

INTRODUCTION

Wrestlers who cut weight often deny themselves the very nutrients they need to perform well. Many wrestlers either don't care about proper nutrition or they simply do not know any better. Wrestlers often think of food and water only in terms of gaining weight. They forget that food provides nutrients to fuel their bodies. However, the scientific facts are simple: poor nutrition will hamper performance. The body cannot function at its best when it lacks vital nutrients. Consider these points:

- Concentrating on wrestling rather than on cutting weight will make you a better wrestler.
- To grow naturally and increase strength, wrestlers need the same nutrients as other teenagers, but need *more* calories to meet the demands of daily training.
- Fasting causes the body to use muscle proteins for energy even if fat is available. This limits muscle growth and strength development.
- A proper diet will help wrestlers lose fat weight without sacrificing muscle tissue or becoming dehydrated.
- Dehydration is a major cause of losses in strength and endurance.
- Losing weight *rapidly* results in a loss of both muscle tissue and water.
- Losing weight *gradually* (2-3 lbs/week) is the best way to lose fat and keep muscle.
- Proper training includes practicing proper nutrition *every day*.
- Practicing good nutrition and proper weight control methods is vital to achieving peak physical performance.

DETERMINING YOUR WRESTLING WEIGHT

There are several factors to consider when deciding your "best" wrestling weight, but the most important is: How much weight can you safely lose and still perform well? The weight class you choose should not be so low that you have to sacrifice good nutrition for the sake of making weight. In addition to the adverse physical effects of trying to cut too much weight, unhealthy weight loss practices affect you psychologically; the more you worry about your weight, the less you concentrate on your wrestling. Here is how to determine your "minimum" safe weight for competition.

Percent Body Fat

Body fat percentage can be determined by measuring the thickness of certain skinfolds on the body. Many health care professionals will be able to perform these measurements for you. The results of the skinfold measurements will give you a good estimate of what percent of your body is fat. For example, if the results indicate a body fat reading of 14%, that simply means that 14% of your body is fat. Such measurements are only estimates, and the error is about $\pm 2\%$. In this example, you could be 12% to 16% fat ($14\% \pm 2\%$).

The goal of safe weight loss is to *lose excess fat weight*. Not all fat on your body can be considered "excess" fat. A certain amount of fat is essential for use as energy, to act as a shock absorber for your internal organs, to insulate your body from the cold, and to store certain nutrients.

Minimum Body Fat

Seven percent body fat is considered the *lowest* healthy level of fat content for teenage males. Body fat measurements can help you determine how much fat you can lose in order to drop to 7% (See Appendix C). If you drop below 7%, you will likely lose muscle tissue, strength, and endurance. Keep in mind that 7% is *not* a magic number. It is just a guideline for you to follow. Most wrestlers perform very well at a higher percentage of body fat. So, if you are now 10% body fat, there is no reason to believe that you'll wrestle better at 7% body fat. Many health care professionals will be able to help you determine your minimal wrestling weight.

PRINCIPLES OF GOOD NUTRITION

Cutting and Maintaining Weight

Once you've determined your weight class, you should next develop a plan for making and maintaining the weight. Plan your diet to lose not more than 2-3 pounds each week. For example, if you determine you want to lose 10 pounds, allow at least 5 weeks (2 lbs./week) to accomplish your goal. If you plan ahead, the gradual reduction in weight can be easily accomplished. Also, to achieve your goal, you must understand the principles of good nutrition.

Food Pyramid

Wrestlers can achieve a balanced diet by following the dietary guidelines provided in the food pyramid. The training table guidelines listed on page 4 indicates the minimum number of servings from each food group for each day. The menus in Appendix A show examples of these recommendations.

