

MULTI-DAY RACE NUTRITION - EAT RIGHT



*“Tell me what you eat,
and I will tell you who you are.”*

Anthelme Brillat-Savarin

Hippocrates said 2500 years ago, “Let food be thy medicine, and let medicine be thy food.”

Food is the one source of competitive advantage that is available to all of us. Yet I see many athletes neglecting the super-powers of nutrition. I can write a book about nutrition for health and performance, but in this short piece I will focus on the food for high performance in multi-day self-sufficient races.

THE BASICS

Racing for seven days carrying everything you need on your back calls for a very delicate balance between packing sufficient food and packing light. I have three north-stars when I plan my food for multi-day races:

1. **I eat only natural, real foods.** I choose real, whole food over anything processed. I don't use any gels, powders, sports drinks or synthetic protein bars.
2. **Nutrient density is king.** In choosing what natural foods to take I go for the most nutrient dense versions of everything, and then consider what foods have the highest calorie count per gram of weight.
3. **Keep it dry:** As far as possible all my foods are dehydrated for minimal weight.

My favourite race foods

- For example, dried goji berries and dried apricots are super foods, they are both super high in Vitamin C, and goji berries are known to boost blood circulation and the immune system, which is especially useful on a multi-day race assault on the body's natural defence barriers.
- Dried bananas have a huge load of potassium, as do baked dates which are super light and high in energy. Both these foods are known to help prevent cramping,
- Almonds and walnuts are loaded with potassium, vitamin E, magnesium, iron, and calcium. They help reduce muscle damage, strengthen our bones, and boost our energy for a remarkably low weight to nutrient density ratio.
- Walnuts are believed to be particularly good for reducing the symptoms of menopause.
- Coconut flakes are a super food for endurance runners because they improve energy metabolism during exercise.

And then there is the miracle of spices.

It is well-known that ginger eases upset tummies, but what few people know is that it boosts the production of mitochondria, the energy factories in our cells. It is simple – the more factories the greater the conversion of food sources into pure, raw energy.

Like ginger, turmeric is a super anti-inflammatory, helping to reduce inflammation and muscle soreness on consecutive days of exertion. One study has found it as effective as ibuprofen to help ease symptoms of arthritis.

It is estimated that 50-60% of runners suffer from stomach problems, including bloating, cramping, discomfort, pain, nausea and diarrhoea. Cumin is a wonder spice for the tummy. Studies have

confirmed that Cumin significantly reduces the symptoms of irritable bowel syndrome, which is estimated to afflict 11% of runners, as well as eases indigestion and flatulence.

And finally, the hero of the day must be Cayenne Pepper from the Capsicum chilly. This fiery red magic dust improves fat metabolism, especially later in races when we become fat burning machines and find our appetites and food requirements significantly reducing.

Capsicum also helps us to manage pain better – soothing all sorts of aches and pains – from toothache to back-ache and especially bellyache. Cayenne pepper is known for its ability to soothe intestinal discomfort, cramping, gas and is even prescribed as a remedy for stomach ulcers.

My father had a stroke, and it was recommended by his surgeon that he has a heart bypass. Instead, my mom and sister put him on a treatment of concentrated capsicum and within three months he improved from struggling up the three steps to his front door to mowing the lawn at age 70.

For races I throw out all packaged flavouring and MSG (the likes of which you find in two-minute noodles) and instead pre-spice my food with capsicum, ginger, turmeric and cumin. Dinners are a blast of life-enhancing flavours.

Supplements

In the desert, in the absence of access to natural wholefoods I supplement ferociously.

- **1000mg Vit C** – probably the most powerful and lifegiving antioxidant to combat oxidative damage. I would prefer to get this from Spinach, broccoli, cauliflower and brussels sprouts which make up my daily staple diet back home as religiously as Italians subsist on Pasta and wine is a staple of the French. In the absence of carrying a garden into the desert, I pop a high quality Vit C of minimum 1000mg combined with zinc and rosehips to aid absorption.
- **600mg magnesium** which is excellent to aid muscle repair, supports our adrenal glands which take a hammering on these races as we pump out large volumes of adrenaline and cortisol, and assists with sound sleep – which is critical when one suddenly finds oneself sleeping on a half inch thin foam mat, using one's stinky shoes as a pillow and bedding down with 50 other restless, exhausted, snoring, tossing and turning racers. Some nights at least half of us lie awake listening to each other's muffled cursing as two or three sound sleepers' majestic snoring crescendos chainsaw at the quietness of the desert night. It is estimated that 50-75% of the American population do not take in adequate magnesium.
- **Vit B12, 6** Last year just before KAEM I shifted to a vegan diet and within three months experienced Vit B deficiency and resulting fatigue. I now observe a 5-day-a-week vegan diet

and supplement with B vitamins – it is a small cost to pay for helping to reduce planetary resource stress and to not support the hell most domesticated animals are subjected to in order to feed the billions of our species. It was staggering to me when I learnt that in less than 400 years we have as a human species completely turned the table on our beloved wilderness: In the late 1600's 85% of all mammals on earth were wild. In 2019 85% of all mammals on earth are humans or the animals that humans have domesticated for their use. When I read this my soul cringes because I literally feel the wild spaces shrinking around us and the desperate plight of our fellow wild beings as their world contracts. The same pattern is true of fowl and fish. 90% of the world's fished species are almost wiped out. Supplement with Bs' and eat less meat and bird and fish.

