

## PIKE SOCCER CLUB Sports Nutrition Information

All guides used in this report have been produced with the support and cooperation of various groups. Its purpose is to provide sound nutrition information for those interested in healthy adolescent development. For additional materials or information contact The Nutrition Coach at 317/738-6204.

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### ***Discussion Questions/Activities***

#### ***Food: Your Competitive Edge***

1. Identify three nutrients that provide calories.
1. List two functions each for carbohydrates, protein, and fat.
2. Discuss the role of carbohydrate, protein, and fat in athletic performance.
3. Calculate own caloric needs.
4. Plan meals and snacks for a day using the Food Guide Pyramid for own caloric needs.

#### ***Fluids: Do You Know the Facts?***

1. List two reasons why athletes need to drink plenty of fluids.
2. Identify what fluids should be consumed before, during, and after exercise.
3. Provide samples of sports drinks for athletes to try.
4. Calculate own fluid needs.
5. Plan a beverage menu for one day.
6. Discuss why “drinking ahead” is important to health and performance.
7. Describe how to determine the amount of fluid to replace after exercise.

#### ***Mealtime: Your Ticket to Success***

1. Plan snacks to take when traveling for before and after competition.
2. Discuss what restaurants would offer appropriate food for before competition.
3. Record one to three days of all food and beverages consumed:
  - include the type and amount of food/drink consumed;
  - include the time eaten;
  - evaluate the food record using the Food Guide Pyramid and the calories the athlete needs;
  - identify any deficiencies between what was actually consumed and nutritional needs;
  - develop a realistic plan to improve eating habits to meet nutritional needs.

#### ***Work Hard and Play Smart***

1. Record food intake for one to three days. Evaluate this record to identify any possible deficiencies in food groups using the Food Guide Pyramid.
2. If there are deficiencies, identify which vitamins and minerals are being missed.
3. For each nutrient missed, discuss the potential effect it could have on athletic performance.

#### ***Meal Time: Your Ticket to Success***

The best reason to eat before exercise is to prevent hunger during exercise. Eating right before exercise will not provide energy to your muscles for that practice or game. It takes about 24 to 48 hours to store energy in your muscles. What you eat one to two days before competition is more important to your athletic performance than what you eat that day. What you eat just before exercise, though, can hurt your performance. For example, high-fat foods (French fries, potato chips, hamburger, steak) can slow you down because it takes longer to digest than high-complex-carbohydrate foods (pasta, baked potato, bread).

Refined sugars like soft drinks and candy should be avoided before exercise to avoid the “crash and burn” syndrome (a quick burst of energy followed by fatigue and loss of energy). Eating “right” means eating on a regular basis as part of your training schedule. Knowing that you have done everything you could to be your best should give you the competitive edge when your performance is on the line.

#### **MEALS:**

**GOOD CHOICES:** Lean meat, fish, poultry; pasta, rice dishes; starchy vegetables (baked potato, corn, beans); pancakes, waffles, French toast

**POOR CHOICES:** Fried, breaded meat; gravies, cream sauces; fried, breaded, heavily buttered vegetables

(French fries, onion rings); pizza with high-fat meat toppings (pepperoni, sausage)

## **SNACKS:**

**GOOD CHOICES:** Fresh and dried fruit, cookies (raisin, oatmeal, vanilla wafers, fig Newton's, animal crackers, ginger snaps), crackers (saltine, graham), cereal, milk, yogurt, frozen yogurt, fruit juice bars, pretzels, lightly buttered or unbuttered popcorn

**POOR CHOICES:** Candy, candy bars, potato chips, French fries, ice cream, and any other high-fat, high-sugar items

## **BEVERAGES:**

**GOOD CHOICES:** Unsweetened fruit juices, low fat milk, low fat milkshakes, and limited amounts of iced tea and regular/diet soft drinks

**POOR CHOICES:** Sweetened drinks, whole milk, beer or other alcoholic beverages, unlimited amounts of iced tea or soft drinks.

The following table shows the number of servings from each food group to eat daily for your calorie level. Sample serving sizes for each food group are listed below. By following these guidelines, your nutritional needs for physical activity and growth can be met. No supplements are necessary, nor are they recommended.

### **FOOD GROUP SERVING SIZES**

Low fat Milk, 1 cup low fat or skim milk, 8 oz yogurt; 1 1/2 oz Cheese; 1/2 cup cottage cheese

Yogurt

Meat or 2-3 oz lean meat, fish, poultry; 2 tbsp. peanut Protein butter; 1 cup cooked dried peas or beans; 2 eggs

Fruit whole piece of fruit (orange, apple, pear, banana); 1/2 cup canned fruit; 1/4 cup dried

fruit (raisins, prunes, apricots); 1/2 cup unsweetened juice

Vegetables 1/2 cup cooked vegetable (broccoli, spinach, potatoes, corn, peas, carrots); 1 cup raw leafy vegetable (lettuce, spinach)

