



Race Day Fueling Plan

Name: K.H.
Race: Ironman
Date of Race: June 2015

Goal Times:

Swim 1:15
Bike 6:30
Run: 5:00
Total: 12:45-13:00

Nutrition Goals:

- Pre-Race: Fuel optimally to maximize muscle glycogen stores and prepare the body for a long day of physical exertion.
- During the Race: Prevent muscle cramps by supplying adequate fluids and sodium while also providing the carbohydrates needed to perform at your best. Have a set nutritional plan to optimize fueling strategies throughout the race
- Post-Race: Re-fuel glycogen stores and jump-start recovery

Fueling Recommendations:

Height: 68" Current Weight: 170 lbs Gender: Male

- Recommended Calories/HR: 180-360 kcal/hr
- Recommended Carbohydrate (CHO)/HR: 80-100g/hr (Bike) + 45-60g/hr (Run)
- Recommended Sodium (NA)/HR: 1000 mg/hr via fuel, additional sodium as needed via supplements

Athlete's Choice Fuel Sources:

- Gatorade: 24oz = 160kcal, 63g CHO, 900mg sodium
- Powerbar: 1 bar = 220-240kcal, 43-46g CHO, 180-200mg sodium
- Powergel = 110kcal, 28g CHO, 200mg sodium
- Granola Bar = 135kcal, 21g CHO, 90mg sodium
(based off of PowerBar Harvest Energy Pure & Simple Granola Bar)
- Bananas: 1 banana = 110kcal, 30g CHO, minimal sodium
- Gatorade energy chews= 4 chews = 120 kcal, 31g CHO, 105mg sodium

Aid Station Provisions:

- Every 15 miles on Bike: Gatorade Endurance Formula, Bananas, Water, Gatorade Chews
- Every 1 mile on Run: Gatorade Endurance Formula, BOOM energy gel, Water, Ice, Cola, Chicken Broth, Bananas, Vaseline, Pretzels, Saltines

Race Day Fueling Plan

Stage	Timing	Nutrition Goals	Nutrition Plan to Meet Goals	
Pre-Race	3-3.5 hrs prior	400-600 kcal 110-180g CHO	Standard, Well-Practiced Pre-Race or Pre-Workout B'fast Powerbar or Granola Bar	
	30-60 min prior	100-200 kcal Fluid as needed		
Start (Swim)	6:11am	No fueling here!		
T1	7:30am	None specified	1 PBJ Sandwich = 285 kcal, 44g CHO, 8g pro, 300mg NA	
Bike	7:40am-2:00pm	Goals: 180-360 kcal/hr 80-100g CHO/hr 24-36oz fluid/hr 1,000mg NA/hr Nutrition totals for bike: 1855 kcal (285 kcal/hr) 576g CHO (88g/hr) 6200 mg sodium (950 mg/hr)	HR 0-1	24oz Gatorade + 1 Powerbar (108g CHO, 1100mg NA)
			HR 1-2	24oz Gatorade + 1/2 banana + 2 Gatorade energy chews (93g CHO, 950mg NA)
			HR 2-3	24oz Gatorade + 1 gel (90g CHO, 1100mg NA)
			HR 3-4	24oz Gatorade + 1 granola bar (84g CHO, 990mg NA)
			HR 4-5	24oz Gatorade + 1/2 banana + 2 Gatorade energy chews (93g CHO, 950mg NA)
			HR 5-6.5	24oz Gatorade + 1 Powerbar, as tolerated (108g CHO, 1100mg NA) <i>Aim to eat the last of your solid fuel 30-45 minutes before getting off the bike.</i>
T2	2:00pm	This is a great time to take in additional electrolyte tablets, salty/bland foods, or medication as desired.		
Run	2:10-7:10pm	45-60 g CHO/hr 20-30oz fluid/hr	Every 20 minutes: 6oz Gatorade (18oz/hr =180kcal, 47g CHO, 675mg NA) Every 45-60 minutes: Alternate b/w 1 Gel, ½ powerbar, ½ banana or 2 energy chews. Salt supplements as needed.	
Post-Race	0.5g CHO/ lb BW/hour x 4 hrs = 85g carb/hr + 16-24oz fluid per # BW lost See notes under recovery nutrition—really though—Eat, Drink and CELEBRATE!			

Additional Tips & Considerations

Pre-Race Nutrition

Stress Management & Sleep

- Often race week is full of pre-race jitters, anxiety and general stress as you prepare yourself and your gear to race. Sleep and healthy nutrition should be emphasized... having a plan of what you will eat in the days leading up to your race is the best way to ensure making the best decisions.

