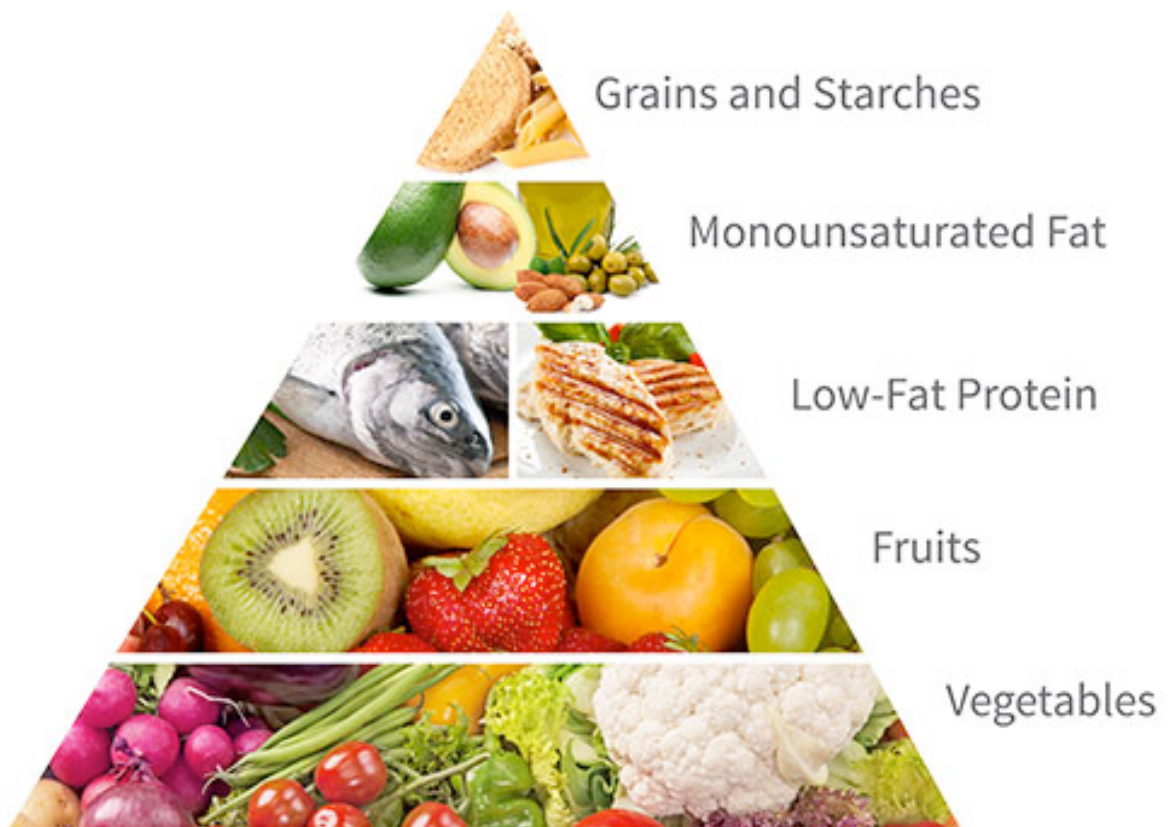


OPRFHS Girls Cross Country

www.OPRFHScrosscountry.org

Nutrition Basics



http://www.zonediet.com/zone_diet_overview

Nutrition is possibly THE most important thing that runners and parents/guardians can change to impact both the short-term athletic success as well as the long-term health of each athlete. In general, athletes should eat colorful foods and stay hydrated.

Some basics:

1. Eating is priority #1. Eating well is priority #2.
2. Shop around the perimeter of the grocery store as a basic guide to find the good stuff to eat.
3. Use nutrition to take your running to a higher level by fueling correctly during the three key times:
 - a. Daily nutrition
 - b. Post workout/race recovery
 - c. Pre-race fueling



Macronutrients

In general, food can be broken down into three different types, carbohydrates, proteins, and fats. It is really, really, really important to eat all three types of food daily (Even at every meal if possible!)

Carbohydrates: Give your body energy to move!

Proteins: Give your body the pieces necessary to build and repair muscles.

Fats: Help your body function (fights inflammation, helps muscles and brains function better.)

Good or Bad?