Approximate Low fat Meat or Fruit Vegetables Grain, Mari- Sweets  
Calories Milk Protein Breads,  
Cheese, Equivalent Cereal, Salad  
Yogurt Dressing,  
Oil

1500 2-Skim 4 oz 5 2 7 4 0  
2000 3-Skim 4 oz 6 3 8 4 1  
2500 3-Skim 5 oz 8 3 11 6 1  
3000 3-Skim 6 oz 8 4 14 7 2  
3500 4-Skim 6 oz 8 4 16 7 3

Grains, Bread, 1 slice whole wheat, rolls; 1 oz ready-to-eat cereal;

Cereal, Pasta 1/2 cup cooked cereal; 1/2 cup rice, pasta, grits

Fats, Oils, and 1 tsp. corn or soybean oil margarine, 1 tsp. canola

Sweets or olive oils; 1 tbsp. salad dressing; 1 oz nuts;

sugar, honey, jellies; cookies, cake, ice cream, frozen yogurt, candy, pie

## **Questions on Nutrition**

### ***How will I know when I've replaced enough fluid?***

Weigh yourself before and after exercise. Any difference in your weight is from fluid loss. For every pound lost, drink two cups of fluid until you return to your original weight.

**What happens if I don't drink enough fluid?**

You could become dehydrated. Dehydration can cause decreased muscle strength and endurance and could lead to heat exhaustion or heat stroke, which is life-threatening.

### ***What are the symptoms of dehydration?***

- thirst
- clammy skin

- chills
- weakness
- dizziness
- nausea
- disorientation

If you lose even 2% of your body weight from sweating during exercise, your performance falls by 10-15%. For example, if a 150-lb. athlete loses 3 lb. of fluid, athletic performance would be affected.

#### **TRAINING TIPS:**

1. Drink fluids regularly so you will always be well hydrated and ready for practice or competition.
2. Drink ahead. Do not wait until you are thirsty. By then it will be too late to help your performance.
3. Water is the beverage of choice for practice or competition lasting 60 minutes or less.
4. Drink every 15 minutes during practice or competition.
5. Weigh yourself before and after exercise. Any weight lost is fluid and needs to be replaced immediately.

### ***Fluids: Do You Know the Facts?***

#### ***Why do I need fluids?***

Fluids are more critical to athletic performance than food.

Approximately 60% of your body's weight is water; your muscles contain about 75% water. To achieve high performance you need to maintain this fluid level in your body. Being well hydrated should:

- maximize your muscle strength and endurance
- lubricate your joints
- carry nutrients to your cells for energy
- prevent your body from overheating during exercise

#### ***How much fluid do I need?***

The more active you are, the more fluids you need. The rule of thumb is that you should drink 1 quart (32 oz.) of fluids for every 1000 calories you expend in your daily activities. For example, if you burn 2500 calories, you should drink at least 2 1/2 quarts of fluids.

#### ***What should I drink?***

Fluids come from foods and beverages. Foods like peaches, melon, lettuce, and ice cream have a high fluid content and are good sources. Beverages like milk, fruit juices, and soft drinks are also high in fluids. Water is the beverage of choice for activities lasting 60 minutes or less. The water should be refrigerator temperature because cold water is absorbed faster.

When exercise lasts longer than 60 minutes, sports drinks might be helpful. Sports drinks provide fluid and energy from carbohydrates that replace the energy used during exercise. Since everyone has different

taste preferences and tolerances, try to find one that you like and that works for you. Avoid caffeine and alcoholic beverages, which can increase your body's loss of fluids. Dehydration can hurt your performance.

#### ***When should I drink fluids?***

Don't wait until you are thirsty before drinking. By then it is too late to help your performance. Always "drink ahead." Fluids are better absorbed in larger volumes of 6 oz. or more. About two to three hours before practice or competition, drink two to three cups of water. About 15 minutes before practice or competition, drink one to two more cups of water. During practice or competition, drink four to six ounces of water every 15 minutes.

Replace fluids within two hours after practice or competition. The sooner fluids are replaced, the better you will feel and recover. The best fluids after exercise are fruit juices like apple and grape juice, because they are also refueling your muscles with energy.

## **SUGGESTED MENUS FOR PRACTICE/COMPETITION TRAINING TIPS:**

- 1. Don't skip meals.**
- 2. If a meal will be delayed, eat a snack.**
- 3. If you are not hungry right away, drink a high-energy replacement beverage.**
- 4. Replace your energy stores as soon after the activity as possible with a high-complex-carbohydrate meal or snack.**
- 5. When traveling, plan ahead. Either take a sack lunch or stop soon enough to get a light meal or snack.**
- 6. Save the big celebration meal for after your victory.**
- 7. Be careful not to try anything new before an important event.**

