



You Are What You Eat

Arsenal nutritionist **James Collins** tells Matthew Stone of *Performance* about the importance of nutrition being enshrined within sporting cultures.

Nutrition and suspicion were two words occasionally linked some ten years ago. OK, the image of the soccer player having a half-time fag or a team regularly “refueling” after results good and bad had all but disappeared by the turn of the millennium, but very few sporting organizations saw a nutritionist as a core part of the coaching team. If they had a place, it was as a nutritional dietician consultant, set somewhat apart from the “real” coaches and experts. But all that has changed, at least in the more enlightened set-ups.

Collins says: “I think over the course of the last ten

years, sports – especially the Olympics – have recognized how much of an impact nutrition can have on performance. We may be talking marginal gains but these days at the top level that is what it is all about. If I go back to a post I was in with the English Institute of Sport in 2007, that was probably the first time I was actually full time. I worked with the Great British athletics team leading into Beijing as part of a multi-disciplinary team – we wore the kit, we interacted with the coaches. And I think that’s absolutely critical to building relationships with the athletes and with the coaches. Because one of the things I found since then is that the coach has to be a key part of this process both to reinforce what you’re doing but also because a lot of your work has to be coach-led.”

also need to be interested in their views not just on nutrition but on performance more widely – how you fuel athletes, how you get them to recover, hydration. And all aligned to that will be the other questions that there might be from a performance perspective, issues like travel. How should nutrition affect travel on a plane? What about adapting to different time zones, and so on.”

The basics

With every sport, every club, every player and every coach different, there is no perfect, one-size-fits-all model for nutrition but that does not stop Collins searching for the best possible way to make a difference in his workplace. For him there are several factors that need to be in place within a culture for nutrition to be effective:

- nutrition fully integrated into training;
- nutritionist fully integrated with the performance teams;
- nutritionist attends coaching and performance meetings so they’re fully aligned to the goals of the organization;
- nutritionist wears the kit;
- nutritionist is comfortable in different coaching areas and makes sure the coaches are comfortable with them in their areas as well.

Becoming part of the scenery, says Collins, is increasingly important as athletes are in need of “diet coaching”.

James Collins



James Collins is a leading Sport & Exercise Nutritionist. Currently Head Nutritionist for Arsenal Football Club, James was also Nutritionist for the England Football Team at the 2014 FIFA World Cup. Previously working at The English Institute of Sport, he was also heavily involved in advising Team GB Olympic teams and individuals at the Beijing 2008 and London 2012 Olympic Games.

The nutritionist-coach relationship is something Collins developed as he moved to Arsenal FC, working alongside Arsène Wenger, known for his holistic approach to coaching. Collins contends that the coach sets the culture for the club, reinforcing what the nutritionist is doing. He says: “Your aims and the aims of the coach have to be aligned. It is key to have that conversation with the coach up front. They’re obviously very interested in what you’re going to put into practice because you’re coming into their environment but you



With nutrition having become normalized in a high performance environment, Collins believes it is possible to put even more focus on diet and the effect it has on performance.

How do you coach a diet?

One of the biggest challenges for a nutritionist is ensuring that the club's athletes buy into the "nutrition" culture. Collins says that the best way to do this is treat athletes individually, communicate effectively with them and make sure the science backs up what you are saying: "You need objective markers, setting up your monitoring with various parameters. Take body composition – when players come back after pre-season, we have a body composition screen and we scan them to give us their body fat and a good deal of accuracy on muscle mass as well. Then that

will be followed up at the end of pre-season, then mid-season and season-end as well. And aligned to those are the markers we might use. It might be blood markers to look at nutrient status, or urine analysis to look at hydration as well. And then when you're sitting down with a player, what you're bringing to the table is objective markers of where their body is, using the same strategies scientists use.

"The key is that we are trying to affect performance. It might be that one player, say a midfielder, is low in iron. The limiting factor on that performance might be increasing their iron, which might help improve their endurance capacity. Then with another player we might need to do some work on reducing body fat. So from this initial and consistent monitoring, lots of information falls out."

Collins adds: "If you're sitting down with an athlete and you've just done a body composition scan, you need to be feeding back straight away and showing them where their body is, giving them tips, working with them and giving them a plan on how they can improve. The overriding theme here is that at every touch point, every interaction you have with that player, you're upskilling them and educating them."

Collins encourages athletes to ask questions, to raise issues, about their nutrition, the science behind what he is doing, the diets he puts them on, a supplement they may have heard of, anything and everything. His aim is to get athletes, especially given the fact that many of them will be playing for different teams over the course of a season, to self

manage once the environment is set up correctly.

The right environment

And for Collins, this is the nub of the matter – working with the conditioning coach and medical team to make sure nutrition is central, from injury prevention and healing, right through to performance optimization. He says: "The key word I use is knitting it. Every sport, every culture is going to be different. Everyone has a different head coach set-up and different performance team. So it's actually standing back at the start, having a good look and then working out how you're going to implement that service and discussing it with the team. And talking to the psychologists, making sure you're interacting with players in the most effective way."

To aid the adoption of nutrition as a key part of the club the culture, Collins argues it is important the practitioner sets up an environment so that it is clear even when the nutritionist is not around. He explains: "This may be the flow of the restaurant at the training ground. For example how is the food set up and are there educational touch points at those parts as well? When a player is queuing for their food, we try to make it systematic for them to understand which is their protein component, what it looks like, what the portion size is, and how that should change depending on different circumstances. Same with carbohydrates, same with vegetables and fats. So we end up with a good flow in the restaurant and each player

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having an understanding of what they should be doing. So we have great signage, which firstly promotes education but also shows there is an understanding that this isn't just about eating good food, it's about making it target and performance-focused."

Collins also targets the changing rooms, finding ways to convey his messages to players so that good nutrition becomes second nature. With language often a barrier in modern soccer clubs, he ensures a lot of the messaging is visual: "I work with design experts to bring the message alive, to inspire the player. I want them still to be having fun – not be reading dull flyers about nutrition – so I try and keep the messaging simple and innovative. The tone of message is really key – I'm just making the access easy."

Periodizing diets

Collins concludes: "If we go back 10 years, we would probably have been talking about one diet, probably high on carbohydrate, that players would use all year round. Now we know diets have to be periodized. Using soccer as an example, a player's diet during the week for a heavy loading day would be very different from a lighter loading day, and

different again on a match day where everything is shaped towards performance. And furthermore, we would shape things differently at pre-season than we would when we're playing lots of games.

"Then again, we might look ahead and see a player is playing two, three games in a week, so their status is going to change depending on those matches. So for example the player that you've interacted with on a Monday could be a very different player that you see then again on the Thursday. Obviously the main conversation is about training volume but we know that if we alter their nutrition acutely, we can affect them and their performance at the weekend.

"Our macro-cycle is the year so we sit down with the performance staff at the start of the year and we look at the plans for the season. We use our historical data to map hot spots in the season and see when players may require more support or how nutrition might change at those points. And then we would plan the month, then down to the week ahead in terms of how many games you've got, all very closely linked with the training." ✨