Each type of macronutrient comes in forms that are good for you, and other forms that are not as good for you. For example, the fat found in Almonds is great for your body. The fat in most french fries is not so good for you. The table below can be used as a basic guide in picking out the best kinds of carbohydrates, proteins and fats.

Ranking	Carbohydrates (Energy)	Protein (Building and Repairing)	Fats Fighting inflammation, muscle and brain function
The best..	Fresh fruit, fresh vegetables, bright colored stuff from the ground, whole grains	Fish, Chicken, turkey, milk, yogurt, good red meat	Fish oil, olive oil Nuts
	Simple grains (white bread, white rice)	Hamburgers, red meat, pork, lunch meats, protein powder in shakes	canola oil
The worst	Simple sugars	Bacon, sausage, hot dogs	Saturated fats (fried stuff) lard

Daily Eating

Make an effort to stay hydrated and eat from all three categories at every meal. This will probably take some subtle shifts in your habits. Try some small changes. Eat some turkey or ham roll-ups and a small handful of almonds with your breakfast. Try to actually eat five servings of fruits and vegetables each day by swapping the chips or goldfish for grapes or carrot sticks. Eat your sandwich on one piece of bread and add in fruit and vegetables. Cook things with olive oil. Include some fresh peanut butter with some of your snacks.

Micronutrients: Vitamins and Minerals

Micronutrients act as the glue that allows your body to put everything together and function. If you are short on vitamins or minerals, your body cannot function correctly. In theory, if you eat a well balanced diet, you should get all the vitamins and minerals you need. Often times, it is wise to take a general type of daily multivitamin/mineral supplement. We would recommend talking with your doctor to see if they would recommend a "One a day" type vitamin, or a "One a day for women". Best case, it can help assure you that you have all the micronutrients you need. Worst case, it increases the value of your urine. We would not recommend taking large amounts of specific singular vitamin supplements.



Pre-Race Food:

Eat a good meal about 3-hours before your race and stay hydrated. This will allow the food time to digest so that all your blood can go to your leg muscles to help you run and not your stomach to help you digest. PRACTICE eating all season before meets so you find what works for you. You should pack a bottle of Gatorade and take a few sips about 20 minutes before the gun. This will help top off your muscles. The worst time to eat a lot is about 1 to 1 1/2 hours before your race. Plan ahead on race days, find what works for you, then DON'T CHANGE ANYTHING ON THE DAY OF CONFERENCE, REGIONALS, SECTIONALS AND STATE!

1. Lunch: 1/2 turkey sandwich, apple, almonds
2. Breakfast: Whole wheat bagel with fresh peanut butter
3. Breakfast: Oatmeal with some yogurt and raisins



Hydration:

"How do you know if you're hydrated or dehydrated?" The best way to tell if you're hydrated is to monitor your urine. You should be urinating 3-4 times throughout the day. If your urine is pale yellow or clear in color you are drinking enough. If it is dark yellow and odorous, get a big glass of water and start guzzling! Keep in mind that a vitamin pill will also make your urine dark - so it is possible to have dark urine and still be hydrated. The first sign of dehydration is thirst.

How much water do I need? (Carry a water bottle with you all the time!)

A rule of thumb is about 8 glasses of water per day. When you add exercise and hot weather, your fluid needs increase significantly.

Another rule of thumb: if you exercise, weigh yourself before and after your workout. For every pound lost, drink at least 2 cups or 16 oz. of water. It's also a good idea to get 1-2 cups of fluid 15-30 minutes before you workout."



Recovery Food: (Two important times to refuel after a hard workout or race...)

“The best nutrients to consume during the 30 minute window immediately after exercise is a mix of carbohydrates and protein. Consume 100-300 calories in a 3:1 or 4:1 carbohydrates:protein ratio. A little bit of protein helps produce muscle building.

Foods and drinks with 3:1 or 4:1 ratio

Whole Foods:

- 1 1 Banana + 2 Tablespoons Peanut Butter
- 2 1/2 cup plain yogurt + 1 cup Mixed Fruit
- 3 1 medium apple + 2 Tablespoons Peanut Butter

Sport Supplements:

- 4 Endurox or other drinks with recovery drink with the correct ratio of 3:1 or 4:1 carbohydrate to protein
- 5 Energy/Nutrition Bars (You have to really read labels, not all bars are created equal)

Lowfat Chocolate Milk

- 6 An excellent choice. Contains the perfect mix of carbohydrates and protein.



