



Student Newsletter

Welcome!

CPSDA Members:

Welcome to the first issue of 2018! Next year brings many exciting opportunities in CPSDA.

The 2018 Sports Nutrition Boot Camp is right around the corner on January 27, followed by the Advanced Practice Workshop on February 22–23. These workshops provide hands-on instruction from leading professionals in the field. The CPSDA Annual Conference will also be here before you know it—student registration spots will be limited, so mark your calendars for May 22–24 and keep an eye out for the Annual Conference registration.

This edition of the CPSDA student newsletter includes unique perspectives from both student and professional sports dietitians. From insight into professionals working in training centers, professional sports and consulting positions, to trending sports nutrition topics, there is something for everyone.

Happy reading, and we look forward to seeing you at the upcoming events!

Ella Stephan and Peter Ritz, Student Committee Co-Chairs

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Questions? Contact us!

Ella32937@gmail.com

peter.ritz6@gmail.com

How did you become involved with NFL Combine preparation?

Most of the athletes coming into the NFL Combine program are either looking for a change in body composition, recovering from an injury, or wanting to improve their capacity to train at a high level, and nutrition will definitely play a huge part in their ability to achieve those goals. When an athlete's draft status, and potential future earnings, might depend on hundredths of a second, athletes look to fine-tune every component of their training to maximize their chances at a peak performance during the Scouting Combine in Indy. The Nutrition Department, Strength and Conditioning, Athletic Training, Physical Therapy, Mental Conditioning (sports psychology), and Leadership all team up to help these athletes maximize their athletic potential while training at IMG Academy (IMGA).



Jackie Barcal

What nutrition services do you provide for each athlete enrolled in the Combine prep program?

We aim to provide very individualized nutrition services to our NFL Combine trainees. Each athlete receives a one-on-one nutrition consultation with one of our three sports dietitians, along with a supplement consultation and body composition testing (via BOD POD). During the initial nutrition assessment, we can estimate individual calorie and macronutrient needs and determine what strategies are going to work best for each athlete based on their goals and nutrition experience. As a department, we support balance and moderation when it comes to fueling; however, given that we only have 8–9 weeks, it is important that athletes buy into the plan and are consistent, especially if they have significant body composition goals. Throughout the program, we are present at all meals which allows for frequent communication with the athletes and the ability to adjust their individual programs based on the feedback we receive from them. We also spend time educating, often using the plate method to help simplify their individualized macronutrient needs, and we educate the athletes on how their plans may change once they get to the NFL. This year, we are looking to incorporate more interactive nutrition education sessions such as a grocery store tour, fast food visits, and cooking demos where the athletes can participate in the food preparation process. Last year we were also able to provide each athlete with a personalized sweat test through the Gatorade Sports Science Institute (GSSI), which we are fortunate to have housed right here on campus.

Are there any unique components of the IMG Academy NFL Combine program?

Here at the Academy, we place a really big emphasis on education and providing the athletes with tools to help them not only excel at the Combine in Indy, but also to give them the best chance at longevity when they sign with an NFL team. Our interdisciplinary team includes a mental conditioning team to prepare the athletes for the psychological tests and the pressure of the Combine, and a leadership team to teach interview and professional skills. We also bring in guest speakers to talk with them about a variety of topics such as life in the NFL, managing finances, and working with the media. It is important to us that they walk away from our program the most well-rounded person, prepared for a future in the NFL and in life.

What nutritional strategies do you use to support athletes during the Combine itself?

Depending on the athlete's nutrition knowledge, we may have to walk him through the food line multiple times to show him how to build his plate to meet his goals. Others may already have a good foundation and know how different foods impact health and performance. During the actual Combine in Indy, me and other IMG staff arrive a day before the first player to set up our suite and do a very large grocery store trip. Aside from what we buy in Indy, we also ship food and supplements to the hotel to help support athletes' needs while they are there. During the Scouting Combine, all of us are on call 24/7 to assist the athletes. The Scouting Combine provides the athletes with meals, but the offerings may not be foods they are used to consuming, so we make sure to have plenty of familiar fuel on hand and to help players keep a consistent routine.

What does a typical day look like during the Combine training season?

Although we have a routine weekly schedule for our Combine program, no two days are the same. However, for the nutrition team, a typical Combine day might look something like the below:

5:30–8:00 am: Combine Breakfast—set up, take morning body weights, educate athletes about and assist them with their meals, and address any athlete concerns. Body composition testing will also occur during this time.

