

Hydration

- Vital for temperature regulation, lubrication of joints, and transport of nutrients to active muscles and tissues.
- Monitor hydration by weighing yourself before and after practice/competition. Loss >2% body weight is detrimental to performance.
- Fluid needs depend on air temperature, intensity of workout, body size, duration of activity, and fitness level
- Sweat contains not only water, but also electrolytes, including sodium, potassium, magnesium, and chloride.

Before exercise: 4 hours before, drink 2-3 mL per pound body weight

During exercise: sip water or sports beverage every 15-20 minutes

After Exercise: Drink 16-24 oz. for every pound body weight lost during exercise. Drink sports beverage to replace electrolyte losses.

Basic Nutrition

Before practice/ competition:

Goal is to curb hunger, but leave enough time for food to be digested. Meal or snack should be low in fat and fiber, high in carbohydrate, moderate in protein, and familiar to the athlete.

After practice/competition:

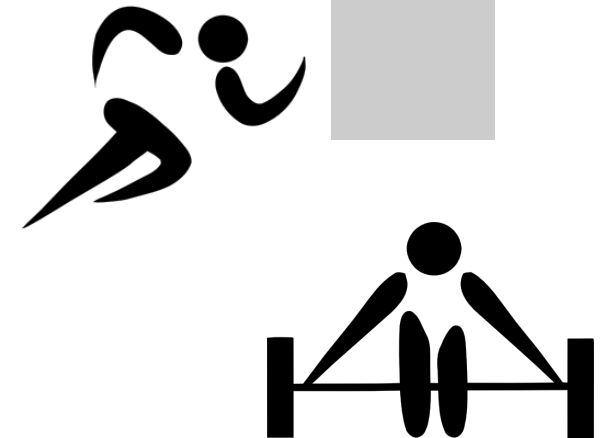
Consume high-glycemic carbohydrates within 30 minutes to maximize glycogen synthesis. Eat a meal within 1-2 hours, with both carbohydrates and protein for muscle protein repair.

Sources:

Fink, H. & Mikesky A. Practical Applications in Sports Nutrition. 4th ed.
Hydrate Right. Academy of Nutrition and Dietetics. Jan. 2013. eatright.org

TOTAL NUTRITION

An overview of nutrition fundamentals for athletes



Carbohydrates

The body's preferred source of energy for activity!

- Converted to glucose in the body.
- Replace glycogen (energy) stores by eating carbs within 30 minutes after exercise.
- Eat a snack high in carbs before practice & competition.
- Should make up the largest portion in your diet.
- Definitions:

Glucose = sugar

Glycogen = stored sugar

Good sources of carbs:
grains (whole grain bread, pasta, rice, cereal), fruit, vegetables, milk, yogurt

Protein

- Protein is made up of different amino acids.
- Proteins are needed for development, growth, and repair of muscle and other bodily tissues.
- Can also be used for energy, but not very efficiently.
- Protein needs are based on body weight.
- Strength-training athletes will need more protein.
- Eat protein throughout the day (at each meal & snack) to maximize muscle protein synthesis.

Good sources of protein:
high concentration in meat, beans (kidney, black, pinto, garbanzo beans, etc.), milk, Greek yogurt, nuts, peanut/almond butter

Fats

Fats (also known as lipids) have many important roles in the body.

- Essential for cell membranes
- Production of hormones, insulate nerve cells
- Absorption of fat-soluble vitamins (Vitamin A, D, E, & K)
- Help to meet the high calorie needs of athletes
- Main source of energy during rest and low- to moderate intensity activities
- Focus on the **type** of fat consumed. Increase intake of Omega-3 which can reduce inflammation. Found in fatty acids, found in fish (salmon, tuna, trout), walnuts, ground flaxseed, sunflower seeds, soybeans, canola oil.

Good sources of fat: canola & olive oil, nuts, peanut butter, seeds, avocados