You don't have to eat as soon as you stop running. If you have a sensitive stomach, wait 25 minutes, drink some water, and relax before trying to consume food.

The second window is one hour to three hours post workout. In this window, a meal or snack that is higher in protein but also includes a healthy fat and carbohydrate is best. The objective is to help give your body the right combination of nutrients at the right time, decrease inflammation, increase muscle glycogen stores, and rebuild damaged muscle tissue.

Foods to eat during the second window

- 1 Protein Shake + Salad w/olive oil dressing
- 2 Protein Bar (Read labels)
- 3 Protein Based Meals/snacks:
- 4 Grilled Chicken + Salad topped with Avocado and Salsa
- 5 Steak Salad
- 6 Chili (An amazingly well balanced meal)



While all runners spend most of their time focusing on their workouts, their splits, and their mileage, recovering from these hard efforts is often more important than the training itself. Running on muscles that are still torn and fatigued, with little to no glycogen stores, is a recipe for injury and over training. Supplying your body with the correct nutrients at the correct times will set you up for success as you train for your next event. Start nourishing your body within the two windows and watch as your runs feel better and your race times get faster!”

<http://runnersconnect.net/running-nutrition-articles/what-is-good-to-eat-after-a-run/>

Analyze these two runner's diets....

Label each food item with ++ (great choice) + (good choice) or -(bad choice)

Runner:Iwanna Bgood	Carbs	Protein	Fat
Breakfast: Plain bagel Orange Juice			
Snack: Fruit by the foot			
Lunch: Turkey sandwich on white bread			
Snack: Goldfish			
Dinner: Mac and Cheese 2 white dinner rolls			
Snack: Graham Crackers			

Runner: Ima Star	Carbs	Protein	Fat
Breakfast: Whole wheat bagel with natural peanut butter. Orange			
Snack: Almonds			
Lunch: 1/2 Turkey sandwich on whole wheat bread (all the meat, less bread) Apple Pistashios			
Snack: Small yogurt			
Dinner: Grilled chicken Green Beans Salad with olive oil based dressing			
Snack: Small frozen cup of yogurt			

Additional Resources and Information

Good Protein

Protein can keep your belly full. But it's important to eat the right amount and the right kind of protein to get the health benefits.

Seafood

Seafood is an excellent source of protein because it's usually low in fat. Fish such as salmon is a little higher in fat, but it is the heart-healthy kind: omega-3 fatty acids.

White-Meat Poultry

Stick to the white meat of poultry for excellent, lean protein. Dark meat is a little higher in fat. The skin is loaded with saturated fat, so remove skin before cooking.

Milk, Cheese, and Yogurt

Not only are dairy foods -- like milk, cheese, and yogurt -- excellent sources of protein but they also contain valuable calcium, and many are fortified with vitamin D. Choose skim or low fat dairy to keep bones and teeth strong and prevent osteoporosis.

Eggs

Eggs are one of the least expensive forms of protein. The American Heart Association says normal healthy adults can safely enjoy an egg a day.

Beans

One-half cup of beans contains as much protein as an ounce of broiled steak. Plus, these nutritious nuggets are loaded with fiber to keep you feeling full for hours.

Pork Tenderloin

This great and versatile white meat is 31% leaner than 20 years ago.

Soy

Fifty grams of soy protein daily can help lower cholesterol about 3%. Eating soy protein instead of sources of protein higher in fat -- along with a healthy diet -- can be heart healthy.

Lean Beef

Lean beef has only one more gram of saturated fat than a skinless chicken breast. Lean beef is also an excellent source of zinc, iron, and vitamin B12.

Protein on the Go

Grab a meal replacement drink, cereal bar, or energy bar. Check the label to be sure the product contains at least six grams of protein and is low in sugar and fat.

Protein at Breakfast

Research shows that including a source of protein like an egg or Greek yogurt at breakfast along with a high fiber grain like whole wheat toast can help you feel full longer and eat less throughout the day.

Here are some ideas for eating and drinking the best carbohydrate sources for runners.

Eat (and drink) these items to up your carbohydrate intake and reap their performance benefits.

Runners need a lot of carbohydrate. Why? Because your muscles are fueled primarily on carbohydrate when you run hard. Thus, sports nutrition experts generally recommend that runners get approximately 60 percent of their daily calories from carbohydrate.

