



See Jane Run  
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**SUNNY BLENDE  
SEE JANE UNIVERSITY  
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**Food & Fuel in the Day of an Athlete**

**Pre-Exercise (one hour or more)** – bagel w/PB or low-fat cream cheese, toast w/jelly, breakfast bar, yogurt & lite granola, 1/2 breakfast burrito, sports bar

**Pre-Exercise (10 min. before)** – sports drinks, gels or raisins & water, banana

**During Exercise** – Water, sports drinks, sports gel & water

**Post-Exercise** – Rehydrate. sports bar & water, PB&J, yogurt, nuts, fruit, breakfast bar

**Timing of Foods**

1. Eat *soon* to avoid Low Blood Sugar (*any* foods but low Glycemic Index foods will burn fat longer)
  - Upon waking up
  - Right after exercising
2. Do not *spike* Blood Sugar with high Glycemic Index foods
  - Hour before Exercise
  - Right before you're going to bed/sleep.

**Insulin Spiking Issues**

1. Avoid sugar 1 hour to 10 min. before exercise
2. “*Bad*” carbs (high Glycemic Index) become “*Good*” carbs during exercise
3. Make good use of the “30-minute Recovery Window” during which time the muscles can store up to two times as much carbohydrate right where it is needed for the next bout of exercise.

**Hydration Issues**

1. The higher the heat or intensity of training, the more dehydration occurs.
2. Sports drinks with electrolytes and carb calories help your body absorb more water and maintain blood sugar and stamina, especially if you are a heavy sweater or if it is a hot day. They may help you drink more.

**To Help Burn Fat (increasing Metabolism)**

1. Eat breakfast; it revs up your “engine.”
2. Include in each meal – **unsaturated fats** (nuts, vegetable oils, avocados, fish), **moderate protein**, at least one **vegetable** or **fruit**, a **whole grain** (100% grain bread or pasta, skin on potato, whole cooked grains or rice).
3. Eat Low Glycemic foods as much as possible. Think *Close to the Source*. Good snacks include complex carbs with a small amount of protein.

**Nutrition for the Long Training**

You spend considerable time carefully planning a long training “practice run-through” when you are training for your next event but you may not put the same amount of effort into planning your nutrition *during* that same practice. Since there are no aid stations or crew helping you, how do you carry what you need or try out what you are going to do in the race? As anyone who has had stomach issues in a race knows, practicing sports nutrition is just as important as practicing every other aspect of the sport. Figuring out exactly how many calories and the amount of liquids you are going to consume per hour isn't going to help – or settle well on your system – if you did not train your gut to accept this amount. Plus, the intensity of your effort during a race and the accompanying nervousness only add to the problem. Try using the chart below to map out a practice training.

**HOURS OF TRAINING** \_\_\_\_\_ *example: Hours of Training* 6  
**CALORIES PER HOUR** \_\_\_\_\_ *Calories Per Hour* 240  
**SWEAT RATE PER HOUR** \_\_\_\_\_ *Sweat Rate Per Hour* 32 oz.

**First 4 Hours=**

**First 4 hours – carbohydrates only** *960 calories, 128 oz(4 liters) liquid+*

<u>Product</u>	<u>Source of Carbohydrate</u>	<u>Calories</u>
Accelerade	Sucrose, Fructose, Maltodextrin	120/scoop
Carbo Pro	Glucose polymers (Maltodextrin)	115/scoop
Coke	High Fructose Corn Syrup (HFCS)	140/12oz
Cytomax	Starches, Malto, Fructose	90/scoop
e-Fuel	Maltodextrin, Fructose	50/8oz
Gatorade	Sucrose, Glucose, Fructose	90/12oz
GU2O	Maltodextrin, Fructose	50/scoop
Heed	Maltodextrin	100/Lg. sc.
Perpetuem	Maltodextrin	130/scoop
Sustained Energy	Glucose polymers, Corn solids	115/scoop
Ultima	Maltodextrin	20/scoop
Ultra	Maltodextrin, sucrose	148/packet
CarbBOOM	Maltodextrin	110/pkt
Clif Blok	Brown rice syrup, cane juice	100/for3
Clif Shot	Brown rice syrup	100/pkt
e-Gel	Maltodextrin, Fructose	150/pkt
Enervit Sport Gel	Fructose, Glucose, Maltodextrin	72/pkt
GU	Maltodextrin, Fructose	100/pkt
Hammer Gel	Maltodextrin, Fruit juice	93/pkt
Honey Stinger	Fructose, Glucose	120/pkt
Power Gel	Maltodextrin, Fructose	110/pkt
Sharkies	Rice syrup, cane juice	140/pkg.
Sport Beans	Sucrose, corn syrup	100/pkt

