
NUTRITION

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Carbohydrates are the building blocks of energy. Without gas in the tank, the car does not move; consider carbs like gas. When choosing carbs look for complex carbohydrates vs simple carbohydrates. Complex carbs are found in products like whole grain breads, pastas, and cereals. Simple sugars should be limited, and are found in refined foods like white bread, sugary snacks, and processed foods.

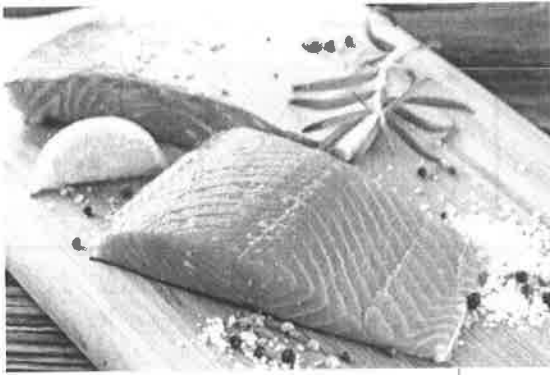
Protein is essential for repairing and rebuilding tissue and is needed for the growing child/adolescent. These are important in avoiding injury and helping your body recover from tough workouts. Choose proteins that are low in saturated fats.

Fats are essential for development of body organs and the brain. Adolescents are in prime development so cutting these out completely can negatively effect development. Never try to cut out all fat from your diet. Not all fat is bad. Select healthy fats by looking for plant based oils to cook with, lean proteins, and seeds/nuts.



The foods you choose directly impact your performance.

As an athlete, your food choices both in season and out of season can directly impact your performance when it really matters. Track and field involves a variety of events, so athletes have varied nutritional needs. This guide will address each category of athlete and offer special diet needs for sprint, middle, long distance, and field athletes. Depriving your body of key nutrients can result in slow and sluggish performance and decreases in mental sharpness. Learning to make healthy choices in food can increase your energy and keep you performing at your highest level throughout both the season and year round. Eating a balanced diet can also help you focus more on technique and less time fighting fatigue.



You are in control of the food that you put in your body

One of the largest obstacles between athletes and eating healthy is that they don't know what foods to choose to make up a healthy diet. In track and field especially, nutrient needs vary and can be confusing to athletes who participate in multiple events.

General nutrition guidelines for the track and field athlete is to eat small meals every 2-3 hours, stay hydrated (even in cold weather!), eat lean proteins and complex carbohydrates, always have a post workout snack within 30 minutes of training, and never skip meals.

Endurance athletes should focus on decreasing fiber and protein intake prior to working out as these can cause stomach discomfort in long training sessions. Liquid meal replacements are good options for a pre-workout snack. Sprinters, hurdlers, and jumpers should focus on consuming the proper number of calories prior to workouts while maintaining a good balance of carbs, proteins, and fats. Middle distance runners need a combination of speed and stamina, therefore daily diet may need to individualize to the daily training schedule. High intensity training sessions require different nutrients than endurance based training, so be mindful of your training regimen for the week and plan accordingly. Throwers should focus on building muscle size and strength; therefore focus should be on consuming carbohydrates for training energy and good sources of protein to maximize recovery for post-workout snacks.

Young athletes should not have to drastically change their diet days before big events; simply planning out meals before and on event day should provide the energy needed to perform in events. Multi-event athletes should carefully plan their meals/ snacks to ensure best performance, trial and error over the first couple of meets may be needed to perfect competition day meals/snacks. Athletes of all ages should take some time to learn about nutrient needs specific to their sporting activity in order to help develop healthy nutrition practices at a young age.



Helpful Hints

How to make healthy nutrition choices

- ✦ **STAY HYDRATED!**
Consuming sport drinks that are high in sugar alone will not properly hydrate you. Target electrolyte dense drinks before/during/immediately following activity. Water will suffice between workouts. Electrolytes should mostly be available through a well-balanced diet.
- ✦ Eat small meals every 3 hours; this will help keep energy available. Avoid the extremes of eating: very little to gorging.
- ✦ Learn to read food labels to determine the nutritional content. Check labels for types of fats and sugars that may be hidden.
- ✦ Shop the perimeter of the grocery store first. Fresh fruits/vegetables and meats are found along the perimeter of the store.
- ✦ **DO** eat breakfast everyday, consume a variety of color in fruits and veggies, stay away from processed foods, eat healthy fats, incorporate carbs/fats/proteins into every meal, have a post workout recovery snack, and sleep! Eating well even just 80 % of the time will show positive results in your performance!

