



FOOD TO AVOID

There are a number of foods you may want to avoid as a cross country runner. You may find that your stomach can handle some foods when you run, but you will find that out through experimentation.

NEVER eat a food before a race that you haven't already tried before practice.

Avoid high-fat proteins such as cheese and red meat since they take an incredibly long time to digest and will use more oxygen.

Fructose, which is in fruit and honey, can cause stomach problems during running so it should only be part of a post-race meal.

Milk can also cause stomach problems during running so it should be avoided before running.

If you have trouble eating food before you run in the morning try eating more right before you go to bed.



REFUELING

Your body is very receptive to nutrients after you have run so it is important that you know what to eat and when.

Eat a high-glycemic food within 15 minutes of a race or challenging workout such as a bagel, bread, raisins, energy bar, gel, or sports drink.

Take in low-fat protein within the first 2 hours of a race or challenging workout. The rule is to take in 1 gram of protein for every 3 grams of carbs.

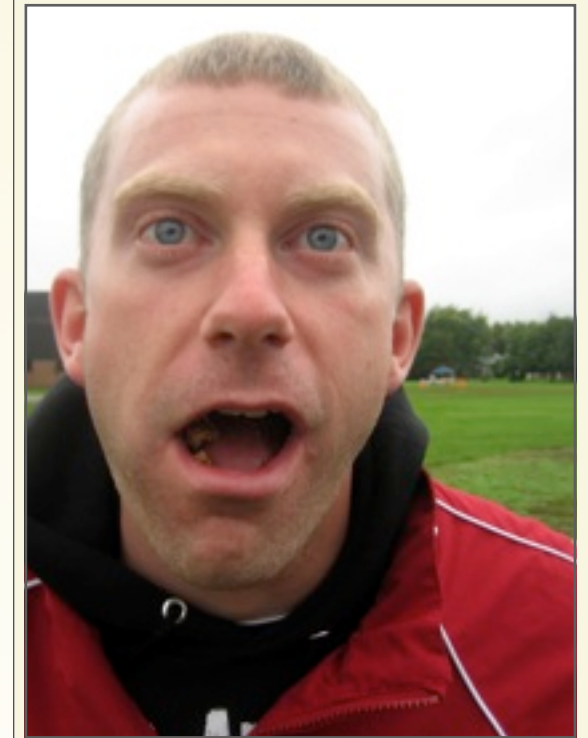
Drink lots of water, sports drink, and other non-caffeinated fluids throughout the day.

Eat healthy snacks to supplement your meals. Cereal, pretzels, low-fat popcorn, raisins, fruit, low-fat granola bars, low-salt crackers, low-fat yogurt, juice, sports drinks, baked potatoes, nuts, seeds, bagels, fig bars, and carrots are a few good options.

Go to the FAQ Page at ymsrunning.com for more food options.

EATING

DURING CROSS COUNTRY



WHAT YOU EAT IS IMPORTANT

What you eat, especially right before a race or challenging workout, can dramatically affect your performance. If everything else is equal who has the better diet will be the faster runner. Knowing what to eat can also be confusing, though, so Coach Miller put together this pamphlet to hopefully clarify what constitutes a good diet for a cross country runner.



How Do You Get Energy?

ENERGY SOURCES

The energy you burn during running comes from three sources: carbohydrates (carbs), protein, and fat. Each source is broken down into simple sugars when you run to give you energy. The sugars are then used in a number of helpful ways.

Blood glucose is a small amount of sugar that circulates in the blood to feed the brain and prevent mental fatigue.

Liver glycogen is glucose that has been converted and stored in the liver temporarily. It can be converted back to glucose when needed.

Muscle glycogen is where the majority of converted glucose is stored. It is attached to muscle fibers and can only be used by the fiber it is attached to. Muscle glycogen is key to faster running.

FOOD GIVES YOU ENERGY

Food is your primary source of carbs, protein, and fat. Carbs can be converted to simple sugars much quicker than protein and fat so they are the best option for pre-race meals and snacks. In addition, fat takes much more oxygen to convert to sugar so it is not a very good option for runners.

Carbs are definitely your best option, but some carbs convert to sugar quicker than others. Food can be ranked by its **Glycemic Index** for their ability to convert to sugar. Low- to moderate-glycemic food converts slowly over several hours. These foods are not necessary as pre-race meals for middle or high school runners, but can be helpful before long runs.

High-glycemic carbs can produce a rapid rise in blood sugar and are helpful just before a race.

Some example carbs are shown below along with their GI numbers. A higher GI number means that food is closer to sugar, which will mean the energy is converted quicker. You can see more food examples on the back of this pamphlet. The key is that high-glycemic carbs are best before a race and any carbs or protein are good after a race or workout. Healthy snacks are also good supplements throughout the day. You can look up the GI number of different food at www.glycemicindex.com.



PRE-RACE FUELING

Here are the steps to follow before a race.

1. Eat a small, high-carb meal (500 to 1000 calories) 2 to 4 hours before the race.
2. Eat a high-carb snack 1 hour before running.
3. Drink a sports drink or gel 5 to 15 minutes before running.



GLYCEMIC INDEX NUMBERS

FOOD	GI NUMBER	CARBS PER SERVING
BAGEL	72	35 GRAMS
GATORADE	89	16 GRAMS
POWER BAR	53	42 GRAMS
RAISINS	64	44 GRAMS
SPAGHETTI	50	48 GRAMS