

# Nutrition for the Long Run

## *Filling the gas tank for the pre and Post Race*

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**Ask 10 runners what to eat in the days and hours before a race, and you will get 10 very different answers!** Runners are always wondering if there are special foods and/or drinks that will give them a competitive kick in a race, or that will assure fast and quick recovery from an all-out effort.

### Pre-race Nutrition

**Pre-race nutrition supplies needed energy, fluid and electrolytes for a specific event.**

Pre-race can be defined two distinct blocks of time:

- the days prior to a race
  
- the hours prior to the big event

We'll consider each separately.

### The days before a race

**The days before a race include overall training days as well as the days immediately prior to a race.** Races that will take an hour or less to complete do not require the same attention to pre-race fueling as do races of 10 miles to the marathon, and beyond. The shorter races will not eat into stored energy to the same extent as the longer races will.

**This doesn't mean that you don't need to think about nutrition before the short ones!** It's just that your day-to-day, high carbohydrate (CHO) training diet will likely get you through just fine. Add some pre-race fluid, and stoke up afterward at the post race reception, and you're ready to race again.

### In the days just before a race

**Remember - your day-to-day training diet has at least 60% of the total energy (calories) coming from carbohydrates.** Wholegrain breads and cereals, fruit, vegetables, pasta, oatmeal, and grains

are all major foods in the high carbohydrate meal plan.

**The longer your race is, the sooner ahead of it you should think about further increasing calories from CHO to 70% of total energy.** This is called carbohydrate loading. It is not thought to be of benefit for races that are less than 90 minutes long. Loading will increase endurance only - not speed or power. Endurance though, is pretty important at mile 20 of a marathon!

**For a short race, while there may be some benefit to eating more CHO over the 24 hours before, filling up the fluid tanks is primary.** You should be drinking enough fluid daily to keep your urine clear and pale yellow. For most athletes, this is at least 8-10 (8 oz) glasses a day. Add at least 4 more glasses the day before the race. This will assure proper hydration. In hot weather, add more.

**For longer races, energy storage takes over - CHO content should be higher for at least the 3 days before.** Some people start to increase 5 days prior. Combine this with a decrease in your mileage called a "taper", and you'll have a strong race. Increase your fluids as well.

**The purpose of the load and the taper is to optimize glycogen stores in the muscles.**

Glycogen is stored carbohydrate, and it is what your body depends on for fuel, especially in the longer races. When you run out of glycogen, you "hit the wall" or "the bear jumps on your back".

**The loading fills your muscles with glycogen. The taper makes sure that you don't use it up before you get to the starting line, and rests the muscles so they can store the glycogen.** Increase CHO to 70% of calories. The best way to do this is decrease fat calories. That will leave approximately 15% of calories coming from both protein and fat.

### In the hours before the Race

**The 2-4 hours before the gun can be tricky.** There are people who couldn't think of eating this soon

before a race, and those who seem to be able to eat anything at all. Many runners want very specific foods, in very specific amounts.

**30-50% of endurance athletes have had some type of gastrointestinal complaint before they race**, whether it be heartburn, bloating, cramping, nausea, vomiting, stomach pain, gas, or diarrhea.

- fuel you during longer races

**Several factors can affect how well you tolerate food before a race:**

- level of training** - rookies often fare worse
- intensity** - speedwork and all-out efforts usually decrease tolerance
- age** - the older the better; maybe experience with racing has taught lessons!
- gender** - women seem to have it tougher; possibly hormonal shifts may contribute

- "nerves"** - the more "keyed-up", the worse
- caffeine/^ sugar drinks** - more is often bad

- fibres** - this isn't the best time for high fibre

If these factors can be modified to prevent gastrointestinal symptoms, and allow you to eat in the few hours before the race, it will be of benefit, especially for long races.

### Things to consider : Food

**What you do eat should be out of your stomach by racetime.** Here are some guidelines:

**A large meal (400-800 calories) will take 3-4 hours to digest.** If the race is at noon, a stack of pancakes, an egg, juice, milk and some fruit is a breakfast to finish by 8:30 am or so.

**A smaller meal (200-400 calories) will take 2-3 hours** to leave the stomach. A bagel with some peanut butter, and an apple could be eaten by 10:00 am for the noon start.

**A fluid meal will leave the stomach faster** than solids will, and could be taken within 1-2 hours of the start.

**Eat familiar foods that you like before a race!**

With nerves on edge, you don't need the added stress of unfamiliar foods. If you have to, pack foods with you in your gym bag to eat en route, or the starting area. Some examples of high CHO foods that are easily digested are:

- bananas, apples, oranges

"Nerves" may play a role here, but suboptimal food choices can't be ruled out either! If your choices are good though, what you eat will help to:

- keep blood sugar at reasonable levels
- "soak" up gastric juices (which helps to and settle the stomach)
- decrease hunger during the race
- juice packs
- bagels, low fat muffins with peanut butter or jam
- animal crackers, graham crackers
- rice krispie squares, rice cakes, fig newtons
- cereal bars, low fat granola bars
- sports bars (expensive)
- low-fat cheese, yogurt (some people avoid dairy foods right before a race)

**During the race, refuel.** Get 0.6 grams CHO/kg every hour. Sports bars and gels will supply this. Try to refuel at least every 1/2 hour. 6 oz of most sports drink every 16-20 minutes will meet these needs.

### Things to Consider: Fluid

**Hydration is crucial to good sports results.** In the hours right before a race, "top up the tank".

- 2-3 hours before the race, drink at least 1L**  
Finish drinking this fluid 2 hours before the start your kidneys will have time to deal with it!

- 5-10 minutes before the start, drink 250 ml more.** Fill up at water stations along the course and you will be well hydrated. See below for guidelines about what fluids to drink.

**Avoid excess fluids with caffeine, or alcoholic beverages before a race.** These are diuretics, which can cause dehydration. Better choices are:

- water** does the job well, especially for short races, where replacing energy and electrolytes are not as much of a concern.
- juice** pure juices are concentrated and should be diluted 1:1 with water. Juice supplies fluid, energy and electrolytes.
- sports drinks** are formulated to replace fluid, energy and electrolytes in appropriate amounts.
- pop** (de-fizzed) will provide fluid and energy. It should be diluted like juice. Diet pop provides fluid only.

## **Post race**

***You need to replenish your stores and allow some nutrition for muscle repair if needed after a race.***

Replace fluid, energy, and electrolytes. Start as soon as you can; within 15 minutes is ideal.

❑ **Fluids** get 250-500 ml water, juice, or sports drink into with in the first 15-45 minutes. Weigh yourself if possible. For every kg you have lost, increase your fluid intake by 1L. Then resume regular high fluid intake.

❑ **Energy/Carbohydrate** start refilling your glycogen stores. Immediately after the race, aim for 0.25 grams CHO /kg every 2 hours for 6-8 hours. Then return to your regular training diet. The body is especially efficient at storing carbohydrate as glycogen in the 1-2 days following a race. Take advantage of this! Rest the muscles to help the storage process along.

❑ **Electrolytes** will be replaced with fluids and energy.

Remember! It's..

**Nutrition for the long run!**