Weight Loss Practices and Nutrition in Wrestlers

Jessica Buschmann MS, RD, LD  
Steven Cuff, MD, FAAP  
Nationwide Children’s Hospital Sports Medicine  
Columbus, OH

Wrestlers often cut weight to gain a competitive edge over their opponent in a given weight class. Unfortunately many athletes practice unhealthy methods in order to lose this weight, which can lead to decreased performance in school and sports as well as medical problems. When weight loss is monitored and done in a healthy manner, however, the young athlete can become stronger and maintain his/her health through the wrestling season.

True healthful weight loss should be done in the off-season and not saved until the start of the wrestling season because it is hard to make healthful dietary changes while also having the added burden to make weight each week. Weight loss involves a calorie deficit which can be challenging during the competitive season because athletes need adequate energy to optimize performance both on the mat and in the classroom. If you identify a wrestler that is interested in weight loss, encourage them to consult a registered dietitian to help with a supervised weight loss plan.

What could happen if weight is cut too quickly?  
Cutting weight too quickly, whether by restricting calories, fluid, or both, can have detrimental consequences. Calorie restriction can result in a loss of essential macronutrients, vitamins, and minerals necessary to maintain a healthful diet. Dehydration, along with low energy intake, will result in a loss of muscle strength, stamina, and overall endurance. Many wrestlers will also have great difficulty concentrating and experience low energy levels at school throughout the day and at practice. In addition, rapid weight loss may cause impairment of the thermoregulatory system, lead to glycogen depletion, hypoglycemia and muscle cramping, and pose an increased load on the cardiovascular system due to lower total body water and plasma volume.

Sports medicine experts strongly discourage a fluid loss of more than 2% of body weight during workouts. To make sure this does not occur, wrestlers should be weighed before and after practice. Each pound lost during practice should be replaced with 16-24 ounces of water.

Signs of dehydration include:
- Headache
- Dry mouth
- Dizziness or syncope
- Lightheadedness
- Fatigue
- Thirst
- Tachycardia
- Nausea
- Weakness
- Decreased urine output
- Dry skin and lips
- Muscle cramps
- Decreased concentration

In extreme cases, heat stroke, fever, absence of urine production and swelling of the brain resulting in seizures or shock may occur.

Healthy weight loss tips:
- Drink plenty of water.
- Eat a wide variety of nutrient dense foods including whole, fresh fruits and vegetables as well as whole grains. These foods will provide long lasting energy to help maintain energy levels and aid recovery.
- Weight should be lost slowly at a rate of 1-2 pounds per week to assure fat mass instead of muscle mass is being lost.
- Space meals and snacks evenly throughout the day to help maintain energy levels.
- Avoid “cheat days” when trying to manage weight throughout the season. Desserts and other “junk” food is okay in moderation, but avoid entire days dedicated to eating poorly.
- Get plenty of sleep! Aim for at least 8 hours each night.
- Focus on lean choices of meat and healthy fats.
- Take a multivitamin to improve immune health.
- Fuel immediately after practice and training to ensure proper muscle recovery. After exercise muscles are begging for protein and carbohydrate!
- Be sure to eat a healthy lunch.

Unhealthy weight loss strategies to avoid:
- Relying on water loss to lose weight.
- Self-induced vomiting can not only result in water and electrolyte loss, but could lead to extensive esophageal damage.
- Avoid use of laxatives or other weight loss products.
- Do not use saunas or trash bags to increase sweat rate. This method can cause the body to overheat quickly and lead to dehydration.
- Avoid low carbohydrate diets.
- Limit extreme calorie restriction or fasting.
- Do not use caffeine for energy or appetite suppression.

For added information regarding nutrition considerations for wrestling, visit www.ncaaa.org to download “Nutrition For The Wrestling Athlete”

Ohio High School Athletic Association (OHSAA) Guidelines regarding general weight loss practices in high school wrestlers:
- An OHSAA certified assessor will establish each wrestler’s minimum weight through a process involving the testing of hydration status, weighing the individual and determining body fat percentage through the use of skin-fold calipers.
- The wrestler's initial weight is known as the “Alpha” weight
- A wrestler may lose no more than 1.5% of his/her “Alpha” weight per week
- The minimum wrestling weight for the season will be based on 7% body fat for males and 12% for females

This information is available on the Ohio Chapter, American Academy of Pediatrics’ website at www.ohioaap.org
Weight Loss Practices and Nutrition in Wrestlers

Jessica Buschmann MS, RD, LD
Steven Cuff, MD, FAAP
Nationwide Children’s Hospital Sports Medicine
Columbus, OH

Wrestlers often cut weight to gain a competitive edge over their opponent in a given weight class. Unfortunately, many athletes practice unhealthy methods in order to lose this weight which can lead to decreased performance in school and sports as well as medical problems. When weight loss is monitored and done in a healthy manner, however, the young athlete can become stronger and maintain his/her health through the wrestling season.

