
PRACTICAL APPLICATION

International Journal of Sport Nutrition and Exercise Metabolism, 2003, 13, 117-121
© 2003 Human Kinetics Publishers, Inc.

An Interview With Suzanne Nelson Steen

Louise M. Burke

Many athletes do not achieve optimal sports nutrition practice. In some cases, the characteristics and culture of a sport promote dietary practices that contradict sports nutrition guidelines, and even put the athlete at risk of health problems. Unsound weight loss practices in “weight making” sports are well documented in surveys such as the paper, “Weight Loss and Wrestlers,” in the current issue. In this column, I interview one of the co-authors of the paper, Suzanne Nelson Steen. Suzanne is Director of the Huskies Sports Nutrition Service at the University of Washington, Department of Intercollegiate Athletics and has been a prolific writer of sports nutrition education resources, including lay books for athletes, coaches, and parents, sports nutrition textbooks, and resources for the Gatorade Sports Science Institute as part of her role on their Advisory Board.

Suzanne, let’s start by asking you how you first came to be interested in the field of sports nutrition? Can you describe your academic studies and the career path that lead you to your present position at the University of Washington?

As a daughter of a high school coach and athletic director, it was only natural that I wanted to participate in athletics. My first recollection of nutrition and sports was when I started figure skating after ballet around age 8. My mom would send me to the rink with a packed lunch that I would trade with another skater for change to buy a chocolate éclair from the vending machine. Hmmm . . . I remember many times during my school age years that I dutifully made cupcakes before matches for my dad’s wrestling team. Little did I know then what a temptation this must have been for these weight conscious athletes! Later I realized—that’s why they always preferred the orange slices. . . . As an athlete myself during high school and college, I wanted to learn more about nutrition for sports, but there wasn’t much information available. For this reason, I decided to study nutrition in graduate school and focused my thesis research on dietary and weight loss practice of college wrestlers.

I received my Bachelor of Science in Psychology with a minor in neuroscience from Ursinus College, Pennsylvania. After completing my Master of Science degree in Clinical Nutrition from Drexel University, Pennsylvania, I had the opportunity to work at the University of Pennsylvania School of Medicine with Dr. Kelly Brownell and a national group of researchers on the nutritional, metabolic, and psychological aspects of weight cycling. My focus was on how repeated weight fluctuations impacted high school and college wrestlers. I was given the opportunity

L.M. Burke is with the Department of Sports Nutrition at the Australian Institute of Sport, Canberra, and the School of Health Sciences, Deakin University, Melbourne. S. Nelson Steen is with Husky Sports Nutrition, Department of Intercollegiate Athletics at the University of Washington, Seattle, WA 98105.

to complete my doctorate at Boston University while working as the Scientific Director of Clinical Trials at the Center for Study of Nutrition and Medicine in Boston, under Dr. George Blackburn. After my doctorate, I completed a fellowship in adolescent medicine at the University of Pennsylvania and served as Clinical Director of the Weight and Eating Disorders Center at the University of Pennsylvania School of Medicine, Department of Psychiatry under the direction of Dr. Thomas Wadden. Prior to joining the Husky staff, I was Assistant Professor and Chair of the Graduate Nutrition Education Department at Immaculata College in Pennsylvania. Thanks to a supportive administration and coaching staff at the University of Washington, I was privileged to become the first sports nutritionist to be hired fulltime by a Pacific Athletic Conference (PAC-10) member. I am very grateful to the guidance and support of my mentors in the areas of nutrition, psychology, medicine, and athletic administration and for the wonderful career opportunities that I've been given.

Can you tell us more about your current position? Do you have a faculty position at the University or are you solely employed to work with the athletes at your college? What does your job description entail?

In my position, I work closely with administration, sports medicine and training, strength and conditioning, and academic services to support the health and physical performance of student athletes. I am the fuel coach! My responsibilities include educating athletes on various aspects of sports nutrition through team presentations, seminars, educational materials, and individual consultations. I screen all athletes at the pre-participation exam for nutrition related issues and the use of dietary supplements. I'm the liaison to Food Service for menu planning and meal scheduling for our training table. I chair the Health and Performance Team in which I meet with the team physicians and psychologist to case conference and determine policy and procedure on health-related issues. I also serve as the gatekeeper for psychological referrals. I'm responsible for the evaluation, purchase, and distribution of NCAA approved dietary supplements such as sports drinks, energy bars, and nutrition shakes. This not a 9-5, 5-day a week job! I keep reminding myself of the saying that "when you love what you do, you never work another day in your life!"

