# **Nutrition guidelines for hockey**

By Leslie Bonci, M.P.H., R.D.

Hockey is a high-intensity, maximal-outburst activity, and hockey players expend a tremendous number of calories in practice and in competition. The fuel sources for hockey -- glycogen (the form in which carbohydrates are stored in the body) and phosphocreatine (a source of energy in muscle contraction) -- require optimal carbohydrate and protein intake.

Fueling the body at frequent, regular intervals with appropriate amounts of food will enhance strength, speed and stamina. A hockey player's diet should be based primarily on starch-containing food with less emphasis placed on protein and fat.

# **Nutrition goals**

- Plan eating in conjunction with workouts in an effort to insure adequate fuel to optimize performance and delay fatigue.
- Eat every three hours to ensure the body a consistent fuel source that provides the energy substrate (a substance on which an enzyme acts) for sport.
- Consume an adequate caloric level to meet your needs. Inadequate calories will hasten fatigue, contribute to poor performance and increase muscle breakdown.
  See "Custom Nutrition Goals".
- Provide the body with the right mix of nutrients, emphasizing carbohydrates. Visualize a peace sign. The triangle at the bottom of the peace sign should be protein, such as chicken, red meat, pork, fish or eggs. The remaining sections should include starch (pasta, rice, bread or cereal), and fruit or vegetables.
- Drink adequate fluid for high-intensity activity, to optimize performance and to prevent injuries. See "Hydration Guidelines".

# **Custom nutrition goals**

- Calories: Minimum weight (pounds) x 23 (For example: a 150-pound athlete would require at least 3,650 calories per day)
- Carbohydrate: Weight x 3 to 5 = grams carbohydrate per day
- Protein: Weight x 0.7 = grams protein per day
- Fat: Weight x 0.45 = grams fat per day
- Fluid: Minimum weight x 0.67= ounces fluid per day

# **Hydration guidelines**

- Water: Drink 16 ounces of water before bed, after first morning void and two hours before a practice or game.
- Fluids: The best choices are water, sports drinks, and juices or fruit drinks diluted in a one-to-one ratio. Caffeinated, carbonated or alcoholic beverages are poor choices. Drink:
- Eight to 10 ounces, 10 minutes before a game. Try this in practice first!
- Six to 8 ounces at all breaks during practices or games.
- Twenty-four ounces after practices and games for every pound lost!

# Competition eating

Coordinate eating before, during and after practices and games. Pre-activity meals should primarily include carbohydrates, such as pasta, stir-fry, waffles or pancakes, or a fruit smoothie made with milk, yogurt, pudding mix and juice. Consume a sports drink or diluted fruit drink immediately before taking the ice. This plan will provide additional fuel for the body during exercise.

During exercise, consume carbohydrates at every opportunity. Sports drinks, diluted fruit drinks, a handful of sweetened cereal, gummy type candy or sports gel with 8 ounces of water will provide additional fuel to working muscles.

Carbohydrates should be consumed a soon as possible after practices and games -- ideally within the first 30 to 45 minutes after exercise. Some of the best choices are:

- 16 ounces of fruit drink
- 8 ounces of concentrated carbohydrate beverage
- Three granola or cereal bars
- ½ to 1 cup of sweetened cereal
- 1/2 cup of gummy type candy

### The bottom line

- Eat every three hours
- Drink a beverage with every meal and between meals
- Eat and drink during breaks and practices
- Emphasize carbohydrates
- · Eat soon after leaving the ice

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# Game-winning nutrition tips for young hockey players

Think of hockey players as high-performance automobiles and food as the fuel that drives their performance. Far too often, players run out of gas during a game after having lunch at a fast-food restaurant or forgetting to eat breakfast. This would be like putting diesel fuel in your tank instead of regular gas or trying to drive on empty. You can be the most skilled player in the world, but if you aren't putting the right fuel into your tank, you won't have the energy to compete at the highest level. In order for players perform their best day in and day out, they need to take in premium fuel.

Here are 3 game-winning nutrition tips for hockey players:

# 1) Pre-Game Tip = Prepare

Players should never step on the ice feeling hungry. You need to time your pre-game meal so that most of the food is out of the stomach and broken down by the body by the time you hit the ice. If the game is 3 hours away, you can have a larger meal that is 75%carbohydrates (ie. rice, pasta, vegetables, fruit etc.) and 25% protein (ie. chicken, eggs, beans etc.). The closer you get to game time, the smaller and "lighter" the meal should be, meaning that you want to have less fat and protein and a focus more on carbohydrates. If you have an early morning practice or game, at least grab a piece of fruit or granola bar so that you have some fuel in the tank before you hit the ice. The key is to make sure that you have fuel in the tank and it is of the highest quality possible.

