

Hydration – Don't Bonk

Athletic performance in general and endurance sports specifically, is constrained by your muscles ability to contract. To do this they need water, sugar and electrolytes in the right amounts and proportions. Finding this balance is imperative but complicated and with all the products on the market it can be confusing and highly frustrating. Fortunately there is plenty of good evidence to suggest that these products taken at specific times and doses can improve your performance up to 20%. The three main delivery systems for sugar and electrolytes are sports drinks, gels and bars and The American College of Sports Medicine (ACSM) has guidelines for how all of them should be used. Here we will discuss strategies to boost your performance and feel great while you run.



Preparing to race well means you will want to start off well hydrated. In general, if you are able to eat and drink normally the twelve hours prior to your event you will be hydrated. You will want to avoid any dehydrating substances like alcohol and caffeine. Urine color is a good indication of your level of hydration. Light to no color means you are well hydrated, dark colored urine means you are dehydrated and should drink more water.

Once you are well hydrated you can begin to consider taking some extra sugar and electrolytes to support your performance. Sports Drinks, Energy Bars and Gels all work equally well and your choice should be guided by trial and error as to which works best for you according to taste and preference. The ACSM suggests:

Sports Drinks:

- Standard concentration: 13 to 19 grams of carbs, per eight ounces.
- Prior to exercise: Replace 1 - 2 glasses of water with sports drink (Non-ACSM)
- One-and-a-half to four cups per hour (more if you have heavy sweat losses)

Gel Packs:

- Standard Concentration: 100 cal - 25 grams of carbohydrates
- Prior to exercise: 1 packet with 4 - 8 oz water (Non-ACSM)
- During Exercise: 1 - 3 packets per hour with 4 - 8oz water

Energy Bars:

- Standard Concentration: 25 - 40 grams carbohydrate, less than 15 grams protein, low fat (compare bars).
- Prior to exercise: 1 bar with water.

Everyone has their own unique body chemistry and needs so these recommendations are meant only as a guide or starting point. Experiment with each type of fuel during your training so that on race day you will have a well-practiced plan to help you achieve your best time possible.



Jason Hove, MD is a UCLA Family Medicine physician

UCLA Redondo Beach
415 North Prospect
Redondo Beach, CA 90277

Uclahealth.org/redondobeach