Although I'm employed by the Athletic Department (I report to the Athletic Director), I serve as an adjunct faculty member in the Graduate Nutritional Sciences Program at UW. I guest lecture a few times a year on sports nutrition topics for undergraduate, graduate, and medical school courses.

What sports/teams does your College support? Do you have a mandate to work with all these athletes or do the sports decide whether they are interested in having nutrition input?

I work with all 23 sports. I'm fortunate to work with a coaching staff that supports the importance of nutrition for performance and health. How much I work with each sport varies depending on individual and team needs. For example, I'm on the sidelines during football games to promote optimal hydration, especially for those players who've been identified as cramp-prone. The Men's sports include baseball, basketball, crew, cross-country, football, golf, soccer, swimming, tennis, and indoor/outdoor track. Women's sports include basketball, crew, cross-country, golf, gymnastics, soccer, softball, swimming, tennis, indoor/track, and volleyball.

How do you approach the sports nutrition needs of different sports? There are obvious differences in the nutritional issue underpinning the training and competition performances of swimming versus gymnastics, wrestling versus distance running, basketball versus powerlifting, for example. What do you need to know before you can start to work with a new sport?

Counseling college athletes requires a broad knowledge of exercise physiology, medical nutrition therapy, and an understanding of sports and the athlete mentality. College athletes have incredible demands on their time. I'm always impressed with everything that they are able to do. They have two full time jobs already, academics and athletics, and I'm asking them to take on a third job: making sure that they are fueling and hydrating themselves appropriately. Each sport has different training demands, schedules, and energy needs. For each athlete, I take into consideration time of season, training demands, the athlete's position on a team, weight, weight goal, maturity, fluid needs, and personal food preferences. My philosophy is to individualize recommendations for each athlete and to help empower them to make positive changes for health and peak performance. Training table meals are an opportune time for "hands on" nutrition education. I routinely eat with the athletes at training table to assist them with making food choices to meet their goals.

You've almost become synonymous with sports nutrition for wrestling, and it's clear that you've been able to immerse yourself with the culture of this sport and the weight cutting practices of its athletes. From my experience, many new graduates of sports nutrition or sports dietitians who aren't familiar with such sports are quick to criticise athletes who "make weight" or "cut weight". Do you have an understanding of why these strategies are appealing to athletes in "weight classification" sports, and why they persist in spite of widespread education programs and rule changes?

Almost synonymous with sports nutrition and wrestling. . . . I truly am my father's daughter! I think that my personal experiences in athletics have afforded me valuable insight and understanding—especially in weight control sports. I guess you could say that I can relate to what they're going through. As a figure skater, I learned first hand about the pressure to be lean for appearance. Along with my fellow skaters, there were weight related demands of coaches, parents, or the harsh words of a judge. I was lucky that my parents were always supportive—but some of my friends were not so fortunate. As a result, I'm sensitized to an athlete who is under pressure due to the unrealistic demands of a parent or coach.

Since my dad was a wrestling coach, I was aware of differing viewpoints about weight cutting by coaches and athletes. When I say to a wrestler, "My dad was a wrestling coach," they know I understand the sport and where they're coming from—and this is important in order for me to effectively work with them to facilitate change. Involving a former wrestler who supports sound nutrition strategies in team talks can lend credibility and valuable insight. With patience, flexibility, and an understanding of the typical mindset of wrestlers, health and performance can be achieved.

With any athlete, my philosophy is to start where the learner is. Always appreciate nutrition issues from the athletes' perspective. Be a good listener. Creatively tailor advice to the individual. Empower the athlete to make changes that support health and performance. Respect the person as an individual as well as an

athlete. Discussion about the positive and negative aspects of making weight on performance (athletes are often not as concerned about health consequences) helps athletes to make an informed decision about their weight goals. Assessment of body composition using prediction equations that have been extensively validated to determine minimal wrestling weight along with rate of weight loss is a necessary starting point towards maximizing performance and health. While some athletes choose to push weight loss to extremes, others recognize the value of trying a different approach to achieve an optimal weight range.

What sorts of education strategies or resources have you developed to work with wrestlers? What activities or resources are valuable? Are there any approaches that, in your experience or opinion, do not work?