8:00–11:00 am: Clean up breakfast, complete data entry, analyze athlete calorie/nutrient intake, prep and distribute snacks/supplements during movement/speed sessions, other department projects

11:00 am–1:00 pm: Lunch—Educate/check in with athletes. Gather feedback from them and adjust their fueling as needed.

1:00–4:00 pm: Combine Nutrition education classes, Combine staff meetings, more data entry, analyze nutrient intake, individual consults, agent communication, and other department tasks

4:00–5:30 pm: Prepare customized post-lift smoothies, distribute supplements, athlete check-in at the Gatorade Fuel Bar

5:30–8:00 pm: Combine Dinner—Educate/check-in with athletes, distribute post-dinner snacks, wrap up and go home

During the day, the other full-time staff and I will also attend department meetings, meet with other athletes, check in with coaches, provide team talks, and work on other department projects. During January to March, we also have pro athletes from the MLB, MLS, and NFL training on campus, so this is an extremely busy time for our department.

How does your job change outside of Combine training season?

I feel like I have three completely different jobs throughout the year. As the head of nutrition, I oversee two other full-time RDs and work within the interdisciplinary team to help meet the needs of our almost 1,100 Academy student-athletes. I also work directly with our baseball and tennis programs year-round, which consist of approximately 350 athletes. From January to March, my focus shifts to the NFL Combine program and training new staff who specifically assist with Combine meals and athlete management. Between the months of June to August, we have thousands of campers come train at the Academy, and many of them take weekly nutrition classes. We also host sport tournaments, corporate groups, and professional athletes on campus who might require our services. IMG Academy is by far the most diverse place I have ever worked. One day I might meet with an 8-year-old tennis player, another day a future Olympian, and the next day a group of executives. Over the last two summers, we hosted the first ever IMG Fashion Camp, a group of professional bull riders, and professional e-sport athletes. Being a dietitian at IMG Academy has definitely challenged my ability to communicate nutrition to a wide variety of individuals.

What's the most rewarding part of the NFL Combine program?

Working with the athletes on a day-to-day basis and getting to know them as people, not just athletes, is extremely rewarding. We see these guys on TV all the time, but to better understand who they are and where they come from is rewarding in itself. Aside from that, being in Indy and seeing them perform on the big stage is very exciting. However, the real reward is watching them compete on Sundays and seeing the athletes' dreams come to fruition. They spend 8–9 weeks with us, but we all know that their dedication and hard work started long before they arrived on IMG's campus.

What is the most challenging part of the program?

Hmmm... getting the athletes to eat their veggies? Or to avoid Popeye's and Culver's on the weekends? But in all seriousness, aside from the typical behavior change challenges, one skill I have learned from working in both the collegiate setting and here at IMG is the need for flexibility and adaptability. There could be last-minute changes in the menu or location, an injury or illness, or an adjustment in the Combine or Academy schedule, and the ability to react and respond quickly is extremely important. Managing the schedules of six dietitians (including me), clearly defining responsibilities, and communicating adjustments in our nutrition plan are all challenges. To me, it is like organized chaos. A lot of hurry up and wait, and then hurry up again. It's definitely challenging, but also exciting when the team comes together and conquers the day.

Miami Dolphins dietitian Mary Ellen Kelly and University of North Carolina dietitian Rachel Stratton offer insight on how to educate athletes and create meal plans

How much of your time is spent on creating meal plans for your athletes?

Mary Ellen: It is hard to quantify exactly how much time is spent on individual meal planning because it varies depending on the time of year. There is definitely more individualized meal planning during the off-season when players are trying to make more significant changes to their body composition. However, team menu planning does occupy a large percentage of my time. In season, the team eats most of their meals at the training facility. We also have meals at the home hotel, away on the planes, and at the stadiums. Menus and logistics for each of these meals require a lot of time.



Mary Ellen Kelly
Miami Dolphins



Rachel Stratton
University of North Carolina

Rachel: Very little. My primary goal is to coach athletes to be intuitive eaters, respect their bodies, and challenge the diet mentality. I focus on counseling instead and on starting with small dietary changes.

What are some things to consider when making meal plans for your athletes?

