

## **Peak Performance Nutrition**

We want our student-athletes to be able to optimize their performance and health. A huge part of the peak performance equation is a sound nutrition program. As coaches, we understand that student-athletes have numerous demands on their time: class, practice, homework, competition, and strength training. It can be very challenging to find the time to make proper meals and snacks for the day, let alone an entire week.

Our goal is to give student athletes cutting edge nutritional information that they can actually implement to maximize performance and health. This document will provide a basic template to get each student-athlete pointed in the right direction. By following these guidelines, athletes will be on their way to achieving a world-class diet. With this extra effort, student-athletes can be certain that they are doing everything possible with their diet to achieve superlative performance and health.

Our nutritional philosophy is based on the following statement taken from Crossfit.com:

**“Eat meat and vegetables, nuts and seeds, some fruit, little starch, and no sugar. Keep intake levels that will support exercise, but not body fat.”**

This simple yet eloquent statement provides the foundation for an elite diet.

## **The Basics – Building Meals:**

1. **Pick your protein.** A serving of protein for a meal should be roughly the size of the palm of your hand. For a snack, it should be approximately half this amount. Choose low-fat protein sources: skinless chicken breast, skinless turkey breast, grass-fed beef, low-fat hamburger, tuna, salmon, eggs or egg whites, low-fat cottage cheese, milk, yogurt, ect...
2. **Pick your carbohydrates.** “Favorable” carbohydrates come from fruits and vegetables. “Unfavorable” carbohydrates are your pastas, rice, breads, and cereals. (Carbohydrates are defined as “Favorable” or “Unfavorable” solely based on the insulin response that they stimulate. This will be explained at the end of this section.) As a general rule, if you are eating favorable carbohydrates, your carbohydrate portion should be double the volume of your protein portion. If you are eating unfavorable carbohydrates, this carbohydrate portion should be of equal volume to your protein portion. For the best results, most of your carbohydrates should come from the favorable carbohydrates list. Below are examples of favorable and unfavorable carbohydrates.
  - **Favorable Carbohydrates (cooked or raw):** Asparagus, green beans, broccoli, brussel sprouts, cauliflower, collard greens, kale, cucumber, peppers, spinach, tomatoes, apples, berries of any kind, cantaloupe, grapefruit, grapes, nectarines, oranges, pears, peaches, watermelon, slow cooked oatmeal, ect...
  - **Unfavorable Carbohydrates:** Baked beans, squash, carrots, corn, French fries, peas, potatoes, refried beans, sweet potato, bananas, cranberries, dates, mango, papaya, raisins, fruit juices, grains, cereals, breads, sugar, candy, ect...
3. **Pick your fats.** Good healthy fats are an essential component of a sports performance diet. Monounsaturated fats and Omega-3 fatty acids provide tremendous health benefits. The bulk of dietary fat should be monounsaturated. Saturated fat intake, on the other hand, should be restricted as much as possible. Monounsaturated fats come from: Almond butter, almonds, avocado, canola oil, guacamole, macadamia nuts, extra virgin olive oil, olives, etc... Your fat portion will vary depending on your dietary goals.

To construct a meal or snack, you simply choose one protein item, one carbohydrate item, and one fat item. Make sure that you balance your carbohydrates and protein by using appropriate portions. This is vital! Add a little fat and you have a balanced meal that will fuel your intense activities.

## **Why am I eating like this?**

The food you eat has a profound effect on the hormones that circulate in your bloodstream. For optimal health and performance, we are primarily concerned with regulating insulin through a proper diet.

Insulin is a storage hormone that controls the amount of sugar that you have in your blood. A typical American meal (high unfavorable carbohydrates like bread, fries, or cereal and low in protein) greatly elevates one's blood sugar. In response, the body secretes insulin to decrease this blood sugar back to "normal" levels. Insulin removes the excess sugar from the blood by storing it in your muscles as glycogen and in your fat cells as fat. Put simply, chronically high levels of insulin caused by constantly eating meals that raise your blood sugar, leads to excess body fat. Worse yet, this state of elevated insulin in the blood (called hyperinsulinemia) has been linked to numerous diseases including heart disease, cancer, and Alzheimer's.

Unlike unfavorable carbohydrates, favorable carbohydrates (fruits and vegetables) do not cause a rapid increase in one's blood sugar, because these carbohydrates are digested more slowly and enter the bloodstream over a longer period of time. Therefore, these favorable carbohydrates do not cause a large spike in insulin levels. (This is why these dietary guidelines allow you to eat much more broccoli or grapes than, say, cereal or pasta.)