**Eat what is familiar to you.**

### **4-6 HOURS BEFORE**

Regular Meal

**Spaghetti with tomato sauce**

**Bread or dinner rolls**

**Tossed salad with dressing**

**Broccoli or green beans**

**Fruit or juice**

**Low fat milk**

### **2-4 HOURS BEFORE**

Light Meal

**Roast beef or turkey on whole wheat**

**bread**

**Lettuce, tomato, mustard**

**Fruit or juice**

**Low fat milk**

### **1-2 HOURS BEFORE**

Snack

**Crackers and fruit or juice**

**OR**

**Frozen yogurt**

**OR**

**Bagel and jelly**

**OR**

**Low fat milk and graham crackers**

### **1-2 HOURS AFTER**

Energy Replacement

**Fruit juice (apple, grape, or cranberry)**

**Fresh or dried fruit (banana, grapes, raisins)**

**Frozen yogurt or sherbet**

## ***Food: Your Competitive Edge***

Your success as an athlete can be determined by the amount and type of food you eat. When most of your time and energy is spent preparing for competition, your training diet is more important than what you eat just before a game. You will not perform well if you do not eat enough of the right foods or if you eat at the wrong times. If you get tired or weak and push yourself, you forget proper technique or form and run the risk of injury.

Only carbohydrates, protein, and fat have calories that can provide energy with which to work and play. They each have special functions in your body.

### **FUEL FUNCTION**

**Carbohydrate Provides energy; spares protein from being used for energy; allows fat to be used for energy. Fat With adequate carbohydrate available, provides long-lasting source of energy; insulates your body; cushions and protects internal organs. Protein Builds, maintains, and repairs muscle and other body tissues; makes hemoglobin, which carries oxygen to cells needed for energy; provides energy in absence of carbohydrate and fat. To figure out how many calories you need to eat, multiply**

**your weight in pounds by the calories for your age and sex:**

**Example: A 16-year-old female basketball player who weights 125 lb.**

**would need to eat 2250 calories (125 x 18 = 2250).**

**Example: A 12-year-old male football player who weighs 105 lb.**

**would need 2625 calories (105 x 25 = 2625).**

**AGE MALES FEMALES**

**11-14 years 25 calories 22 calories**

**15-18 years 21 calories 18 calories**

### ***Work Hard and Play Smart***

**The secret to success in sports is determined by heredity, skill, and hard work. You can't change your family genes, but you can work to develop the best "you" possible. This isn't done with a magic formula, shot, or pill. It can be done with practice to develop and improve your skills. You must eat the right foods to have enough energy, strength, endurance, and concentration to practice and learn your sport. There are about 40 nutrients needed for top athletic performance. Some nutrients give you energy directly; some help use the energy properly; some nutrients help build your body; and some help heal cuts and fractures. Those nutrients that can improve your body's athletic performance are called "ergogenic aids." Nutritional "ergogenic aids" are legal, safe, and proven effective. (Examples of vitamins and minerals that function as ergogenic aids are listed below.**

**Making the right food choices can be tough with a busy school and workout schedule. To help you make your choices easier, the following table shows which foods contain these ergogenic nutrients. If you make these choices regularly, you should have the confidence that you are taking care of your body. That knowledge should give you the competitive edge legally and safely.**

**Vitamin and Mineral Ergogenic Aids .**

**VITAMIN A: Milk, cheese, margarine, carrots, broccoli, spinach, cantaloupe, peaches**

**THIAMIN: Whole-grain and enriched breads and cereals, dried beans, rice, pork, sunflower seeds**

**VITAMIN B6: Pork, whole-grain cereals and breads, milk**

**RIBOFLAVIN: Milk and dairy products, nuts, enriched breads and cereals, poultry, green leafy vegetables**

**NIACIN: Nuts, meat, poultry, fish, whole-grain, breads and cereals, dried fruit, brown rice**

**FOLIC ACID: Green leafy vegetables, nuts, beans, whole-grain products**

**VITAMIN B12: Liver, meat, eggs, milk**

**VITAMIN C: Citrus fruits, tomato, green pepper, cabbage, strawberries, potato, greens**

**VITAMIN D: Sunlight on skin, fortified milk, tuna, salmon, cod liver oil**

**CALCIUM: Dairy products, green leafy vegetables, beans, nuts, seeds, Regulates Food, Energy, Prevents, Dehydration. Promotes Strong and Quick Muscles Build Strong Bones Helps Oxygen Reach Exercising Muscles**

**Vitamin and Mineral Ergogenic Aids .**

**CHROMIUM: Nuts, prunes, vegetable oils, tomato, green peas, corn, COPPER: Seeds, nuts, whole-grain products, dried fruits**

**IRON: Molasses, seeds, whole-grain and enriched, breads and cereals, dried fruits, beans, meat and poultry MAGNESIUM: Seeds, nuts, dark green vegetables, dried fruits PHOSPHOROUS: Milk and dairy products, beans. POTASSIUM: Widely distributed in food, especially in fruits and vegetables, milk, meat. SODIUM: Table salt, seafood, meat, dairy products. Regulates Food Energy; Prevents Dehydration; Promotes Strong and Quick Muscles; Build Strong Bones; Helps Oxygen Reach Exercising Muscles**