

UFC Concludes Physiology Study Revealing Topical Gel Sweet Sweat Impacts Acute Weight Cut In Elite MMA Athletes

Innovative Study Reveals Sweet Sweat Significantly Enhances Sweat Response in World-Class MMA Fighters During Exercise and Fight Preparation

San Pedro, CA (February 21, 2024) - A groundbreaking study conducted at the UFC Performance Institute in Las Vegas sheds light on the physiological responses to the application of [Sweet Sweat](#)® topical gel during exercise and heat exposure in world-class combat sports athletes. Focused on evaluating the effectiveness of Sweet Sweat in inducing profuse sweating and promoting acute weight cut among professional MMA athletes, the research provided valuable insights into the effectiveness of Sweet Sweat in two key scenarios.

During a series of 40-minute submaximal exercise sessions, athletes using Sweet Sweat experienced a notable increase in sweat loss (-1.3%) compared to those without Sweet Sweat (-1.1%). This difference, translating to a mean loss of 210g of body weight, holds meaningful implications within weight classes for MMA athletes. Fighters, who often undergo weight-cut activities, can benefit from Sweet Sweat as an effective tool for promoting acute sweat loss and subsequent reductions in body mass. Notably, the study found no observed negative impact on other physiological parameters.

The study included a group of male and female professional MMA athletes who have a history of undertaking weight-cutting activities in preparation for competition, including the popular and current UFC bantamweight champion Sean O'Malley. The participants completed a series of independent visits to the UFC Performance Institute to participate in the study. The interventions included submaximal exercise and passive heat exposure in a dry sauna, both with and without the application of Sweet Sweat.

The study employed a thorough methodology where participants maintained 24-hour food diaries and received standardized pre-trial meals. Training logs, body mass, and resting measurements of Heart Rate Variability (HRV), saliva osmolality, and temperature were recorded. The exercise interventions included 40 minutes of cycling with constant power output and thermal stress that involved two 20-minute intervals in a dry sauna. Sweet Sweat application used 0.5g per kg of body weight on visible skin areas. Post-intervention assessments occurred within three minutes of Sweet Sweat removal.

Results following 40 minutes of submaximal exercise revealed that the application of Sweet Sweat induced significantly greater sweat loss compared to the control group. This increase was associated with elevated thermogenic responses, higher skin and core temperature changes—none of which had detrimental effects on cardiac and autonomic nervous system function or saliva osmolality. On average, Sweet Sweat application led to 210g more sweat loss, a 2% greater skin temperature, and a 0.7% greater core temperature. These findings align with Sports Research's own studies, demonstrating that Sweet Sweat effectively increases sweating and body temperature during exercise. The UFC study measured higher

skin and core temperatures with Sweet Sweat, supporting its physiological significance. Core body temperature in the Sweet Sweat group was 0.68% higher, representing a 'large' effect size. This indicates a notable impact of Sweet Sweat on elevating body temperature during exercise and suggests that the use of Sweet Sweat has a substantial and meaningful influence on how bodies respond to physical activity.

Moreover, additional physiological measures, including saliva osmolality and HRV, showed no significant differences between groups. While both groups exhibited increased saliva osmolality and decreased HRV, indicating physiological changes during exercise, the differences were not statistically significant, suggesting that Sweet Sweat did not negatively impact these parameters.

"This study validates 44 years of Sports Research analysis, affirming Sweet Sweat's consistent benefits for both elite and everyday athletes," said CEO and Chairman of Sports Research, Jeff Pedersen. "Our global observational studies consistently demonstrate that Sweet Sweat accelerates, elevates, and lengthens the sweating process, enhancing motivation and workout efficiency. The product's science, often intuitively known, is crucial for fitness enthusiasts due to its ability to promote circulation and help prevent injuries during workouts."

Combat sport athletes, particularly those in MMA, frequently employ diverse strategies to manage their weight, utilizing chronic and acute approaches to compete in weight divisions below their regular body weight. Chronic strategies typically involve targeted reductions in body fat and muscle mass. In contrast, acute methods often include practices such as dehydration tactics. While these weight-reduction practices are widespread, the associated risks and negative effects on athletic performance are well-documented. However, the present study found no difference in physiological disruption when compared to the control group during a 40-minute exercise intervention.

