

Weight Management Practices and Their Health Implications Among Elite Wrestlers

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Abstract

Due to the weight-class structure of the sport, weight management is an essential part of competitive wrestling. In order to compete in lower weight classes, elite wrestlers may resort to extreme weight loss techniques such as sauna use, dehydration, intense activity, and caloric restriction. These practices may help athletes gain an edge in the short term, but they are very harmful to their mental and physical well-being in the long run. typical approaches to weight loss used by professional wrestlers and assesses the risks to their health. This analysis draws on previous research as well as athlete reports to show how fast weight cycling affects hydration, metabolism, hormone balance, immune response, and injury risk. Also covered are the mental health effects, including elevated stress levels, changes in mood, eating disorders, and diminished brain function. Improper methods of weight loss have the potential to harm health in the long run and impair sports performance in the short term. In order to ensure the well-being of athletes without jeopardizing their competitive integrity, sports governing bodies should implement weight management procedures supported by science, provide nutritional education, and engage in regulatory actions.

Keywords:

Elite wrestling, weight cutting, rapid weight loss, dehydration methods, weight cycling

Introduction

Wrestling is a physically difficult combat sport characterized by rigorous weight-class divisions meant to assure fair competition among athletes of equivalent body mass. Consequently, wrestling culture, especially among the top levels, revolves around weight management. Wrestlers often purposefully cut calories before matches so they look bigger and stronger than their opponents. While progressive and properly directed weight management can assist performance, the prevalent practice of fast weight loss remains a significant concern within the sport. To reach their short-term weight goals, elite wrestlers often resort to extreme measures such as calorie restriction, sauna use, intense training sessions, and dehydration. These tactics, generally referred to as weight cutting, are frequently conducted in the days or even hours coming up to competition. While these methods might help athletes compete in lighter

weight classes, studies show that losing a lot of weight quickly hinders recovery, energy availability, and physiological performance. Weight cycling, in which a person has quick weight reduction followed by a rapid weight gain, makes these risks much worse. Aggressive weight management has health consequences that go beyond the obvious physical manifestations. Muscle weakness, decreased endurance, poor thermoregulation, and heightened injury sensitivity have all been associated with acute dehydration and energy deficit. In the long run, chronic weight cycling may impair metabolic and hormonal control, damage immunological function, and contribute to cardiovascular and gastrointestinal issues. Psychological repercussions, including heightened stress, anxiety, mood problems, and the development of disordered eating practices, are also being recorded among elite wrestlers. Traditional coaching standards, competitive pressure, and a lack of access to sports nutrition education frequently perpetuate harmful weight control methods, even though the concerns are becoming more widely recognized. discordance between suggestions supported by evidence and actual implementation. If we want to create safer, more long-term solutions, we need to know how often, how wrestlers regulate their weight, and what effects these tactics have. repercussions for mental health. By combining current research and practical observations, the establishment of informed recommendations and regulatory actions that emphasize athlete health while maintaining the competitive integrity of the sport.

Common Weight Management Practices Among Elite Wrestlers

The pressure to achieve weight class standards within tight time constraints is a major motivator for weight management among professional wrestlers. Because of this, a lot of athletes put short-term gains in weight loss ahead of their health in the long run. Rapid weight loss, fluid manipulation, and dietary restriction are the three most prevalent approaches. Training-based weight reduction is the third most popular.

Rapid Weight Loss Techniques

Extreme weight reduction, especially in the days preceding a tournament, is common practice among professional wrestlers. In the span of a week or less, many athletes want to shed a significant amount of weight, anywhere from three to ten percent. A few common methods include cutting back on fluid consumption, using a sauna or immersing yourself in hot water on purpose to dehydrate, and training in impermeable or layered clothing. There may be short-term weight loss from these treatments, but it will be mostly water weight and not fat. These activities put a lot of pressure on the heart, make it harder for the body to regulate its

temperature, and raise the chances of heat-related diseases, exhaustion, and sudden drops in performance.

Dietary Restriction and Fluid Manipulation

Another common strategy is cutting calories drastically in the days or weeks leading up to a competition. Some wrestlers use low-calorie diets, meal skipping, or the elimination of whole food groups to lose weight quickly. Because it causes rapid glycogen depletion and water loss, carbohydrate restriction is very prevalent. To attain short-term weight goals, it is common to combine dietary restriction with fluid manipulation, such as purposefully dehydrating oneself and drinking less water. Energy deficit, electrolyte imbalance, decreased concentration, and diminished muscular performance are potential side effects of these approaches, even if they may help you achieve weigh-in requirements. Nutritional deficits and eating disorders may develop as a result of long-term dependence on such activities.