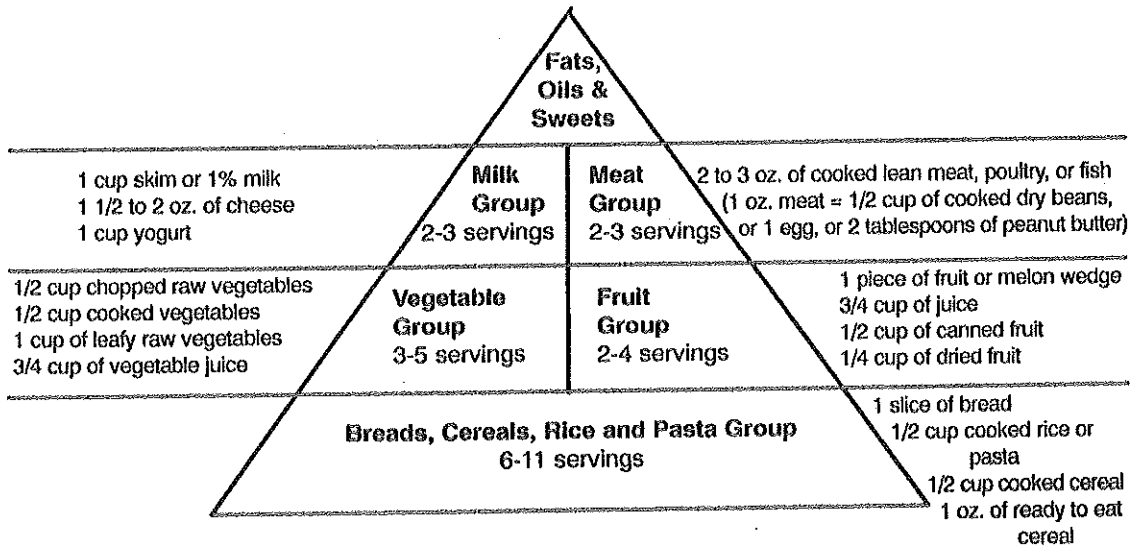
The pyramid is divided into four levels according to the needs of your body. The base of the pyramid contains foods including grains such as oats, rice and wheat, and the breads, cereals, noodles and pasta made from them. Try to choose 6-11 servings of these products each day to ensure a solid foundation for your diet. Foods from this group are high in complex carbohydrates, which are the main energy source for training and other body functions.

The next level of nutrition in the food pyramid includes foods from the vegetable and fruit groups. These foods include all fresh, frozen, canned and dried fruits and vegetables and juice. These groups are loaded with vitamins and minerals, carbohydrates and fiber. It is recommended that your diet consists of 3-5 servings of vegetables and 2-4 servings of fruit each day to ensure an ample supply of vitamins, minerals and carbohydrates.

The next level of nutrition in the food pyramid consists of two food groups: the dairy products, including milk, yogurt and cheese; and the meat products, including meat, poultry, fish, dry beans, eggs and nuts. These groups are rich in proteins, calcium, zinc, iron, and vitamins, and are essential for healthy bones and muscles. Choose low fat dairy products and lean (low fat) meat products to get the full advantage of these foods without excess fat calories. Your diet should include 2-3 low fat servings from the dairy group each day, as well as 2-3 servings from the meat group each day. Appendix A gives some examples.

The top of the food pyramid includes nutrients that should be used sparingly in your diet, including fats, oils, and sweets. Many of these nutrients are already present in foods previously discussed and are often added in processed foods. Be careful in your selection of foods and check food label for added sugars and fats that can add calories to your diet without significantly increasing their nutritional value.

