

“Train” Your Gut & Refine Your Habits

All too often we see athletes thinking about their nutrition only during their "big days." If this is true in your case, you may be missing the biggest opportunity for improvement when it comes to your training and race-day fueling; Digestive tract adaptation. In the same way that your legs muscles need to train and get in better shape, your digestive tract needs to do the same! Your gut will actually get better at handling and digesting calories during exercise with consistent “training.” Besides the physical benefits of regularly practicing proper on-the-bike fueling, you’ll also begin to form the right habits needed to make sure you are nailing your on-the-bike fueling for your big days in the saddle.

Plan Makes Perfect... Almost

Plan out *WHAT*, *WHEN* and *HOW MUCH* you are going to eat and drink. On the surface, this may sound obvious, but it's interesting to note that successful athletes *rarely hit their hydration and nutrition as planned*. However, because they were drinking and eating with a plan, they fared far better than those that ate and drank more by how they felt. The unprepared group consistently hydrated less, and ended up taking in fuel later in the ride in an attempt to "catch up" – Precisely when their stomach was unable to process and absorb everything, further compounding the problem and lowering performance.

WHAT TO EAT: Choosing the Right Fuel for You

When eating during exercise, your goal is to get fuel to your working muscles quickly and easily. Taking in simple forms of carbohydrates (CHO) is the fastest way to do just that. Better yet, taking in CHO in different types of CHO together (For example, glucose and fructose) at once accelerates the rate of digestion because different forms of CHO use different receptors in your digestive system to enter your bloodstream. The majority of sports nutrition products (such as drinks, gels, and bars) are designed with a combination of glucose and fructose so that they can exit the stomach and be digested quickly. Many of our athletes are surprised to learn that there are plenty of forms of excellent fuel already in their home. For example, table sugar, honey, and maple syrup are all perfect examples of natural glucose and fructose combinations. It's important to know that protein and fat can still play a helpful role during your training. Both can provide usable energy in low- and moderate-intensity riding. The longer an event or training session, the more an athlete will benefit from incorporating fat and protein. However, your primary focus should be on fueling with carbohydrates.



HOW MUCH & WHEN: Your Fueling Matrix

As you'll see in the table below, the timing and volume of your fueling depends entirely on the length and intensity of your day. For workouts that are under 60 min, additional calories aren't needed - Water will do just fine! If you train for 1-2 hours at medium to high-intensity, plan on taking in 120-150 calories of CHO per hour. At 2-3 hours of medium to high-intensity, you should increase to 240-360 calories in CHO per hour.

	<60 min	90-120 min	120+ min
Low Intensity	Just Water	After 90 min: 100 calories	120-150 Cal/hr after 90 minutes
Medium/High Intensity	Just Water	120-150 Cal/hr	240-360 Cal/hr

Athlete Beware: Too Much of a Good Thing

While many athletes don't fuel enough on their training or racing, believe it or not, we find that many athletes go to the complete opposite extreme and take in too much. Overeating can have negative consequences in even worse ways than not eating enough! First, your body has a limited capacity to absorb carbohydrates, so eating or drinking too many carbs can cause gastric distress as unprocessed food sits in your gut. Second, if you train at a low intensity and take in high amounts of carbohydrates, you will spike your blood sugar and then send it plummeting down as your body reacts by releasing insulin.

Keep in mind that overeating can refer to the total amount you eat during training, or, the total amount you eat at any one point on a given ride. For example, if you've ever made it to a rest stop and found yourself continually grabbing snacks and sugar, you've probably been guilty of momentarily overeating. Pay close attention to the top-end limits that have been outlined and make sure you pay attention to the timing of your intake just as much as you pay attention to the number of calories you're taking in.



Hydration

Without proper hydration, it won't matter if you have a perfect caloric intake throughout your ride or run! Even if your body is starved for fuel and you are close to bonking, CHO can't be digested and moved into your bloodstream without having water present to maintain the correct conditions. That said, *you must drink 8-10 ounces of water for every 100 calories you consume.* At this ratio, you will allow for the fastest and easiest rate of digestion.

Equally as important, taking in this volume of water also helps to keep the blood thin under riding and training conditions. Why does that matter? When you become dehydrated, water is taken out of your blood plasma (the substance that your red blood cells are floating around in). This leaves the blood more viscous and makes your cardiovascular system work harder. It also means that your blood can't clear lactic acid away as efficiently. As a result, you feel more pain and fatigue, you go slower, and increase your chance of overheating and cramping! Long story short, stay on top of your hydration and calories in tandem. They are both equally as important to your success on the bike.

Good Luck!

Pay close attention to your fueling and remember to practice good habits regularly – every time you ride. Start by beginning with small incremental increases in how much you eat and drink while riding. You'll enjoy your rides more now that you have a certain fueling plan, and the benefits will be seen both during and after every ride.

