



SIMPLE SPORT SCIENCE

May 2009

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SPORT NUTRITION

“The Energy Edge”

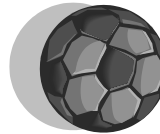
A balanced eating program is an integral component to obtaining the energy edge in performance and any physical fitness program. Dietary goals should be to obtain adequate nutrition in order to optimize health and fitness or sports performance. In other words, you want to strive to eat right all day long. Wherever you are in life, you can nourish yourself with a diet that supports good health and high energy!



PLANNING FOR GOOD NUTRITION

We all need energy that will last as long as our day lasts. By planning for good nutrition you are on your way to top performance:

- ▶ Use Canada's Food Guide as a starting point
- ▶ Choose more servings of grain products and vegetables and fruit to meet higher energy needs
- ▶ Choose a variety from each food group each day; no one food group supplies you with all the necessary nutrients
- ▶ Learn to choose wisely while eating out
- ▶ Try new foods/beverages during practice; not the day of an event
- ▶ Plan ahead and know what and when you will be able to eat throughout the day; always carry extra “on the go” snacks (muffin, cracker, fruit, juice, cheese, peanut butter/bread)
- ▶ Don't forget fluids; drink before, during and after physical activity
- ▶ Drink plenty of water when traveling; a few hours in the air can cause dehydration



CARBOHYDRATE: Fuel For Champions

Carbohydrates are found in a variety of foods. More active people require more carbohydrates. Carbs are necessary to maintain blood glucose and are used for quick energy for muscle activity. Depleted glycogen stores (the quick energy) lead to reduced endurance, fatigue and exhaustion. Eating carbs is the only way to maintain and refill muscle glycogen stores.

- ▶ Before competition consume a high carb and low in fat diet on a regular basis. Pre-competition meals should be consumed 2-3 hours before the event
- ▶ Rest or taper activity for a few days prior to competition so that muscles are able to store carbs as glycogen
- ▶ After intense activity drink/eat carb-containing foods within the first 15-30 minutes post-activity
- ▶ 2-4 hours post-exercise (practice/competition) try to consume high carbohydrate snacks (fruit, fruit yogurt, crackers, chocolate milk, cereal, bagels)



POWER PROTEINS

As an athlete it is vital you consume enough protein in your diet. Protein aids in building, repairing and maintaining muscle tissue. Strenuous endurance or strength training can increase one's protein requirements. However, even high performance athletes can meet protein needs through a well planned out diet. The food guide provides for a generous allowance for protein for the elite athlete.

- ▶ Consume at least the minimum number of servings of Milk Products and Meat and Alternatives
- ▶ Lean meat, fish, poultry, eggs, or a combination of legumes, grains, nuts, and seeds provide quality sources of protein and other essential nutrients
- ▶ Darker meats increase intake of iron and zinc (reduce risk for iron deficiency anemia)
- ▶ Protein beyond the body's requirement is broken down for use as energy or **stored as fat**.



FLUID AND TOP PERFORMANCE

Fluid is a constant need and plays a major role in an athlete's performance. Heavy or prolonged sweating is the mechanism the body uses for body temperature regulation. This act can lead to dehydration which is a major cause of fatigue and poor performance. Dehydration also increases the risk of cramps, heat exhaustion and life threatening stroke. It can also delay an athlete's recovery after exercise/the event.

- ▶ Drink a minimum of 2 L or 8+ cups of fluid every day
- ▶ Consume additional fluids with activity
- ▶ Drink plenty of cool, plain water before, during and after physical activity
- ▶ Drink 1.5 L of fluid for each kg or 3 cups for each pound of weight lost during exercise
- ▶ Monitor urine color and amount. A small amount of dark urine is a sign of dehydration
- ▶ Plain cool water is sufficient for events/workouts lasting up to one hour
- ▶ A sports drink is beneficial when the activity lasts longer than one hour. Look for 4-8% carbohydrate when choosing a sports drink. Remember to trial first in training before using it in an event!
- ▶ Make your own sports drink: mix equal volumes of orange juice and water and add a "pinch" of salt

Three very important questions to ask yourself:

1. *What will I eat?*
 2. *When will I eat it?*
 3. *Where will I get the food?*
- During training/practice is the time you will test different foods and the timing of meals. NEVER, EVER try any new foods or beverages the day of competition. Training or practice is the time to test your fuel options for tolerance.
 - Once you have figured out the right combination for you, it should be incorporated into your overall competition schedule.
 - Do not train/compete on an empty stomach. Plan to eat a snack 1-2 hours prior.
 - Choose carb-rich foods that are well tolerated.
 - Develop a pre-event meal plan that you can use for pre-competition - experiment during training.
 - Avoid eating high fat foods and excess protein prior to exercise.
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**Sample Meal Planning Schedule:****EARLY MORNING EVENTS**

The Night Before: Eat a high carb meal - pasta, grains, breads, veggies, milk, along with some lean protein - 3 oz chicken or fish. Drink 2 glasses of fluids before and after the meal. Walk/stretch before bed.

The Morning of: Eat a light breakfast - fruit yogurt smoothie, low fibre cereal & milk, meal replacement drink (Ensue/Boost). Drink 2 glasses of fluids 2 hours before the event. Allow for 2 hours to digest solid foods.

EARLY AFTERNOON EVENTS

The Night Before: Eat a high carb snack before bedtime - toast & jam and 1% chocolate milk.

The Morning of: Eat a substantial mid-morning meal of breads, cereals, fruit, yogurt and juice. Or, have a big breakfast and a light lunch. Drink fluids throughout the morning and stop 2 hours prior to the event.

EVENING EVENTS

The Night Before: Eat a high carb meal. GET A GOOD NIGHT SLEEP.

The Day Of: Both breakfast and lunch will be completely digested by evening. A carb rich meal - soup, sandwich and juice should be eaten 3 hours before the event. Drink fluids all day up to 2 hours before the event.

After the Event: Eat high carb foods and avoid alcohol. Drink plenty of fluids.

ALL DAY EVENTS

The Day Before: Eat carb rich meals and snacks every 2-3 hours. Drink sports drink (make your own), juice and low fat milk.

The Day Of: Eat the largest, most tolerated, high carb breakfast - toast, pancakes or hot cereal. Eat a low fat lunch and snack on high carb foods - sports bars, juice, bagels and bananas. Drink water first and sports drinks (if tolerated/needed) throughout the day.

The difference between you and your competition is who is putting sport nutrition into practice!

Produced in partnership with

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