SPORTS NUTRITION INFORMATION

Although many athletes and coaches are aware of the importance of nutrition, they don’t know how to apply what they know. For example, they know that carbohydrates are the primary fuel for exercising muscle. But when it comes to making food choices, they have no idea what high carbohydrate food is or how much they should eat. Yet deficiencies in consumption of energy, nutrients, electrolytes and/or water can hinder athletic performance.

The off-season is the time when good nutritional habits are developed allowing one’s body to be ready to perform at its highest level possible come season time. Poor eating habits both out of season and in season will hinder the body’s athletic performance possible resulting in poor performance on the field of play. You as an athlete should make your nutritional intake a priority in terms of looking to improve your overall athletic ability and performance.

Below is a planned overall view looking at sports nutrition. This is very valuable to you because it can help eliminate any misconceptions you may have as well as allow you to design appropriate eating habits.

TARGET SPORTS DIET

- 60 to 70 % Carbohydrates
- 20 to 25 % Fat
- 10 to 15 % Protein

CARBOHYDRATES

- Carbohydrates are one of the primary fuels used by muscles during exercise
- High intensity exercise use mainly carbohydrates as their energy source
- Carbohydrates are stored as glycogen which is stored in the liver and muscles
- During long intense workouts, large amounts of these glycogen stores are depleted. You should replace these glycogen stores after completing your workouts within 2 hours after exercise with complex carbohydrates
- Two kinds of Carbohydrates
  o Simple Carbohydrates
    ▪ Fruits, juice, soda, fruit drinks, cookies, milk, frozen yogurt, jellies, syrups
  o Complex Carbohydrates
    ▪ Rice, breads, cereal, muffins, rolls, waffles, potatoes, corn, peas, pasta, low fat milk

- Try and stay away from simple carbohydrates prior to working out or play as they can lower your blood sugar levels making you feel tired and unable to perform at your best.

PROTEIN

- The main role of protein in the body is tissue repair and growth. Smaller amounts are required for many metabolic reactions. Only about 5 to 15% of energy used for exercise is supplied by protein. If your diet is high in carbohydrates, less protein is used for energy. This is preferred since tissue repair and growth will need to occur at optimal levels during our phases of training.

NEEDS

  o Adults = 0.4 to 0.6 grams per 1lb of body weight
  o Adult Building Muscle = 0.6 to 0.9 grams per 1 lb of body weight

- Types of foods that supply protein
  o Cheese, eggs, tuna, red meat, chicken, milk, whole grain cereal, past, rice with beans
  o Choose lean protein – low fat lean meats

FAT

- Provides energy
- Protects Carbohydrate Stores
- Two Kinds of Fat
  o Saturated Fat
    ▪ Chocolate, oils, fried foods, sour cream
    ▪ Major contributor to heart disease
  o Unsaturated Fat
    ▪ Canola Oil
- Quick Facts on Fats
  - Margarine is not any better than butter
  - Avoid Hydrogenated Fat (Pre-Packaged Meals)
  - Remove Skin and all Visible Fat from Meats
  - Avoid Fried Foods
  - Choose foods that are baked, boiled, steamed, poached, or roasted

* The key to gaining muscle mass is to consume enough total calories from a diet high in carbohydrates to cover energy needs, so dietary protein is spared for muscle growth.

CALORIC NEED

Body Weight x 23

  - Number of Calories needed per day

FLUID INTAKE

Body Weight x .67

  - Number of fluid ounces need per day

When to Drink Fluids (H₂O)

  - 16 ounces before bed
  - 16 ounces as soon as you get up
  - 17 ounces 2 hours prior to workout/practice
  - 8-16 ounces 15 minutes prior to workout/practice
  - 4-8 ounces every 15 minutes during exercise
  - Post exercise/workout: 24 ounces for every pound lost during exercise
# DAILY EATING SCHEDULE