- **Essentiale** – for liver repair. I discovered the huge positive effect of Essentiale on my running on the morning of a Cape Town marathon after having a few too many Gin & Tonics. The medication is normally used for hangovers. I had the best run of my life and could feel it had something to do with my liver. Science supported my hunch. A 2015 study (Damage to Liver and Skeletal muscles in marathon runners during a 100km run with regard to age and running speed, Zbigniew Jastrzebski, Kortas, April 2015) demonstrated that significant toxic liver damage occurs in athletes in running distances of greater than 50km and that the liver's ability to cope with this damage significantly deteriorates with age.
- **Salt** – 2x normal take-away salt packets for every 50km stage and 3x sachets for supper
- **MSM and Creatine** for muscle recovery
- **Water-purification tablets** – since getting ill on KAEM I carry 6x small tablets to clean water containers every day to avoid bacteria growth
- When I was diagnosed with Leaky Gut Syndrome, I began a regimen of **L-Glutamine and Collagen**, and in the first month consumed large amounts of bone broth. Since then, I never dare even go on a Thrive Run Club run without lining my stomach with L-Glutamine and Collagen. Before races I drink warm green tea with mint instead of coffee to line and ease my tummy. It has made all the difference. I never suffered the trouble I experienced in KAEM again.
- **Iron** – this is a new addition. I never used to, but since I have learnt that [82% of endurance running women are iron deficient](#) and that it obliterates one's performance, I have added chelated iron to my regime.

The truth is that one cannot supplement one's way out of a poor diet. Food is a miracle of complex chemical interactions that unleashes vitality and health. Isolating elements in a pill and hoping to accurately mimic nature's secret processes is at best foolish. Hippocrates understood the healing

power of food and I often find it strange that we outsource our health to concentrated concoctions of e-numbers and synthetic sources of nutrition, and protein bars that look and taste like plastic.

The best way to get adequate macro and micro-nutrients is to eat a varied wholefood diet, of mostly plants, organic where possible, with moderate animal proteins, oils in small quantities, and eating not too much.

EATING APPROACHES

From Vegan to Keto, Paleo to Low-Carb and everything in between, [diets](#) vary widely and what works for every individual is as unique as a fingerprint.

I have experimented with many eating approaches to shift my performance. In summary I can say that when I went **Vegan**, I felt great for the first three months, but primarily because I cut out dairy and especially milk. But before long I became Vit B and Vit D deficient, and chronically fatigued, and returned to animal proteins, but in moderation.

For Vegans there are definitely ways around this through supplementation and especially taking on board the above-mentioned Vitamins in addition to Creatine and loading up on protein-dense Hemp and Pea powders. The endurance running champion [Scott Jurek](#) gives great nutrition advice for vegan distance runners.

I also tried a **high-fat-low-carb eating plan**, with most of my calories from nuts, coconut oil, olive oil, eggs, avocados and modest amounts of red meat. The diet made me pick up weight and made me feel sluggish, on and off the racetrack, and brought me to the brink of unhealthy levels of cholesterol for the first time in my life.

I feel best and perform best when I eat a **low-fat diet, with a modest intake of oils and nuts and modest animal proteins**, excluding all milk and processed dairy, **and including large quantities of plants**, including a generous amount of high-carb root vegetables, especially sweet potato, turnips and butternut, and a lot of fruit of every kind. Raisins, dried figs, goji berries, dried banana and dates are my superfood carbs for races.

Intermittent fasting works for me. On weekdays and training days I follow a 14:10 cycle, keeping my eating to a ten-hour window. On non-training days and sometimes on weekends I aim for a 20:4 cycle. It gives my digestion a rest and kicks off ketosis but eases off before my body begins to produce the stress hormone cortisol.

And maybe one last note on **pre-race weight loss**. Going into a race at a lean race-weight is a huge competitive advantage. But living at one's ideal race weight may not be practical and perhaps

not optimal for one's health. Six to eight weeks before an important race I will try to lean down by 2-4 kg. The tool that I find most helpful to enable this is **the simple food diary**. I use excel – but there are so many useful apps out there that makes it simple. When one records everything one eats and understands that weight loss occurs in 50-100 grams a day if one sticks to the plan, then one naturally thinks twice about that extra helping or that sweet treat that will blow the plan out the water.