Mary Ellen: Because everyone and their goals are different, it's important to start with subjective information. For example, they may be looking to lose body fat, gain lean mass, or maintain their current weight and composition. Not all goals may be physique-centered either, such as trying to adapt to a more plant-based eating style, or working on increasing their intake of specific nutrients.

Rachel: The more objective information you can obtain the better. If I make a meal plan, factors I might consider would include everything from the athlete's goals, values, sport, position, training volume, training and class schedule, current lifestyle, food preferences, on-campus dining meal plan, cooking skills, living situation, access to food and/or cooking equipment, socioeconomic status, and willingness to change.

What strategies or tools do you use when creating a meal plan?

Mary Ellen: If an athlete is willing to do a food record, I use this as a starting point to create his or her plan, making sure I include many familiar and favorite foods. If not, I at least use a 24-hour dietary recall as a starting point. I also use my own meal-planning tool and estimate needs using an average of a few of the commonly used equations.

Rachel: In the past, I've provided students with exchange meal plans, the Herrin Meal Plan, or guidelines to include a certain amount of carbohydrate and/or protein servings at meals when it is appropriate. For general meal structure, I recommend three-step meals (fruits or veg, carbohydrate, and protein with healthy fat) and two-step snacks (pairing carbohydrates with protein). The USOC plates are also good guidelines, but mostly I am encouraging athletes to make food choices based on their internal hunger cues and their performance goals.

Athletes are constantly on the go. What are some things you do to ensure your athletes are fueling properly with their busy lifestyle?

Mary Ellen: I recommend snacks between meals, give recommendations for quick meals, and suggest which meals to choose at various restaurants. Every year in the off-season we also do cooking demos with the athletes to teach them simple cooking techniques.

If they do choose to cook, I encourage them to plan ahead and cook large batches of food so they can cook once but get a few meals out of it for the week. Stir-fry dishes tend to be a favorite, and they can be very easy with minimal cleanup!

At the professional level, some athletes may even choose to invest in having a personal chef cook their meals for them outside of our facility to help them continue to eat healthy outside of the training facility if they prefer not to cook. I work with them to match them up to private chefs in the area.

Rachel: Working in the collegiate setting, I encourage athletes to visit our fueling station and provide RTDs after training sessions, and I educate athletes about quick, portable fuel options. To improve accountability, I will sometimes put athletes on a picture plan. This means they will send me pictures via text message of certain meals or snacks.

Do these meal plans change depending on whether an athlete is in or out of season?

Mary Ellen: Yes, meal plans and macronutrient needs definitely change depending on whether they are in season or out of season. Body composition goals are best addressed in the off-season.

Rachel: Yes, like mentioned in #2, there are a variety of different factors for each individual athlete that influence their nutritional needs.

What are some challenges you face when creating meal plans for your athletes?

Mary Ellen: Perhaps one of the biggest challenges in creating meal plans is balancing structure with flexibility. The plan needs to be structured enough that it will help them reach their goals, but flexible enough that they will be willing and able to stick to it.

Rachel: The level of compliance for student athletes is always a big challenge. Ultimately, nutrition counseling revolves around changing behaviors and habits, which is always a challenging concept to ask of people.

What advice would you give a nutrition student learning to create a meal plan?

Mary Ellen: First, gather as much information as you can. After estimating the person's needs and macronutrient ranges, use a meal plan builder to create a plan for the individual. Finally, review your plan and make sure it matches the person's estimated needs and includes fueling strategies that make sense for the athlete.

Rachel: Practice making sample meal plans for athletes of a specific sport based on their training schedule and average body composition results. Focus on nutrient timing, optimal macronutrient distribution, and keeping it realistic to execute.

Any final thoughts?

Mary Ellen: Often you will meet with an athlete who does not need or want an actual “meal plan.” Many times, you can achieve success by offering nutrition education and challenging the athlete to make small and realistic behavior changes that prove to be more sustainable than sticking to an actual plan. It is also important to assess athletes’ readiness for change and meet them where they are. Help them to identify which food related behaviors they are willing to modify and start there.

This quote by Ellyn Satter defining “normal eating” is one that I think should be shared with everyone!

