

# Sports Nutrition Handout

## Pre-Competition Eating

**P**re-competition eating can be crucial to performance. If the body does not have maximal storage of carbohydrate energy (stored as glycogen), premature fatigue will result. No more than 6 hours should elapse from the time of the last meal.

### Composition

A high carbohydrate meal is best prior to activity. Besides being the quickest and most efficient source of energy, it provides water for hydration (carbohydrate is 75% water). Fat should be restricted because it is digested and absorbed slowly; it lies in the stomach for a long period of time, competing with muscles for blood once activity has begun. Protein that is low in fat is permissible in small amounts. Large amounts of protein can cause dehydration.

### Timing

Large meals should have at least 4 hours to digest, while smaller ones require 2 to 3 hours. Liquid meals need only an hour to two, and small snacks usually less than an hour. A good general guideline to follow is to consume 1 to 4.5 grams of carbohydrate per kilogram of body weight 1 to 4 hours prior to competition (the closer to competition the smaller the amount of carbohydrate ingested).



### Do No Harm

Probably the most important one statement that can be made about the pre-competition meal is - "Try to do no harm". Athletes should evaluate their responses to high-carbohydrate foods with both low and high glycemic indexes. Although high glycemic index foods can cause low blood glucose due to insulin spike, it is usually transient and doesn't adversely effect performance. Some athletes are more sensitive, however, and may need to consume a lower glycemic index carbohydrate before activity, or wait until just before activity to eat higher index carbohydrates (the onset of activity will blunt insulin release). Gas-forming foods such as dried beans, cabbage, onions, radishes, cauliflower, and turnips should be avoided to prevent discomfort.

### Individual Tolerances

People react differently to dietary regimens. Some individuals can eat closer to competition than others. Foods that one person can tolerate may cause discomfort in another. It is not wise to test new foods prior to competition. Many athletes have favorite foods that they feel give them "the edge". If an individual has a strong personal preference for a food, the food should be allowed, if tolerated physiologically.

