

Optimizing Energy and Athletic Performance

Diet affects athletic performance – I think we can all agree on this. Adding a well-planned eating strategy to your training program will promote efficient recovery between workouts and help you achieve your personal best performance whether you are training for fitness or for competition. The guidelines recommended below should be treated as such – guidelines. Everyone has different nutritional needs, our bodies react differently to certain types of food and we certainly require different amounts of energy based on our genetic make-up, age, weight, body composition and daily activity.

The combination of the three macronutrients will provide your body with all the essential building blocks that it needs.

Think of food as a team effort. You know that you are only as good as your team, right? And I am all about quality team effort – it is much better to eat your calories from nutrient dense foods than junk food.

Water

Water matters for so many reasons –

1. Adequate hydration is needed to move the vitamins, minerals and other nutrients through your body.
2. And your body uses fluids to keep it at the right temperature, which protects your health overall.

Don't wait for your body to tell you that it needs fluid – that's too late. For adequate hydration drink constantly through out the day and check your urine for signs of dehydration.

- ✓ If you lose 2% of your body's fluid, your overall performance will considerably drop.
- ✓ If you lose 5% of your body's fluid, you can find yourself facing heat exhaustion, which is a risk to your health and overall performance.
- ✓ If you lose 10% of your body's fluid, you are at risk for heat stroke and even death through dehydration.

Carbohydrates

Carbs are ultimately the best energy food. It has the biggest impact on your endurance.

We store carbohydrates as glycogen in our muscles and in our liver and must replenish it every day. The more active you are the higher your carbohydrate need will be.

I recommend abstaining from refined carbs and sugar and turning to fruits, vegetables and whole grains. Good choices are whole wheat breads (I particularly like a brand called Ezekiel), whole wheat pita or wraps, corn tortillas, real rye bread, whole grain bagels, etc. When you buy cereal check the list of ingredients – the word whole such as WHOLE wheat needs to be listed first. Look for 5g of fiber or more and 5g of sugar or less. Beans and Legumes are great as are potatoes, brown rice, whole wheat pasta, quinoa, barley, kamut, millet etc.

Carbohydrates needs:

5 to 7grams/kg of body weight for moderate to light training days and 7 to 10grams/kg for moderate to heavy endurance training

Protein

Protein is very important for building and repairing muscles. Athletes have higher protein requirements than non-active people – however we tend to overeat protein in this country. As protein is found in so many foods you really don't need to supplement in this area unless you are a bodybuilder or have other reasons for increased protein intake. Great protein sources are animal protein, beans and legumes, nuts, hummus, tofu, eggs, dairy, etc

Protein needs:

1 to 1.7 or even 2gm/kg of protein – on the lower end for endurance athletes and up to 2mg/kg for weight lifters.

Fats

Fat is also a great source of energy and a vital component of your balanced diet. However we need to keep in mind that fat burns so much slower. So we need to work on adequate and nutrient dense carb supply in conjunction with a healthy diet of fats and protein. Sources of healthy fats are Omega 3s in fish like salmon, sardines, mackerels, etc. Other great sources of healthy fats are raw nuts especially walnuts, almonds and peanuts, avocado, flax seeds and coconut oil.

Fat needs:

Approximately 20 to 30% of your total energy intake - decrease during off season and increase during peak season

Summarized recommended daily carb/protein/fat intake for most trained athletes

Carbs: 6 to 10 g/kg/day – on the higher side for endurance athletes

Protein: 1.2 – 1.7g/kg/day – on the lower side for endurance athletes

Fat – approximately 20 to 30% of your total energy intake - decrease during off season and increase during season. Have healthy fats!

Example: 80kg male needs

Carbs – 500 to 800 grams of carbs -split into three sections of the day: 200g to 270g carbs per section

Protein – 96 to 136g of protein a day – split into three sections – 32 to 45 g of protein/section

Fats: 64 to 80g of fats a day – split into three sections – 22 to 27 g of fats/section

For more information check out my eBOOK on Sports Nutrition at <http://heidirothbard.com/productsandfavorites.html>

COVERING CARBOHYDRATE AND PROTEIN NEEDS (this list is based on the average diet of active people):

Beef

- Hamburger patty, 4 oz – 28 grams protein
- Steak, 6 oz – 42 grams
- Most cuts of beef – 7 grams of protein per ounce

Chicken

- Chicken breast, 3.5 oz - 30 grams protein
- Chicken thigh – 10 grams (for average size)
- Drumstick – 11 grams
- Wing – 6 grams
- Chicken meat, cooked, 4 oz – 35 grams