Track and Field Nutrition

Special Considerations By Event

Sprinters, Hurdlers, Jumping, Throwing

- As a sprinter, hurdler, jumper, or thrower, your events are short in duration but requires high-intensity effort. Due to the shortness of events/training, you may forget about the importance of being hydrated and fueled. Being hydrated and properly fueled will help you avoid injury while being able to train at the optimum level. In general, high-energy runners should consume several small meals throughout the day (5-9) and fewer large sized meals. Drinks such as fruit smoothies and liquid meal replacements can be ideal for pre-practice snacks. They are packed with high-levels of nutrients and natural carbohydrates that are essential to providing energy, these can also be easier on the stomach. Sport drinks and bars contain nutrients that can be useful on event day when you must consume smaller meals due to multiple events.
 - **Practice Guidelines:** During practice being properly hydrated and fueled will help you avoid muscle strains. To maximize strength gains and enhance recovery, follow training sessions with a high-protein snack within 30 minutes of training. It is important to eat throughout the day before practice, low energy leads to poor training sessions.
 - **Competition Guidelines:** It is important to consider event nutrition when you are running in multiple heats or events throughout the day. Eating a pre-competition meal 3-4 hours before events, with carbohydrate-rich drinks and/or light carbohydrate based snacks between events can help you perform at your best. Avoid sugary or heavy foods that may cause stomach disturbances or “crashing” throughout the day.
 - **Examples of Carb/Protein Combos:** Cereal and milk, sandwiches w/meat, cheese, or egg, lean protein with rice or noodles, fruit smoothies, canned tuna or salmon on rice cakes or crackers, fruit and yogurt, dried fruit/nuts, peanut butter, or chocolate milk.

Middle Distance

- As a middle distance runner, its important to have the power to be explosive in a short distance run, but the endurance for longer distances. Nutrition for the middle distance athlete can be the most complicated as training distances and intensity can vary daily. Carbohydrate stores and iron levels are especially important in the middle distance athlete due to VO_{2Max} needs for training.
 - **Practice Guidelines:** To optimize training performance, daily nutrition should be focused on the specific daily training volume/intensity. So for distance days focus on carbohydrates and for speed interval day focus on protein for recovery. Interval training is common in middle distance running putting a higher requirement for carbohydrate storage and more importantly carbohydrate recovery. Carbohydrate recovery is necessary if training more than one time per day and for consecutive days of training in order to maintain energy for middle-distance interval training.
 - **Competition Guidelines:** While a diet higher in carbohydrates has not been proven to be as beneficial to the middle distance athletes as it is for the endurance athlete, being depleted in carbohydrates at the beginning of a race will not enhance your performance. Focus on carb replacement between events, but avoid spicy/acidic foods that could cause stomach disturbance on race day.
 - **Carbohydrate and Iron rich foods:** Lean red meat (organic or grass fed), spinach, green leafy vegetables, iron-fortified cereal or greek yogurt, oatmeal, cream of wheat, and iron-fortified tofu. Iron absorption is best when combined with vitamin C, foods that are high in both iron and vitamin C are: tomatoes with red meat, lentils with potatoes, oatmeal and berries. Avoid high fiber foods within 30 minutes of eating iron nutrients as it can inhibit absorption.

Endurance

- Endurance events require greater fuel and hydration to prevent energy depletion and dehydration. Athletes should consume enough carbohydrates to meet fueling needs and avoid “high carb diet” or ‘carb loading’. Focus on increasing carbohydrate needs on days of high intensity training. Endurance athletes are likely to restrict nutrient intake, especially fats as low body fat is often seen as a performance enhancer. Endurance athletes should understand the importance of consuming proper amounts of carbohydrates, healthy fats, proteins, vitamins, and minerals especially in

weather extremes. Depletion of energy intake can lead to a decrease in performance due to fatigue, hormonal problems, nutrient deficiencies, and disordered eating.

- **Practice Guidelines:** For endurance training sessions, focus on proper fueling and hydration to maximize training effects. In a carbohydrate-focused diet, it may be necessary to spread meals throughout the day and target nutrient-rich carbohydrate sources. Having well-timed meals/snacks can help avoid stomach disturbances in during training while optimizing energy for training. In training sessions lasting less than one hour, no carbohydrate replacement in during training is necessary, however in training sessions over one hour there are some carbohydrate consumption guidelines. Please consult the chart below for specific carbohydrate refueling and hydration needs in during training.
- **Competition Guidelines:** Carbohydrate loading has been a common practice for endurance athletes in the past, however for the younger athlete spreading the increased need for energy over meals and snacks in the days leading up to competition should suffice. This will help avoid drastic eating habit changes and stomach disturbances on competition day while providing sufficient energy stores. Heavy carbohydrate loading should only be considered for marathon distance races and higher. Young athletes need to develop good nutrition knowledge/habits before practicing carbohydrate loading or weight loss attempts.

Carbohydrate Needs for Endurance Athletes

Training Days

- **Low-volume training day-** 3-5g/kg body weight/day
- **Moderate-volume training-** 5-7g/kg body weight/day
- **Moderate-heavy training-** 6-10g/kg body weight/day
- **Max fueling for distance event-** 10-12 g/kg body weight/day
- **Immediate recovery-** 1g/kg of body weight/hr, consumed at frequent intervals

During Competition- If your event lasts...