In 1998, the National Collegiate Athletic Association approved significant changes in the guidelines for determining a weight classification for each wrestler. The goal is to provide nutrition education and to minimize dehydration and dangerous weight control practices. Similarly, over the past several years, state high school athletic associations, led by Wisconsin, have developed and implemented minimum weight certification programs to safeguard wrestlers. There is an emphasis on determining minimum wrestling weight at 7% body fat, hydration status as monitored by specific gravity, and educational seminars on nutrition by local sports nutritionists. More and more, throughout the country, positive changes are being made in the sport of wrestling.

In my experience, the best approach to nutrition for weight control sports is an individualized, specific approach. The effectiveness of team talks for sports such as wrestling and gymnastics is limited, since each athlete is at a different place with regards to their weight goals. Having a nutritionist accessible on a regular basis for monitoring of weight and modification of meal plans for each athlete during all phases of the season is most beneficial.

Have you had opportunities to work with other “weight making” athletes—for example, lightweight rowers, jockeys, or athletes in other combative and martial arts sports? What are the similarities and differences between weight management issues and practices of these sports?

Yes, I’ve had the opportunity to work with many athletes in different sports who make weight. Making weight is important to many athletes but the rationale for achieving a specific weight goal differs depending upon the sport. In sports such as wrestling, light-weight crew, or light-weight boxing, regulation of body weight is essential because the athlete must meet a certain weight classification to compete. The process of making weight is also familiar to the jockey and coxswain. Gymnasts, figure skaters, and divers have strong concerns about how their appearance will influence the judges’ scoring. These athletes strive for perfection in technique and strength, as well as artistry and aesthetic appeal. For distance runners, low weight and percentage body fat is considered necessary for optimal performance. Just as the rationale for achieving a certain body weight differs among athletes, patterns of weight fluctuation also vary. Some athletes chronically maintain a low weight, whereas others lose weight for the competitive season and regain in the off-season. Many lose and regain weight repeatedly during the season.

In order to achieve a low body weight, these athletes may resort to unhealthy weight loss practices that compromise nutrition intake and hydration. Studies have

shown that they often consume inadequate energy and less than recommended amounts of macronutrients and micronutrients. For some of these athletes, disordered eating patterns or eating disorders have been observed. Nutrition assessment and individualized dietary planning can help these athletes achieve a healthy and competitive body weight.

Are athletes totally responsible for their chosen weight management practices? Now that there is so much publicity about dangerous weight loss strategies, how well do you think the coaches, trainers, and administrators in “weight making” sports support sounder practices and enforce any regulations designed to prevent high-risk weight loss activities? Is there more that could be done by these groups?

There are many factors that influence an athlete’s decision on how much weight to lose and how to lose it—even when appropriate educational programs have been developed to address these issues. It’s important that administration, sports medicine and training, and nutrition work together for the best interest of the athlete. Because wrestling has been under the spotlight for weight cutting practices, it’s important that health care professionals, coaches, and athletes meet with mutual understanding and respect in order to facilitate change. Although we most often hear about the wrestlers and other athletes who use extreme weight loss methods, there are many athletes who have embraced sound nutrition practices in order to make weight. I’ve worked with lots of coaches who are receptive to nutrition strategies that will help to improve the performance and promote the wellness of their athletes. More and more, through education, positive changes are being made in low-body weight sports.

Finally, do you know how many colleges offer a dedicated sports nutrition service to their athletes? What evidence of benefits do you have to offer colleges to persuade them to take on such a service?

The opportunity for nutrition professionals in the college athletic arena has yet to be realized; very few colleges offer a dedicated sports nutrition service for their athletes. However, I think this is gradually changing. Increasingly, professional and college athletic programs are hiring sports nutritionists. I’m often contacted by other universities for assistance in developing job descriptions for sports nutritionists. There are many contributions an experienced nutritionist can offer an athletic department. Ultimately, support from administration and the coaching staff is key for developing a position. I’m privileged to have an Athletic Director (Barbara Hedges) who not only values nutrition and wellness on a personal level, but also believes that it should be part of the total program for student athletes. We know that nutrition works to help athletes maximize workouts, recover faster from training and competition, and have less down time from injury and illness. While nutrition doesn’t guarantee a winning performance, it can help the athlete to outwork the competition to gain the competitive edge. I believe that having a full-time sport nutritionist as part of the team can enrich the athletic experience of student athletes and coaches. It’s very rewarding for me to play a role in helping student athletes with their goal of achieving peak performance. I respect them for all that they do, as athletes and individuals.