"When it comes to weight cutting, the objective is to extract water from the body, elevating the temperature through continuous sweating, hard work, and training. Sweet Sweat is the secret weapon for fighters during this critical phase, the go-to tool when shedding water weight becomes crucial," said UFC lightweight, Jalin Turner. "During a challenging weight cut of 9 days and over 20 pounds, my every session involved applying Sweet Sweat to give me the extra edge I knew I would need. With determination, we overcame adversity, and I successfully made weight. Sweet Sweat has always been my tried, true, and trusted companion, whether it's a regular workout or a weight cut."

In 2021, UFC and Sweet Sweat announced a long-term partnership that included making Sweet Sweat products available to UFC athletes through the UFC Performance Institute in Las Vegas. This collaboration was driven by the recognition of Sweet Sweat as a crucial component in the acute weight-cutting process of UFC athletes. The inception of the study can be traced back to the initial negotiations of this partnership when Sports Research performed its unique live product demonstration, showcasing the effects of Sweet Sweat by jumping rope in front of a thermal camera. This intrigued the UFC Performance Institute team and sparked a scientific curiosity around what UFC athletes have often alluded to as "the phenomenon" experienced while using Sweet Sweat, being an accelerated and

elevated sweating and circulatory response. The pivotal pre-study demonstration not only earned credibility but also launched a comprehensive study, reinforcing Sweet Sweat's universal efficacy. UFC announced they would conduct this study as an extension of the partnership using their elite athletes with research led by Dr. Duncan French, Senior Vice President, UFC Performance Institute. The extensive research program set out to discover the overall benefits of Sweet Sweat products during athletes' training, fight camps, and preparation stages. Dedication to Sweet Sweat products within the UFC community is evident through individuals like Forrest Griffin, UFC VP of Athlete Development, who customizes each athlete's cut with Sweet Sweat to enhance performance and prolong careers. UFC Hall of Famer Daniel Cormier also mentioned recently on *The Joe Rogan Experience* that he used Sweet Sweat during weight cutting when he was an active fighter. Other well-known UFC athletes who have used Sweet Sweat include former strawweight champion Jessica Andrade, former two-time flyweight champion Brandon Moreno, and contenders such as Brian Ortega, Raul Rosas Jr., Tatiana Suarez, and Natan Levy. Despite the popularity of Sweet Sweat among sporting and fitness communities, its scientific effectiveness has not been extensively investigated until now.

These findings advance the scientific understanding of Sweet Sweat and highlight its potential benefits for athletes involved in combat sports and weight-cutting activities. The demonstrated efficacy in promoting acute sweat loss without adverse effects on key physiological parameters positions Sweet Sweat as a valuable tool in the arsenal of professional athletes. Looking ahead, Sweet Sweat and UFC are committed to furthering their research, broadening the scope to explore the product's effects on diverse athlete populations. Factors such as different sports and training backgrounds will be considered, contributing to a more nuanced understanding of Sweet Sweat's potential benefits and limitations. This ongoing research signifies a continued commitment to excellence in sports science and athlete well-being.

"The health and wellbeing of our athletes is a priority for the UFC Performance Institute," said Dr. French, "weight making' is a fundamental part of MMA, and athletes adopt a host of different methods and tactics that impact human physiology in varying degrees. In order to support our athletes to the best of our abilities, and to mitigate risk wherever possible, we place a great amount of importance on validating methodologies to ensure they are efficacious and worthwhile. In our study to understand the benefits of Sweet Sweat to athletes undergoing short-term acute dehydration strategies when making weight, we were excited to understand that Sweet Sweat promoted faster sweat loss, thus shortening the time athletes need to spend dehydrating themselves. More importantly, we found these responses occurred without adversely elevated physiological responses beyond those experienced without the addition of Sweet Sweat."

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