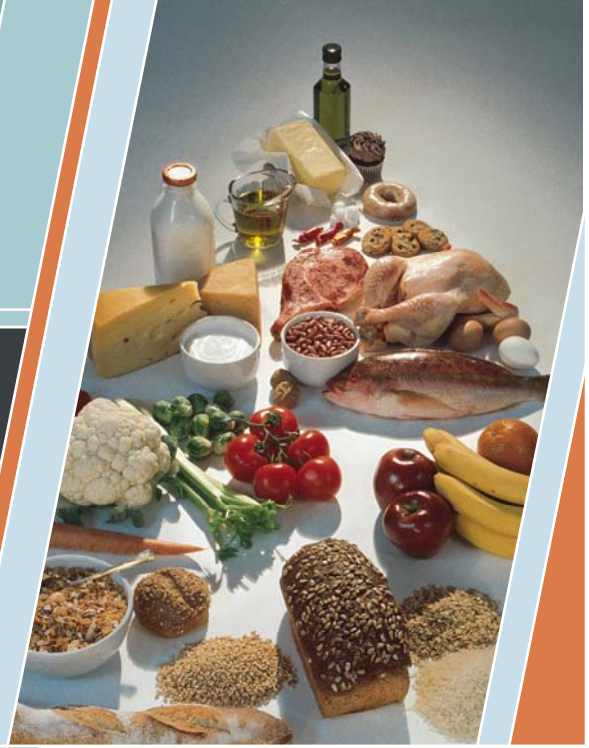

look good. feel good.
get into shape.

About ACSM's Current Comments

Current Comments are official statements by the American College of Sports Medicine concerning topics of interest to the public at large.

Meal Consistency

The meal should consist primarily of carbohydrates and fluids, as they can be easily digested. If the meal is small (400-500 Calories), it can be consumed approximately 2-3 hours prior to an event allowing enough time for digestion and absorption. If the meal is high in fat, protein, or fiber, extra time must be allowed for digestion. Also, as the amount of food consumed increases, so will the time needed for digestion. A large meal containing appreciable amounts of protein or fat may need to be eaten 5-6 hours before competition. Carbohydrates high in fiber and gas-forming (bran products, legumes, and certain vegetables, such as onion, cabbage and cauliflower) are not recommended as they may cause intestinal discomfort. A liquid source of carbohydrate can be taken prior to the event when schedules do not allow time for meals or for those who have a sensitive stomach or experience pre-competition anxiety. Liquid meals can include sports drinks, juices, low-fat smoothies and shakes.

No one food or group of foods works for everybody; the person may need to experiment to find which foods, and the amount of food, that works best. Food choices may vary based on the type of exercise, as well as the intensity and duration of the exercise. However, it is important to experiment with new foods during training rather than around competition.

ACSM… Advancing Health.

Through Science Education, and Medicine.

AMERICAN COLLEGE of SPORTS MEDICINE
www.acsm.org

401 W. Michigan St., Indianapolis, IN 46202-3233 USA
317.637.9200 tel **317.634.7817** fax

www.acsm.org/current_comments

AMERICAN COLLEGE of SPORTS MEDICINE
www.acsm.org

Current Comments

Report on Pre-Event Meals

Practical recommendations
for everyone

Morning events:
The night before, eat a high-carbohydrate meal. Early morning, eat a light breakfast or snack: cereal and non-fat milk, fresh fruit or juice, toast, bagel or English muffin, pancakes or waffles, non-fat or low-fat fruit yogurt, or a liquid pre-event meal

Afternoon events:
Eat a high-carbohydrate meal both the night before and for breakfast. Follow with a light lunch: salads with low-fat dressings, turkey sandwiches with small portions of turkey, fruits, juice, low-fat crackers, high-carbohydrate nutritional bars, pretzels, rice cakes

Evening events:
Eat a high-carbohydrate breakfast and lunch, followed by a light meal or snack: pasta with marinara sauce, rice with vegetables, light-cheese pizza with vegetable toppings, noodle or rice soups with crackers, baked potato, frozen yogurt

Importance

The pre-event meal is particularly important before a morning event, since as much as 12 hours or more may have passed since the last meal and liver glycogen levels could be sub-optimal. The pre-event meal could replenish glycogen stores and decrease chance of hypoglycemia (low blood sugar) and therefore, delay fatigue. Since early morning pre-event meals may need to be limited in size, it would be important to consume a substantial carbohydrate dinner the night before. Again, plenty of liquids should also be consumed to ensure maximum hydration status. Suggestions for pre-event food choices are listed below:

Written for ACSM by Helen DeMarco, M.S., R.D.

ACSM Current Comment

It is well established that exercise performance can be affected by diet and, in order to maintain optimal training, the body must be properly refueled with appropriate nutrients. The pre-event meal is an integral part of the complete training plan. Of course, a single pre-event meal will not compensate for a poor training diet. For this reason, the active person should routinely follow basic nutrition guidelines. It is essential that the diet contain enough calories to cover the active person's daily energy expenditure. It is also advised that the diet be composed of a wide variety of foods to ensure adequate intake of vitamins and minerals. The training diet should be high in carbohydrate without compromising necessary protein and fat.

Pre-Event Meals

An ACSM Report

The pre-event meal should have a definite focus on carbohydrate intake. Prioritizing carbohydrates is supported by evidence that exercise performance is typically enhanced following a high carbohydrate meal as compared to a low carbohydrate meal. Carbohydrate in the liver and muscles (glycogen) can be metabolized to provide energy for the working muscle more rapidly than fat, allowing a person to sustain a higher intensity level of exercise.

Therefore, its depletion would inevitably result in a need to reduce exercise intensity or discontinue exercise. Although the body's glycogen storage is limited, the diet should provide enough carbohydrate to maximize glycogen stores, particularly for those participating in endurance events. The basic goals of the pre-event meal are as follows: (1) prevent weakness and fatigue, whether due to low blood sugar levels or inadequate muscle glycogen stores, during the event, (2) ward off feelings of hunger yet minimize gastrointestinal distress from eating, and (3) guarantee optimal hydration. In addition, individual preferences must be considered. If a person truly believes that a specific food will improve performance, then the psychological effect of consuming that food may result in enhanced performance.

Carbonated drinks should be avoided as they may cause stomach discomfort. Caffeinated drinks should be considered on an individual basis. For some individuals, caffeine may be ergogenic, most notably in sparing muscle glycogen and thereby prolonging fatigue during endurance events. However, for others it may cause nausea and anxiousness. In addition, an excess of caffeine can contribute to dehydration through its diuretic effect.