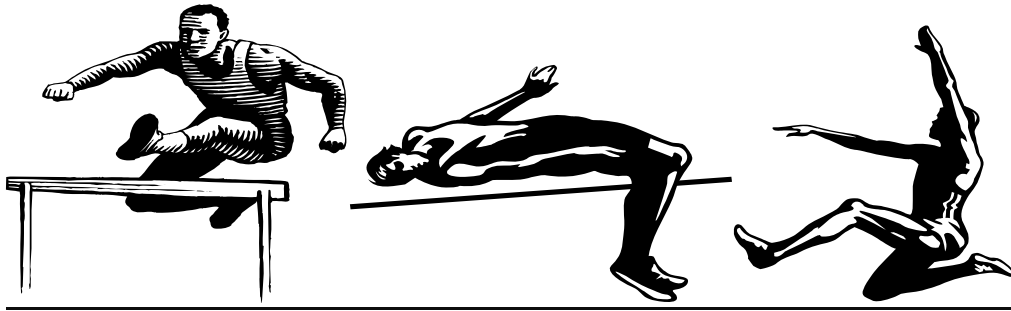


## Durham Striders Track Club



*Many of you have asked for more specifics about nutrition for the kids who are competing. I have compiled information that I got from a number of sources to help you all with this **important** aspect of our training and support for the kids. Please feel free to ask further questions. I hope that this helps! Coach Doc*

### Nutrition Updates:

Whether it's training for a soccer game, football game or track competition, children's athletic performance, development, and growth depend largely on eating the right foods. Unfortunately, most children (and adults) forget just how important nutrition is to good health and athletic performance. Many children, especially in the years before puberty, have poor eating habits (skipping breakfast, eating the same foods day after day). As a result, their diets are missing nutrients and their growth and athletic performance may be impaired.

It is important to recognize that children are not miniature adults; they have special nutritional needs. It is especially important to meet their nutritional needs as they enter puberty, when they experience rapid growth as they undergo hormonal changes marking the beginning of adolescence.

### Nutrition Guidelines

The most appropriate diet for the youth athlete is one that:

- Is **high** in nutrient-dense complex carbohydrates
- Contains **moderate** amounts of protein, salt, sugars, and sodium
- Is **low** in fat, saturated fat, and cholesterol; and provides sufficient calories

Such a diet can be achieved by planning intake to include a variety of foods from each of the five major food groups in the U.S. Department of Agriculture's (USDA) Food Guide Pyramid.



Especially for children, the pyramid serves as a visual guide for choosing foods and planning healthful meals.

As parent, you should promote the three basic principles that are key to a high-performance diet:

1. **Variety.** Because no single food or supplement contains all the nutrients your child needs for optimum health, growth and performance, eating foods from each of the five food groups daily, as well as different foods from within each group, is essential.
2. **Moderation.** Your child should not eat too little or too much of any one food or nutrient.
3. **Balance.** Calorie intake and energy expenditure should be balanced to maintain a healthy weight and body composition. Balance ordinarily results from practicing moderation and variety, and requires that your child consume appropriate amounts of essential nutrients.

### **Some Additional Advice**

- **Occasional sweets are okay.** You don't have to eliminate foods that get most of their calories from fat or sugars (see top of pyramid), but your child should only consume such foods occasionally, in addition to, not in place, of other nutrient-dense foods from the food groups lower down on the pyramid.
- **Do not give your child nutritional supplements.** In general, if your child eats the number of servings recommended in the Food Guide Pyramid, he/she will get the vitamins and minerals, and the calories she requires.
- **Don't let your child skip meals.** Find out about your child's eating habits. Encourage your child to distribute calories throughout the day at regular mealtimes and snacks. This will ensure you're your child has readily available sources of energy to support growth and training activity.

### **How Parents Can Help Their Children Eat Better**

To improve your child's diet, you can:

- Buy more healthy foods
- Make your child's favorite foods more nutritionally dense or substitute similar foods that are, such as by:
  - Serving fortified cereals instead of sugary ones
  - Offering peanut butter cookies instead of chocolate cream cookies
  - Substituting fruit-flavored frozen yogurt for dessert instead of ice cream

Gradual changes that are acceptable to the child can be encouraged to increase nutrient density.

- Provide nutritious snacks and fluids for before and after practice and competitions, so your child does not have to rely on vending machines filled with sugary or high-fat snacks and soft drinks.
- Model healthy eating. If you set a good example for your child by exercising and eating a healthy, well-balanced diet, your child is more likely to "eat to compete" and grow into a healthy adult.

## **Carbohydrates**

### The importance of Carbohydrates

Carbohydrates stored in the body are referred to as glycogen. Muscle glycogen acts as fuel and is what gives the body energy. If the muscle glycogen is broken down faster than it is replenishment, the glycogen levels in your body become depleted. This results in fatigue and lack of ability to maintain training strength. To replenish the glycogen levels, an athlete needs to have a high carbohydrate diet.

### The Right Amount of Carbohydrates:

In your daily diet, 60-70% of the total calories should come from carbohydrates. To find out how many grams of carbohydrates you should take in daily, you simply multiply your weight in pounds by 3.2 or your weight in kilograms by 7. Grain products such as such as bread, rice, cereal and pasta, as well as fruits, vegetables and low fat dairy foods are the best sources of carbohydrates.