True healthful weight loss should be done in the off-season and not saved until the start of the wrestling season because it is hard to make healthful dietary changes while also having the added burden to make weight each week. Weight loss involves a calorie deficit which can be challenging during the competitive season because athletes need adequate energy to optimize performance both on the mat and in the classroom. If your wrestler is interested in weight loss, encourage him/her to consult a registered dietitian to help with a supervised weight loss plan.

What could happen if I cut weight too quickly?
Cutting weight too quickly, whether by restricting calories, fluid, or both, can be very dangerous. Calorie restriction can result in a loss of essential macronutrients, vitamins, and minerals. Dehydration, along with low energy intake, can lead to loss of muscle strength, stamina, and overall endurance. Many wrestlers will also have great difficulty concentrating and experience low energy levels. You should never lose more than 2% of your body weight in fluid during a workout. To make sure this does not occur, weigh yourself before and after practice and for each pound lost, drink 16-24 ounces of water. Signs of dehydration include:

- Headache
- Dry mouth
- Dizziness
- Lightheadedness
- Tiredness
- Thirst
- Rapid heartbeat

In extreme cases, heat stroke, fever, no urine production, and swelling of the brain may occur.

Healthy weight loss tips:
- Drink plenty of water. If you’re dehydrated you won’t be able to wrestle or perform at your best.
- Eat a wide variety of nutrient dense foods including whole, fresh fruits and vegetables as well as whole grains. These foods will give you long lasting energy to help you maintain your energy levels and recover from training.
- Lose weight slowly at a rate of 1-2 pounds per week to make sure you are losing fat mass instead of muscle mass.
- Space your meals and snacks evenly throughout the day to help maintain your energy levels.

- Avoid “cheat days” when trying to manage weight throughout the season. Desserts and other “junk” food is okay in moderation, but avoid entire days dedicated to eating poorly.
- Get plenty of sleep! Aim for at least 8 hours each night. You can’t expect to perform well at practice if you’re running on no sleep!
- Focus on lean choices of meat and healthy fats. Options include:
  - Lean meats:
    - Chicken
    - Beef jerky
    - Fish
  - Turkey
  - Canadian bacon
  - Lean cuts of beef
  - Pork
  - Ham
  - Healthy fat choices:
    - Avocado
    - Nut butters
    - Nuts
    - Oils
  - Take a multivitamin to improve immune health.
  - Fuel immediately after practice and training to ensure proper muscle recovery.
  - Wrestlers frequently forget to pack a lunch or skip lunch all together. Some quick ideas to pack for lunch each day may be found at OhioAAP.org/news/sports-shorts.

Unhealthy weight loss strategies to avoid

- Relying on loss of water to lose weight. If you are going to lose weight through sweating, only limit this to the day of weigh in’s. If you keep your weight within 2-3 pounds fully hydrated, sweating this off before weigh in’s will not be as detrimental compared to restricting fluid all week
- Self-induced vomiting could not only result in water and electrolyte loss, but could lead to extensive damage to your esophagus.
- Avoid use of laxatives or other weight loss products. These products are not to be used unless directed by a physician and could cause many long term health consequences if used incorrectly.
- Do not use saunas or trash bags to increase sweat rate. This method will cause you to overheat quickly and potentially dehydrate you.
- Avoid low carbohydrate diets. As an athlete, you need carbohydrates for energy to help fuel your workouts. Limiting them to control your weight will cause low energy and mental fatigue.
- Limit extreme calorie restriction or fasting. Even if you are trying to lose weight, your body still needs energy throughout the day. You need the proper fuel to optimize you workouts at practice. This is the key to becoming a better wrestler and ultimately staying healthy throughout the season!
- Do not use caffeine for energy or appetite. Caffeine is a stimulant which only increases your mental alertness short term. As a student athlete, you need energy that is provided long term for overall health and sports performance alike!

For added information regarding nutrition considerations for wrestling, visit www.ncaa.org to download “Nutrition For The Wrestling Athlete”

This information is available on the Ohio Chapter, American Academy of Pediatrics’ website at www.ohioaap.org