

SIDE EFFECTS OF RAPID WEIGHT LOSS IN ATHLETES

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A B S T R A C T	K E Y W O R D S
<p>This article provides detailed information on the effects of rapid weight loss methods on the physical and psychological health of athletes. The negative effects of calorie restriction, dehydration, and pharmacological methods on the body are highlighted based on scientific evidence. Despite the positive short-term results, such approaches can reduce athletic performance and pose serious health risks in the long term.</p>	<p>Rapid weight loss, athletes, dehydration, muscle mass loss, healthy eating, sports injuries.</p>

Introduction

Rapid weight loss is a common practice, especially in weight-based sports, and poses many risks to athletes on their way to achieving their goals. In sports such as boxing, wrestling, weightlifting, track and field, as well as other physical activities, rapid weight loss methods are often implemented by athletes through intensive exercise, calorie restriction, fluid restriction, and sometimes medication.

While such rapid weight loss methods may help athletes reach their weight class in the short term, they can have many negative consequences. For this reason, this topic is relevant in sports medicine, physiology, and psychology. In recent years, there has been an increasing number of studies on the negative health effects of rapid weight loss among athletes and the resulting decline in sports performance.

In addition, athletes and their coaches often focus on achieving success in their sports, ignoring the health risks of rapid weight loss. At the same time, scientific research, health institutions, and sports medicine experts are trying to shed more light on the negative consequences of this practice and promote safe weight management. Therefore, it is urgent and important to study the negative effects of rapid weight loss, protect the health of athletes, and provide them with safe approaches.

Materials and Methods:

The following were used as a basis in the preparation of the article:

1. World-class scientific research.
2. Reputable journals and reports on sports medicine.
3. Experiences and statistical data of professional athletes.
4. Clinical observations conducted in the field of sports psychology and nutrition.

Main part. The following methods are widely used for rapid weight loss in athletes:

1. Calorie restriction and starvation:

Athletes put the body in a difficult position by drastically reducing daily calories. This causes negative effects such as muscle loss and energy deficiency.

2. Dehydration:

Short-term weight loss through dehydration. Often, such methods are based on the loss of subcutaneous fluids. As a result of using a sauna or stopping fluid intake, the body's electrolyte balance is disrupted.

3. Pharmacological agents:

The use of drugs or biologically active supplements intended for weight loss harms the cardiovascular system, liver, and kidneys.

Side effects

The process of rapid weight loss in athletes causes many negative consequences:

1. Physiological effects:

Electrolyte imbalance, resulting in dizziness, fainting.

Decreased muscle mass, which leads to a decrease in sports performance.

Increased heart rate and increased load on the cardiovascular system.

2. Psychological effects:

Eating disorders, such as anorexia and bulimia.

Increased depression and anxiety.

Loss of interest in sports and decreased motivation.

3. Effects on sports performance:

Decreased physical endurance.

Slowed reaction time.

Increased risk of injury.

Scientific research and statistics. In recent years, scientific research on the negative physical and psychological effects of rapid weight loss has provided many changes and new information. Some of the most important scientific studies conducted in this regard include the following:

1. Dehydration and electrolyte imbalance: Several studies have examined the effects of dehydration (water loss), which is the main method of rapid weight loss in athletes. For example, a study by Oppliger et al. (1999) noted that short-term weight loss by reducing fluid intake leads to electrolyte imbalance in the body, which negatively affects physical and mental performance. According to the results of the study, this condition has led to dizziness, fainting, and cardiovascular disorders in many athletes.

2. Muscle mass and energy supply: Another negative effect of rapid weight loss is related to the loss of muscle mass in a study by Burke and Hawley (2018). According to the results of the study, calorie restriction and strict diets lead to energy deficits in athletes, a decrease in muscle strength. It also makes athletes more prone to injury and a decrease in muscle mass and endurance.

3. Psychological effects and motivation: Studies by Sundgot-Borgen and Torstveit (2004) have reported on the psychological effects of rapid weight loss, in particular, eating disorders and a decrease in motivation. These studies found that athletes' nutritional system and psychological state undergo negative changes during the process of rapid weight loss, which affects their overall performance.

4. Increased injury rates in athletes: A study by Fogelholm (1994) found that rapid weightlifting increased the risk of injury in athletes. Other studies have also linked it to decreased physical activity, decreased overall endurance, and an increased risk of sports injuries.

5. Rapid weightlifting and athletic performance: Studies by Fogelholm and Burke have shown that rapid weightlifting techniques have a negative impact on athletes' physical performance, particularly endurance, speed, and strength. These studies have shown that rapid weightlifting often results in athletes not achieving optimal results because the body's energy levels are low.

Thus, scientific studies have clearly described the adverse effects of rapid weight loss in athletes and have highlighted the need to develop safe approaches before using these methods. It is important to follow scientific approaches and expert advice when using such methods to protect health and protect athletes from harmful effects.

Conclusions and Recommendations

Rapid weight loss may produce positive results in the short term, but it poses risks to long-term health. For this reason, we make the following recommendations:

Individual approach: It is necessary to develop a safe weight management program, taking into account the physiological condition of each athlete.

Expert supervision: Training and nutrition plans should be supervised by experts.

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