TRAINING TABLE GUIDELINES



CALORIES

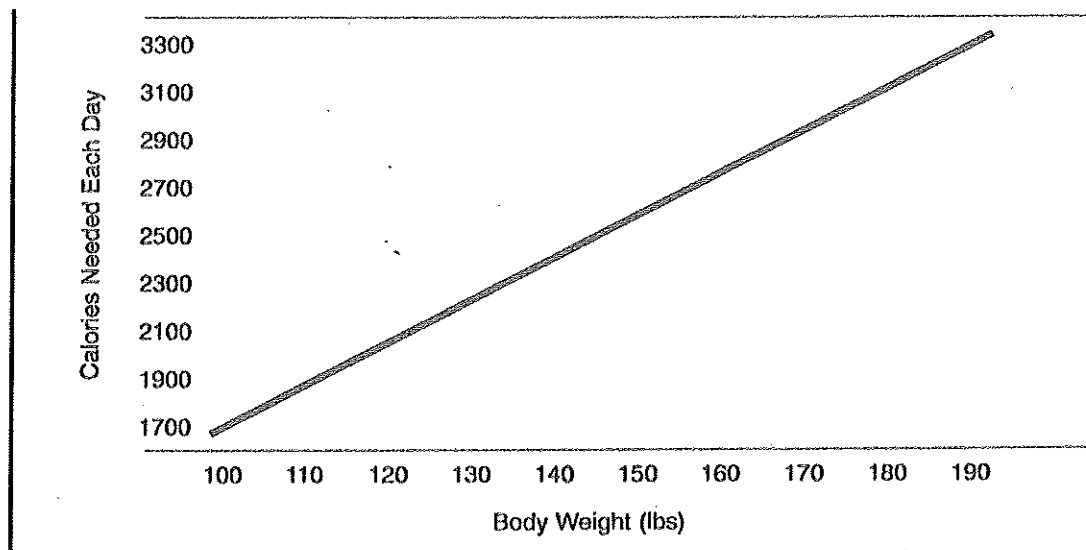
A "calorie" is a unit used to describe the energy content of foods. Your body requires energy, and the food you eat supplies that energy. When you take in more food calories than you use, those extra calories are stored as fat, and you gain weight. Weight loss occurs when you consume fewer calories than you use. This causes your body to utilize its stored fat for energy, and you lose weight as a result. Losing weight gradually helps assure that mostly fat will be lost. Losing weight too quickly will cause you to lose muscle and water in addition to fat, sapping your strength and endurance in the process. Gradual weight loss is best accomplished by combining your training with a *slight reduction* in food intake. Remember, your body requires a certain amount of energy and nutrients just to keep you alive and healthy.

For this reason, *your caloric intake should not fall below 1,700-2,000 calories per day.*

In planning your diet, it will be helpful to estimate how many calories you need each day. Caloric needs differ from wrestler to wrestler depending upon body size and activity level. You can estimate the minimum number of calories you need each day by using the graph in Figure 1. Appendix A contains examples of 2,000 calorie menus to help you plan your diet. Appendix B can help you plan to eat wisely at fast-food restaurants.

Figure 1.

Determine the *minimum* number of calories for your goal weight.



NUTRIENTS

Your body depends upon a constant supply of nutrients to keep it functioning. There are six essential groups of nutrients your body needs every day: water, carbohydrates, protein, fats, vitamins, and minerals. These nutrients work together to build and fuel your body.

Water

The most important nutrient for any athlete is water. Your body is 60-70% water. Water is absolutely essential for optimal health and peak performance. You may be surprised to know that dehydration is a major cause of decreased performance. Some wrestlers are more sensitive to dehydration than others. A fluid loss of 2-3% of your weight can quickly occur during intense training. Even modest levels of dehydration should be avoided because dehydration harms performance.

It is important to drink plenty of fluid during practice and between matches. Not only will you feel better, but you may also find you have more endurance. During physical activity, thirst is not an adequate signal of the need for fluid. Follow the fluid guidelines listed below:

- Weigh-in before and after training to monitor fluid loss. Drink two cups of fluid for every pound of body weight lost.
- Drink 2 1/2 cups of fluid 2 hours before training or competition.
- Drink 1 1/2 cups of fluid 15 minutes before the competition.
- Drink 1 cup of fluid every 15-20 minutes during training and competition.
- Avoid beverages containing caffeine, as they promote dehydration.

Carbohydrates

Carbohydrates are the main food source for your body and should make up 55-65% of the total calories you consume. Excellent sources of carbohydrates include breads, pasta, cereals, fruits, and vegetables.

Fat

Everyone needs a little fat in their diets, and wrestlers are no exception. Fat should make up about 20-30% of the calories you consume. Most of the fat we consume is naturally found in foods (meats, nuts, and dairy products) or added during the preparation of food (e.g. fried foods). Sources of additional fat include margarine, peanut butter, and salad dressings.

