



Minnetonka Strength & Conditioning

Nutrition Packet

“There are no magic pills or potions available that will give you more energy, make you run faster, or improve your skills. Having the discipline to eat a balanced diet of normal foods each day is the only secret formula.”

Dan Riley, Strength and Conditioning Coach – Houston Texans



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I. Basic Nutrition Guidelines

Proper nutrition can enhance and maximize an athlete's performance potential. Likewise, a poor diet can hinder performance. Nutrition for optimal health and physical performance should always involve moderation, variety, and balance. The purpose of this packet is to provide you with some basic nutrition information to help improve your diet enabling you to perform at peak level.

Dietary Guidelines:

According to *Dietary Guidelines for Americans 2005* (U.S. Department of Health and Human Services, n.d.) a healthy diet is one that:

- Emphasizes fruits, vegetables, whole grains, and non-fat or low-fat milk and milk products.
- Includes lean meats, poultry, eggs, nuts, beans, and fish.
- Is low in saturated fats, trans fats, cholesterol, salt, and added sugars.

6 Basic Nutrients:

1. Water

- **What you need to know** – The need for water before, during, and after exercise cannot be over-emphasized. Dehydration is one of the major factors that limits the body's capacity to perform strenuous exercise. Fluids should be consumed before thirst sets in and after a person no longer feels thirsty.

2. Carbohydrates

- **Percent of daily calories** – 60-70%
- **Calories per gram** – 4
- **What you need to know** – Carbohydrates are the body's most important source of fuel. However, try to limit your intake of simple carbohydrates, which are mostly sugar.
- **Good sources** – Whole grain bread, cereal, pasta, fruit, and some vegetables

3. Protein

- **Percent of daily calories** – 12-15%
- **Calories per gram** – 4
- **What you need to know** – The most important role of protein is to build, maintain, and repair tissue. Consuming large amounts of protein will not increase muscle mass. Protein shakes, bars, and drinks should not be consumed.
- **Good sources** – Lean meats, fish, chicken, eggs



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4. Fat

- **Percent of daily calories – 20-25%**
- **Calories per gram – 9**
- **What you need to know** – Some fat is essential, both in the body and as an energy source. Diets high in fat, especially saturated fat, are associated with heart disease.

5. Vitamins

- **What you need to know** – A balanced diet will provide ample vitamins. Vitamin supplementation is not necessary.

6. Minerals

- **What you need to know** – A balanced diet will provide ample minerals. *Female athletes must monitor their diets to ensure they are getting enough calcium and iron in their diet.*

3 Keys to Healthful Eating (Clark, 1997):

1. Variety – It is important for athletes to consume a variety of foods because each food offers special nutrients.

2. Moderation – All foods can be a part of a healthy diet if they are consumed in moderation. Moderation is the key. The majority of your calories should come from healthy foods that are high in nutrients.

3. Wholesomeness – Choose as many natural foods as possible as they are more nutrient dense than highly processed foods. Consume highly processed foods such as potato chips in moderation.



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II. Weight Gain

In order to gain weight you must consume more calories than you burn. Gaining solid weight requires three things: a progressive strength training program, plenty of nutritious food, and quality rest. Many athletes that struggle to maintain or gain weight assume that they need to consume more protein. The reality is that although you need to consume extra calories, those calories should come primarily from carbohydrates rather than extra protein (Clark, 1997).

Tips for Increasing Lean Muscle Mass:

- Consume a large breakfast seven days a week
- Consume a snack in the morning and the afternoon
- Eat frequent smaller meals
- Increase portions at mealtime
- Get most of your extra energy from nutrient dense, high carbohydrate foods
- Attempt to get 8-10 hours of sleep every night

Nutrient Dense Snack Foods (Riley and Wright, 2003):

Cold cereal – Choose a dense cereal such as granola, Mueslix, or variations of raisin bran and add to yogurt, ice cream, or shakes.

Juices – An easy way to quench thirst and consume extra calories.

Fruits and Vegetables – Any type: use as a snack or add to salads, yogurt, muffins, pancakes, etc.

