
10 Commandments of the Runners' Diet

Diet affects performance, and the foods that we choose in training and competition will affect how well we train and race. A good diet will help support consistent intensive training without the athletes succumbing to illness or injury. Good and flexible food choices can also allow the athletes to adapt to the training stimulus.

I have drafted the following 10 commandments based on my years of experience and current evidence. They are designed for long distance runners who are either just new to the sport or going to run their 50th marathon. These are particularly handy for those who are aiming to train up to 6 times a week with running up to 40km in one training session.

1) Always have breakfast

Every time when I went to do some gym workouts in the mornings I was appalled with the number of people not eating or drinking before their exercise. During sleep overnight, our body does not stay idle. It is still burning fuel and consuming water. The morning meal is to break the fast and condition the body into the awaken mode. Exercising with an empty stomach in the morning means that you are unable to train at the highest intensity that you can afford plus you have a higher chance of injury. If you follow a 3-meal daily pattern, breakfast can provide up to one-third of your daily energy and nutrient needs too, so this is an important meal!

Another benefit I observe in having breakfast before training is that THIS IS ALSO TRAINING for the gut to get used to digest food before exercising. Most running races start in the morning. Where people will train in the morning without breakfast, we rarely go to a race without breakfast. Having breakfast before training provides a good opportunity to find a suitable food your gut is comfortable with during running. Some of my clients tell me that they don't like running with a heavy, loaded stomach. I always say that a big breakfast is not necessary. A honey toast or a commercial breakfast drink may be sufficient enough. Still have no appetite for that? Then just try to drink 2 glasses of water. Flushing the gut with fluid in the mornings will stimulate the gut to wake up. Have a go!

2) Drink (fluid) before, during and after (training/events)

Dehydration has the biggest impact on our performance: the work capacity drops exponentially when our body loses fluid equivalent to 2% of body weight. A 5% body weight loss due to fluid will result in up to 30% drop of the work capacity. Now you can see why hydration is important! The key messages are: begin training/events well hydrated, replace the fluid losses during training/events and rehydrate as soon as possible after training/events.

The amount of fluid needed during training/events depends on individuals and weather. The Wangaratta Marathon will be held on 24th February. The weather can be warm and dry. In such weather, a sweaty runner may need up to 2 litres of extra fluid during the 42.2km

event. To know whether you sweat a lot and whether you drink enough, you can weigh yourself before and after a training session simulated to the event you are going to do. The aim of the hydration strategy is to achieve a stable weight before and after the training/event.

For any training/events between 30 and 60 minutes' duration, water will be the choice of drinks. For any endurance training/events lasting 1 hour or more, commercial sports electrolyte drinks are better options since they provide extra carbs as well as essential electrolytes apart from fluid.

3) Carb is good friend

Carb, or carbohydrate, is no evil. It is the preferred fuel of the body. Our brain also prefers sugar over fat (the brain is unable to use protein as an energy source). The principle of sports nutrition is how to top up the carb storage in the body (as glycogen), and how to prevent this storage from running out during an endurance event. When the carb storage is run out, the body will 'hit the wall'. Theoretically, if you eat and drink properly, you can keep running/exercising all day!

One of the common errors of athletes is that they focus a lot on their diet before a competition, but eat whatever they like during training. In fact, choosing the right carb in your training diet is more important than in your competition diet! An active runner should consume 5 to 7 grams of carbs per kg body weight per day. For example, if you weigh 70kg, you should consume 350g to 490g carbs per day. The carbs consumed are preferably in the forms of complex carbs, such as bread, potatoes, rice, pasta and other grain products etc.

4) On the other hand alcohol is not so good

Alcohol is good fun during party times; however it is the nemesis of athletes! My colleague once commented that our body's liver is like a man, that it can only do one job at a time. I reckon there is a grain of truth in this! Liver is the factory of the body in metabolising, mobilising and storing carbs. When we consume alcohol, our liver will be too busy digesting alcohol and thus withholding its carb recovery job. The effect lasts for up to 48 hours after alcohol is consumed. Therefore think twice before you drink! All athletes should avoid heavy intake of alcohol after training/event and the night before a race.

5) Train high race high

My philosophy is that an ideal training session is to mimic the race situation. You would train under a similar scenario, i.e. in a similar distance, in a similar effort and thus naturally with a similar preparation. Train high means that you top up your tank and be well-hydrated before your training. If you train in the mornings, make sure to have breakfast beforehand; if you train after work or school, have a snack beforehand. With this approach you will enjoy your training more and be able to recover sooner.

