Nutrition for our Swimmers

Part 1

One of the first concepts for us to consider is whether we need to separate **Nutrition for Health** from **Nutrition for Performance**. I'm lucky enough to work with International standard athletes and there is no doubt that their Nutritional programming is quite different to the sort of interventions I'd look at for the average person wanting to lose weight for their holiday, or someone wanting to address anti-aging strategies. In fact, I'd suggest that a lot of the Nutrition plans for elite athletes are anything but healthy. But then these are extreme populations, they might train 2-3 times a day. Their training volume and intensity is not what the majority of people would need to worry about *fuelling*. We can look at the **fundamentals of fuelling** for performance and still apply these to our younger swimmers though.

Nutrition for Health:

I'd like to start, however, with Nutrition for Health before we consider approaching how to manage swimming training or Gala day. Not many children make it to National Championships, fewer still of those will make it to International standard and unfortunately not many of those will make a well-paid career out of the sport. For most International Swimmers, racing is not a great way to make money. The same can be said of a lot of sports, so as coaches, parents and anyone else offering advice we should look at how to support and educate our athletes outside of swimming. If your coach isn't teaching you skills through swimming that you can apply to life then they are selling you short. We should be able to learn so much about how to approach school, university, interviews, jobs and how to interact with the world through what we learn in training. I'm a running Coach and Nutritionist and when I'm working with my junior squads it's vital to teach them about **resilience** and **graft**. How hard work, over time, gradually and slowly creates progress and development.

Nutrition is no different, we can create good habit and good relationships with food that will create long term good health outcomes if we instil and coach it early on. Unfortunately, this is where, as a good Nutritionist, life gets tough. Good Nutrition is actually quite boring, you know most of it already. What we want to hear is the new magic secret, be that Avocados, Superfoods or Chia Seeds. We want to be told by The Body Coach that we can eat more and move less... don't do this by the way. If there was a secret, and it worked we wouldn't have a still increasingly obese global population. There is an answer but as I said you know it already.

So. let's go back to health…

How would you define Health?
Does it describe your mental and or physical condition?
Does it mean you are free from illness or injury?
It's worth spending some time getting your head round what it means to you.

Nutrition for our Swimmers

by Noel Sutton BA MA, Sports Nutrition

The Mantra used within one of my education communities, Mac-Nutrition Uni is:
"Promoting health does not mean we merely seek the absence of disease but instead requires us to encourage physical, psychological, emotional, social, economic and intellectual well being."

Before I disappear into a rabbit hole, I'll try and bring this back to how it might be applicable to your young swimmers. In all the research and studying I've done over the years (Decades!) success in any sport is driven by consistency. Adherence and consistency are almost all that matter, can you turn up day after day, week in, week out every month. Train hard, train intelligently; apply yourself consistently over time...year after year. That is the key to success. You can't achieve your potential by kind of turning up, training hard one week and then not bothering for another. There is a motivational and psychological component that your coaches work on, but there are two key limiters for everyone, no matter how determined or hard working you are. The two biggest factors that will affect your consistency are illness and injury. An Athlete that keeps getting poorly will have disrupted training, equally an injury prone Athlete will also find their training interrupted. There is an element of bad luck and or normal life that will affect your likelihood of illness or injury, you can't do much about that. You can get a better hold on your overall health though, and your Nutrition plays a huge role in that. If you can reduce the chances of injury or illness by being in better general health then you improve your chance of long term consistency which improves your chances as a Swimmer.

I hear so often that people justify bad eating habits because they train hard and burn it off. That might be keeping you lean but it's not doing your health any good. And if that fails and you miss weeks of training because you can't shake off illness then ultimately you lose progress.

So, it is important that we start with Health, we are creating good habits for the future, whether that's a future life as a professional swimmer or professional accountant. But it's also keeping you in the pool more consistently and that is the key driver to your future success.

In part 2 I'll cover the Optimum diet along with some Nutritional Myths, before we can look at the fundamentals of fuelling performance in parts 3 & 4.

Part 2

Have you wondered what the Optimal Diet is for human health?