Glucagon, a hormone secreted in response to protein ingestion, has the opposite role of insulin. Glucagon causes the liver to release glucose into the bloodstream when blood sugar is low. These two hormones must act in balance.

By following the above dietary recommendations and balancing carbohydrate portions (especially favorable carbohydrates) with protein portions, you are taking a huge step to controlling your insulin. Add a source of good fats to every carb/protein balanced meal or snack and you have satisfied almost all of the requirements for optimal nutrition. None of this has to be complicated. You can eat a wide variety of great foods on this type of nutrition plan. Follow these simple but powerful recommendations and you will see a significant increase in performance and health. Make it happen now!

## **Sample Meals**

Try to make the following foods a regular part of your diet:

- **Vegetables:** broccoli, green beans, asparagus, kale, spinach, tomatoes (all of these are available from Trader Joe's frozen or in bags)
- **Fruits:** all types of berries (blueberries, blackberries, raspberries, strawberries, etc.), cantaloupe, oranges, apples.
- **Proteins:** Grass fed meat, free range chicken, Omega-3 eggs
- **Fats:** Extra-virgin olive oil, dry roasted and unsalted nuts (macadamia nuts, cashews, almonds), avocado or guacamole

With these foods in mind, you can create a whole variety of meals and snacks!

**Snacks** – Carry around in a small cooler all day (choose a few):

- 1 hard boiled egg,  $\frac{1}{2}$  an orange, a handful of almonds
- $\frac{1}{2}$  cup plain yogurt with pecans or macadamia nuts
- 1 oz. of cheese,  $\frac{1}{2}$  an apple, a handful of macadamia nuts
- 1 oz. of cheese,  $\frac{1}{2}$  cup of grapes, 1 tbsp avocado or guacamole
- 1 cup strawberries,  $\frac{1}{4}$  cup cottage cheese, a handful of nuts
- 1 oz. hummus,  $\frac{1}{2}$  a tomato, 1.5 oz. feta cheese
- 1 poached egg,  $\frac{1}{2}$  slice Ezekial bread,  $\frac{1}{2}$  tbsp natural peanut butter
- 1.5 oz. feta cheese, 1 cup dices tomato, 5 olives and extra virgin olive oil
- $\frac{1}{4}$  cup cottage cheese,  $\frac{1}{2}$  cup pineapple, handful of nuts
- 1 oz. chicken breast or deli meat,  $\frac{1}{2}$  cup of grapes, handful of nuts

**Breakfast (Choose one):**

- Slice of Ezekial bread, 2 eggs (scrambled or fried), 1 oz. cheese, 1 oz. of chicken breast, one apple
- 1 cup of cottage cheese +  $\frac{1}{2}$  a cantaloupe, 1 cup strawberries,  $\frac{1}{2}$  a cup of grapes, handful of nuts
- Smoothie: 2 cups milk, 2 tbsp protein powder, 1 cup strawberries,  $\frac{1}{2}$  cup blueberries; large scoop of nuts
- 1 cup oatmeal (slightly watery), 1 tbsp protein powder,  $\frac{1}{2}$  cup grapes,  $\frac{3}{4}$  cup cottage cheese, handful of nuts
- 1 cantaloupe, 1 cup cottage cheese, handful of nuts
- Trader Joe's grass fed burger patty, 1 egg, 1 slice Ezekial bread with peanut butter,  $\frac{1}{2}$  cantaloupe

**Lunch (choose one):**

- a) Tuna sandwich: 4 oz. canned tuna, 4 tsp light mayo, 1 slice Ezekial bread, 1 apple, some nuts
- b) Sandwich: 2 slices of bread, 4.5 oz. chicken breast (grilled), 1 oz. cheese, 4 tbsp. avocado or guacamole
- c) Chicken Salad: 4 oz. grilled chicken, 2 cups of spinach,  $\frac{1}{4}$  tomato (chopped),  $\frac{1}{4}$  cucumber (chopped),  $\frac{1}{4}$  green pepper (chopped),  $\frac{1}{2}$  cup black beans,  $\frac{1}{4}$  cup kidney beans, extra virgin olive oil and red wine vinegar
- d) 4.5 oz. lean meat, 1 oz. cheese, 1 apple, 1 grapefruit, handful of nuts

