



NUTRITIONAL GUIDELINES FOR ATHLETES

INTRODUCTION

All aspects of sports conditioning are important for maximum physical development. Nutrition is one component most athletic teams overlook. A balanced diet is vital to achieving optimal athletic performance. A balanced diet consists of an intake high in carbohydrates and water, moderate in proteins, and low in fats. Your goal as an athlete is to increase lean muscle tissue and decrease unnecessary body fat. Developing sound nutritional habits will aid in the achievement of this goal.

A well balanced diet provides sufficient nutrients and energy for intense physical activity. Maintaining a balanced diet ensures high energy levels and quicker, more efficient recovery during and between exercise bouts. Proper growth of muscle, bone and supportive tissue, and the enhancement of mental awareness are also benefits of proper nutrition. The lack of progress during training can be related to poor nutritional life-style. and not the training program.

Remember the Dietary Reference Intakes (DRIs) of most nutrients are the same for athletes and non-athletes. The main difference between the daily intake of athletes and non-athletes is the amount of calories consumed. In most cases, athletes require more calories per day to meet the energy demands of rigorous physical training.

The following sections will provide information to help dietary habits.

****For top performance, a minimum of 55% of total daily calories must come from carbohydrates, 20% from protein and 25% from fat.**

PROTEIN

- **Maintain a balanced diet** -Protein should consist of 12-15% of total daily caloric intake while carbohydrates make up 60-70% and fats remain under 30%. Excess intake of protein is hard on your kidneys and liver. There is NO BENEFIT in taking more than you need.
- **Athletes' daily protein needs** -Athletes require 2 or more times the amount of protein than non-athletes Athletes need to eat .5-.7 grams of protein per pound of bodyweight per day. For example, look at a 200lb athlete:
200 x .6 = 120 grams of protein per day
200 x .9 = 180 grams of protein per day
Thus, 200 lb athlete would need from 120-180 grams of protein per day. An athlete attempting to gain weight will be at the higher end of the range. An athlete who works out 5 times per week, 1 hour per day, needs to be at the higher end of this range
- **Include protein in every meal** -Eat a source of protein with every meal to maintain optimal levels. It is not recommended to eat most of your daily requirements in one meal Remember that excess protein does not get converted to muscle. It is either broken down and used as energy in the liver or stored as fat
- **Good sources of proteins** -Eggs (high in fat content) are considered to be the highest source of protein available. Low fat/skim milk and other low fat dairy products; most fish -cod, sole, halibut, tuna, sardines, salmon; most shellfish-scallops, lobster, crab, shrimp, mussels; lean red meats with fat trimmed; poultry skinned, beans, whole grains, rice, and seeds.
- **Add variety** -A diet high in variety will easily match your dietary protein requirements.

FAT GUIDELINES FOR ATHLETES AVOID TRANS FAT!

- The American Heart Association recommends that a diet should consist of no more than 30% of their calories from fat.
- 20% of total calories from fat should come from monounsaturated or polyunsaturated fat (e.g., olive oil, avocado, nuts, seeds, and peanut butter), while 10% should come from saturated fat.
- Fat intakes of 25-30% of energy are generally recommended for active individuals.
- However, fat recommendations for individual athletes should be based on the individual's health, current dietary intake, sport, body weight and composition goals, and food preferences.

FLUID NEEDS OF ATHLETES

Athletes are at a greater risk for dehydration due to the difficulty of maintaining body-fluid balance during intense exercise. Dehydration of 1% to 2% of body weight begins to compromise physiologic function and negatively influences performance. Dehydrate a muscle by only 3% and you lose about 10% of your contractile strength, and an 8% loss of speed. Simply, it is imperative that athletes ingest enough fluid to replace the volume of fluid lost in the form of sweat. The environmental conditions, the size of the person, the person's metabolic rate, and the volume of fluid excreted determine fluid loss on a daily basis is one of the most important nutrients in the sports diet, and losing too much through sweating can inhibit performance. Drink half your body weight in ounces, 200 lb athlete=100 oz. h₂o.

