

Marathon Nutrition: Mistakes to Avoid

By: Kim Mueller, MS, RD

As you begin a marathon training program, whether it be to help aid weight loss, improve overall fitness, or as means to qualify for the Boston Marathon, the key to achieving optimal health and peak run performance is balancing smart physical training with proper nutrition. Despite this fact, many runners concentrate solely on training, putting nutrition on the wayside, ultimately depriving themselves of a true peak performance and putting a damper on their whole marathon experience. In this article, I provide the inside scoop on how to avoid the most common nutritional mistakes made by both veteran and new marathoners.

Mistake #1: Overtraining the final 3 weeks leading up to race day

Research has demonstrated that an athlete's muscle glycogen (carbohydrate) stores are only at 50-60% capacity at the peak of marathon training, which typically falls 3-weeks out from race-day, making a physical taper from training essential for proper reloading of the muscles. In order to encourage glycogen replenishment in the 3-weeks leading up to race day, runners should decrease their peak training volume by ~20-25% each week leading up to race day while maintaining training intensity. In addition, a high carbohydrate (55-60% of daily intake) and calorie-balanced training diet (55-60% of daily intake) should be followed up until the final 3 days prior to race day. Those final 3 days of training generally includes 1 day off (perhaps a massage), a short (~20 minutes) marathon-pace tempo effort, and 1 easy run of 20-30 minutes. In addition, further dietary manipulation of carbohydrate intake to support carbo-loading protocols is warranted the final 3 days before a race effort. Carbo-loading entails that the athlete follow a calorie-balanced menu with 80% of calories (~4-5 grams per lb of lean body mass) being derived from such carbohydrate-rich foods as cereal, bagels, potato, pasta, energy bars, fruit juice, bananas, rice, pretzels, and low-fat yogurt. By following a proper taper from training and carbo-loading protocols, muscle glycogen stores will increase two-fold from the peak of training lowering the likelihood of hitting the wall mid-race.

Mistake #2: Skipping the pre-race meal

Regardless of race distance or carbo-loading protocols, a pre-race meal is essential to protect against low blood sugars and mental drain known as 'bonking', especially when coming off a fasting state where fueling has not occurred over the previous 4 hours). The purpose of a pre-race meal is to restock the 100 grams of carbohydrate (400 calories) stored within the liver, helping to elevate blood sugars and improve energy levels prior to race start.

Mistake #3: Sticking to high fiber recommendations on race morning

Contrary to the high fiber recommendations that are provided from all corners of the health spectrum, fiber should be limited to no more than 10 grams on race morning as fiber takes longer to clear the gut and can leave your stomach feeling heavy if large amounts are consumed pre-race. Stick to lower-fiber, 'gut-friendly' pre-race options such as plain toast, bananas, rice or corn based cereal, pasta, and potato. To help mute hunger and stabilize blood sugars, inclusion of up to 25 grams of protein (e.g., 1/2 cups of scrambled eggs with toast) and up to 20 grams of fat (e.g., 2 Tbsp nut butter) is encouraged. Overall, aim at consuming 400-600 carbohydrate focused calories in the 2 hours leading up to race start as means to optimize blood sugars and protect against early onset of muscle fatigue.

Mistake #4 Racing without a hydration plan

In order to create a hydration plan for race day, athletes are encouraged to complete a sweat test on each one of their long training runs by weighing in immediately prior and post run (preferably in the bare) making note of fluids ingested during the run. Every pound lost represents 15.2 ounces and 200-500 mg of sodium that should be consumed for optimal hydration status. Fluids are best consumed in small amounts (4-5 ounces) every 10-20 minutes throughout the marathon. Note that marathon aid stations are generally spaced every 2 kilometers so plan accordingly. The ultimate goal is to lose no more than 2% of pre-workout body mass.

While dehydration ranks amongst the most common nutritional causes of performance decline in athletes, self-correcting by blindly drinking large volumes of fluid on race day has the potential to be equally as dangerous as fluid uptake rate maxes out between 1-1.2 liters per hour and levels at or above this, especially when consumed over 4+ hours, puts the athlete at risk for a

condition known as hyponatremia. Common symptoms associated with hyponatremia include a sloshy gut, bloating, headaches, clear urine, weight gain, and vomiting. If symptoms do arise, it is important to taper back or stop fluid intake and in warm conditions, reduce effort (slow down) to slow exertion-based losses of sodium while implementing sodium-rich foods (e.g., pretzels, salt packs, etc.).

Mistake #5 Waiting too long before fueling

It is not uncommon for marathoners to get so enveloped in the energy of the race as well as the fact that their tapered muscles are feeling awesome that they forget to fuel before it is too late. Unfortunately, the body is not capable of playing catch-up by hyper-loading the muscles with nutrients when that ugly marathon 'wall' ensues and as a result, many runners struggle horrendously the final 10 miles of the race. To avoid hitting the 'wall', runners should plan out a fuel plan that includes ~10 grams of carbohydrate (in 4 ounces water) every 10 minutes starting from mile ~6 of the marathon. Inclusion of small amounts of protein at a rate of up to 6 grams per hour can be helpful for marathoners on the course longer than 4 hours.

Looking to achieve peak marathon performance? Kimberly Mueller, MS, RD, owner of Fuel Factor Nutrition, is a Sports Nutritionist and competitive athlete with a 3:04 marathon PR who provides nutrition coaching, race-nutrition guidance, and customized meal planning to athletes worldwide. More information on Kim's services can be found at www.Fuel-Factor.com. Kim can be reached at kim@Fuel-Factor.com.