**Last \_\_\_\_\_ hours – 80% carbohydrates, 20% protein**

**Last 2 Hours**

*Example: 2 additional hours @240 cal./hr.  
= 480 calories, 384 from Carbs  
and 96 (20%) from Protein  
64 oz. or 2 liters liquid*

<u>Product</u>	<u>Source of Calories</u>	<u>Calories</u>
Amino	Amino acids, Maltodextrin	146/packet
Clif Bar	Brown rice syrup, soy protein	250/bar
Enervit Power Sport	Maltodextrin, milk protein	220/bar
Harvest	Whole oats, brown rice syrup, protein	240/bar
Lara Bar	Nuts (fat), Fructose, Protein	210/bar
Luna Bar	Soy protein oats, brown rice syrup	180/bar
Power Bar	HFCS, Maltodextrin, protein	230/bar
Pria	Soy protein, sucrose, whey	170/bar

## Know Your Sweat Rate

Learn your particular rate and use the scale to determine the fluids that will keep you in homeostasis and prevent hydration problems, which can stop you in your tracks. It's easy. Before a training run, go to the bathroom and then weigh yourself in the nude. Run for one to two hours. For ease in the math, drink water or sports drink from a 16-ounce bottle and keep track of how many bottles you consume. When you finish, urinate if you need to, towel off, and then weigh yourself again in the nude. If you ran for one hour and consumed one 16-ounce bottle of liquid and weighed the same at the beginning and end of your run, your sweat rate is 16 ounces per hour, the average. If you lost one pound, then your sweat rate would be 32 ounces per hour. If you gained a half-pound, your rate would be eight ounces per hour. You can then adjust your fluid intake accordingly. It is not possible to replace all fluids lost, because you cannot absorb that much while exercising at a faster than walking pace. If you over-replace the water content, your body will remove water to the surrounding tissues and you will experience swelling (hands, feet, under your watchband). You will gain weight and become hyponatremic. If you under-replace the water content, your body will continue to sweat and you will start to become encrusted with salt, lose weight, and become dehydrated. Both events cause serious performance loss. Knowing your sweat rate is key to understanding your hydration needs. Average sweat contains about a third of a teaspoon of salt (sodium) per liter or quart (32 ounces). Your blood contains three times as much salt; therefore, as you sweat hour after hour, your blood becomes thicker and more salt concentrated. If you replace what you lose with the same amount of water and salt as is lost in your sweat, your blood will return to normal.

## EATING TIPS FOR THE DAY BEFORE A RACE

The goal here is to top off your glycogen reserves and be sure you are fully hydrated. Be sure to stick with familiar foods and eat them in normal-size amounts. Graze or eat frequently throughout the day, so you don't feel as if you have to stuff yourself at the evening meal. Your last meal should be high in carbohydrates and contain modest amounts of fat and protein. Choose foods you feel comfortable with or that you believe enhance your performance. Pasta, low fat pizzas, baked potatoes, or fish or poultry with vegetables and rice all make good choices if you have tried them in practice. Choose what works best for you.

Other tips to keep in mind.

1. Drink plenty of fluids throughout the day (expect to urinate frequently).
2. Avoid beans, broccoli, cabbage, radishes, and other gas-causing foods if you suffer from bowel problems.
3. Avoid high-fiber foods such as raw fruits and vegetables with thick skins, bran cereals, nuts, and seeds.
4. Avoid sugar substitutes like sorbitol and mannitol (in gums, candies, and other foods), which may cause diarrhea.
5. Limit alcohol or avoid it altogether.
6. Set out, prepare, and pack everything you need for the race. Don't wait until the last minute so you won't get any more nervous than necessary.
7. Eat or drink a bedtime snack to squeeze in a few more calories and help you sleep better.

### Final Check List

1. *Snack & hydrate throughout the day before the race.*
2. *Plan your dinner and a bedtime snack (Low GI).*
3. *Plan your breakfast on race day (a little protein with carbs).*
4. *Stash Sports Drink or Gel + H<sub>2</sub>O for the start*
5. *Don't spike your blood sugar right before the start of the race.*