Race Week

- Slowly build up CHO intake for carbo-loading. With tapering, it's important to keep total calories in balance while increasing CHO intake, so choose wisely and limit extra sugar, fat. Moderate protein will help your muscles to absorb the CHO and store glycogen. Your largest meals should be dinner two nights before and breakfast the day before. Snack throughout the day prior to the race without overloading.

Pre-Competition

- Breakfast should be consumed ~3-4 hrs prior to the start w/ goal of consuming 110-180g CHO depending on what and how much you are used to eating. The main goal really is to replenish cal/CHO to support blood sugar for activity AND get your bowels moving 😊. Choose moderate protein-fat w. breakfast but simple CHO only just prior to the race.
- Pre-race examples:
 - Breakfast: (1) Oatmeal or a Bagel w/ PB +Banana, sports drink (2) Cereal w/ milk & berries, Sports drink (3) 2.5c unsweetened applesauce, one scoop of whey protein, one bottle of sports drink and a banana.
 - 30-60 min prior: Powerbar or Granola Bar, Gatorade Chews or Honey Stinger Chews, Bananas, Oranges... choose easy to digest CHO, little fiber and PRO.
- Improper pre-race nutrition may result in nausea, GI issues, bloating, and indigestion. Therefore, your pre-race dinner & breakfast should be a meal you've practiced several times over! Pack your breakfast especially in your suitcase if possible: don't depend on your hotel to provide what you need.

Race Nutrition

- Fuel early and often. Some people find it helpful to set their watch to beep every 15-20 minutes as a reminder to eat. Spreading out your calories, CHO and fluids will help prevent GI issues.
- Don't wait until you're hungry or thirsty to fuel! If you feel your energy levels start to drop, eat. Listen to your body's cues. I find that I get sleepy out on the course when I am not consuming enough calories and CHO.
- Since cycling is non-impact, the bike portion of the race is your best option to consume fluids/calories without experiencing GI distress. That being said, it's better to consume solid calories in the first few hours of the bike and less as you move towards the run. Maximizing nutrition without over-fueling on the bike is key to success on the run!

- The run is a LONG stretch: Getting in calories as tolerated is key. Fluids will be key to prevent cramping but don't overdo them either. Easily digestible and "light" fuel such as the gels, chews, bananas are best, supplement with liquid hydration. Take frequent bites and sips!

Caffeine

- Standard dosage of coffee recommended with breakfast IF that's what you normally do. This will help you to wake up and get the bowels moving. Don't forget to hydrate too.
- Caffeine as an ergonomic aid: only utilize caffeine out on the course if you have been practicing it during training. 3-5mg/kg BW is recommended for caffeine as an ergonomic aid, which equates to 200mg-400mg caffeine (spread throughout the race) for you!
- Keep in mind that too much caffeine can cause GI distress and jitters. I find it best to reserve caffeinated products for later stages of the race when greater fatigue/loss of focus begins to set in. Ironman is a LONG day 😊

Working Through Nutritional Challenges

- Listen to your body cues to detect upcoming GI issues early. Back off pace and calories rather than continue to push forward until things clear up some.
- Carrying tums on the bike-run is NEVER a bad idea. You can buy small packets of the chews and it's best to be prepared. Chicken broth (provided on the run) and gingerale are also a great source of calories, electrolytes/fluids and help settle the stomach also.
- Sodium Insurance: Most athletes underestimate their sodium losses and needs. Carrying a source of additional sodium at ALL times is the best way to prevent painful cramping. A sodium supplement should include at least 200mg/capsule. Pickle juice, mustard with acetic acid and broth are also great aids to relieve cramping! Single serve mustard packets are easy to obtain and convenient to carry, broth is provided on the run.
- Flavor fatigue: Consuming sweet products hour after hour during an extended period > 4 hrs can lead to "flavor fatigue." Try to work in salty and/or bland flavors where possible. Consistent fueling throughout the race is key to success.

Recovery Nutrition

- Carbohydrate and fluid replacement post-race are equally important! Post-race, choose a combination of simple, quick digesting CHO and complex CHO. Ideally, rehydrate with fluids containing carbohydrate, sodium, and potassium to help replenish fluid losses, muscle glycogen stores and electrolytes. Moderate protein intake post-race is highly suggested as it helps your muscles absorb carbohydrate for restocking of glycogen and to jump-start muscle repair.
- Post-race fuel ideas: Sports drink, vegetable juices, chocolate milk, smoothie, sandwiches, watermelon and other fresh fruit, peanut butter, rice or burrito