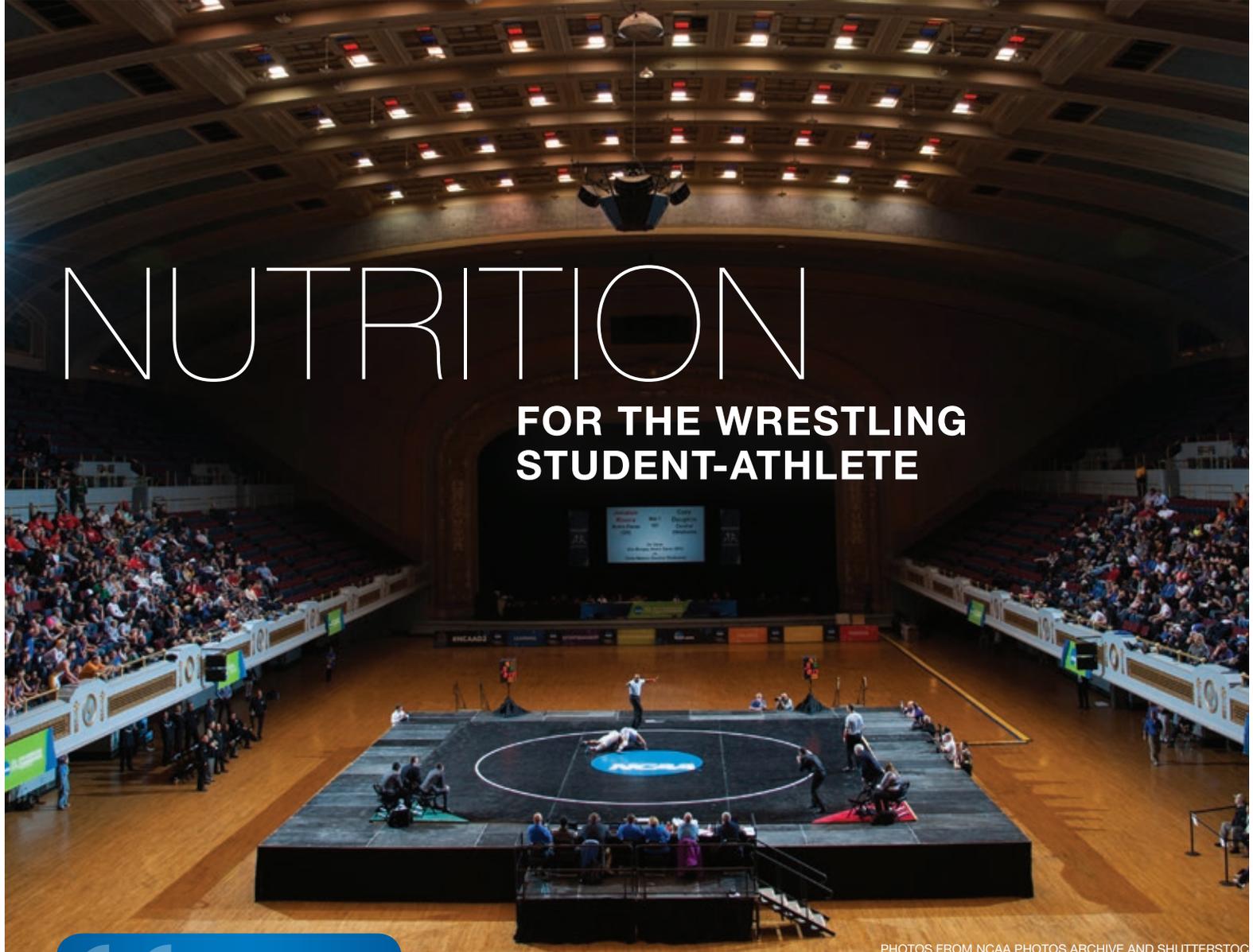


NUTRITION

FOR THE WRESTLING STUDENT-ATHLETE



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I'm a college wrestler and train hard all year, but I don't want to struggle with my weight. How can I manage my weight throughout the year and give my body time to settle into my target weight class before the season starts?