WEIGHT GAIN

- **Goals of weight gain** -The goals of weight gain should be to maximize gains in lean body mass and to minimize gains in body fat. This can be accomplished by appropriate training and dietary practices. Fat content of diets, especially when trying to gain weight, should be kept below 30% of total calories.
- **Calories**- Eat 500-1,000 extra calories per day in order to gain 1-2 lbs per week.
- **Eat frequently and consistently throughout the day** -Eat three hearty meals plus 2-3 additional snacks per day. Have a snack right before you go to bed Do not skip any meals.
- **Eat larger than normal portions** -Eat an extra sandwich, larger piece of fruit, bigger bowl of cereal, taller glass of milk, etc
- **Select higher calorie foods** - Read food labels to determine which foods have more calories than an equally enjoyable counterpart.
- **Make beverages count** - Quench thirst with calorie containing fluids. Drink shakes, juices, milk, etc. instead of water, coffee, tea, and diet sodas.
- **Work out** - Stimulate muscular growth so that you bulk up instead of fatten up.

SUGGESTED CALORIC INTAKE

Body Weight/2.2= Weight in kilograms

Weight in kilograms x 42 Kcal= Calories per day.

$300/2.2=136.36 \times 42= 5738$ calories per day

Fast way to determine caloric need---Body Weight x 20+500 calories a day to GAIN WEIGHT

- **Key-Eat appropriately during the day and eat less at night.**
- **Avoid sugar at night (inhibits growth hormone). Avoid soda, especially diet or 0 calorie drink. Avoid ENERGY DRINKS—too much sugar and no nutritional value!**
- **Avoid high calorie toppings on salads or sandwiches.**
- **Be aware of meal timing-more meals throughout the day.**
- **Eat slowly and taste your food.**
- **Spread Calories over 6 meals a day (3 meals 1-3 snacks).**
- **Eat throughout the day to fuel workouts.**
- **EAT breakfast! It is the most important meal of the day. Make it your BIGGEST meal.**

Rules to Follow

- #1 Eat five meals a day Overeating even one meal a day keeps the fat-building enzymes in your body more numerous to turn the excess food in to body fat.
- #2 1-2-3 Rule Example if you were eating a meal of.600 calorie
100 calories from fat
200 calories from protein
300 calories from carbohydrates
Cut calories from fats and simple carbohydrates (Sweets) not protein
- #3 Zigzag caloric intake. Decrease caloric intake for 4 or 5 days by 500 to 1000 Kcal/Day, than eat normal for one or two days (i.e. Monday to Friday on. Sat and Sunday off)
- #4 You can't always eat properly, you can't always eat 5 or 6 times a day, you must supplement. (Energy bars, protein shakes)

Here are a few more basic suggestions to modify your eating habits as you train for sport:

- Write down what you eat each day to help you map out any large fluctuations in your daily eating habits
- Read food labels, being aware of the percentages of carbohydrates, proteins, and fats that are in the foods you eat
- Control your portions, remembering to always eat in moderation; which includes fast foods and junk foods
- Eat larger meals earlier in the day, rather than late in the day or evening or before bedtime
- Budget your calories throughout the day, eat smaller, more frequent meals
- Drink 8-10 glasses (16 oz.) of water per day
- Always eat breakfast
- Eat a variety of carbohydrates, proteins, and fats
- Eat fresh fruits and vegetables
- Eat the right foods most of the time; try to follow nutritional guidelines 80% of the time, and do whatever you want 20% of the time (eat right 5 out of 7 days a week)

SUMMARY OF DIETARY GUIDELINES

1. Daily servings from the four major food groups.
 - a. Grain Products (6-11 servings)
 - b. Fruits/Vegetables (3-5 servings)
 - c. Dairy Products (2-3 servings)
 - d. Meat Poultry. Fish (2-3 servings)
2. Eat 4-6 meals a day
 - a. Weight gain desired eat slightly larger meals and add 2-3 snacks a day
 - b. Weight loss desired eat smaller meals to decrease total caloric intake
 - c. Physiologic factors:
 1. Helps to maintain lean body mass
 2. Promotes body fat reduction
 3. Reduces sluggishness and the onset of fatigue
 3. Space meals 2 1/2 to 3 1/2 hours apart
 4. Achieve ideal caloric distribution
 - a. Carbohydrates (60%-70%)
 - b. Protein (20%-30%)
 - c. Fats (15%-20%)
5. Increase consumption of **complex carbohydrates**
 - a. Complex carbohydrate food sources
 1. Whole wheat breads
 2. Whole wheat rolls
 3. Cereals (low sugar. bran)
 4. Pancakes
 5. Waffles
 6. French toast
 7. Pasta
 8. Rice
 9. Beans

