

## What you Eat

Your power diet begins with the concepts of balance, variety and moderation. Use the Food Guide Pyramid as a guide.

Food Group	Servings/Day	Serving Size
Fats & Sweets	Use sparingly	
Dairy	3-4	1 cup milk or yogurt,
Meat/meat alternative	2-3	2-3 oz meat, 2 Tbsp peanut butter, 1 egg, 1/2 cup legumes
Vegetables	3-5	1 cup fresh 1/2 cup cooked
Fruit	2-4	1 piece of fruit 1/2 c. canned fruit 6 oz juice
Breads/Grains	6-11	1 slice bread, 1/2 bagel or bun 1/2 cup cooked pasta or rice, 1 ounce cereal

Proper hydration is the most frequently overlooked performance aid in sports. Water is needed for cooling the body through evaporation as well as for a variety of bodily functions and reactions. You can eat the right foods, but if you're not drinking enough fluids, your training and performance will suffer. Your muscles are 73% water; a loss of just one percent of your body weight through perspiration will hamper your performance. If you lose two percent, you will cut your strength and endurance by ten to 15 percent. Think of your disadvantage in a competitive situation if you're dehydrated and your opponent is not. It can mean the difference between winning or losing.

You can't rely on your thirst mechanism to keep you well hydrated. By the time you're thirsty, you've lost one percent of your body weight, so you must



Carbohydrates

will first use the carbs in your blood (blood sugar) and in storage (muscle and liver glycogen) to fuel your muscles before using fat. Carbs are the body's most efficient fuel. It takes less oxygen to burn carbs than to burn fat or protein; in other words, you can cover more miles for every breath you take when you are utilizing carbohydrate for fuel. You will receive carbs by choosing foods from the bread, fruit and vegetable group. 55 to 60% of your calorie needs should come from carbs with the majority from complex carbohydrates (starch-type foods like breads, cereals, legumes).

### Protein

Protein is used for maintenance, growth and repair of all body cells. Although athletes require more protein than sedentary people, an excessive amount of protein will not improve performance or build stronger, larger muscles. The only way to increase muscle mass is to eat a balanced diet with adequate calories while progressively increasing your work load.

An athlete's diet should get 15% of it's calories from protein (about .6-.9 grams protein/pound body weight). Good sources of protein are lean meats, fish and poultry; legumes, nuts, and low-fat dairy products. The typical American diet contains adequate protein so you shouldn't have to worry about eating extra. If you do need extra, it doesn't take large amounts of extra protein-rich foods to get what your body needs.

### Fat

Fat is a concentrated source of calories, providing over two times the calories gram for gram when compared to protein and carbohydrates. An athlete shouldn't follow a fat-free diet, but should limit intake to 20 to 30% of calories. Some fat is needed in the diet to aid in the absorption of fat soluble vitamins, provide essential fatty acids, add flavor and provide satiation. Most of the fat we consume is found naturally in foods (i.e. meats and nuts) or added during food preparation. When adding fats, aim for plant sources of fats such as olive and canola oils and avoid hydrogenated fats.

What about the hyped 40-30-30 nutrition plans? (like the Zone)

These kind of low carbohydrate, high protein diets have been around for at least three decades, but there is no scientific support for their efficacy. Weight loss occurs because they are essentially low calorie diets and water is lost when carbohydrate stores are depleted. They can actually lead to muscle loss and fatigue, not improved

### SOME GREAT FOOD CHOICES FOR ATHLETES

**Bread Group:** English muffins, Bagels, Buns, Cereals, Pasta, Rice, Baked beans, Noncreamy soups, Lowfat crackers  
**Fruit and Vegetable Group:** Any fresh, frozen or canned fruits and vegetables, juices  
**Dairy Group:** Skim and 1% milk, Lowfat & nonfat yogurts, Lowfat & nonfat cheeses  
**Meat Group:** Lean Chicken, Turkey, Pork and Beef, Egg whites, Soy protein foods, Peanut Butter

## When You Eat

It is best for an athlete to eat six small meals during the day to provide her with constant energy. What you eat depends on the how long you have before training or competing. Use the following as a guide to how much you eat prior to getting on the starting line:

- **Four hours before exercise:** Eat a well balanced meal with moderate portion sizes. Choose high carbohydrate foods and eat moderate amounts of fat and protein. You may need a small snack closer to exercise.
- **One to three hours before exercise:** Eat a smaller meal with smaller amounts of protein and fat.
- **Less than one hour prior to exercise:** Eat a small snack according to tolerance.
- **Drink adequate fluids all day.**

It takes experimentation finding the foods that work best for you. Don't make big changes on "race day". If you are training in the morning, it is a good idea to eat a little something prior to energize you for your workout.. You'll be able to workout harder which will yield better performance results.

After exercise, do the following:


- Consume carbohydrate-rich foods within 15-60 minutes to replenish carbohydrate stores. Consume some protein also as this has been shown to aid recovery.

If you are a female experiencing amenorrhea (absence of menstrual periods), you are at a higher risk of experiencing stress fractures. Amenorrhea may be caused by eating inadequate calories and protein. It is important to see a physician as well as a Registered Dietitian for a nutrition check-



### Ergogenic Aids


An ergogenic aid is a substance touted to enhance physical performance by improving energy production, control or efficiency during exercise. Most lack scientific evidence to support their claims. **NO ergogenic aid can replace the benefits of a sound training program and a balanced diet. So work hard and eat right!**



*Why Sports Nutrition?*

As an athlete, you train hard to perform you best and feel great. However, if you neglect to fuel your body properly, your training and performance will suffer. View your body like a car, it's better to use high octane fuel than kerosene to run great!

This brochure will cover some of the basics of sports nutrition to help you make the best choices in your diet. Choices which will enhance your training and bring you to new levels of



For optimal performance, you should be concerned with:

- ◆ What you eat.
- ◆ When you eat.



performance.

For nutrition guidance, contact  
University Dining's Registered Dietitian,  
Lisa Eberhart, RD, LDN.  
513-5310 LisaRDLDN@aol.com

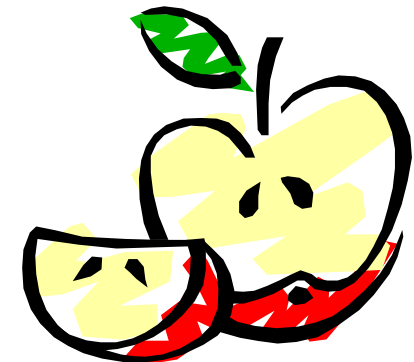
North Carolina State University Dining

---

**North Carolina  
State University  
Dining**

*Nutrition Counts*

**SPORTS NUTRITION**



Nutrition Facts for you!

---