But you need to get the right kinds of carbs at the right times. Immediately before, during, and after exercise, fast-acting high-glycemic carbs are best. At all other times, your carbs should come from low-glycemic foods that provide longer-lasting energy and are packed with lots of other nutrition.

The following are the top 10 carbohydrate sources for runners. Some are best for use during and after exercise, while others are ideal for regular meals and snacks.

Bananas

Because they are easy to eat and digest and are loaded with fast-acting carbohydrates (one large banana provides 31 grams of carbs), bananas make the perfect pre- or post-exercise snack. Just be sure to have your banana with some form of protein after exercise to promote muscle recovery and repair.

Berries

Strawberries, blueberries, and other berries are among the most nutritious sources of carbohydrate. They are rich in vitamins, minerals, and phytonutrients that promote health and performance in all kinds of ways. Berries are not the most concentrated source of carbs, however (a full cup of strawberries contains just 12 grams), so don't rely on them too heavily to meet your daily carbohydrate needs.

Brown Rice

Cereal grains such as brown rice are among the richest sources of carbohydrate. One cup of brown rice has 45 grams of carbohydrate. Whole grains such as brown rice are considered healthier than refined grains such as white rice because they contain more fiber, vitamins, and minerals. They are also absorbed more slowly (their glycemic index is lower), so they provide more lasting energy and promote less fat storage.

RELATED: [Kitchen MacGyver: Immunity-Boosting Dinner](#)

Energy Bars

Real energy bars — the kind designed specifically for use before, during, and after exercise — are great for fueling and refueling around workouts as they provide abundant, fast energy. Before and after workouts, choose bars that are high in carbs, moderate in protein, and low in fat and fiber. With 44 grams of carbs, 9 grams of protein, 3.5 grams of fat, and 1 gram of fiber, PowerBar Performance is a good example. For snacking, choose bars made from real food — fruit, nuts, and whole grains — and with minimal added sugar, like Forze GPS.

Lowfat Yogurt

Lowfat milk-based foods such as yogurt are very rich sources of carbohydrate. A six-ounce serving of lowfat blueberry yogurt supplies 26 grams of carbs. Lowfat yogurt is a better choice before and immediately after exercise because it has a higher glycemic index, so the carbs go to work quickly. Most yogurts, even those with fruit in them, contain added sugar, which is totally unnecessary and less healthy. So try to find a brand with no added sugar.

Old-Fashioned Oatmeal

Old-fashioned oatmeal is an ideal pre-exercise breakfast choice. It's easy to eat and digest and provides a ton of carbs: one half-cup gives you a whopping 54 grams! Add a sliced banana and wash it down with a glass of OJ and you'll take in 100-plus grams of carbohydrate.

RELATED: [Recipe: Oatmeal Peanut Butter Balls](#)

Sports Drinks

Sports drinks such as Gatorade and Accelerade provide the carbs you need to fuel your muscles during exercise, along with water and electrolytes for hydration (plus protein to reduce muscle damage, in the case of Accelerade). Because they are high in sugar, though, these products should only be used immediately before, during, and right after workouts and races.

Tomato Sauce

Tomato sauce is a rich source of carbohydrate (at roughly 21 grams per cup), as well as various vitamins and minerals and antioxidants such as lycopene. Studies have shown that thanks to these antioxidants, regular tomato sauce eaters have a lower risk for certain diseases, including prostate cancer in men.

Whole Grain Bread

We Americans love our sandwiches. But often we make them with low-quality breads that contain refined grains. Whole-grain breads are a better choice. They don't have any more carbohydrate than refined-grain breads (one slice has 12 grams), but they have more fiber, vitamins and minerals, and a lower glycemic index to give you longer-lasting energy. Just note that even most whole-grain breads have added sugar, so try to find brands that don't.

Whole Wheat Pasta

You don't need me to tell you that pasta is high in carbs. One cup of whole-wheat spaghetti provides 37 grams. As with other grain-based foods, whole-grain pasta supplies more nutrition, yields longer-lasting energy, and promotes less fat storage than regular pasta. Serve it with a protein, such as shellfish or meatballs made with lean ground beef or turkey, and you get a lower glycemic index meal for even longer-lasting energy.

http://running.competitor.com/2013/06/nutrition/the-10-best-carbohydrate-sources-for-runners_12953