- **<60 minutes-** No additional carbs needed
- **1-2 hours-** up to 30g/hr
- **2-3 hours-** 30-60 g/hr
- **>3 hours-** 60-90 g/hr, drink contain glucose + fructose

Hydration

The weight that is lost in during training is mostly water weight, to calculate weight loss in training, weigh in before and after workouts. Training weight loss should never exceed 2% body weight/session. Excessive body weight loss in during training/competition can lead to cramping, fatigue, and injury. It is important to rehydrate post training, you should drink 16 oz. of fluid per pound of weight lost in during training. Here are some other hydration tips:

- If you are thirsty, you are already dehydrated
- Hydrate even in cold temperatures
- Consume a carbohydrate based drink for events lasting longer than 1 hour
- Consume an electrolyte containing beverage after exercise (Pedialyte/Chocolate Milk has the electrolytes for recovery without the sugar of sport drinks)
- Avoid caffeine/red bull/energy drinks/pre-workout type drinks before training, especially in warmer weather. These products can elevate your resting heart rate, making training at high heart rates dangerous for young athletes.
- Adjust hydration techniques in during training sessions to find what best for you for competition day



When Should I Eat?

Breakfast: Before school

Mid-morning snack: Between breakfast and pre-workout meal

Pre-workout meal: 3 hours before training

Pre-workout snack: 1 hr before training

Post-workout snack: Within 30 min after training

Post-workout meal: 2-4 hrs after training

Evening snack: 2-3 hours after last meal

Sample Practice Day

Breakfast

8 oz blended milk/fruit beverage

Banana

½ English Muffin

1 bowl of cereal w/ milk

Mid-Morning Snack

8 oz Strawberry Greek Yogurt

1 Orange

Lunch- Pre-workout Meal

8 oz Water

2 slices whole wheat bread

1 slice Cheddar Cheese

4-5 oz turkey breast

Lettuce, tomato, onion, peppers

½ cup of applesauce

Pre Workout Snack

16 oz water

6 baby carrots

1 Rice cake

4 oz peanut butter

Post Practice Snack

8oz Chocolate Milk + Water lost in training

Dinner

Water

4-5 oz Lean Protein

1 cup Steamed Broccoli

Baked Potato w/ Low Fat Sour Cream

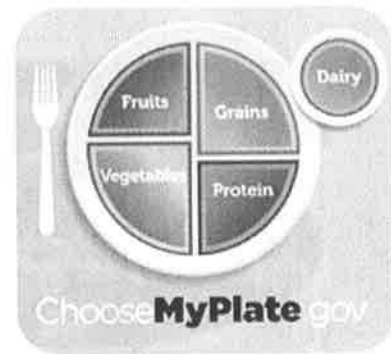
Dinner roll

Salad (unlimited veggies)

Food Group Guide

Carbohydrates

- 1 Bowl Cereal
- ½ Bagel
- ½ English Muffin
- 4" Pancakes
- 4" Waffle
- 1 Slice Whole Wheat Toast
- 1 Slice Cheese Pizza
- ½ Cup Hot Cereal
- Pita Bread
- ½ Hamburger/ Hot Dog Bun
- 1 Dinner Roll
- 5 Saltine Crackers
- 1-6" Tortilla
- ½ cu Pasta
- 3 slices of



Fats

- Avocado
- Olives
- Flax Seed
- Walnuts
- Peanut Butter
- Soy milk
- Tofu
- Fatty Fish – Salmon, Tuna, Mackerel
- Olive Oil
- Canola Oil
- Sesame Oil
- Soybean Oil
- Safflower Oil
- Sunflower Oil
- Nuts
 - Almonds
 - Peanuts
 - Pecans

Fruits

- 6 oz Fruit Juice
- 1 cu Raw Fruit
- 1 Piece of Fruit
- ½ cu Canned Fruit
- Banana
- Raspberry
- Blackberry
- Strawberry
- Papaya
- Mango

Proteins

- Greek Yogurt
- Lean Turkey
- Lean Roast Beef
- Turkey Bacon
- Roast Pork
- Game meats
- Skinless Chicken
- Lean Ham
- Baked or Broiled Fish
- Tuna (in water)
- Ham
- Egg
- Cottage Cheese
- Swiss Cheese
- Milk
- Lean Ground Beef
- Halibut
- Sockeye Salmon
- Edamame
- Green Peas
- Quinoa
- Chocolate Milk

Vegetables

- 6 oz Tomato Juice
- 6 oz V-8 Juice
- ½ cu canned veggies
- 1 cu raw veggie
- 1 med baked potato
- ½ cu mashed potatoes
- 6 Baby Carrots
- Colored Peppers
- Zucchini/Squash
- Greens
- Other Fresh veggies