



# NUTRITION GUIDE

	DAILY CARBOHYDRATE	DAILY PROTEIN	AFTER TRAINING/WORKOUT
<b>Endurance</b> (road cycling, long-distance swimming, running and triathlons)	Body weight x 2.3- 5.4 for your recommended daily carbohydrate needs	Body weight x .54-. 77 = your recommended protein needs for endurance	Body weight x .45-.68 = recommended carbohydrate grams after training or workout
<b>Strength</b> (weight lifting, body building and football)	Body weight x 2.3 for recommended daily carbohydrate needs	Body weight x .64-. 77 = your recommended protein needs for strength	
<b>Example Calculation for 150 lb. persons</b>	150 lbs. x 2.3 = 345 grams 150 lbs. x 5.4 = 810 grams	150 lbs. x .54 = 81 grams 150 lbs. x .77 = 115 grams	150 lbs. x .45 = 67 grams 150 lbs. x .68 = 102 grams

## Water and Hydration

- Allows for better recovery
- Prevents fatigue
- Allows you to remain mentally sharp, which will increase your injury risk
- Allows you to better regulate your body temperature
- Prevents water weight loss

If you allow yourself to dehydrate, the body requires at least 24 hours for your cells to rehydrate. If you do not feel thirsty, make sure to include some salty snacks, like salted pretzels or soups. The salt will make you feel thirstier and help your body to hold onto more water.

The American College of Sports Medicine recommend the following fluid guide:

ADAPTATION	AMOUNT	TIMING
2 hours before exercise	Drink 500 ml (.5 L or ~17 oz.)	None
During exercise	Drink 600 - 1200 ml (.6-~20-40 oz.) per hour	Drink 150-300 ml (~5-10 oz.) every 10-15 min
After exercise	After exercise	Drink 150% of the amount needed to restore body weight to compensate for urine loss

## Losing and Gaining Weight

Regardless of whether your goal is to lose or gain weight, it is important that you pay attention to meal timing and that you eat the highest quality calories available. If you eat a lot of "junk foods" not only will your performance suffer, your waistline will too. If you skip meals and/or do not eat on a schedule, you are a much higher risk of losing lean body mass (muscle) and gaining fat mass. When trying to gain weight, your body has to work very hard to build muscle tissue and lose fat tissue. Adding additional 300-500 high quality calories daily is recommended for weight gain. Patience is important in either situation. A goal for either weight loss or gain is no more than 2 lbs. per week

## Alcohol

Whether you're an endurance athlete, strength athlete or an athlete that combines endurance and strength, alcohol will negatively affect your performance.

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For those who exercise, from the weekend warrior to the competition level athlete, nutrition plays an integral role in performance, for...

- Energy level before/during/after exercise
- Recovery from exercise and fatigue
- Hydration
- Inflammation within the body

Each macro nutrient is needed for specific functions within the body:

- Carbohydrate (use whole grains: pasta, rice, crackers, cereals, oatmeal, bread and fruit)
  - Energy and muscle fuel
  - Proper digestion
  - Nutrient absorption
  - Needs for athletes are based on body weight; the harder you train the more carbohydrate you need
- Protein (use lean proteins like tuna, salmon, chicken, legumes and lean beef and pork)
  - Is used for energy if you don't have enough carbohydrate in your diet
  - Prefers to be used for delivery of essential amino acids, building new body tissues (like muscle tissue, and especially if you're injured), maintaining current body tissues
  - Carries vitamins and minerals throughout your body and is involved in making hormones, enzymes and antibodies in your body
  - Needs for athletes are based on body weight
- Fat (use healthy fats like nut butters, nuts/seeds, olives/olive oil, avocado and flaxseed)
  - Carries fat-soluble vitamins throughout your body (vitamins A, D, E, K)
  - Energy source for low-intensity activity like walking
  - Involved in making new hormones

All of us, especially athletes, should aim for balanced eating. Several studies have shown that when nutrition is out of balance, percent body fat is likely to increase, while lean body mass is likely to decrease. There are some athletes who have found the right combination of food, fluid and exercise to meet their performance and weight goals. Whether you are a strength or endurance athlete, if you're not meeting your goal, take a closer look at your nutrition and meal timing. Meal timing is important:

1. Eat about every 3-4 hours, during your waking hours and aim for as equal a portion as possible at each meal.
2. 3-4 hours before training/event, eat foods high in quality carbohydrates, moderate in lean protein and low in fiber and fat.
3. Within 15-60 minutes after training/event, eat foods high in quality carbohydrates and 10-25 grams of lean protein.
4. Depending on the intensity of your training/work-out, you may need to eat every two hours, up to six hours after your event, for recovery. Otherwise you might find yourself dragging and energy drained for your next workout/ competition.