As a nutritionist it's something I consider a lot, and I always think it's a good exercise for my clients to ponder on.

How you answer this question might begin with your own personal starting point. Whether you are already in good health and want to maintain that or maybe you have issues that need correcting first? It's also worth considering your end point, is that necessarily Optimal health? In our case with young competitive swimmers it might include fuelling performance.

The difficult part as a scientist in answering this question is that most of the research into this area, into health in general, is pretty ambiguous. We could start with the World Health Organizations definition of health as *"a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."*

We can look at our ancestors for clues; however there is no research here it is just observational. The Kitavans, from Papua New Guinea, have very low rate of heart attack, stroke, diabetes and obesity they eat a high carbohydrate and high saturated fat diet. The Aymara people of Chile eat a lot of calories and most of them from carbohydrate. The Kuna's from the Island of Kuna near Panama eat loads of salt yet have almost no hypertension or coronary vascular disease. The Inuits eat 75% of their calories from Fat and virtually no plant food. In Africa the Maasai tribe eat over 3000 kcals a day and like the Inuits a good proportion of that is from Fat. We estimate they consume between 600-2000mg of cholesterol a day but have very low levels of serum cholesterol and no evidence for arteriosclerotic heart disease.

So perhaps not much help there in identifying our starting point!

I like to focus on the diet of the Blue Zone countries. The Blue Zones are five areas in the world that have the highest concentration of people living to 100 years old or more. They also have the best levels of morbidity; the older generations in these populations are more active than anywhere else. They have low levels of disease, so can be described as having the best health and living the longest of anywhere in the world.

The success of these areas is not just down to nutrition, in fact far from it. They are all physically active within close knit communities that look after each other. They get good levels of sun exposure, have low stress and don't smoke. Their natural environment is good, low levels of pollution. They are mentally sharp and not just respectful of their elderly but actively look after them, they all seem to have a religious sense of purpose too.

They do have some common nutritional themes in particular, they don't overeat, foods are generally local, home grown and prepared. They all eat a lot of grains and legumes. They certainly limit refined starches, added sugars and processed food. They also limit processed fats, although bear in mind that olive oil is processed and that is associated with many health benefits. The theme here of optimal eating is an emphasis on whole grain foods with, in general, lean meats, fish, poultry and seafood.

So, bringing this together into something useful, I'm not sure there is one optimal diet for human health, but there are some common themes we can see from the healthiest populations in the world. In Part 1, I mentioned there is an answer and you already know it, what we can say is that a healthful diet would be one that allows you to eat in energy balance, so without putting on weight. It means lots of fruit and veg and not much processed food. I reckon you've heard that before!

So why is the research into health and well-being so ambiguous? A lot of data is based on associations and observations, so we end up with potential coincidences (Correlations) rather than reasons for (Causations). It is also hard in research to get the right mix of people for your study, you can have one or two actively health seeking individuals in your study that will throw out your results.

The most common evolution of a nutritional myth seems to come from personal experience. Someone well known will have a good experience and the belief that a diet or intervention worked for them will make them think that they have found a magic answer for everyone. They are then able to use their celebrity platform to spread their message. Often the strong belief in whatever magic they have found will mean they can ignore any science or look at what really worked for them.

This makes the job of a Nutritionist so hard, the answer for most people is the one we've discussed here, a balanced healthy diet with lots of fruit and veg. What people want to hear is a magic bullet: i.e. gluten is bad for you, artificial sweeteners are worse for you than sugar, organic food is healthier for you, a high protein diet is bad for your bones and or your kidneys. None of these are true by the way.

We want to keep our young swimmers healthy, we want them to grow and develop as young children and teenagers. They should have a good immune system; they should be able to concentrate at school, shiny hair and eyes. Who doesn't want a child that is vibrant and full of energy? This will transfer into a healthy attitude to their training, they will be able to develop consistency through good health and a strong body. Their mind will function well and fuel their determination. This comes from a normal balanced healthy diet that should be the corner stone, the foundation. On top of this foundation we can then look at specific fuelling of performance. What should our children do differently, given their specific energy requirements for swim training? **In part 3** I want to consider energy systems and how to fuel training specifically.