Coach's Corner, Buffalo Stampede

By Brendan Davies

Part 7: Race day Nutrition and Hydration

You've done all the hard work in training, your body is beginning to feel rested as you ease from your sharpening phase into your taper period. Your focus is now shifting to mentally preparing to race, studying the course and planning your Buffalo Stampede race strategy.

No doubt you've all been practising your hydration and nutrition plans during your long runs. You may have discovered through the process of trial and error what works for you and what doesn't. Ideally you've done this frequently enough now to enable you to refine it to a point where you are quite confident that you've nailed it right down to its simplest and most efficient form.

This week's Coach's Corner will probably serve nothing more then, than a reminder to you all of the basics of race day nutrition and hydration. Perhaps it might even offer a few new ideas of how to manage this key aspect of race day performance. Or it may even be a bit of a wake up call to get started on a plan. Whichever it is, make sure come race day your plan is in place and ready to go.

"What works for one athlete, may not work for another", is definitely the truth when it comes to hydration and nutrition. Some may prefer water, others electrolyte fluid for hydrating. Similarly when it comes to getting the calories in, one guy will go with liquids and another solid food. There's even some that swear by the 'all in one' products. What this teaches us is that there are many ways to skin a cat. However, there are some well researched and accepted rules of thumb that do apply.

Pre Race Hydration

In the week leading up to the event it's a great practise to start hydrating well. Try and drink at least 2 litres of water a day. In the 2-3 days preceding the race, increase your electrolyte input through sipping a sports drink throughout the day or via an electrolyte supplement. Race sponsors Hammer Nutrition have two products Enduralyte Capsules or Enduralyte Fizz (dissolvable) that are easy to consume.

Race Day Hydration
On the morning of the race, get up early and have at least 500ml of water, but stop drinking at least an hour before the race. Just swig some mouthfuls in the last hour. During the race, the same practise applies; drip feeding your body is the best policy, taking small swigs constantly. The actual amount of fluid replenishment varies greatly between individuals. Gender, body weight, fitness levels, conditioning, sweat rate etc all play a part. Then there are the environmental considerations; temperature, humidity, altitude and terrain. To give a rough guide, you should be looking to drink at between 500ml to 750ml of fluid per hour. Again, I stress this will differ between individuals.

Just as with fuelling and electrolyte replenishment, be proactive, not reactive. Drink early and often, and don't wait until you feel thirsty before you start.

Post Race Hydration
The majority of athletes will finish in different states of dehydration; from my experience it is very difficult to replenish the same amount of fluids that we lose during the race, hence the usual weight deficit. As soon as the race finishes, make it a priority to drink a couple of litres of water in the following hours, monitoring your hydration levels via your urine output, colour etc

Electrolyte replenishment
Proper functioning of the digestive, nervous, cardiac, and muscular systems depends on adequate electrolyte levels. Muscle cramping usually involves improper hydration and/or improper electrolyte replenishment. No one wants to cramp, it can derail your race pretty quickly!

Similarly to hydration, electrolyte replenishment differs between athletes and according to conditions. For most athletes, 200mg of sodium chloride (salt) per hour is a good figure to aim for. But don't just take a salt tablet; it's critical to take an electrolyte supplement that contains calcium, magnesium, and potassium and other minerals.

I prefer to keep my electrolyte replenishment separate to my fuelling and hydration and I recommend taking an electrolyte supplement rather than a sports drink or a fuel that also contains electrolyte. I recommend Hammer Enduralytes as they contain the right minerals in the right balance and as they are independent of your caloric and hydration sources, they provide you with the necessary dosing flexibility that you will need to adopt as the conditions or the terrain (and exertion levels) change.

Pre Race Fuelling
In the week prior to the race, start 'carb loading'. The purpose of 'carb loading' is to store as much glycogen in your muscles as possible before your race. Your muscles are like a fuel tank, they can only hold a certain amount of fuel and it is important that they are completely topped up before your race.

A week before the race make sure you are eating low GI (complex carbs) foods throughout the day. Oatmeal in the morning, whole grains such as brown rice, quinoa pastas and breads, beans (kidney beans etc) and of course fruits and vegetables. You don't need to get too specific, just make sure that at every meal (including snacks) at least ½ of your plate is complex carbs.