Training-Based Weight Reduction Methods

To lose weight through training, one must increase the volume or intensity of their workouts in order to boost their energy expenditure. When losing weight, elite wrestlers often practice for long periods of time, do a lot of cardio, or work out many times a day. Overtraining, insufficient recuperation, and increased injury risk can result from poorly managed training that is only focused on weight loss, even if structured training is crucial for performance growth. In addition to increasing physical stress, these tactics, when coupled with calorie and fluid restriction, may have a negative impact on strength, endurance, and general competitive preparedness.

The extreme pressure that professional wrestlers endure to maintain a certain weight is reflected in these weight management strategies. There has to be a shift toward safer, more evidence-based approaches to weight management in sports, even though these methods may provide temporary benefits to athletes' performance.

Physiological Effects of Rapid Weight Loss

When accomplished by means of severe calorie restriction and dehydration, the rapid loss of weight that is typical among professional wrestlers raises serious concerns. An athlete's health and performance may suffer if they use these strategies, even when they help them achieve weight class criteria. The capacity for physical performance, regulation of metabolism and hormones, and hydration status are the areas where the impacts are most noticeable.

Dehydration and Electrolyte Imbalance

One of the most noticeable physiological effects of losing weight quickly in wrestling is dehydration. You lose a lot of water and important electrolytes like salt, potassium, and chloride when you do things like restrict your fluid intake, use saunas, or sweat excessively. During physical effort, even slight dehydration can lower plasma volume, hinder thermoregulation, and raise cardiovascular strain. Muscle cramps, lightheadedness, impaired coordination, and, in extreme circumstances, heat-related sickness, can all be brought on by an electrolyte imbalance, which further interferes with neuromuscular function. Both the athlete's safety and their capacity to train and compete at their best are compromised by these side effects.

Metabolic and Hormonal Disturbances

Calorie restriction and dehydration, two methods for rapid weight loss, might throw metabolic processes for a loop. Insufficient energy causes glycogen levels to decrease, which in turn reduces the availability of fuel needed for the high-intensity exertion that are typical of wrestling. Over time, metabolic efficiency may be reduced and basal metabolic rate altered by rapid weight loss and regain cycles. Common hormonal abnormalities include elevated cortisol levels and decreased insulin-like growth factor and testosterone levels. Muscle catabolism, slower recovery, compromised immunological function, and increased weariness and disease susceptibility are all outcomes of these alterations. Period function and bone health can also be impacted by rapid weight loss in female wrestlers.

Impact on Strength, Endurance, and Recovery

A person's physical performance is negatively affected by the trifecta of dehydration, energy deficit, and hormonal imbalance. Weaving effectively requires a high level of anaerobic capacity, power output, and muscular strength; all three are negatively impacted by rapid weight loss. Depletion of energy stores and decreased oxygen supply to active muscles also limit endurance. Inadequate water and nutrition also hinder recovery after exercise by extending inflammation, decreasing muscle regeneration, and raising tiredness. So, wrestlers who aggressively decrease their weight may be physiologically unprepared for competition, which increases the risk of injury and subpar performance.

Quick weight reduction has physiological consequences that highlight the dangers of improper weight control techniques in wrestling. These results highlight the need of safe, progressive weight loss programs for athletes' well-being and performance on the field.

Conclusion

The weight-class structure of the sport and the tremendous competition requirements make weight management a crucial but challenging part of elite wrestling. Unfortunately, there are still a lot of people who put their physical and mental health at danger by trying to lose weight quickly by methods like dehydration, extreme dietary restriction, and overtraining. Although these methods might help you achieve the weigh-in standards in the short term, the research shows that they hurt your body in the long run by throwing off your hormone and metabolic balance and reducing your athletic performance. Rapid weight loss raises the risk of injury, weakens muscles and stamina, slows recovery, and disrupts electrolyte balance. Chronic weight cycling exacerbates these problems and may lead to metabolic dysfunction, impaired immunity, and eating disorders in the future. Athletes' health and long-term performance are both jeopardized by these results. To overcome these obstacles, we need to stop using unsafe, old-fashioned methods of weight loss and start using methods that are evidence-based and focused on the athletes themselves. Gradual weight management, personalized dietary plans, techniques for staying hydrated, and ongoing education for coaches and players should take center stage. Furthermore, more stringent regulatory measures and oversight by sports governing bodies can be helpful in preventing risky behaviors and fostering equitable competition. Ensuring the well-being of top-tier wrestlers is crucial to maintaining the credibility of the sport. Consistent performance, long-term physical growth, and the overall sustainability of competitive wrestling can all be supported by implementing safer weight management measures, which will also lower health hazards.

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