A Lifetime in Sports Nutrition: An Interview With Emily Haymes

Louise M. Burke

Emily, you have just retired as the C. Etta Walters Professor of Exercise Science at Florida State University. Can you tell us the pathway to your qualifications?

I received my B.A. degree in mathematics and physical education from Drury College in 1961 and my M.S. degree in physical education from Florida State University in December 1962. I took a temporary faculty position at Valparaiso University in 1963 while a faculty member was on a leave of absence. My teaching assignment was physical activity classes (e.g., team sports and swimming). In 1964 I joined the faculty at Mary Washington College in Virginia, where I taught a variety of physical activity courses. Two years later after one faculty member retired, I was assigned to teach the undergraduate exercise physiology course. I began full-time work on my Ph.D. at Penn State University in the fall of 1969 and received my Ph.D. in exercise physiology in 1973.

Can you give us a quick summary of where these qualifications have taken you?

I stayed on as a postdoctoral fellow at Penn State, continuing my research in environmental physiology for a year before joining the faculty at the University of Colorado–Boulder in 1974 as an assistant professor of physical education. My teaching assignment included an advanced exercise physiology graduate course; undergraduate courses in anatomy, physiology, and personal health; then eventually a course in nutrition and health. My next move was in 1979 to Florida State University, as an associate professor of movement science and physical education. Movement science later joined with the Nutrition and Food Science Department. I’ve spent the past 30 years here, teaching undergraduate courses in anatomy and physiology, as well as nutrition and sport, plus graduate courses in nutrition and exercise performance and environmental effects of exercise.

How did you become interested in exercise science?

It was my undergraduate anatomy and physiology course and my master’s exercise physiology course that really stimulated my interest in exercise physiology. This was in the early 1960s, before any of the universities had developed exercise science or kinesiology programs. Of course, the 1960s were also the time when Scandinavian researchers started applying the biopsy technique to muscle to find out what happens as we exercise. I was introduced to this research at Penn State in an exercise physiology course. The course had a unit on exercise metabolism. This would have been in 1970.
What did career options in exercise and nutrition look like back then? How does this compare with the opportunities your most recent crop of students is presented with?

I was not aware of any career options combining exercise and nutrition when I entered the job market in 1974. There were positions at universities looking for exercise physiologists to teach and conduct research. Because my interests were in nutrition and exercise and the environmental effects of exercise, I applied at universities where I could do research in one or both.

The opportunities for master’s and Ph.D. graduates in nutrition and exercise are much better today. Two of my recent master’s students, Karen Daigle and Amanda Carlson, were hired in full-time sport nutrition positions after completing their degrees. I hope this trend continues in the U.S. so more sport nutritionists have the opportunity for full-time positions.

You have been teaching for over 50 years. What has inspired and motivated you to teach?

Actually, I have only been teaching for 44 years! I was inspired to enter teaching by several of my late elementary and high school teachers. When I entered college I knew I wanted to become a teacher. What has motivated me to continue to teach is that I enjoy working with the students.

What has changed most in the delivery and technology of teaching and the content of your lessons?

The technology changes have been the most dramatic, moving from the chalkboard to overhead transparencies and slides to the computerized classroom. Over the years my undergraduate classes have grown in size from 35 to more than 120 students. This necessitates using lectures at the undergraduate level and in my larger graduate classes. The content of my graduate courses has to be updated every year to keep up with the latest research.

You’ve supervised numerous postgraduate students who have become successful in their own careers. Can you name-drop a few and tell us about their successes?

Ben Hurley, my first Ph.D., studied the effects of cold and exercise on fat metabolism. After his postdoctoral work with John Holloszy, he joined the faculty at the University of Maryland, where he has had a productive career. Sam Cheuvront studied fluid intake and thermal balance during distance running for his Ph.D. in 2000. Sam took a postdoctoral fellowship at the U.S. Army Research Institute of Environmental Medicine, where he has continued his research on fluid replacement during exercise.

What are the secrets of supervising and mentoring?

I think the secret to mentoring is to stagger your students so you have them finishing one at a time. Unfortunately this ideal does not always work and you have two or more students competing for lab space and your supervision at
the same time. The students who are going to be most successful are the ones who get into the lab early in their program and help each other collect data.

**Who has been the biggest influence or inspiration in your career?**

The person who has influenced my career most is Dr. Elsworth Buskirk, my mentor at Penn State. When I started working on my Ph.D. he recommended that I take some courses in nutrition along with my physiology and exercise physiology courses. It was in a nutrition course that I started thinking about studying the effects of iron deficiency on exercise. My interest in environmental physiology was stimulated by studies that were being conducted at Penn State while I was a student.

*The range in your research interests is vast and impressive—from the role of iron and other minerals in exercise, to caffeine and sports performance, and the effect of the environment on exercise performance. We can understand how living in Florida could lead to an opportunity to study exercise in the heat, but can you explain all your studies in cross-country skiers?*

When I started teaching at the University of Colorado the U.S. cross-country ski team would periodically come to Boulder for exercise testing. This was before the USOC had established any of their training centers, and my colleague, Dr. Art Dickinson, was in charge of testing the skiers. I was very interested in the effects of cold on thermal regulation during skiing, and this led to the study that was carried out in a meat locker (–20 °C) at the university. After I moved to Florida State I was invited to conduct a study of changes in iron status of cross-country skiers during training and competition. This meant I had to travel to the skiers’ training camps in Oregon and Montana and competition sites in New Hampshire and New York in order to take blood samples.

**What do you consider the most surprising or novel outcome from your research?**

The novel outcome in the cold study was that even with a simulated 9-mph wind the well-trained cross-country skiers could maintain their core temperatures for 90 minutes, while the recreational skiers were not able to do so in the wind.

*Your curriculum vitae lists a large number of awards, ranging from an Outstanding Teaching Award from Florida State University in 1985 to the American College of Sports Medicine Citation Award in 1996 and named Professorship at FSU in 2001. What has been your proudest professional moment?*

My proudest professional moment was receiving the American College of Sports Medicine Citation Award. To be chosen for an award by your peers in exercise and sports sciences is the greatest achievement for an exercise scientist.

**What sports or exercise activities have you undertaken in your own life?**

I played competitive softball and volleyball in high school and continued to play both in college, but competitive sports for women at the college level did not exist when I was a student. When I was teaching in the 1960s I started playing club field hockey and continued to play it while I was at Penn State.
For recreational activities, I started playing golf in college and still play today when I have time. I began running in the early 1970s but switched to walking about 20 years ago when I had back problems. I try to walk at least 2 miles every day, weather permitting.

*Have you had an opportunity to apply lessons from your own research to make yourself go faster or for longer?*

For my own sports activities the most important lesson has been adequate fluid replacement in a warm environment. I have found that it is important to carry fluids with me when I am playing golf in warm weather.

*What do you plan to do in your retirement?*

My plans are to travel, spend more time reading for pleasure, and play golf more often. But I plan to continue dabbling in sport nutrition. I have two Ph.D. students who will finish their dissertations in the next year and a master’s student who is collecting data on her thesis. All three are doing research in sport nutrition.

*What is the secret to a balanced, happy, and successful life?*

I think individuals use different strategies. In my case, taking time off from the academic workplace periodically has worked well. It may be only a few days or a vacation trip lasting several weeks.

*If you could go back in time and offer yourself a piece of advice or insight, what would it be?*

Do not worry about things that you cannot control.

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