Two days before your race increase this amount to around 70%. The easiest way to do this is continue eating how you usually do, but add 1-2 extra servings of carbs at each meal.

On race day morning, try and wake up 2-3h before the race and consume a low GI breakfast. Porridge, toast etc are great options. If you are not an early riser, don't eat a large breakfast close to race start; it is better to skip this meal and consume a high GI snack about half an hour before the start instead; such as an energy bar.

Race Fueling

If you don't fuel your muscles correctly your performance will suffer. But how do we fuel them? The general rule of thumb is that the faster and more intensely you run, the less likely you will be able to digest solid food as your blood supply is going to be focusing on your muscles and not your stomach! So for the athletes towards the front of the field, a liquid fuel is recommended.

The amount of calories required again varies greatly between athletes but a general rule of thumb is to follow a 'less is best' approach. That is, don't ever attempt to replenish the amount of calories lost during exercise. This is impossible and if attempted will lead to bloating, diarrhoea, nausea and vomiting. Your fat stores (of which we have more than ample supplies) makes up for the caloric deficit.

You want to aim for around 30-60g of carbs per hour, or around 200-250 calories (although this is a rough figure). Fast to medium digesting carbs are best as they will release energy quickly into your blood stream. You only have enough stored energy in your muscles to last about 1 hour of high intensity continuous movement, so it is essential that you are consuming carbs throughout the race to keep topping up your glycogen stores.

Gels are a popular source of carbs (each gel contains around 20-25g of carbs), although in a long race like an ultra I would recommend a much more subtle and stable fuel source instead. This will avoid the spikes and lows of taking gels. I recommend Hammer Perpetuem as a main fuel source. It also has the added benefit of it containing a small amount of protein. This is crucial, as in events lasting over 3 hours such as the Stampede races, your body will seek a protein requirement. If you don't supply it, your body will obtain the amino acids it requires from your muscles, which leads to a reduced performance.

Often I will use Perpetuem with Gels. Perpetuem acts like my slow burning logs on a fire that burn away slowly and consistently. If I am approaching a big climb, and will need the extra calories (you burn much more energy while climbing) I will consume a gel to give me a boost. Gels are therefore like throwing some 'twigs on the fire'.

Again, taking small amounts regularly is the best approach with fuelling. Don't wait until you're hungry but also don't overdo it either. Sometimes it is a fine line between eating too much/too less and this is why you should always practise nutrition in training. Definitely don't try any new products on race day either!

Post Race Fuelling

It is crucial to consume a high carbohydrate/protein meal as soon as possible after the race. Protein will help the repair process and carbohydrates will begin to restock your glycogen stores. Simple

sugars are great and the fastest acting and will get the brain working properly again too if you finish the race feeling a little ‘foggy’ or ‘spaced out’!

Putting this into practise on race day

Study the course profile and take note of the checkpoint locations and distance of the legs between checkpoints. Next, try to put a time estimation on each leg, taking into consideration the terrain, the amount of uphill etc. Once you have done this, you can begin to estimate how much fluid and fuel you will need between each checkpoint. In turn, this will dictate how much you carry with you between legs. For example, if I am aiming to get to the first Checkpoint at Bakers Gully 90 minutes into the run, I will start with around 1 Litre of water.

With fuelling, it is a little different, with crew only available to Eurobin Creek and at the Chalet. As such, you will need to be self sufficient until these points where you will have access to restock from your crew (there are no Drop Bag options). I should note that Hammer HEED (high energy electrolyte drink) is available at all checkpoints and is quite an adequate fuel and electrolyte replenishment, although I would not recommend just relying on this for your total fuelling or electrolyte replenishment plan especially for such a long event as the Ultra where accurate replenishment maybecome very ‘hit and miss’

Electrolyte replenishment is easily done by carrying a supplement such as Hammer Enduralytes or by carrying an electrolyte drink with you while you run.

Lastly, consider your gear in light of your hydration and nutrition plan. You will need some way of carrying fluids and fuel; and ideally you want this to be as convenient as possible.