10. Bagels
11. Vegetables and vegetable juices
12. Fruits and fruit juices. ONLY 100% juice, avoid juice made from concentrate.

b. Dietary reasons.

1. High in vitamins and minerals
2. High in water content

c. Physiological factors

1. Increased energy in muscle storage
2. Protein sparing effect for growth and repair of muscle
3. Prolonged endurance

6. Refined sugars to a minimum

a. Limit or omit sweet, soda, candy, or cakes etc.

1. Foods are low in vitamin and mineral content
2. Empty calories
3. Often high in fat (i.e. chocolate candy)

b. Great food substitutes

1. Fruits
2. Vegetables
3. Unsweetened Juices
4. Low sugar foods
5. Low fat foods

7. Keep protein servings to a moderate size (3oz-6oz.)

8. Increase water intake to 4 (32 ounce) bottles a day (128+ ounces)

a. Effects of dehydration

1. Fatigue
2. Deterioration of performance
3. Increased body temperature
4. Increased resting heart rate
5. Irritability
6. Loss of appetite

9. Check labels for nutritional content

10. Limit total fat consumption to 15%-20% of total caloric intake

a. Reduce intake of high fat foods

b. Diets high in fat can lead to:

1. Chronic exhaustion
2. Irritability
3. Restlessness
4. Increases in body fat
5. Decreases in lean body mass

REST AND RECOVERY

A large majority of athletes overlook the importance of rest and recovery during their athletic preparation. It is easy to do since athlete's associate preparation with doing activity rather than refraining from it. Day to day recovery between practices and competitions is extremely important for successful achievement of optimal performance. As an athlete rest, the body is busy building back from the hard work put in at practice and in the weight room. Your muscles are in a continuous building process, preparing to come back stronger and faster the next workout.

NUTRITION

- Nutrition is the most important key to recovery .Your body cannot rebuild without the supplies to construct stronger muscle tissue. Please take time to read the nutrition section in this manual.
- SMALL amounts of caffeine/sugar can be beneficial right before a workout
- Chocolate milk is a great post-workout recovery drink.

INJURIES

- See Athletic Trainer or Sports Medicine Physician if a legitimate injury occurs.
- If an injury occurs, use ice and anti-inflammatories are vital to the healing process for the first 2-3 days. Over the counter anti-inflammatories include Advil, Alleve, Ibuprofen and Motrin

SLEEP

- Sleep is another vital component of the recovery process. A competitive athlete needs eight (8) to ten (10) hours of sleep a night. Develop a sleep routine, it is critical! (i.e. Bedtime 10:00 p.m., wake-up 7:00 a.m. Avoid changing your sleep routine, you will find your body feels more energetic and you will not get as many minor illnesses.

LACK OF RECOVERY

- Excessive training volume and/ or intensity leads to muscle glycogen depletion.
- Insufficient recovery and your body cannot meet the demands of the next workout/competition.
- Signals: lack of motivation, unable to concentrate, feel fatigued, and cannot sleep.

OVER-TRAINING

- A great example is lifting extremely heavy every day you do bench press. Only one day a week has to be really heavy. The percentages in the summer program are a guide to tell you which days are heavy, medium, and light. Medium and light lifting days allow the body to better recover at the end of the week.

FITNESS LEVEL

- Fitness level is another element which facilitates recovery .The greater the fitness level the faster the recovery on all levels (i.e. between sets, exercises, and workouts!) Get in shape!

The word "TOROS" is written in a large, bold, stylized font with a thick, black outline and a white fill. The letters are rounded and have a slightly irregular, hand-drawn appearance. The 'O's are particularly large and prominent.