

## **Guidelines for the Vegetarian:**

### **Eating To Exercise and Compete**

#### **FUELING UP BEFORE -- THE PRE-EVENT MEAL**

The purpose of eating prior to a workout or competition is to provide the body with fuel and fluid.

The idea is to choose foods which will prevent hunger, provide additional carbohydrate fuel, and minimize possible intestinal complications.

Generally, the meal should be consumed far enough in advance to allow for stomach emptying and intestinal absorption. A good rule of thumb is to limit the pre-event meal to about 800 calories, and give yourself one hour before the workout for each 200 calories you eat.

For example, 5 pancakes, syrup, a banana, and juice would be eaten about 4 hours before a workout.

A smaller 200 calorie meal such as a bowl of cereal or a bagel and juice would be eaten between 1 and 2 hours before starting. Meal timing is especially important in activities such as running, aerobic dancing, and swimming, and less critical in sports such as cycling.

Athletes who have a "nervous stomach" before competition may find liquid meals such as blenderized fruit shakes with tofu or soy yogurt easier to tolerate.

The pre-event meal should contain fluid and foods that are high in carbohydrates, and low in fat, protein, salt, simple sugars, and concentrated fiber. Cereal with sliced bananas and skim milk or juice, pancakes with fresh fruit topping, oatmeal with fruit, a baked potato topped with soy yogurt and vegetables, and tofu spread on bread with fruit are good examples. Too much protein, fiber, and fat in the pre-event meal can lead to heartburn, nausea, diarrhoea, or constipation in certain individuals.

Adequate fluid intake is the single most important recommendation for all types of exercise.

#### **SUPPLEMENTING -- INTAKE DURING THE EVENT**

Replacing both fluid and carbohydrate during exercise is important. What and how much to replace depends on the type, duration, and intensity of the exercise.

**Adequate fluid intake is the single most important recommendation for all types of exercise. The general recommendation is to drink 1/2 to 1 cup of water every 10 to 20 minutes. In a hot environment, when perspiration is especially heavy, drinking up to 2 cups of water every 15 minutes may be necessary to replace fluid losses.**

**Adequate hydration enables the active body to regulate its temperature effectively and allows for good circulation and muscle function.**

**Carbohydrate replacement is necessary in events lasting longer than 90 minutes and may even be beneficial during high intensity exercise of shorter duration.**

**This applies to both continuous events like cycling, running, and hiking, and sports with intermittent activity like soccer and weight training. Under these conditions, consuming carbohydrates during exercise increases both the time and the intensity the athlete is able to exercise before becoming exhausted.**

**Researchers believe that carbohydrate feedings delay fatigue by providing additional fuel for the working muscle and preventing blood sugar from dropping. A carbohydrate intake of approximately 30 to 80 grams per hour 2 (1 to 3 large bananas or 15 to 60 ounces of a 6 to 7% fluid replacement beverage) are recommended for delaying fatigue during prolonged strenuous exercise.**

## **REFUELING -- THE POST-EVENT MEAL**

**The meal following a workout is nutritionally the most important meal for aiding recovery from exercise and maintaining the ability to train the following days.**

**Fluid, carbohydrate, and protein intake after exercise is critical, especially after heavy exercise. A high carbohydrate intake is required to replace depleted muscle glycogen stores.**

**Delivery of a protein source may also aid in repairing and rebuilding damaged muscle tissue and replenishing the amino acid stores. Collective evidence indicates that exercise significantly alters protein metabolism, especially as the exercise becomes more prolonged and more strenuous.**

**Since the body begins to replace its depleted stores and repair any microscopic damage to muscle fibers almost immediately after exercise, provision of these depleted nutrients in the post-event meal may accelerate recovery.**

**Researchers investigating the role of carbohydrate in exercise performance suggest that consuming a carbohydrate source starting 15 to 30 minutes after exercise, followed by additional carbohydrate feedings, will optimize muscle glycogen replacement.**

**Delaying the ingestion of carbohydrates by several hours slows down the rate at which the body is able to store glycogen. For the casual exerciser, this means packing a piece of fruit, fruit juice, or a fluid replacement beverage for a post-workout snack, and then eating a mixed high carbohydrate and protein meal (such as pasta with lentil spaghetti sauce or tofu, vegetables, and rice) shortly thereafter.**

**For the heavily training endurance athlete, a meal containing both a good source of protein and 100 grams of carbohydrate is recommended, followed by additional carbohydrate feedings every 2 to 4 hours.**

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