Milk - Have with a meal or mix with Carnation Instant Breakfast as a perfect post workout snack that will help increase your daily caloric intake (M. Maguire, personal communication, November 15, 2006).

Sandwiches – Choose thick, dense breads. A peanut butter and jelly sandwich is an inexpensive, healthy, and nutrient dense snack.

Nuts – Peanuts, pecans, cashews, walnuts, macadamia, etc.

Bagels and English muffins – With low-fat cream cheese or peanut butter and jelly



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High Calorie Blender Shakes (Asanovich, 2005):

If an athlete is having trouble maintaining or gaining weight, these shakes are a healthy and cost effective way to increase your calorie intake.

Chocolate Shake

3 cups 1% milk
2 cups frozen yogurt
¼ cup skim milk powder
2 teaspoons safflower oil
3 tablespoons chocolate syrup
1 tablespoon peanut butter
3 tablespoons corn syrup
4 tablespoon malt powder
1,764 calories
Carb 62% Fat 25% Protein 13%

Banana Shake

3 cups 1% milk
2 cups frozen yogurt
¼ cup skim milk powder
2 teaspoons safflower oil
1 ¼ cup nonfat milk powder
3 bananas
4 tablespoons molasses
½ cup cold water
1,786 calories
Carb 66% Fat 19% Protein 15%

Fruit Shake

3 cups 1% milk
2 cups frozen yogurt
¼ cup skim milk powder
2 teaspoons safflower oil
3 peaches
6 oz. frozen strawberry
2 bananas
½ cup dried apricot
1,749 calories
Carb 71% Fat 18% Pro 11%

Sample Weight Gain Menu (Clark, 1997):

Breakfast

16 oz. orange juice
2 cups granola
¼ cup raisins
2 cups low fat milk
1 large banana

Lunch

1 pita pocket
6 oz. turkey breast
2 tbsp. light mayo
2 cups apple juice
1 cup fruit yogurt
1 large muffin

Dinner

1 chicken breast
2 large potatoes
2 pats margarine
1 cup peas
2 biscuits
2 cups low fat milk

Snack

2 slices hearty bread
2 tbsp peanut butter
3 tbsp jelly
1 ½ cup low fat milk
2 tbsp Carnation Instant Breakfast

- The above meal plan would total roughly 5,000 calories with 65% coming from carbohydrates, 15 % from protein, and 20% from fat.



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III. Weight Loss

In order to lose weight you must burn more calories than you consume. It is important for athletes who want to lose weight to understand how to lose weight while still providing the body with enough energy to perform at a high level. It is possible to lose weight on a high-energy, low-calorie diet (Clark, 1997). Make sure your weight loss goals are realistic.

A proper approach to losing weight and improving body composition should include proper nutrition, high intensity strength training, and cardio-respiratory exercise. Weight loss can be achieved through an emphasis on one of the above three methods. However, significant and long term weight loss is achieved most effectively and safely through an emphasis on all three facets.

Tips for Successful Weight Reduction (Clark 1997):

- Write down what you eat and drink in a day and why – Evaluate your eating habits focusing on potentially fattening habits. Make sure food is consumed for fuel rather than entertainment, comfort, or stress relief.
- Become aware of meal timing – Eating early in the day will help prevent you from becoming too hungry and overeating later in the day.
- Learn your calorie budget – Know how many calories you can take in and still lose weight.
- Subtract 20% of your total calorie needs – Most people try to cut back too much, get hungry and end up ditching their diet.
- Divide your calorie budget into 3 parts of the day – 1.Breakfast/Snack, 2.Lunch/Snack, 3.Dinner/Snack. Try to consume an equal amount of calories for each part of the day.
- Read food labels – Use food labels to familiarize yourself with the foods that you eat most often.
- Eat slowly – It takes time for your brain to receive the signal that you are full.
- Eat your favorite foods regularly – Don't deny yourself your favorite foods or you will end up binging on them. Just eat smaller portions of your favorite foods.
- Keep away from food sources that tempt you – Try not to keep unhealthy foods on hand.
- Post a list of 10 pleasurable activities that require no food – It is important to have other things to do when bored, stressed, or depressed so you don't eat to relieve those symptoms.
- Each week, plan a day off from dieting – Allowing yourself 1 day off will help keep you on your diet the other 6 days of the week.



