



A diet high in carbohydrates, low in fat and adequate in protein is the best plan for all athletes as well as spectators. It is the best way to fuel your muscles and keep your heart happy. Carbohydrates are readily stored in your muscles for quick fuel during exercise, unlike protein and fat. Focus your meals on "the carbs:" pasta, rice, breads and potatoes. Use protein foods like cheese, beef, chicken or fish as accompaniments to obtain a balance.

CARBOHYDRATES

- Carbohydrates are not fattening; you need carbohydrates to fuel your muscles.
- Carbohydrates are used during hard exercise.
- Carbohydrates are a friendly fuel; the "enemy" is too much fat.
- Energizing foods such as cereal, bread, pasta and potato should be the focus while limiting the butter, margarine or mayonnaise.

Carbo-Loading for Endurance Events

For endurance exercise lasting more than 90 minutes, you should eat a high-carbohydrate diet (60-70% of total calories) for six days prior to the event and gradually reduce your training and rest your muscles to allow them to become saturated with carbohydrates for fuel.

PROTEIN

Extra protein does not build muscles, exercise does! By doing strength resistance exercises such as weight lifting, you can build muscle bulk and strength. The energy you need to accomplish this is a diet of 60% carbohydrate and 15% protein. A body-builder and a marathon runner can actually benefit from the same percentages (just a difference in total calories, based on energy output and needs).

Every type of athlete needs to get an adequate amount of protein. An excessive protein intake can put a strain on certain body functions and can also be *stored as fat*. An inadequate protein intake can put you at risk for deficiencies in iron, zinc, calcium and other nutrients as well as anemia, lingering colds and the flu. Performance can be hindered as a result.

It is actually quite easy to meet your individual protein requirements by eating a variety of foods from the five food groups. To find out your protein needs and for a review of your own protein intake, talk with the registered dietitian.

Guidelines for pre-competition meals

- Eat high carbohydrate meals each day to fuel and refuel your muscles.
- Allow adequate time for your food to digest. High calorie meals take longer to digest than lighter snacks.
- Liquid "meals" leave the stomach faster than solid foods.
- Avoid sugary foods within 1 hour before hard exercise. This "sugar boost" may result in a "sugar slump" (low blood sugar), leaving you feeling light-headed and fatigued. If you must have something sweet, have it 5 to 10 minutes before exercise.
- Eat familiar foods before a competition; don't try new foods at this time. If you cannot tolerate food before a competition, eat well the day before.
- High-starch foods like bread, crackers and bagels tend to digest easier, settle comfortably and help maintain a stable blood sugar. Low-fat protein foods in small servings settle well too.
- Drink plenty of fluids (a good indication of adequate hydration: your urine will run clear).

Fluid Recommendations

- Quench your thirst and then some (your thirst mechanism isn't 100% reliable).
- Consume beverages, ideally water, up to 2 hours before your workout or event.
- Drink 1 or 2 cups of water 5 to 15 minutes before your workout or competition.
- During exercise, drink 8-10 ounces for every 15-20 minutes of strenuous exercise.
- Eight glasses of water a day is still a good estimate, but the athlete will probably need more.

Refuel after Exercise

Fluids: juices, water, watery foods and high-carbohydrate sports drinks for fluid and carbohydrates.

Focus on carbohydrates: especially within the first 1 - 4 hours after a workout. Breads, fruit, yogurt, cereal and milk are good examples.

Rest your muscles! This is necessary for the recovery process and to enhance future workouts.

For more information or to speak with the dietitian, call 603-862-2583 or email at rochelle.litalien@unh.edu.

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