Another emerging concept is a totally opposite approach: train LOW race HIGH, i.e. train on an empty tank but fully topped up before racing. The hypothesis of this approach is to

improve the body's response under stress and switch on the fat burning mechanism sooner. The sooner the fat burning mode is on, the less carb storage will be consumed and thus the body can sustain longer effort. This approach works if you do it properly. To do it properly means that you strategically empty your tank by exercising for an hour BEFORE your training starts. This approach should be used with caution since it will impact recovery, especially if you train regularly, say five to six times weekly.

6) Recovery is all about timing

Recovery is all about rehydration, refuel and repair. Eating enough carb to replace fuel is important in daily recovery, but so is the timing of your recovery snack. The key message is, the sooner you eat or drink, the quicker you recover! In terms of the choice, a hungry muscle is looking for a quick fix of carb for refuelling, as well as some protein for repairing the muscles. Examples include a cup of liquid meal supplement or milk shake, sports bars or baked beans on toast. Remember, every moment counts!

7) Sometimes a little bit of salt can be handy

Every year during the Australia Day weekend, there are thousands of riders tackling the Australian Alps in the Alpine Audax. The most challenging part is neither the altitude nor the hairpin corners. It is actually the scorching weather of the time. There are always a handful of riders admitted to the Emergency Department. The reason? Not dehydration. Not heat exhaustion. It is exercise-induced hyponatraemia. When we exercise, we sweat. The body becomes dehydrated and thus our performance drops. It is actually our body's preventive mechanism not to overheat when the fluid and electrolyte levels get low. Our sweat consists of numerous electrolytes. The two major ones are sodium (chloride) and potassium. However, when we rehydrate with plain water, it only replenishes the fluid storage. If the electrolyte imbalance is not treated in time, it can lead to headache (due to brain oedema), nausea, drop in performance and, in severe cases, collapse.

Everyone's sweat concentration is different, although it tastes salty regardless! Literature suggests that the salt loss can range from 2 to 10g (i.e. 800 – 4000mg sodium) in a 90-minute training session. In order to replenish the sodium loss, always bear in mind that commercial sports electrolyte drinks are the choice of drinks for training/events longer than 1 hour. Commercial sports drinks usually contain 150 – 250mg sodium per 500ml. In unusually hot weather (> 37 degree Celsius) with long exercise duration (> 4 hours), the sports electrolyte drinks may not be salty enough (especially for runners with salty sweat). In this scenario, you can try to mix a pinch of salt into the sports drinks, or pack a vegemite sandwich to be made available at the drink station.

Just like shoes, don't try out new plans during competition. Do it in training sessions and find what fits you best!

8) Refrain from unplanned treats

As I emphasised before, the training diet is more important than the competition diet. Being active in running does not mean that you are entitled to eat everything you want. A

professional athlete usually has a tailor-made meal plan, structured around their training pattern. Unplanned treats are usually found in the workplace (e.g. birthday cakes) or party times (e.g. finger foods). They are usually high in fat and low in good vitamins and minerals (i.e. empty calories). A well-planned runners' diet will have carbs evenly distributed throughout the day, together with good-quality recovery snacks strategically consumed at the right time. Therefore, from now on, resist the temptation and stick with your own energy treats!

9) The magic formula: low fat + moderate protein + high carb = perfect runner's diet

Last but not least, it is time to look at the quality of the daily diet. A perfect runner's diet should provide sufficient energy source for training, allow optimum recovery, help to achieve and maintain ideal body physique, reduce risk of injury, and flexible enough to fit into the social eating occasions. For years I have been asked by my sports clients for a meal plan. However there is no single meal plan fits all. The diet will depend on the type of sports, the individual preference and the aim of the energy balance. For runners, the starting framework would be looking at the macronutrients: To achieve a lean physique, fat intake should be kept low, roughly 30 – 50g daily. A good amount of high-quality protein is essential for muscle repair however not as much as in a bodybuilder's diet thus a moderate amount is sufficient, roughly 70 – 120g daily. The amount of carbs required varies depending on the activity level. During peak season or heavy training period, a typical amount will be 350 – 490g daily. This should be cut down during the off season or rest week. If you follow this plus all the 9 commandments above, then you are well prepared nutritionally for the Wangaratta Marathon. Enjoy training!

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About the author:

Joe has 12 years of nutrition experience. He has received sports nutrition specialist training in AIS and practising as a sports dietitian since 2007. He is one of the 189 accredited sports dietitians in Australia (by the Sports Dietitians Australia www.sportsdietitians.com), and the only one in the region. He works as a clinical dietitian in Northeast Health Wangaratta, and also runs a sports nutrition clinic. Clients he has seen include cyclist at amateur to professional levels, aspiring athletes, ironman triathletes, long distance runners, swimmers, gymnasts and footy players.

During his spare-time you may find him conquering the Australian Alps with a road bike or down the numerous fire trails in the region with a mountain bike. His ride of the year is the Audax Alpine Classic.