Fish

- Most fish fillets or steaks are about 22 grams of protein for 3 ½ oz (100 grams) of cooked fish, or 6 grams per ounce
- Tuna, 6 oz can - 40 grams of protein

Pork

- Pork chop, average - 22 grams protein
- Pork loin or tenderloin, 4 oz – 29 grams
- Ham, 3 oz serving – 19 grams
- Ground pork, 1 oz raw – 5 grams; 3 oz cooked – 22 grams
- Bacon, 1 slice – 3 grams
- Canadian-style bacon (back bacon), slice – 5 – 6 grams

Eggs and Dairy

- Egg, large - 6 grams protein
- Milk, 1 cup - 8 grams
- Cottage cheese, ½ cup - 15 grams
- Yogurt, 1 cup – usually 8-12 grams, check label
- Soft cheeses (Mozzarella, Brie, Camembert) – 6 grams per oz
- Medium cheeses (Cheddar, Swiss) – 7 or 8 grams per oz
- Hard cheeses (Parmesan) – 10 grams per oz

Beans (including soy)

- Tofu, ½ cup 20 grams protein
- Tofu, 1 oz, 2.3 grams
- Soy milk, 1 cup - 6 -10 grams
- Most beans (black, pinto, lentils, etc) about 7-10 grams protein per half cup of cooked beans
- Soy beans, ½ cup cooked – 14 grams protein
- Split peas, ½ cup cooked – 8 grams

Nuts and Seeds

- Peanut butter, 2 Tablespoons - 8 grams protein
- Almonds, ¼ cup – 8 grams
- Peanuts, ¼ cup – 9 grams
- Cashews, ¼ cup – 5 grams
- Pecans, ¼ cup – 2.5 grams
- Sunflower seeds, ¼ cup – 6 grams
- Pumpkin seeds, ¼ cup – 8 grams
- Flax seeds – ¼ cup – 8 grams

CARBS:

The following is a quantity list for basic foods, to help you maintain a healthy carbohydrate count.

Breakfast Cereals	Grams CHO
Granola, 1 ounce (1/4 cup)	18
Raisin Bran, 1 ounce (1/2 cup)	20
Shredded Wheat, 1 ounce (2/3 cup)	22
Grapenuts, 1 ounce (1/4 cup)	23
Oatmeal, 1 package	30

Fruits	
Apple, medium	20
Orange, medium	20
Banana, medium	25
Pear, medium	25
Raisins, 15 ounce box (1/4 cup)	25
Apricots, 8 halves dried	30

Vegetables	
Zucchini, 1/2 cup	4
Broccoli, 1 stalk (1/2 cup)	5
Green beans, 1/2 cup	7
Carrot, medium	10
Peas, 1/2 cup	10
Tomato sauce, Ragu, 1/2 cup	10
Winter squash, 1/2 cup	15
Corn, 1/2 cup	18

Bread-Type Foods	
Rice cake, 1	7
Graham crackers, 2 squares	10
Croissant, 1 Sara Lee	11
Saltines, 6	15
Waffle, 1 Eggo	17
English Muffin, 1	25
Matzo, 1 sheet	28
Pancakes, 2 (4 inch)	30
Pita bread, 8-inch round	44
Bagel, average (3 ounces)	45
Bran Muffin, 1 large	45
Submarine roll, 8 inch	60

Beverages	
Gatorade, 8 ounces	10
Milk, 2%, 8 ounces	13
Beer, 12-ounce can	13
Milk, chocolate, 8 ounces	25
Orange juice, 8 ounces	25
Apple juice, 8 ounces	30
Apricot nectar, 8 ounces	35
Cranraspberry, 8 ounces	36
Cola, 12-ounce can	38

Grains, Pasta, Starches

Ramen noodles, 1/2 package	25
Rice, 1/4 cup dry; 1 cup cooked	35
Spaghetti, 2 ounces dry; 1 cup cooked	40
Lentils, 1 cup cooked	40
Baked beans, 1 cup	50
Baked Potato, 1 large	55

Entrees, Convenience Foods

Split pea soup, 1 bowl	35
Big Mac	40
Pizza, cheese, 2 slices	40
Chili, 1 cup	45
Bean Burrito, 1	50

Sweets, Desserts, Snacks

Oreo, 1	7
Chocolate chip cookie, 1 small	10
Fig Newton, 1	11
Strawberry jam, 1 tablespoon	13
Honey, 1 tablespoon	15
Maple Syrup, 2 tablespoons	25
Poptart, blueberry	35
Soft-serve ice cream, 1 cup	40
Fruit yogurt, 1 cup	40