**Dinner:**

- a) 6 oz. fresh salmon (grilled), sauté 1 cup zucchini and serve with one large spinach salad with extra virgin olive oil and red wine vinegar, 2 cups of strawberries
- b) Stew: Sauté in 1 tsp olive oil –  $\frac{1}{4}$  chopped onion,  $\frac{1}{2}$  chopped green pepper, and 8 oz. of cubed beef. Then add 1 cup chopped zucchini, 1 cup mushrooms,  $\frac{1}{2}$  cup tomato sauce, season with garlic, Worcestershire sauce, salt, pepper, and serve with strawberries
- c) Chili for three: sauté 2/3 cup of chopped onion, 2 chopped green peppers, add garlic, cumin, chili powder, crushed red peppers, then add 10 oz. of lean ground beef until brown, then add 2 cups tomato sauce, 1 cup black beans, 1 cup kidney beans, chopped olives
- d) 4 oz. grilled turkey breast, 2.5 cups chopped and steamed kale, then sauté 1 tsp extra virgin olive oil, garlic, crushed red peppers, add kale and mix. Two peaches for dessert.
- e) 4 oz. grilled chicken, 2 oranges, a handful of nuts

## **What do I do now?**

So, how do you get started on your new eating plan? First, write down some of the foods that you like to eat that were listed here. Add a few of your own favorites too. Then go shopping to your favorite grocery store and buy what you need for a week's worth of meals and snacks (Sunday is a good day to do this).

Next, buy a whole bunch of Tupperware if you don't have any. Start putting meals and snacks together and store them in your refrigerator. Buy a small cooler to carry these meals around campus with you. You can use any of the example meals or snacks provided here or modify them to your taste. Just make sure that you follow the rules in regards to portion size and having protein, carbohydrates, and fats at every feeding. Keep fine tuning as you go. The most important step is to start. You can perfect your shopping list, amount of food needed, and favorite meals over time.

## **Supplements**

We as coaches recommend the following supplements:

**Fish oil:** Fish oil (Omega-3 fatty acids EPA and DHA) provides a host of long term health benefits in addition to enabling athletes to perform better.

Fish oil supplementation is widely suggested to help prevent cancer, hypertension, heart disease, and other maladies. For anyone interested in long term health, fish oil supplementation is a must.

Fish oil also offers eight significant advantages for those interested in optimally altering body composition (i.e. lose fat while gaining muscle) and maximizing training efforts:

1. Fish oils increase cell membrane health which results in decreased fat storage in fat cells.
2. Fish oils turn on the fat burning genes (lypolytic)
3. Fish oils turn off the fat storage genes (lipogenic)
4. Fish oils (DHA in particular) reduce blood pressure AND reduce inflammation from physical training.
5. This reduction in inflammation helps with pain management.
6. Fish oils increase serotonin levels (the happy neurotransmitter). Therefore, fish oils decrease incidence of depression and reduce carbohydrate cravings.
7. Fish oils will improve your cholesterol profile.
8. Fish oils are a great stress hormone fighter.

For these reasons, we recommend our student athletes supplement with fish oil

## **Supplements (cont.)**

### **Multi-vitamin:**

#### **Why Take a Multivitamin?**

Some of the benefits include:

- Enhance energy level and physical response to stress
- Improve memory and concentration
- Maintain a healthy heart and bones
- Improve immune system response

#### **How to Select a Multivitamin**

Leading experts from key health organizations gathered in 2004 at the Multivitamins and Public Health workshop to review the literature regarding multivitamin use. Their deliberations resulted in a peer reviewed statement advising all American adults to take a daily multivitamin/mineral supplement. It is difficult for many people to get all the necessary nutrients from food alone, but there are so many supplements on the market that it can be hard to decide which supplement to take.

What to look for in a multivitamin: 100 percent of the Daily Value (DV) for:

- A
- B-1 (Thiamin)
- B-2 (Riboflavin)
- B-6, B-12
- C
- Chromium
- D
- E
- Folic Acid
- Niacin
- Copper
- Zinc
- 30 percent of the Daily Value for Vitamin K
- Iron
  - 18 mg Pre-Menopausal Women
  - 0-10 mg Men and Post-Menopausal Women
- Expiration date a few months from your date of purchase, to allow time to finish the product before it expires.

## **More is not Always Better**

Avoid excess, choose a supplement with:

- No more than 500 mg of phosphorous because we get plenty from our food.
- No more than 200 mg of B-6 because higher doses may cause nerve damage.
- No more than 15,000 IU of beta-carotene because higher levels may increase the risk of lung cancer in smokers.
- No more than recommended amount of iron (see above) because higher levels may increase your risk of heart disease, cancer, and constipation.