## 2) In-Game Tip = Hydrate

Proper hydration is the most important nutritional strategy an player can use. If you are thirsty, it is too late! The thirst sensation kicks in after you have lost 1 to 2 liters of water. This means that you are already dehydrated and your performance can be decreased by 15 to 20%. The solution? Always carry a water bottle with you and sip from it all day long - not just when you are at the rink.

A Note about Sports Drinks: It is suggested that sports drinks with electrolytes should be consumed when athletes are participating in an intense activity lasting more than 60 minutes. Therefore, for the majority of young hockey players, sports drinks are not necessary. On the other hand, a highly competitive hockey player, who is bantam age or older, may benefit from these specialty drinks for "recovery purposes" because they are so convenient and can be purchased anywhere. Instead of having sports drinks BEFORE a practice or game, Have these drinks during a tough practice or immediately after a tough game instead of beforehand since their high sugar content may lead to a sugar "crash".

#### 3) Post-Game = Recover

Immediately after a player steps off the ice, they have a 30 minute window where their body is at a heightened state to recover and they need to start rehydrating and refueling. One of the best recovery drinks a player can have is 1% chocolate milk. It has the simple sugars needed to start replenishing energy stores and the protein needed to start repairing tired muscles. By drinking chocolate milk (as well as lots of water), players will be well on their way to recovering from their on-ice session and getting ready for the next one.

Premium hockey performance requires proper training, great coaching and the right equipment. But in order for athletes to perform their best day in and day out, they need to make sure that they are taking in the best fuel possible through their nutrition.

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# Hockey Tournament Nutrition Recommendations

**Goal:** to eat and drink in a consistent, timely manner to provide optimal nutrition for peak performance.

# Friday: Games between 1 PM and 7 PM, Saturday: 8AM and 5PM, Sunday: 8AM and 5PM

**Ensure Breakfast** is consumed between 6-8 AM. If the game is at 8AM then either have Breakfast at 6AM or have a snack sized meal before and a large meal after the game.

**Food must be consumed 3-4 hours before games** to ensure it is available for energy and muscle repair.

-However, if there is only 2 or 3 hours between games than a smaller balanced meal/snack is necessary and will keep the player's body energized.

Water must be consumed throughout the day, especially during the game when dehydration occurs rapidly. Each player must have 2-3 litres daily. Some <u>diluted</u> electrolyte drink during the game is good to drink. (i.e. Cytomax, E-load or Gatorade): dilute 1 teaspoon to 1 litre water.

**Post Game Recovery Drink:** this can be a big difference maker when the competition is drinking pop or juice, the winning team is having a protein shake mixed with juice. This repairs/builds muscle and replenishes carbohydrate/glucose (fuel) just spent in the game, getting the player ready for the next one.

#### **Examples of Meals:**

#### **Breakfast:**

- A) 2 eggs, 2 toast with butter B) Scrambled eggs, 2-3 large pancakes, cup of Fruit
- C) 1 bowl of Oatmeal with Milk,  $\frac{1}{2}$  cup yogurt and cup of fruit. D) 2 Eggs, 1 cup Hash Browns, 1 Toast.

# Lunch / Supper:

- A) Pasta with Meat Sauce, Salad
- B) Chicken with Pasta, Vegetables
- C) Steak, Potato, Salad

D) Chicken/Beef Stir-Fry

- E) 1 Foot Long Meat Sub with lots of Veggies
- F) Supper Only: Pizza (with meat on it) with Salad.

**Restaurants:** the better the quality the food the better it is for everyone.

For example The Keg vs. Wendy's. However, in a pinch you could still eat the right combinations at a fast food place. Swiss Chalet, Kelsey's, Montana's etc. are better choices for Lunch and Supper while a reasonable quality quick meal like a Sub Sandwich from Subway or Quizno's can work for Lunch if time is tight between games. Both Lunch and Supper meals are interchangeable and the above examples are some ideas to point you in the right direction. Each meal contains Protein, Carbohydrate and Fat, the balance that is needed to keep a players energy high and muscle recovery rapid.

<u>Snacks:</u> If snacks are needed then they must also have the correct portions of Protein, Carbohydrate and Fat. A protein bar, some nuts and 1 fruit, Peanut butter on a small bagel are a few quick snack ideas. Avoid having just a high carbohydrate like a granola bar, fruit or worse yet, a sugary treat, like a chocolate bar. This will not provide adequate long-term energy.

<u>Whey Protein Shake:</u> Mentioned above as the secret to rapid repair/recovery it is best consumed within 20 minutes after the game in the dressing room. Have a 10-20 gram scoop of Whey Protein in 6-8 oz of juice like grape (not citrus juice like Orange)

<u>Drinks:</u> At each meal have 1-2 8 oz. Glasses of Water, a small glass 4-6 oz of Orange or Apple Juice is allowed but not too much and always accompanied by at least 1 glass of water. No Pop or Coffee.

<u>Supplements:</u> Take your Multi Vitamin/ Mineral and Flax Oil 2-3 times per day, either with meals or with your Post Game Recovery Shake

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