RACE NUTRITION

I list below what I normally eat on seven-day races. It may seem little, but it is truly surprising how little we really need to perform optimally.

Race-day Breakfast

The key is to get up early and eat at least two hours before setting off.

On desert races, as first light bleeds pale blue into the darkness I do one big Leonardo DaVinci starfish stretch to untangle my bowels, say a thought of gratitude that I got to wake up one more day, check my body for where the greatest sources of discomfort are and acknowledge them, mix cold water into my Pronutro and gobble it down from the cosy comfort of my fleece-liner before I have even properly woken up.

- Pronutro – a maize-based cereal, premixed with sugar and salt – goes down easily, even on days when I feel most nauseas.

A noteworthy side note on Maize: It is the staple food of the world's fastest runners - Ugali makes up 23% of the Kenyan elite athlete diet. It is also the staple food of the world's greatest long-distance running tribe, the Tarahumara of Mexico who as a clan, routinely runs 100 miles or more, and sometimes up to 400 miles, including young and old, men and women even well into their 70's.

They call themselves the Raramuri, the 'running people' and subsist largely on Pinole, which is made from roasted corn, sugar and spices, sometimes including cinnamon, agave, chia seeds, vanilla and cocoa.

Both the Kenyans and Raramuri have a low cholesterol diet, with the majority of calories coming mostly from plants (up to 83%), with only a small percentage coming from animal protein and fat. Roll in the vegans.

During the Comrades Marathon, racers have a feast of food to choose from at more than 40 food stations along the way. I tried Mageu for the first time in 2018 and it gave me a massive

boost, easing my stomach, easily replenishing my carbohydrates, and giving me more sustained vooma than anything other food or beverage on offer.

Mageu is a traditional non-alcoholic South African brew of fermented mieliepap, a thin maize porridge made by the Zulu, Xhosa, Sotho and Tswana people. It is our own local version of Pinole. There is definitely something to Maize.

- Instant Plain Oats – this is a good alternative if you are an oats-fan.
- A Green & Mint tea sachet – eases and lines the stomach.

Getting ready

Once I am packed for the stage, water bladder filled, food for the run separated in 10km rations, I settle down on my back, feet aloft against a tent-pole for last-minute lymph-relief and join in the general banter while practicing my favourite breathing pattern – the beautifully simple **4-7-8**. Paramedics and self-help gurus colloquially call it ‘the tranquilizer’ for its uncanny ability to take complete control of one’s parasympathetic nervous system, calming it regardless of what savage thoughts of panic or gloom may be raging in one’s head.

- Breathe **in for 4** counts through your nose, **hold for 7** counts and breathe **out for 8** counts through your mouth. Do these sequences four times and suddenly the world bursts into technicolour and one feels suddenly large and powerful and very present in the moment.

On the run

How well one eats will determine how well one’s race goes. If one doesn’t eat, one will without a doubt fail to complete the race. It is as simple as that. The secret to running a strong and successful multi-day ultra-marathon is to eat well, from the start, to the finish, whether you enjoy the eating or not.

Personally, because I don’t race on high-carb, high-sugar liquids, I like to open the kitchen within one hour of starting the race so that my stomach can get used to ingesting and digesting small portions of food.

I top up with 10-15 grams of high-quality nutrition every 45-60 minutes, followed by a few sips of water. If one’s stomach is well enough, it is lovely to look forward to the next delicious morsel. If not, one struggles through the hell of biting and swallowing a forcing down that bilious bite, with as much grace and pleasure as an anaconda swallowing an elephant – but in it must go.

For every 50km stage

- 3 date balls or a 45g wholefoods bar of seeds/ nuts/ raisins/ cranberries
- 1x75g ziplock bags with a salty mix of nuts (almonds/ walnuts/ pecan nuts), dried fruit (dried bananas/ baked dates/ dried apricots/ goji berries) and dried coconut flakes
- 1x75g of the above in reserve in case the terrain demands greater energy intake
- 1 sachet of Rehydrate or medicinal Diorolyte to replenish salts
- 1 serving of Hammer Perpetuam with L-Glutamine to line my stomach
- For variation on the long day and in case my stomach is in revolt – 75g of jelly babies or 1 bar of nougat

Post-run snack

The reigning theory of optimal race nutrition is to eat a protein and carbohydrate rich recovery meal within 30 minutes of finishing a race. I make it a priority to replace my electrolytes and then spend the rest of the afternoon steadily refuelling by munching through my post-race portions as below, one bite at a time, even if it is far from pleasurable while trying to survive the lava hot oven of desert heat.