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- Exercise consistently – Exercise can be a great way to burn calories, but don't use it as a means of punishing yourself.
- Think “Fit and Healthy” – Imagining yourself as fitter and leaner can help you keep a positive attitude.

Spot Reduction:

A popular myth in exercise and fitness is the idea that a particular strength training exercise can be performed to eliminate fat in specific areas of the body, a concept referred to as spot reduction. An example would be performing abdominal exercises to get rid of excess fat on the waist line. Spot reduction is possibly the most prevalent myth in the fitness industry. Exercises cannot be performed to eliminate fat in specific areas of the body. Regular and intense strength training will stimulate an increase in muscle tissue, but will not make the fat in that region of the body disappear. Total body strength training will increase muscle tissue. Increasing muscle tissue improves the body's ability to burn calories, which ultimately will cause a reduction in overall body fat.



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IV. Nutrition Before, During, and After Exercise

Pre-Exercise/Competition Nutrition:

There is no right or wrong answer about what to eat before exercise or competition. However, what you eat or don't eat beforehand can affect your performance. Having fuel to get through a grueling practice or to perform your best in competition is very important. A quality pre-exercise/competition meal will provide hydration, satisfy your hunger, fuel your muscles, and help settle your stomach (Clark, 1997).

The following are some simple tips for eating before exercise or competition: 1. Choose foods that you are comfortable with and that won't cause stomach problems – bagels, bananas, apples, pasta, and granola bars work well for many people. 2. Drink extra fluids to hydrate your body. 3. Limit high fat proteins such as cheese, hamburgers, and steak. 4. Allow adequate time for food to digest – everyone is different in how soon before exercise or competition that they can eat. 5. Don't try any new foods prior to competition unless you have practiced with them and can predict the outcome.

Nutrition During Exercise/Competition:

It is important for all athletes to stay hydrated during exercise/competition by drinking plenty of fluids. Water works well for most athletes. If you are participating in endurance exercise/competition that lasts more than 60-90 minutes, a tournament, or day-long event, you will also want to consume carbohydrates to provide energy and maintain electrolyte levels (Clark, 1997). Suggestions of carbohydrates to consume: have a sports drink and a banana or have a sports bar and some water. For the day-long event or tournament, have a nutrition plan in mind so you don't end up eating the hot dogs, chips, doughnuts, and other junk food that is usually available.

Post Exercise/Competition Nutrition:

Your top priority following exercise/competition is fluid replenishment. Good choices for fluid replacement include water, sports drinks, and juices. Ideally within 15 minutes following your workout you should consume some carbohydrate rich food and also some protein (Clark, 1997). Something as simple as chocolate milk provides the proper ratio of carbohydrates, protein, and fat for a perfect post-exercise snack.



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V. Supplements

Currently, the supplement/ergogenic aid industry is a multi-billion dollar industry. More fraud exists in the area of supplements than any other segment of the fitness industry. Supplements are not more effective than a balanced diet and should not be used to make up for a lack of dietary discipline (Riley and Wright, 2003). Many people reach for a supplement when they should more closely examine their own diet.

Do you....

- Eat a large breakfast daily where you consume roughly 25% of your daily caloric needs
- Eat frequent small meals throughout the day
- Eat from all the food groups
- Restrict your intake of fat to 25% of daily caloric intake
- Eat plenty of fruits and vegetables
- Drink at least 8 glasses of water per day
- Consume a nutritious snack between meals
- Consume a carbohydrate rich snack within 15 minutes of finishing a practice or workout
- Get at least 8 hours of sleep each night

If you answered no to any of these questions these are simple changes that you can make to improve your diet and enhance your athletic performance.

Position Statement on Supplements

The Minnetonka Strength & Conditioning staff strongly discourages the use of all supplements due to: the potential for acute or chronic negative side effects, the lack of scientific evidence supporting their use, and the lack of regulation in the supplement industry.



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