Wrestlers must use their strength to overpower, quickness to elude, endurance to outlast and mental sharpness to outwit their opponents. Wrestling matches require a unique blend of power, endurance and technique. Although they are scheduled to last seven minutes, matches can end at any moment with a fall or can extend to 11 minutes or more with overtime. Competition fueling is critical, but often it's just the tip of the performance iceberg, because weight maintenance and weight cutting can just as easily undermine performance as support it.

Information presented by



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OFFSEASON

The offseason is a time to develop healthy fueling habits without the burden of having to focus on making weight. Use this time to focus on performance fueling and develop some fueling fundamentals that will also help you fuel throughout the preseason and in-season cycles. Your fueling fundamentals should include:

1. Purpose

Focus your fueling to support your training objectives.

These can include weight management, strength gains, endurance, recovery from injury, and improved focus and energy off the mats.

2. Quality

Fill your plate with nutrient-dense foods such as fresh and whole fruits and vegetables, and whole grains. These high-quality foods will give you more sustained energy, help you recover from training and provide more fullness per fueling.

3. Quantity

Optimal training requires adequate energy (calories) to support your energy expenditure. Any weight-loss adjustments should be moderate and temporary, and made outside the competitive season.

4. Timing

Balance your daily fuel intake evenly across the day while specifically targeting pre- and post-workout periods to support training and recovery.

5. Consistency

Balance intake both within a day and between days to support your metabolism.

6. Hydration

Blood delivers essential nutrients to your muscles and organs while disposing of waste. Hydration becomes even more critical during the competitive season because of its impact on making weight.

PRESEASON

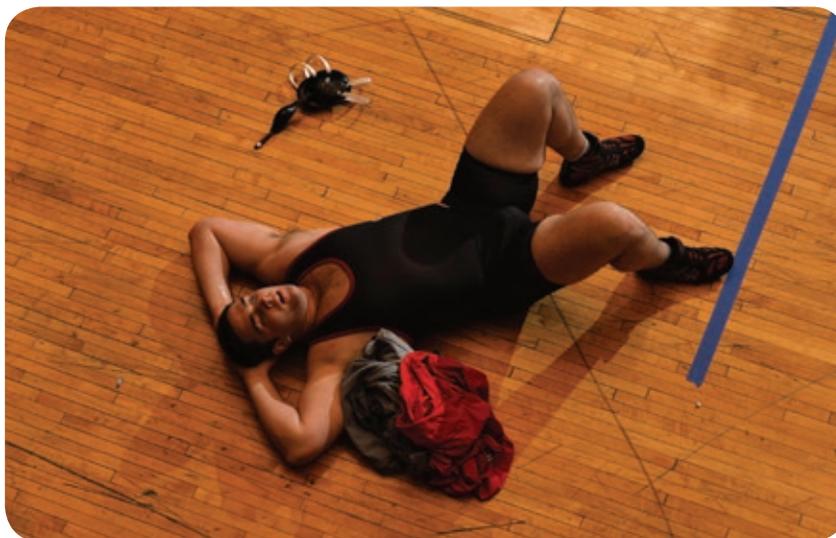
Your top nutritional priority during preseason should be to train your body progressively to a target weight that optimizes your training and allows you to safely make weight throughout the season.

Selecting Your Target Weight

Temporary weight loss of up to 5% and lasting not longer than a day has been demonstrated to have little effect on

metabolic rate, lean body mass or strength.

Through normal training, if you are fueled and hydrated, your body will naturally have shifts of up to 2 to 3% or more of your body weight in a single workout, so when you complete two workouts consecutively you can lose a total of approximately 5% of mostly fluid. Thus, for most collegiate wrestlers, a target weight approximately 5% above your weight class will enable you to



maintain your size and strength, while simply and safely making weight after a pair of workouts.

