

FUELING THE BODY FOR SPORTS

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As the pre-season is kicking off for fall sports, it is important to remember that in addition to two-a-day practices, weight lifting and getting enough rest at night, proper nutrition is also one of the keys to success. Consuming appropriate foods and adequate fluids will help to fuel the body for competition and aid in recovery between practices and games. If an athlete is not consuming enough food to fuel their body; their performance can be significantly decreased. The chart below gives estimates of the caloric needs for athletes depending on their activity level.

ACTIVITY LEVEL	ESTIMATED CALORIES/POUND	EXAMPLE OF CALORIC INTAKE 180#
Moderately active: exercises 30-60 minutes 3-4 times a week	16-20 calories/pound	2,880-3,240 calories
Very Active: exercises 60-90 minutes 5 or more times per week	21-25 calories/pound	3,420-3,780 calories
Ultra active: exercises 90 minutes or more most days of the week	25+ calories/pound	3,960-4,500 calories

CARBOHYDRATES:

Carbohydrates are the key for maximal energy, speed stamina, concentration, recovery and better fluid balance. Carbohydrates are the body's key fuel source for energy needed during work-outs. Therefore, athletes who are in heavy training periods may need more carbohydrates to prepare muscles for training and enhance their recovery after exercise. An athlete's carbohydrate needs are based on their body weight, training program and goals for weight loss or weight gain. Below is a table of recommended daily carbohydrate intake, based on length of exercise, and some common foods and their carbohydrate contents.

LENGTH OF EXERCISE	GRAMS OF CARBOHYDRATE/POUND	EXAMPLE GRAMS CARBOHYDRATE/DAY FOR 180# ATHLETE
1 hour/day	2.0-3.0	360-540 grams
1-2 hours/day	3.0-3.5	540-630 grams
2-3 hours/day	3.5-4.0	630-720 grams
>3 hours/day	4.0-5.0	720-900 grams

FOOD	GRAMS OF CARBOHYDRATE
Bagel	57 grams
1 cup fruit yogurt	50 grams
Large baked potato	50 grams
1 cup rice	45 grams
1 cup spaghetti	40 grams
1 pack Maple instant oatmeal	30 grams
Banana	25 grams
8 oz chocolate milk	25 grams
½ cup spaghetti sauce	22 grams
½ cup corn	15 grams
1 slice rye bread	15 grams
2 squares graham cracker	10 grams

PROTEINS:

Protein is important for increasing lean muscle mass and enhancing strength gains. While much of the emphasis is placed on carbohydrates, eating a carbohydrate/protein mix before and after work-outs is essential for enhancing strength gains. When planning meals for the day, get a good source of protein with every meal and balance that protein with 2 or 3 high carbohydrate foods. For example, breakfast could be eggs, toast, a banana and juice; for lunch have a roast beef sandwich, carrots, yogurt and an apple; and dinner might be a chicken breast, rice, salad and milk. Below are two charts, one that estimates daily protein needs and the other that contains a list of foods and the amount of protein they contain.

ACTIVITY LEVEL	GRAMS/POUND OF PROTEIN NEEDED
Moderately active	0.5-0.65 grams
Very active	0.65-0.8 grams
Ultra active	0.8-1.0 grams

FOOD	GRAMS OF PROTEIN
2 chicken breast halves	85 grams
8 oz lean sirloin steak	68 grams
8 oz salmon	58 grams
½ cup tuna	33 grams

4 oz turkey slices	25 grams
2 cups milk	16 grams
4 egg whites	16 grams
2 large eggs	14 grams
1 cup beans	14 grams
1 cup yogurt	10 grams
2 tablespoons peanut butter	8 grams

FATS:

The final nutrient to include in a well balanced diet is fat. Fat is an excellent source of energy and an important carrier of vitamins. Butting out fats or not eating enough in a diet can compromise performance, immunity and health. Fat intake for athletes should not be less than 15% of caloric intake per day, and optimally should be 20-30% per day. For an individual eating 2500 calories per day, that would be a fat intake of 55-85 grams per day. When trying to ensure adequate fat intake, avoid fried, greasy foods and try to include the “good fat” found in nuts, seeds, certain types of fish and unsaturated oils such as olive, canola and flaxseed oils.

RECOVERY NUTRITION:

While it is important to worry about what you eat before practice or games to ensure your body is ready for competition, don’t forget it is what you eat after exercise that helps you recover faster from today’s session and what starts getting you ready for tomorrow’s practice as well. The goal is to start to consume carbohydrate rich foods and beverages within 15 minutes after your work-out or competition to start the recovery process. This time period is when the enzymes in your body for making you body’s natural energy sources are most active and will rapidly replace these depleted energy sources. The goal is to eat 0.5 grams of carbohydrates per pound of body with every hour for 4-5 hours after activity. Using the 150# athlete as an example, they would need to consume 75 grams of carbohydrates every hour for 4-5 hours after exercise. Some examples of 75 grams of carbohydrate would be: 8 oz of orange juice and a bagel, 16 oz cranberry juice, 12 oz of a non-diet soft drink, 8 oz fruit yogurt, a bowl of cornflakes with milk and a banana, or a high carbohydrate sports drink. The most important thing is to eat or drink a carbohydrate rich food in the first 30 minutes after the completion of competition and then average 75 grams per hour over the next 4-5 hours with a big meal and a snack or lots of little meals every hour. Along with proper hydration, this will put your body in an optimal position to be ready for the challenges of the next day’s activities.

One of the biggest challenges to getting a good well balanced diet while playing sports is proper planning. With two a day practices in the pre-season, traveling to away games during the season, and balancing practices and games with homework at night, schedules can become very hectic and we tend to sacrifice a well balanced, home cooked meal for something fast we can eat on the run. Use the extra time you may have on the weekends, to plan the meals for the week ahead and go to the grocery store to make sure you have all the necessary foods and ingredients you might need for dinners and snacks. Prepare meals ahead of time if possible, so they are easy to place in the oven or on the stove to

just heat up when you get home. In addition, always keep food readily available and with you in case you get hungry or need a little extra boost before a practice or a game. Granola bars, trail mix, a bagel with peanut butter, or sports bar are all good snacks that can easily be packed away in a bag and easily eaten if needed. Make good nutrition a priority and you will see the beneficial results in your energy level during the day and performance on the field.