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Email _____ Phone _____

Fueling Wrestlers

Wrestling is a high-intensity sport that demands strength, power, and stamina. A high strength-to-weight ratio is desirable, leading some wrestlers to try to drop weight to fit into a lower weight class than is natural for their body type. For men, there are 11 age divisions, and for women there are 9 age divisions. Both men and women compete in weight classes, and there are many weight classes for each gender. Matches consist of 2 periods that range from 90 seconds to 3 minutes with a 30-second rest between periods.

USA Wrestling is the national governing body for wrestling (www.teamusa.org/usa-wrestling).

Fueling Strategies

Wrestlers' energy (calorie) needs depend on age, gender, and the amount of time they spend training. Young wrestlers need to get enough calories and nutrients to support normal growth and development. Dehydration practices to make weight are prohibited under USA Wrestling rules. Wrestlers need to choose nutrient-rich foods while eating enough calories to maintain weight without gaining weight.

The nutrients that provide energy are carbohydrate, protein, and fat. The amounts of each nutrient you need to fuel your practice and competition are given below.

Carbohydrate

Carbohydrate provides important fuel for working muscles. Try to eat 2.3 to 3.2 grams of carbohydrate per pound of body weight per day (5 to 7 grams per kilogram). For example, a 150-pound wrestler would need 345 to 480 grams of carbohydrate a day. On less intense training days or when sidelined by injury, you only need 1.4 to 2.3 grams of carbohydrate per pound (3 to 5 grams per kilogram).

Choose high-quality carbohydrate foods such as whole grain breads and cereals, rice, pasta, starchy vegetables, whole or dried fruit, and low-fat milk and yogurt. Eat fewer refined carbohydrates and sweets such as pastries, cookies, cakes, candy, sugar-sweetened soft drinks, fruit drinks, tea, or specialty coffee drinks.

These foods have **15 grams** of **carbohydrate**:

- 1 slice bread
- 1 6-inch tortilla
- ½ cup corn
- ½ cup mashed potatoes
- ½ medium baked or sweet potato
- ⅓ cup rice
- 3 cups popcorn
- 1 small apple
- 15 grapes
- 2 tangerines
- 2 tablespoons raisins
- ½ cup orange juice
- 3 cups green beans
- 1¼ cups milk or yogurt

Protein

Protein provides the building blocks for muscle mass and for healthy growth and development. You need 0.6 to 0.8 grams of protein per pound of body weight (1.4 to 1.7 grams per kilogram). For example, a 150-pound wrestler would need 90 to 120 grams of protein a day. Eating more protein than the recommended amount will not build lean muscle mass faster. Timing protein intake around training will help support muscle development and aid recovery after practice or a match. (See “**What Should Wrestlers Eat Before and After a Workout?**”)

These foods have
7 grams of protein:

- 1 ounce cheese
- 1 ounce beef, pork, chicken, turkey, or fish
- ¼ cup cottage cheese
- ½ cup black beans or kidney beans
- 1 whole egg
- 1 tablespoon peanut butter
- 1 cup milk or plain yogurt

Choose lean protein foods such as lean beef and pork, chicken, turkey, fish, whole eggs or egg whites, and low-fat dairy foods. Nuts are a good source of protein and contain healthy fats. Eat fewer high-fat protein foods such as regular burgers, brisket, ribs, sausage, and full-fat cheeses and dairy foods.

Fats

There is no specific recommendation for fat for wrestlers, but healthy fats should be a part of every athlete’s diet. Healthy fats include olives and olive oil, nuts and nut butters, avocado, and vegetable oil (such as canola oil). Fat contains more calories than carbohydrate or protein, so decreasing fat intake while trying to lose weight can be a useful strategy.

What Should Wrestlers Eat Before and After a Workout?

Wrestlers must weigh in on the day before the beginning of a competition and should consume a meal with easily digested and familiar foods before the match. When possible, eat 2 to 3 hours before a long training session or match. Aim for a low-fat meal with about 200 grams of carbohydrate and 30 grams of lean protein. This will ensure you have enough fuel on board but will leave time for your stomach to empty before you start training or competition. A turkey sub sandwich with baked chips and a side of fruit or a grilled chicken wrap on a flour tortilla with pretzels and fruit juice or fat-free milk are examples of meals that will meet the energy demands of practice or competition. Many wrestlers find that reducing dietary fiber intake prior to a match helps reduce bloating or fullness.

If there is not enough time to eat 3 to 4 hours before practice or competition, eat a snack 1 to 2 hours before exercise. Good choices include a mini bagel with peanut butter, granola or cereal bars, carbohydrate gel or chews, cereal and milk with a small banana, or yogurt. If there is less than an hour before exercise, a sports drink or a low-fat liquid meal replacement is a good choice because liquids leave the stomach faster than solid foods.