- 1x Diorylite electrolyte (medicinal rehydration remedy sold in the UK)
- 100g nuts and dried fruit mix (including glazed ginger for tummy) – high carbohydrate and moderate protein content
- 50g of free-range biltong sticks (dried, salty, spiced meat synonymous with South Africa, similar to beef jerkey – the sticks are drier and therefore lighter than the slices) – great source of protein
- One treat a day x 7 – out in the desert one needs every possible morale booster – make sure to pack variety - something novel to look forward to each day (1x20g salted seaweed, 1x 50g packet of crushed Pringles salt and vinegar crisps, 1x 30g Marmite flavoured rice cakes, 1x 45g salted peanuts and raisins, five salted rice cakes, 1x extra serving of sliced biltong, 1x 30g sachet of Ricoffee, creamer and sugar pre-mix)
- 1x coffee sachet, 1x sugar stick
- 1x black tea, 1x sugar stick (I don't use sugar at home, but on a race it is a super treat)

Dinner

As the heat dissipates and the desert air begins to cool, it is as if all the scorched earth sighs with relief. The crickets start chirping, and birds and frogs and mosquitoes emerge in the pink and blue desert dusk. Racers crawl out from under the marquees and huddle in small groups around the

kettles of gas-heated water. Most of us are nursing some form of foil-packet that contains a dehydrated meal of synthetic spaghetti bolognese or Indian curry and rice or beef stroganoff, and although the wafting smells are beguiling and mouth-watering, one taste of these dehydrated meals reveals the cleverly hidden chemical composition. I favour plain noodles and dried seaweed that I have spiced into a mouth-watering superfood.

- 1x packet of instant soup – great for replacing salts; try to find MSG-free soups
- 1x 75g noodles pre-spiced with cayenne pepper, turmeric, ginger, cumin and salt and 3g of nori seaweed mixed in for thyroid-supporting iodine and iron
- On every other day a 75g packet of tuna in oil
- 1 x soothing mint/ ginger/ rooibos tea sachet

Yoga routine – sustenance for the soul

At some point in the day, be it after breakfast, or directly after the run, or before dinner I make the time to calm my mind and body by doing four basic gentle yoga stretches.

- i) Simple downward dog – inversions calm the mind.
- ii) Simple warrior lunge to stretch my psoas and groin. The psoas muscle is a deep-seated core muscle in the body – it is the piston of the hip flexors, contracting thousands of times on a run to lift one's legs. That painful clenched burn in the groin, the hips, the lower back are all because of a contracted psoas muscle. It literally makes one feel like one's spine is shortened and like the hips are gridlocked, allowing one only the most meagre range of a painful, ungainly forward shuffle. Stretch your psoas!
- iii) Lying down for a simple spinal twist to ease the tension in my lower back.
- iv) And finishing with the Plow, where one starts with a shoulder stand and then drops the feet back over and behind the head, to face one's buttocks heavenward. Ten seconds of the Plow feels like an hour worth of massage – blood rushes to the thyroid, the inversion calms one's mind, it stretches the fascia around the spinal column and oxygenates the blood, it clears the sinuses, especially in the desert where fine dust clogs the breathing pathways, and it leaves one feeling 10 years younger.

MY FOOD GUIDELINES – ON AND OFF THE RACECOURSE

It's not all about racing. The endgame is to have high vitality every day and to live a long and healthy life. I have a few simple **eating guidelines** which I believe is the source of my vitality, has been a key mainstay of my performance over the years, and I believe will contribute to my good health and longevity.

- Eat natural – skip anything that is processed – just skip it.
- Eat more plants - much, much more than animal proteins and oils – ideally my ratio is 90% plants, 10% other.
- Wherever possible, eat organic to avoid the scourge of pesticides, anti-biotics and heavy metals that are poisoning our foods.
- Dial up on micro-nutrients – honour your hunger with the most nutrient-dense food you can come by.
- Hydrate – drink water, and green tea, and coffee is good too if your tummy can handle it.

Eating and living like a Blue Zoner

A varied, organic, wholefood diet, of mostly plants, with animal proteins and oils in moderation describes the **Mediterranean diet** and is often linked to the extraordinary longevity of **Blue-Zoners**, those people who live in places where one is far more likely to live until well beyond 100 years old than anywhere else on the planet.

In Ikaria in Greece, Sardinia in Italy and Okinawa in Japan people follow a predominantly plant-based diet. But there are other things too that sustain their longevity:

They remain physically active for most of their life – often cultivating the land and spending the day outdoors moving around naturally. They also don't run extreme marathons. They have a sense of belonging in their community, often sharing in a spiritual practice and they have little daily stress.

It has been found that when people from these blessed blue zones move to other more modern European or American locations, and as they adopt the habits and diets of their new homelands, their longevity rapidly shrinks to the longevity of their host nation.

Living a long happy life is less genetically pre-determined than we think. How we choose to live, move and eat are what ultimately tips the scales of longevity. It is comforting to know it is to a large degree in our own hands. And it is an equally big responsibility.