**You should try to have at least 15 servings of grain products, at least six servings of fruit, at least six servings of vegetables, and at least five servings of low fat dairy foods.**

You can get 15 grams of carbohydrates per serving of the following: a slice of bread, 1/2 cup of cooked rice or pasta, a piece of fruit, or 3/4 cup of fruit juice. From one cup of low fat milk or yogurt or 1.5 ounces of cheese, you can get 12 grams of carbohydrates. Five grams of carbohydrates can come from one cup

of leafy raw vegetables, 1/2 cup of raw vegetables, or 3/4 cup of vegetable juice.

### A Sample of Foods and Their Carbohydrate Contents A Sample of Foods and Their Carbohydrate Contents

Food	Carbohydrate (grams)
Bread, 1 slice	15
Ready to eat cereal, 3/4 cup	15
Cooked rice, 1/3 cup	15
Cooked pasta, 1/2 cup	15
Popcorn, 3 cups	15
Bagel, 1 small	30
Potato, 1 small	15
Vegetables (such as broccoli, carrots, green beans, or beets), 1 1/2 cups cooked	15
Berries (such as raspberries), 1 cup	15
Banana	30
Figs, 2	15
Melon, 1 cup cubes	15
Apple, orange, peach or pear	15
Apple or orange juice, 1 cup	30
Grape, cranberry, or prune juice, 1 cup	45
Raisins, 1/4 cup	30

## **Protein**

### The Importance of Protein

Protein is vital in helping muscle growth and repair. Regular physical activity tends to decrease muscle protein breakdown and protein loss from the body. When the muscle glycogen levels are high, protein supplies no more than 5% of the energy needed. Insufficient calorie and carbohydrate consumption can cause the muscle glycogen levels to be low, resulting in protein used for energy instead of muscle growth and repair.

### The Right Amount of Protein:

Active adults need up to 50% more protein than inactive adults, and should have 12-15% of their daily calories coming from protein. To find out

how many grams of carbohydrates you should take in daily, you simply multiply your weight in pounds by 0.6 or your weight in kilograms by 1.3.

Foods such as lean meat, poultry, fish, and eggs are a great source of protein. Another great source of protein is dairy products that have all of the necessary amino acids that make them complete proteins. You can also find protein in tofu, nuts, and dried beans. **You should try to have three to five servings of protein a day.**

### Consequences of a High Protein Diet

When you take in more protein than you need one of two things can happen. Either you burn the excess protein as energy or it stores as fat. Too much protein also increases the amount of water your body needs and could result in dehydration, because your kidneys require more water to reduce the excess of nitrogen from the high protein consumption.

### **Fat**

#### How Much Fat Can I Have

In your daily diet, less than 30% of your total daily calories should come from fat, and less than 10% from saturated fat. **Foods you should try to avoid include chocolate, fried foods, ice cream, bacon, hot dogs, and cookies.**

Sample meals include:

<b>Breakfast:</b>	<u>147 gram carb</u> 1 cup orange juice 1 cup oatmeal 2 small pancakes and syrup (1/4 c) 1 cup skim milk	<u>102 grams carb</u> 1 banana 1 cup bran flakes 2 slices of wheat toast 1 teaspoon margarine 1 cup skim milk
<b>Lunch:</b>	<u>125 grams carb</u> 2 slices wheat bread 4 ounces turkey 2 tsp. Mayonnaise tomato 1 cup fruit juice 1 1/3 cups frozen yogurt	<u>104 grams carb</u> 3 oz. wheat roll 1 cup tuna 2 tsp. Mayonnaise broccoli 30 grapes 2 cup skim milk
<b>Dinner:</b>	<u>130 grams carb</u> 3 cups pasta Tomato sauce with other veggies 2 Tbl. Parmesan cheese 2 oz. Part -skim cheese 1 small slice French bread 1 tsp. Margarine	<u>112 grams carb</u> 4 ounces fish 1 large baked potato (9 oz.) 2 Tbl. Sour cream 1 cup cooked veggies 1 oz. dinner roll 1 tsp. Margarine

3/4 cups strawberries

1.5 oz. box raisins  
1 cup skim milk

Variety and balance in the family menu will underscore the importance of eating different foods to provide the range of nutrients needed for growth and development. Ideally, this is achieved by regularly scheduled meals at home plus nutritious snacks. Providing nutritious meals around hectic practice schedules and away from home is a particular challenge. Workouts may disrupt your child's meal schedule, resulting in a greater reliance on convenient fast food or the child eating alone at home before or after the family eats. As a result, it is very important to help your child make nutritious choices wherever he eats, whether it is at a fast food, family-style or ethnic restaurant, a grocery or convenience store, or on an airplane, or while competing in a foreign country.

Parents should educate children about basic facts about the different food groups and how different foods help or hurt athletic performance. Attempts to teach children nutritional concepts and information should take into account their age and developmental level (for example, by explaining to a 7 year old that foods containing carbohydrates, like bread and pasta, provide energy for their muscles, and that dairy foods like milk help build strong bones).

### **Special Fluid Needs Of Children**

Because children have special fluid needs, fluids play a critical role in maintaining health and performance of the child athlete. Heatstroke ranks second among reported causes of death in high school athletes.

As parents, you should:

1. **Educate** your child athlete about the importance of drinking enough fluids before, during, and after practices and competition to avoid becoming dehydrated and to prevent heat illnesses;
2. **Prevent** dehydration by helping your child follow fluid guidelines and by taking other precautions which can significantly reduce the risk of heat illness.