For training sessions longer than 1 to 2 hours, keep your energy level high by eating 25 to 30 grams of carbohydrate every hour. Good choices for snacks include sports drinks, which provide carbohydrate, fluids, sodium, and potassium; energy gels or chews with water; a mini bagel; or an energy bar.

After practice, recover with a carbohydrate and protein-rich snack. Carbohydrate replaces muscle glycogen (carbohydrate stored in muscles) that was lost during a long training session, and protein stimulates muscle protein repair. Good choices include a turkey or grilled chicken sandwich, a slice of vegetable-cheese pizza, low-fat chocolate milk, cottage cheese and fruit, or cheese and crackers. If you are practicing or competing the next day, start your recovery within 30 minutes after training. If the following day will be a rest day, add recovery foods to your next meal.

Vitamins and Minerals

Wrestlers can get all the vitamins and minerals they need by making healthy food choices and eating a variety of foods. Have at least 5 servings of fruits and vegetables each day. Adding berries to breakfast cereal, dried fruit to trail mix, frozen fruit to plain or vanilla yogurt, side salads with meals, vegetables on sandwiches, and salsa on baked potatoes and snacking on fresh fruits and vegetables will help you get all the nutrients you need.

Female wrestlers should pay extra attention to choosing iron-rich and calcium-rich foods. These nutrients are needed in larger amounts, especially during teen years. Lean beef in a stir-fry, dark-meat chicken or turkey, kidney beans and black beans, and breakfast cereals fortified with iron are good choices. For calcium, choose low-fat milk (cow's milk or soy, rice, or almond milk), low-fat cheese, yogurt, almonds, leafy green vegetables, orange juice with added calcium, or smoothies made with milk or yogurt.

Hydration Strategies: What Should Wrestlers Drink?

Intentional dehydration is dangerous to your health. Wrestlers have died from extreme dehydration while attempting to lose weight prior to a weigh-in. USA Wrestling has instituted rules to help safeguard wrestlers, especially by holding weigh-ins the day before competition instead of the day of the competition. However, some wrestlers still practice extreme dieting and dehydration to make weight. USA Wrestling prohibits the following dehydration practices: hot rooms, saunas, steam rooms, rubber suits, diuretics, emetics, laxatives, and self-induced vomiting. Dehydration impairs your performance and can be deadly.

Water is best for most athletes. Drink about 2 cups (16 ounces) of water 2 to 3 hours before training or competition. Then drink 1 cup (8 ounces) of water 10 to 20 minutes before beginning to practice. If your training session is long, drink about ½ cup of fluid every 10 to 20 minutes during exercise.

Sports drinks, regular or “lighter” versions with half the calories but with the same amount of electrolytes, are good choices when you have long, hard training sessions and need extra carbohydrate for fuel. Stick to the tried-and-true sports drinks such as Gatorade or PowerAde, because they provide a good balance of carbohydrate, sodium, and potassium to replace losses. Follow the same drinking schedule as for water, but also listen to your body. Drink when you are thirsty and monitor how much you urinate and the color of your urine. If you are urinating frequently throughout the day and your urine is a light-straw color, you are probably drinking enough fluids.

Notes:

Frequently Asked Questions

What are the best foods to eat after a weigh-in and before competition?

Choose easy-to-digest foods that you know won't upset your stomach. Applesauce, canned fruit, bananas, yogurt, pasta with marinara sauce, grilled or baked meats (chicken breast, turkey, or pork tenderloin), eggs, rice, mashed potatoes, green beans, steamed carrots, and bread, rolls, or crackers will provide enough carbohydrate and protein to fuel you through the competition.

This is also a good time to make sure you are adequately hydrated. Drink water, 100% fruit juice, or sports drinks with meals so you are well hydrated for the match.

What is the best way to lose weight to get into a lower weight class?

Young wrestlers should talk to their coach and parents about what weight class is best for their age and body type. If it is safe to compete in a lower weight class, lose weight slowly in the off-season instead of cutting weight during the season. To maintain strength and power, you need enough calories, so restricting calories during the season is counterproductive to performance.

What are some good resources for nutrition and wrestling?

The best resource is a registered dietitian nutritionist, especially one who specializes in sports nutrition.

To find a qualified sports dietitian, connect to the website of Sports, Cardiovascular, and Wellness Nutrition (SCAN) (www.scandpg.org) and use the "Find a SCAN RD" search box. SCAN also has free sports nutrition fact sheets on a wide range of topics at www.scandpg.org/sports-nutrition/sports-nutrition-fact-sheets.

For online resources, check out the United States Olympic Committee's sports nutrition resources at www.teamusa.org/About-the-USOC/Athlete-Development/Sport-Performance/Nutrition. You will find many resources there, including videos, recipes, and eating guidelines for athletes.