

# Marathon Nutrition

Run Your Best on Race Day

## Fueling during training

- **Should you do your long run on an empty stomach?**
  - Long runs in your training plan that are shorter than 14 miles can be completed in a fasted state - meaning you don't need to fuel specifically for them or you could run without eating breakfast. This helps increase fat utilization early in the training cycle without compromising your ability to finish the long runs strong.
  - The last 3 long runs of 16 miles or more should be run in a glycogen loaded state. This means you should eat your pre-race dinner and fuel as best you can before you head out the door. If you already wake-up very early, try something small like a gel or an energy bar if your stomach can stand it.
  
- **What to eat before you run**
  - Determine what your stomach can handle by eating a small snack 90 minutes before your workout. If that goes well, eat the same snack 75 minutes before a hard workout. Repeat until you find the closest time your stomach can handle food.
  - The harder you have to run, the longer you need to wait after eating. Experiment in training!
  - Small Snacks
    - Energy bars – These tend to be light on the stomach and easy to digest. Avoid diet products, as these often cut the carbs, which is exactly what you're looking for.
    - Natural energy bars – A Granola bar is a great way to eat more natural, but still stick with a light snack filled with carbs.
    - Banana – High in carbs and potassium
    - Small bowl of oatmeal – while oatmeal tends to have a good amount of fiber, it can be a good solution for runners who can't eat close to running, but need something small to sustain them.
  - Medium Snacks
    - Toast with peanut butter and jelly – There is a reason your mom always gave you toast when you had an upset stomach. It's easy to digest and light on the stomach.
    - Wheat bagel with Peanut butter or cream cheese – A little more substantial than the toast with a small dab of protein to stave off hunger.
    - Yogurt and granola – A power pack of simple and complex carbs.
  
- **What to eat after you run**
  - Drink electrolyte beverage with simple sugars (Gatorade) as soon as you finish you run. 16oz is a good benchmark, but more is ok.

- Refuel within 20-60 minutes after exercise with a beverage/snack that contains both protein and carbohydrates
  - The optimal ratio is 4 grams of carbohydrates to 1 gram of protein. This maximizes gastric emptying and absorption.
- Good snack ideas include
  - Endurox R4 recovery drink
  - Chocolate milk
  - Yogurt and granola
  - Banana and peanut butter with Gatorade
  - Peanut butter and jelly sandwich with orange juice

## Practicing during training

- **Developing a nutrition strategy**
  - As you run farther and harder, your body becomes increasingly distressed and diverts energy from non-essential functions, such as digestion, to your muscles and brain to keep you going at the pace you're running. If you haven't practiced taking in nutrition in training, when you consume gels or fluids, it will take much longer for them to get processed into the blood stream and you may experience stomach issues.
  - What kind of drinks do you like. Figure out what the race will have or what you should bring.
  - What kind of gels/gummies, beans, bars do you like. If not bringing your own, what will you bring.
    - Avoid energy products with protein. It can slow the rate of gastric emptying and really isn't beneficial.
  - Be as specific as you can possibly be. Flavors matter. How will you carry it.
    - I know this seems like overkill, but the slightest change in routine can leave you in for a rough day of racing. For example, in the 2008 Olympics, race favorite and 2:04 marathoner Paul Tergat finished a disappointing 10<sup>th</sup> place due to cramps caused by drinking cold water supplied by the race. Tergat had practiced drinking fluids that were room temperature.
- **Have at least 3 training runs where you specifically run through your entire nutrition plan.**
  - Make sure these practice runs are similar to the marathon. Have them be longer tempo runs or long runs where you're finishing fast. The more you can recreate race day, the better.
  - Get specific. If using cups and planning to run through the water stops, practice on the track or with your kids.
    - Pinch the cup at the top to create a funnel

- Don't be afraid to pinch the cup closed and run with it for a few minutes to allow yourself to get out of the commotion or to breathe.

## What to eat before the race

### • 5 days before

- Begin to increase your total carbohydrate intake by adding more foods with a higher carbohydrate content.
  - Pastas, starches, rice are good examples.
- The old idea of depleting your carbohydrate stores the week before the race and binging on carbohydrates the last few days in an attempt to trick your body into overcompensating and storing more fuel is outdated.
- Ensuring that you consume a higher percentage of your total daily calories as carbohydrates is sufficient.
- Remember, you're not running as much as you have been, so eating too much more than you normally do will make you feel bloated and lethargic. At this point in the nutrition cycle, relax and don't go overboard.

### • 48 hours before

- Your last big meal should be two nights before the race.
- High carbohydrate content.
  - Pasta is usually the dinner of choice.
  - Make sure you eat something you know sits well in your stomach. You should have practiced with different foods the night before some of your workouts or long runs.

### • 24 hours before the race

- Eat normal balanced meals like you would normally do on any training day.
- Make sure you drink plenty of liquids all day long, especially electrolyte fluids such as Gatorade. It helps if you carry a water bottle along with you throughout the day to remind yourself to drink.
- Your main meals should still be in the form of low or medium glycemic index foods. Ideally, you won't be too active on the day before the race, so you may feel full quickly. That is fine, you shouldn't try to stuff yourself.

### • 18 hours before race

- Start eating small meals every 2-3 hours but after lunch, cut out red meat, fried foods, dairy products, fats, nuts, and roughage. You should only be consuming light, digestible foods like energy bars, bread, and small sandwiches.
- Keep drinking water and electrolyte beverages and avoid salty foods.
- **4 hours and less**
  - You should be up early enough before the race to eat a small breakfast with plenty of time to start digestion before the gun goes off. This is probably going to be 2.5 hours or so before the race. Yup, it's going to mean an early bed time.
  - You'll want to drink mostly water (unless you know temperatures at the race are going to be warm), with some electrolyte fluid. Don't try to get all your fluids down by chugging your water bottle. Drink small, regular sized amounts. Room temperature water is absorbed quicker than warm or cold water. I estimate that you'll need 6 oz. every hour or 8 oz. every hour on hot days.
  - If you want to take a GU right before the race starts, that would be fine, but I prefer a breakfast 3-4 hrs before so you're not just eating simple sugars all day.

## When to eat and drink during the race

- **Fluids**
  - Begin taking fluids at the first water stop, which is usually be about 5k into the race.
  - Running or walking through the station is an individual choice, but I suggest that if you're attempting to run sub 3:45 for the marathon, you run. Slower than 4 hours and I think you should walk.
  - Start with an electrolyte beverage with sugar, like Gatorade. Your stomach is less sensitive at the beginning of the race and it will allow you to keep your fuel levels topped off.
  - Aim for 6-8oz on a day less than 70 degrees. If it's warmer, add 2-3 oz for every 10 degrees.
  - After the first stop, you should aim for fluids every 20-30 minutes. A lot of this will depend on your personal tolerance for fluids, the weather, and how you're feeling. Don't go longer than 35 minutes without taking in some fluid.
- **Gels/snacks/gummies**
  - Aim to take your first energy gel between 50 and 60 minutes. This allows you to get into a rhythm, yet still have plenty of time to top off fuel levels.

- Take another gel every 45-55 minutes thereafter. Too many more gels than that and I find most people get stomach issues from all the simple sugar.
- Always take a gel or energy supplement with water. Taking it with Gatorade is just too much simple sugar for you to digest and you'll increase your chance of muscles cramps.