If your body weight when entering preseason is greater than your target weight, your preseason goal should be to decrease body weight by maintaining muscle and reducing body fat. Your body can only lose 1.5% of its weight from body fat stores per week, so you must limit your caloric deficit; if you don't, your muscles will break down and result in decreased muscle strength and performance.

Each pound of weight loss per week requires a caloric deficit of 500 calories per day. Protein is the most critical fuel to sup-



port maintenance of your lean tissue while maintaining a calorie deficit.

Note: The minimum safe body fat level of 5% for college and 7% for high school wrestlers should not be exceeded; if you are below this level, you should consult your athletic trainer or sports dietitian to determine the most appropriate competitive weight class for you.

Fuel Contributions for Weight Loss

- Protein (High). Consume 1.5 to two grams of lean protein per kilogram of body weight evenly throughout the day to support muscle maintenance.
- Carbohydrates (Moderate). Temporarily moderate your carbohydrate consumption to four to six grams per kilogram of body weight to enable the calorie deficit necessary to burn body fat.
- Fat (Low). Limit fat consumption to 15 to 25% of overall calories. Still include some plant and fish fats but limit animal fats.
- Fruits and Vegetables. Include these at every meal to obtain micronutrients for recovery and for fiber for increased satiety and fullness at meals.

COMPETITION PHASE/ CHAMPIONSHIP/ POSTSEASON

The competitive season begins once weight certifications are completed. Upon reaching your target weight, weight maintenance should become your nutrition focus. This requires balancing calories and shifting fuel types to support your training and recovery needs.

Fuel Contributions for Weight Maintenance

- Carbohydrates (Moderate to High). Consume five to eight grams of carbs per kilogram of body weight.
- Protein (Moderate to High). Eat 1.2 to two grams of protein per kilogram of body weight.
- Fat (Moderate). Include heart-healthy fats from plant and fish sources to reduce inflammation and support recovery.

Caloric balance is critical to in-season health and performance, so beware of under-fueling. Continual under-fueling of your body's energy and carbohydrate needs will undermine your training and



recovery efforts.

Continued caloric deficit while training can impact:

- Metabolism and muscle repair
- Physical energy
- Muscle endurance
- Fatigue
- Cognitive function
- Injury and illness
- Overtraining syndrome and burnout
- Academic performance
- Nutritional status, including bone and joint health

Making Weight

Continuing to fuel your body's energy demands is the core to safely and effectively making weight. Any shifting of food and fluids should be limited and

temporary; after refueling post-weigh-in, you should weigh the same when you step on the mat or competition as you do when you train, i.e., your target weight. Fueling your body as you train all week leading up to a competition will enable your body to continue working effectively, while still excreting food and fluid even as you are actively cutting weight; this is what allows you to remain as much as 5% above your weight class until a day before weigh-ins.

Your energy balance (also known as "calories in versus calories out") should be neutral during in-season training, including during the 24 hours before weigh-ins. Maintaining calorie neutrality supports your metabolism to repair muscles and maintain or improve body composition throughout the season. This requires adjusting your

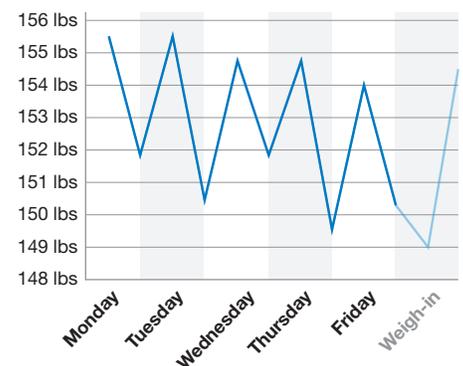
fuel types; your food choices should now be energy-dense to give your body the fuel you need while helping to flush unnecessary food waste from your body.

