



Gatorade's First "Body of Science" Study Reveals Disparities in Women's Hydration & Nutrition Patterns

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The Science of Her Sweat: Gatorade Sports Science Institute's (GSSI) new research shows women need more tailored hydration and nutrition guidance

Key Takeaways:

- Only about 6% of sports science research focuses exclusively on women¹, leaving a critical gap in hydration and nutrition guidance for female athletes.
- "Body of Science's" first study² measures hydration and fueling patterns in more than 500 women across basketball, soccer, and ice hockey, among other activities. Current research expands into life stages, including premenopause, perimenopause, and menopause. Study findings include:
 - Nearly half (43%) of participants showed up to workouts already dehydrated.
 - Over half (57%) didn't consume adequate carbohydrates during exercise, with exactly half consuming zero.
 - Participants replaced only 20% of their sodium electrolyte losses during practice, versus the recommended 50% (GSSI).
- While women, on average, have lower sweat rates than men, the research found wide variation among women, reinforcing the need for personalized hydration guidance.
- "Body of Science" insights are already being used in real life situations to improve personalized hydration guidance for female athletes, while ongoing research and the GSSI Labs app will help shape future solutions for all women.
- Women across the U.S. can participate in ongoing research via the [GSSI Labs app](#) and earn points-based gift card rewards on [Gatorade.com](#).

CHICAGO, July 21, 2026 /PRNewswire/ -- This weekend, the Gatorade Sports Science Institute (GSSI), Gatorade's research arm with four decades of experience in hydration, nutrition, and human performance, is presenting the findings from its first "Body of Science" study². The first Gatorade "Body of Science" study found that nearly half (43%) of women arrive at workouts already dehydrated. This is one of several disparities in how women hydrate and fuel their bodies. "Body of Science" is part of Gatorade's multi-year, global commitment to help close the gap in women's hydration science research. The findings will be presented at the American Society for Nutrition Annual Meeting on July 26.

ONLY 6% OF SPORTS SCIENCE RESEARCH FOCUSES ON WOMEN



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Hundreds of women across sports and activities, including basketball, soccer and ice hockey, among others, participated in the study, which examined how female bodies sweat and how hydrated women are before exercise. It also assessed how well women meet fueling recommendations – topics that have historically been understudied. To help close that gap, GSSI established new, more precise categories for female sweat rates, providing a benchmark for future research. Current research underway expands into life stages, including premenopause, perimenopause, and menopause.

Establishing the Scientific Foundation of "Body of Science"

For decades, women have fueled their bodies based on science research conducted on men. The first "Body of Science" study reveals where that gap shows up in practice. Key findings being presented to the scientific audience include:

- Nearly half (43%) of participants arrived at workouts already dehydrated, indicating a hydration deficit even before exercise.
- Despite drinking adequate fluid, participants replaced only ~20% of sodium electrolyte losses on average during activity. GSSI recommends replacing close to 50% of the sodium lost.
 - Basketball athletes experienced the highest sodium losses of any sport measured. Inadequate sodium replacement can lead to muscle cramping, fatigue, and impaired performance.
- 57% of participants under-fueled with carbohydrates during workouts, and half consumed none at all. GSSI recommends 30-60 grams of carbohydrates per hour to support performance and energy during active occasions.
- While women, on average, have lower sweat rates than men, the research found significant differences from one woman to another, reinforcing that hydration guidance should be tailored to the individual rather than based on broad assumptions.

Insights from the "Body of Science" research are already being applied in real life situations to improve how Gatorade evaluates and personalizes hydration guidance for female athletes. Ongoing studies and the GSSI Labs app will continue uncovering unmet needs to help shape future hydration solutions for women.

GSSI is a cornerstone of Gatorade and for more than four decades, the institute has conducted hydration and nutrition research on thousands of athletes. The team of scientists at GSSI have authored hundreds of peer-reviewed studies and powered Gatorade product innovation across the portfolio, and the work continues with "Body of Science."