“Normal eating is going to the table hungry and eating until you are satisfied. It is being able to choose food you enjoy and eat it and truly get enough of it—not just stop eating because you think you should. Normal eating is being able to give some thought to your food selection so you get nutritious food, but not being so wary and restrictive that you miss out on enjoyable food. Normal eating is giving yourself permission to eat sometimes because you are happy, sad, or bored, or just because it feels good. Normal eating is mostly three meals a day, or four or five, or it can be choosing to munch along the way. It is leaving some cookies on the plate because you know you can have some again tomorrow, or it is eating more now because they taste so wonderful. Normal eating is overeating at times, feeling stuffed and uncomfortable. And it can be under-eating at times and wishing you had more. Normal eating is trusting your body to make up for your mistakes in eating. Normal eating takes up some of your time and attention, but keeps its place as only one important area of your life. In short, normal eating is flexible. It varies in response to your hunger, your schedule, your proximity to food and your feelings.”

Rachel: Meal plans aren’t the be all and end all. Often, they are tough to follow because they aren’t sustainable or allow for flexibility. It is important to encourage athletes to have a healthy relationship with their bodies and their food, educate them about basic performance nutrition principles, and support them in a lifestyle that will help them achieve their goals.



CPSDA’s 10th Annual Conference registration will open in January 2018. The conference agenda is posted [here](#).

CPSDA member Tavis Piattoly discusses the current research on omega-3 and fish oil supplementation and the benefits for athletes

What are omega-3s, and how do they work? EPA or DHA?

Omega 3s are essential fatty acids, which means our bodies can't make them and we must get them from our diet. DHA and EPA are the main omega-3 fatty acids, and dietary sources of these include fish and other seafood, nuts, seeds, and oils. DHA and EPA offer many health benefits ranging from anti-inflammatory properties to improved cognitive function. Although they are similar, EPA provides more of an anti-inflammatory benefit, and DHA is more important for brain health. Worldwide, and in the United States, data shows that many aren't meeting the recommended levels of omega-3 intake. And Americans have a very high omega-6: omega-3 ratio, which can yield inflammation.



Tavis Piattoly

Why are omega-3s so important for brain health and recovery from a concussion?

Thirty percent of the brain is made up of DHA, one of the omega-3s. Michael Lewis, a leader in brain health research argues that if your brain is made up of DHA, you have to rebuild what you've damaged and put the bricks back together by supplementing. To date, DHA and EPA supplementation have the most promising neuro-restorative properties after a traumatic head injury (TMI; brainhealth.org).

Which athletes are most susceptible to this type of head injury?

In football and hockey, the players are getting micro-traumas in almost every play, as it's part of the game. In addition, boxers, cheerleaders, basketball players, and soccer players are all more vulnerable to concussions.

What is your protocol when placing athletes on omega-3 supplements? How much is effective vs. excessive?

We don't really know at this point what the threshold of excessive is based on the current research. There are people who consume a lot more than 30–40 grams/day, without any adverse effects. For someone recovering from a concussion, I usually start with a minimum of 6–9 grams/day, or 12–15 grams/day if the concussion is very severe (per Dr. Lewis' protocol, see below for link). I would start here, then collaborate with the medical team and reduce the dosage as symptoms improve. Everyone, athlete or not, should be taking 3 grams of omega-3 supplements per day for the brain, anti-inflammatory, and cardiovascular benefits.

How do you know which products to buy?

I typically recommend Nordic Naturals, because they are NSF certified for sport, and NCAA athletes can legally take them. Klean Athlete is also an option. There are three forms, ethyl ester, triglyceride, and phospholipid based (i.e., krill), and you want to go for a triglyceride-based product. The triglyceride form naturally occurs in fish oil and has better absorption and bioavailability. Ethyl esters are the most common, but are less bioavailable and harder on the stomach.

How have you seen the sports nutrition industry evolve regarding omega-3 supplementation and concussion treatment?

For one, in the college setting, fish oil and omega-3 supplementation is prohibited by the NCAA unless the student-athlete is given a prescription by the team doctor. Many athletes are eating fast food and processed food on a regular basis, and supplementation would be a way to counteract the inflammatory foods that they're eating. More health professionals in the athletic setting are realizing the benefits of supplementation, but we need to take it more seriously. It would be wonderful for NCAA athletes to have access to omega-3 fatty acid supplements.

Would you recommend any resources for sports nutrition students?

Below are links to several studies related to fish oil supplementation and its benefits. Staying up to date on nutrition research is a great resource that many sports dietitians like me use to ensure that the advice we're giving athletes is backed by solid, credible scientific evidence.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3205506/6182/>
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4013179/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC47>
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