Fuel Contributions Pre-Weigh-Ins (24 to 48 hours)

- **Protein (High).** Protein promotes muscle recovery.
- **Fat (High).** Oils, fish and plant fats are best for filling calorie needs and reducing inflammation.
- **Fiber (Low).** Fiber contains weight, but no energy.
- **Sodium (Low).** Minimize sodium found in added salt and processed foods.
- **Carbohydrate (Low).** Moderating your carbohydrate intake helps shed the water bound in glycogen that makes muscles heavy, allowing lean tissue to be spared. Effective refueling post-weigh-ins will help replenish your partially depleted glycogen stores.
- **Hydration.** Hydrate throughout the entire week of training. Only during the final 24 hours of pre-weigh-ins should you allow mild dehydration by incompletely replacing fluid lost through sweat during training. This can be done by adjusting food and fluid composition without drastically cutting calories. Using your target weight, you can ensure that excessive dehydration will be avoided.

Making Weight: Use the Natural Patterns of Training

EXAMPLE OF WEIGHT FLUCTUATION



The weight shifts during training week are a result of fluctuations in hydration (fluid levels), glycogen and food byproducts remaining in the body. As a result of these fluctuations, you can allow your body to be slightly heavier than your weight class as long as you are adequately hydrated and fueled. By riding the waves of normal training, you can fuel yourself effectively in-season without starving your muscles or excessively dehydrating. Identifying and attaining your target weight during preseason will enable your body to receive the energy and nutrients it needs in-season to train and recover effectively.

THE DO'S AND DON'TS OF WEIGHT MANAGEMENT AND CUTTING

Don't ...

- Eliminate meals or snacks in an attempt to cut calories.
- Wait until the season arrives to begin your weight management plan.
- Save calories for the end of the day.
- Allow "cheat days" to destroy your weight management.
- Remain in a calorie deficit or carbohydrate-restricted state throughout the season.
- Allow weight cutting or dieting to interfere with your training.
- Allow your body to dehydrate more than 24 hours before weigh-ins.

Do ...

- Develop a weight management and descent plan early.
- Determine a target weight that is appropriate for you.
- Monitor your weight before and after practice to establish your practice weight fluctuation. This will help you to develop your "target weight."
- Maintain a regular and balanced eating pattern all season long, especially after a tournament or match.
- Focus on recovery fueling immediately after training, especially if in-season.
- Develop and practice a refueling and rehydration plan for after weigh-ins.
- Take a multivitamin to fill any possible nutritional gaps.



Fueling for a Match or Tournament

Fueling effectively for your match or tournament can directly impact your performance by helping you to both refuel after weigh-ins and prepare for the upcoming competition.

Keys to Pre-Match Fueling

- Fluid and Electrolytes. Fluids lost while making weight should be replaced immediately after weigh-ins. Sodium is of primary importance in rehydrating muscles to regain power and endurance. It is found in a variety of forms in both food and beverages.
- Sugar. Supply your muscles with a moderate amount of sugar (one to 1.2 grams per kilogram of body weight) to stimulate muscle glycogen re-synthesis. Too much sugar may result in gastric distress and low energy later in the day.
- Carbohydrates (High). Starches provide more sustainable energy

to fuel your upcoming match while continuing toward glycogen repletion.

- Protein (Moderate). Consuming 20 to 25 grams of protein can help muscles repair while aiding in fluid absorption and tolerance in the stomach.

Keys to Tournament Fueling

- Carbohydrates. Carbs provide the physical energy for matches. Grab convenient options such as crackers, pretzels, granola bars, bread, cereal or an energy bar.
- Avoid excesses. Avoid excessive fat, excessive or added fiber and excessive sugar.
- Fluids and sodium. Replace fluids and sodium consistently throughout the day.

Use a scientific and systematic plan to dramatically decrease the amount of effort and anxiety required to make weight. Be

appropriate, proactive and professional in your approach to managing your weight and it will allow you to focus on the fun part of the sport — wrestling!