"The data from our first 'Body of Science' study is clear – these aren't small gaps between what women's bodies need and how they're fueling. They're the difference between feeling your best and unknowingly falling short," said **Dr. Kimberly Stein, PhD, Senior Principal Scientist at the Gatorade Sports Science Institute**. "Being armed with this data will help us conduct deeper, more targeted research in future 'Body of Science' work."

Expanding "Body of Science" Across Life Stages

GSSI's research is expanding to study women across life stages, including premenopause, perimenopause and menopause. More than 500 women have already joined this early research.

Women of all activity levels can join ongoing research through the [GSSI Labs app](#). The app's "Female Athlete Hydration Survey" invites women across the U.S. to help close longstanding research gaps. Participation earns points-based gift card rewards redeemable on [Gatorade.com](#).

Gatorade WNBA All-Star Activation

Throughout AT&T WNBA All-Star in Chicago, Gatorade is building on its 30-year history as a founding partner of the WNBA. During WNBA All-Star Week programming, Gatorade will co-host the WNBA Line 'Em Up community activation at Robichaux Park on Chicago's South Side. Additionally, the brand will host a panel at the Chicago Sky Media & Innovation Summit, which will also bring together athletes, scientists and executives, in partnership with Gatorade. The panel will explore how women's sports are driving a new era of athlete care, from hydration strategies to injury prevention and recovery to menstrual health, pregnancy and long-term wellness. Additional grassroots efforts, including Hoopbus community programming, will take place throughout Chicago.

"Understanding what female bodies need for hydration and nutrition to perform their best on the court shouldn't be a luxury, and Gatorade is putting in the work to make sure it's not," said 8× WNBA All-Star, A'ja Wilson.

To date, Gatorade's "Body of Science" research has been conducted without any WNBA player participation. For more information, visit www.gatorade.com/body-of-science.

¹ Source: Cowley, E. S., Olenick, A. A., McNulty, K. L., & Ross, E. Z. (2021). "Invisible Sportswomen": The Sex Data Gap in Sport and Exercise Science Research. *Women in Sport and Physical Activity Journal*, 29(2), 146-151.

² Research is being presented at the American Society for Nutrition Annual Meeting on July 26.

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About The Gatorade Portfolio

The Gatorade Portfolio, a division of PepsiCo (NASDAQ: PEP), is a connected performance and wellness ecosystem built to fuel all athletes and exercisers. Bringing together Gatorade, Propel, Evolve and Muscle Milk, the Gatorade Portfolio is the most complete offering in the category today, with a broad range of personalized solutions at every stage of a person's journey. This integrated system of brands is built on Gatorade's 61-year history of studying athletes and is fueling the future of performance and wellness by delivering solutions across hydration, protein, energy and all-day nutrition to fuel consumers, no matter how or why they sweat. For more information and a full list of product offerings, please visit www.gatorade.com.

About PepsiCo

PepsiCo products are enjoyed by consumers more than one billion times a day in more than 200 countries and territories around the world. PepsiCo generated nearly \$94 billion in net revenue in 2025, driven by a complementary beverage and convenient foods portfolio that includes Lay's, Doritos, Cheetos, Gatorade, Pepsi-Cola, Mountain Dew, Quaker, and SodaStream. PepsiCo's product portfolio includes a wide range of enjoyable foods and drinks, including many iconic brands that generate more than \$1 billion each in estimated annual retail sales.

Guiding PepsiCo is our vision to Be the Global Leader in Beverages and Convenient Foods by Winning with pep+ (PepsiCo Positive). pep+ is our strategic end-to-end transformation that places sustainability at the center of our business strategy, seeking to drive growth and build a stronger, more resilient future for PepsiCo and the communities where we operate. For more information, visit www.pepsico.com, and follow on [X \(Twitter\)](#), [Instagram](#), [Facebook](#), and [LinkedIn](#) @PepsiCo.

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