<table>
<thead>
<tr>
<th>MEAL</th>
<th>TIME</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meal 1**</td>
<td>8:00am</td>
<td>Breakfast List</td>
</tr>
<tr>
<td>Meal 2</td>
<td>10:00am</td>
<td>Snack List</td>
</tr>
<tr>
<td>Meal 3</td>
<td>12:00pm</td>
<td>Lunch List</td>
</tr>
<tr>
<td>Meal 4</td>
<td>3:00pm</td>
<td>Snack List</td>
</tr>
<tr>
<td>Meal 5</td>
<td>6:00pm</td>
<td>Dinner List</td>
</tr>
<tr>
<td>Meal 6</td>
<td>9:00pm</td>
<td>Snack List</td>
</tr>
</tbody>
</table>

** Breakfast is the most important meal of the day

- 6 meals a day will help to elevate your metabolism while maintain a high level of energy of the course of the day
## MEAL LIST

### Breakfast List

<table>
<thead>
<tr>
<th>Proteins</th>
<th>Carbohydrates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egg Whites or Substitute</td>
<td>Whole Wheat Bread or Bagel</td>
</tr>
<tr>
<td>Low-Fat Cottage Cheese</td>
<td>Non-Fat Yogurt</td>
</tr>
<tr>
<td>Lean Ham or Steak</td>
<td>Orange, Apple, Melon, or Berries</td>
</tr>
<tr>
<td>Protein bar or Drink</td>
<td>Whole Wheat Cereal</td>
</tr>
<tr>
<td>Skim Milk</td>
<td>Oatmeal</td>
</tr>
<tr>
<td></td>
<td>French Toast, Pancake, or Waffle</td>
</tr>
<tr>
<td></td>
<td>Juice</td>
</tr>
<tr>
<td></td>
<td>Low-Fat Muffin</td>
</tr>
</tbody>
</table>

### Lunch and Dinner List

<table>
<thead>
<tr>
<th>Proteins</th>
<th>Carbohydrates</th>
<th>Vegetables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken Breast</td>
<td>Baked Potato</td>
<td>Broccoli</td>
</tr>
<tr>
<td>Turkey Breast</td>
<td>Sweet Potato</td>
<td>Asparagus</td>
</tr>
<tr>
<td>Lean Fish (Salmon, Tuna, Sworfish,etc)</td>
<td>Steamed Rice</td>
<td>Lettuce</td>
</tr>
<tr>
<td>Lean Seafood (Crab, Lobster, Shrinp)</td>
<td>Pasta</td>
<td>Carrots</td>
</tr>
<tr>
<td>Lean Beef (Ground, Sirloin, Filet)</td>
<td>Beans</td>
<td>Cauliflower</td>
</tr>
<tr>
<td></td>
<td>Corn</td>
<td>Green Beans</td>
</tr>
<tr>
<td></td>
<td>Wheat Bread</td>
<td>Green Peppers</td>
</tr>
<tr>
<td></td>
<td>Squash</td>
<td>Mushrooms</td>
</tr>
<tr>
<td></td>
<td>Mashed Potatoes</td>
<td>Spinach</td>
</tr>
<tr>
<td></td>
<td>Non-Fat Crackers</td>
<td>Peas</td>
</tr>
<tr>
<td></td>
<td>Pasta or Potatoes Salad</td>
<td>Onion</td>
</tr>
</tbody>
</table>

### Snack List

*Protein/Carbohydrate/Vegetable*

- Meal Replacement Shake
- Protein Bar
- Low-Fat Muffin
- Cup or Piece of Fruit
- Vegetables
- Non-Fat Yogurt
- Non-Fat Crackers
MEAL SCHEDULE EATING PROTOCOL

1. Serving size is equal to the palm of your hand or a clenched fist
2. Select one serving from the protein and carbohydrate list for each meal
3. Select one serving of vegetable from the list for at least two meals
4. Follow Daily Fluid Intake schedule
5. Plan or prepare meals in advance
6. Make a grocery list from the meals you plan to make
7. Try and eat at the scheduled eating times
8. Eat whatever you want on your free day – once per week

References
Donovan Santos CSCS – Head Strength & Conditioning Coach: Toronto Blue Jays
Leslie Bonci, M.P.H., R.D. – Director: Sports Medicine Nutrition – University of Pittsburg Medical Center Health System
Matthew Nein MS, CSCS – Head Strength & Conditioning Coach: Salisbury University