Resources

- American College of Sports Medicine
  http://www.acam.org
- American Council on Exercise
  http://www.acefitness.org
- American Sport Education
  http://www.asep.com
- Gatorade Sports Science Institute
  http://www.gssiweb.com/
- The President’s Council on Physical Fitness and Sports
  http://www.fitness.gov/
- Wellness Council of America
  http://www.welcoa.org

Center for Hygiene & Health in the Home and Community

Overview

Sports Nutrition is related to diet and athletic performance. An athlete’s food and fluid intake directly affects his/her performance. Good nutrition can improve body composition, speed, mobility and strength. Most importantly, proper sports nutrition can enhance overall health.

Simmons College
300 The Fenway
Boston, MA 02115

http://www.simmons.edu/hygieneandhealth
Dietary Guidelines
• Health professionals recommend a diet comprised of 55-60% calories from carbohydrates, 10-15% calories from protein and less than 30% calories from fat.

Caloric Intake
• Guidelines may vary slightly for athletes depending on body type and activity level.
• An athlete should never dip below 1,800 calories per day.
• An average person burns 293 calories jogging, 261 calories swimming, 171 calories walking and 191 calories bicycling for 30 minutes.
• Caloric replacement does not need to be excessive.
• Snacks such as trail mix, a peanut butter sandwich or whole grain cereal and milk are good choices.
• Sufficient caloric intake allows for maintenance of ideal weight range.

Fluid Replacement
• It is important to stay hydrated to maintain your body's fluid level.
• Before a workout, consume 10-14 oz. of water. During exercise, drink 3-4 oz. of water every 15 minutes of exercise. Post-workout, consume 16 oz. of water for every pound of weight lost. If no weight is lost, drink at least 8 oz. of water.

Fluid Replacement (cont’d)
• Water is sufficient for activities less than 90 minutes.
• Those participating in activities for greater than 90 minutes can benefit from sports drinks.
• Look for a beverage with 15-18 g of carbohydrate per 8 oz.

Electrolytes
• Electrolyte balance affects blood pH, muscle action and fluid balance.
• The body loses electrolytes through sweat. You must replenish them with fluid intake and a balanced diet.
• Sports drinks help with electrolyte replacement after greater than 90 minutes of physical activity.

Protein and Muscle Mass
• On average, the American diet includes more than enough protein. Protein supplements are not necessary.
• Protein intake ranging from 1.0 to 1.5 g per kg of body weight is appropriate for gaining muscle mass in addition to a varied diet.

Carbohydrates
• Carbohydrates are found in foods such as grains, fruits, vegetables, sugar, honey and syrups.
• Carbs provide 4 calories per gram.
• Carbs are the preferred source of energy for the body.
• The body uses glycogen, carbohydrates stored in the muscle, during exercise.
• Inadequate carbohydrate intake results in glycogen depletion and fatigue.
• Sugars and starches from food are effective in glycogen replenishment.
• Use the chart below to choose the best carbohydrate for your energy needs:

<table>
<thead>
<tr>
<th>Food</th>
<th>Carbohydrate (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bagel (3 inches in diameter)</td>
<td>37</td>
</tr>
<tr>
<td>Whole Wheat Bread (1 slice)</td>
<td>20</td>
</tr>
<tr>
<td>White Bread (1 slice)</td>
<td>23</td>
</tr>
<tr>
<td>Brown Rice (1 cup)</td>
<td>45</td>
</tr>
<tr>
<td>Pasta (1 cup)</td>
<td>36</td>
</tr>
<tr>
<td>Apple (5 oz)</td>
<td>21</td>
</tr>
<tr>
<td>Banana (3.5 oz)</td>
<td>23</td>
</tr>
<tr>
<td>Baby Carrots (10 medium)</td>
<td>8</td>
</tr>
</tbody>
</table>