), Loring Rowell (U.S.) and Ralph Goldman (U.S.). Having required each presenter to prepare and submit a manuscript, I arranged to have the eight articles presented to ACSM and published as Vol. I, No. 1, 1969, of the college's new scientific journal, *Medicine and Science in Sport* (later, '*and Exercise*').

Are there any students who you mentored that have gone on to play any significant roles within ACSM?

Several medical doctors from overseas institutions became enrolled in our graduate program in health sciences at Boston University and received their PhD degrees as my advisees. Subsequently, they enjoyed distinguished research careers and became elected to leadership roles in international sports medicine organizations.

What is it about exercise science/sports medicine that still inspires you today?

To begin with, I have always enjoyed participation in sports, starting in secondary school and advancing to college and beyond. At Springfield College, I was a member of the soccer, basketball and lacrosse teams. Later, I became the first full-time coach of men's soccer and men's lacrosse at The Ohio State University (1954-1959). I continued in succeeding years to play recreational tennis, was the player/coach of the Boston Lacrosse Club (1962-1969) and still compete as a member of the New England Orienteering Club.

Why and how did you decide to get involved with ACSM? How did your service help you grow as a professional?

I conducted research at the University of Copenhagen between 1959 and 1961 and returned to the U.S. to accept a faculty appointment for teaching and research at

Boston University. Prof. Karpovich immediately contacted me and recommended strongly that I join the new organization that he had helped to found in 1954, the American College of Sports Medicine.

What are your most memorable moments from your service to ACSM?

ACSM Administration: Board of Trustees, Vice President and President

Editor-in-Chief, *Medicine and Science in Sports*

Chair, International Relations Committee

How did you become a Fellow and in what year?

You asked an interesting question, and I'll give you an interesting answer. When I joined ACSM in 1961, the total members numbered only 278; therefore, I became member 279. The vast majority of members at that time were either medical doctors or PhDs in exercise physiology (Note: research areas such as biomechanics and sports nutrition had not yet evolved). With the academic credentials I had earned and with five scientific studies either published or accepted for publication in scientific journals, I was inducted to membership directly as a Fellow (FACSM).

How do you feel that played a role in your development as a professional?

I was immediately eligible for ACSM committee service and soon became appointed. I was also eligible for membership on the ACSM Board of Trustees and was elected to that body in 1966.

What were some of the main issues confronting ACSM at the time of your presidency?

- Financial support of the national office and college activities and programs.
- Resignation of the Executive Secretary, Donald Herman (1973), and the extensive search for a successor, which resulted in the appointment of Gary R. Jenks.
- Establishment of multiple sessions for the scientific program of the ACSM Annual Meeting in 1972. Previously, all attendees were assembled in one room for a single session.

What do you think are your most meaningful contributions to the field of exercise science/ sports medicine?

- Introduction of the needle punch biopsy of human skeletal muscle for identification of changes in structure and function of skeletal muscle as related to involvement in exercise and sport.
- Relating through research and scientific publication the relationship of aerobic exercise to strength training.

What advice would you have for future leaders of ACSM?

Remember that the two terms sports and medicine are featured in the title of the organization. Both areas should be emphasized in the planning of all ACSM activities and programs and not relegated to subservient importance.

What advice would you give to students who are looking to pursue a career in exercise science/ sports medicine?

- First, attain a firm grounding of knowledge in human anatomy, biomechanics and human physiology.
- Be alert for opportunities for formal study (including scholarships and internships) that would advance your body of knowledge and expertise.
- Arrive early in your educational development at the decision that you wish a career studying and teaching in the medicine and science of exercise and sport that will require either medical training and a doctoral degree in medicine (MD, DO) or basic and applied science training leading to a master's degree and a doctoral degree (PhD) in science.

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