Protein

Protein is used for growth and repair of all the cells in your body. Good sources of protein are meat, fish, and poultry. Many plant foods, like beans and nuts, are good protein sources too. However, nuts are also high in fat and so should be eaten only in small quantities. Your diet should provide 12-15% of its calories as protein. The typical American diet provides more than enough protein, so you don't need to worry too much about your protein intake.

Vitamins and Minerals

If you eat a balanced diet from the four basic food groups, you will consume all the vitamins and minerals your body needs. Including ample portions of fresh fruits and vegetables in your diet will help ensure an adequate intake of vitamins and minerals. Vitamin and mineral supplements are usually unnecessary, but if you like to have the added "insurance" of taking a supplement, choose a vitamin and mineral supplement that does not exceed 100% of the Recommended Daily Allowance (RDA) for each nutrient.

EATING BEFORE TRAINING OR COMPETITION

When you eat can often be as important as *what* you eat before competition and between matches in a tournament. When you eat a regular meal, it takes about three hours for the food to be completely digested and absorbed. As a result, meals are best eaten three to four hours before competition. For athletes too nervous to consume solid foods before competition, special sports nutrition supplements may be an option. Carbohydrate supplements and liquid-nutrition supplements can be taken up to one hour before training or competition, but you should experiment with such products to make certain that you do not experience discomfort. A properly-formulated sports drink can be consumed before, during, and following training or competition to help minimize dehydration and provide a source of energy to working muscles.

METHODS OF WEIGHT CONTROL THAT SHOULD BE AVOIDED

Dehydration

Weight loss in wrestlers usually occurs in a short period of time and consists primarily of water loss. If you lose weight faster than 2-3 pounds per week, you are likely losing water (and perhaps muscle tissue). Unfortunately, when you rehydrate after weigh-in, your body absorbs water at a relatively slow rate: only about 2 pints per hour, and it takes up to 48 hours for the water balance in your tissues to be restored. The ill effects of dehydration include a decrease in muscular

strength and endurance, a decrease in blood flow to muscle tissues, and an impaired ability to properly regulate your body temperature. Therefore it is recommended that:

- Wrestlers should limit weight loss by dehydration to a bare minimum.
- Use of diuretic drugs ("water pills") to help lose water weight should be avoided. These drugs can cause disorders in the way your heart and kidneys function.
- Wrestlers should not rely upon sitting in a steam room or sauna to cut weight. Exercise in a plastic suit should also be avoided. These practices are strongly discouraged because they can cause rapid dehydration and heat stroke, which may be fatal.

(In addition to being unhealthy and extremely dangerous behaviors, recent rule changes at the high school and collegiate levels have determined the use of diuretic drugs, steam rooms/saunas, and rubber or plastic suits for purposes of rapid weight loss to be contrary to the rules and as such, considered illegal.)

Parentetical note added 8/99 -- WIAA

Fasting

When you do not eat at all (fasting), your body uses its stored nutrients, and weight loss will certainly result. However, fasting quickly reduces your blood sugar, which in turn robs your brain and muscles of their most important energy source. Fasting can cause your muscles to use muscle proteins for energy, even if fat is available. Eat at least *the minimum* calories your body requires each day so you can maintain your energy and strength while losing weight.

Yo-Yo Dieting

The greater the peaks and valleys in your body weight, the more difficult it is for your body to function correctly. Studies have shown that alternating between feast and famine may cause your body to use food more efficiently (hanging on more tightly to each calorie). Yo-Yo dieting just makes cutting weight more difficult.

Diet Pills

Using diuretics (water pills) and laxatives to lose weight will dehydrate your body and rob your body of important nutrients. Diet pills can cause many adverse physical as well as psychological effects. Avoid using any of these types of products to lose or maintain weight.

SUMMARY

Research has shown that practicing proper methods of weight control are essential to maximizing your athletic performance. Peak physical performance can only occur when the body is supplied with an adequate amount of essential nutrients. Using improper methods of weight control will decrease your level of performance. The Wrestler's Diet provides the necessary information to help you achieve the highest level of performance possible. The psychological advantages of maintaining good nutritional practices are great: you'll wrestle better if you feel good physically and mentally. You will also wrestle better knowing that you have done *everything* possible to be at your best.