



Report on National Workshop "Achieving Peak Performance: Evidence-Based Strategies in Sports Nutrition & Fitness"

Department of Food and Nutritional Sciences, SSSIHL, Anantapur Campus

The Department of Food and Nutritional Sciences at Sri Sathya Sai Institute of Higher Learning hosted a one-day National Workshop titled “**Achieving Peak Performance: Evidence-Based Strategies in Sports Nutrition & Fitness**” on September 27, 2024.

The morning session commenced with students chanting the invocatory Veda. **Dr. M. Srijaya**, Head of the Department of Food and Nutritional Sciences at Sri Sathya Sai Institute of Higher Learning, delivered the welcome address. She emphasized the importance of exploring the critical role of nutrition and sharing evidence-based strategies that empower athletes, coaches, and educators to make informed nutritional choices, thereby enhancing performance and promoting the overall fitness of athletes. Following this, **Prof. Pallav Kumar Baruah**, Dean of Sciences, provided an insightful introductory note. He stressed that in today’s competitive landscape, understanding the complex relationship between nutrition and athletic performance is crucial. He highlighted that proper nutrition serves not just as an addition to training, but as a fundamental pillar that enables athletes to reach their peak potential. His comments set a powerful tone for the workshop, emphasizing the essential role of nutrition in sports and fitness.

Dr. Geetanjali Bhide, Founder Director of Dr. Geetanjali Bhide's Nutrition & Research LLP and Founder Secretary of the Association of Sports, Nutrition & Fitness Sciences in Pune, delivered an engaging keynote address titled "Assessing Athletes' Nutritional Status: Practical Insights for Optimal Performance." Dr. Bhide commenced her address by detailing the key components of nutritional assessment, which include dietary intake analysis, anthropometric measurements, biochemical tests, and clinical evaluations. She stressed that a thorough assessment transcends mere calorie counting; it requires an understanding of the specific nutritional needs that vary according to the type of sport, training intensity, and individual health circumstances. Offering practical approaches, Dr. Bhide shared effective methods for collecting and analyzing data. Her keynote not only provided valuable strategies for assessing nutritional status but also inspired attendees to view nutrition as a fundamental pillar of athletic success.

Dr. Abhirami Sivaprasad, a High-Performance Analyst specializing in Nutrition at the Sports Authority of India (SAI) in Lucknow, presented an enlightening session on "Navigating Relative Energy Deficiency Syndrome (RED-S) for Optimal Athletic Performance." She explained that RED-S occurs when athletes fail to consume enough energy to meet their training demands, leading to various physiological and psychological issues, including hormonal imbalances and decreased bone density. Dr. Sivaprasad highlighted often-overlooked signs of RED-S, such as fatigue, reduced performance, mood swings, and frequent injuries. She stressed the need for early recognition and intervention, as addressing energy deficits can significantly enhance recovery and performance. The session provided practical strategies for athletes, coaches, and nutritionists to prevent and manage RED-S, along with case studies that showcased successful interventions through personalized nutrition plans and interdisciplinary support.



Ms. Aswiny Mohandas, a Performance Analyst in Nutrition at the Netaji Subhash National Institute of Sports, Sports Authority of India (SAI) in Patiala, delivered an insightful session on the "Role of Gut Health in Enhancing Athletic Training and Performance." She emphasized the vital connection between gut health and athletic performance, explaining how the gut microbiome influences digestion, nutrient absorption, energy levels, immune function, and recovery times. Ms. Mohandas outlined the composition of the gut microbiome and the factors that affect it, such as diet and stress. She highlighted the importance of consuming a diverse array of prebiotic and probiotic-rich foods—like fruits, vegetables, whole grains, and fermented products—to maintain a balanced microbiome. Ms. Mohandas urged attendees to prioritize gut health as a key element of their nutrition strategy, emphasizing that a healthy gut can enhance both physical performance and mental resilience. Her session provided valuable insights and practical knowledge for athletes to improve their training outcomes.

The workshop showcased a variety of engaging poster presentations done by the III BSc FNS students of the department, focusing on different facets of athletic nutrition. Topics covered included carbohydrate loading, continuous glucose monitoring (CGM), proteins and amino acids, functional foods and nutraceuticals, ergogenic aids, and the role of AI in sports nutrition. Each poster offered valuable insights into the latest research and practical applications, enabling participants to explore how these nutritional strategies can enhance athletic performance. Additionally, the students showcased a dynamic display of ergogenic aids, demonstrating their innovative research and practical applications in performance-enhancing supplements.

The panel discussion "Working with Grassroot Level Indian Athletes: Challenges and Solutions," moderated by **Dr. Geetanjali Bhide**, focused on the unique needs and obstacles faced by emerging athletes in India. The panel emphasized the importance of access to quality nutrition for optimal performance and recovery, advocating for a multi-faceted approach to create a supportive ecosystem for grassroots athletes. The session concluded with an interactive Q&A, highlighting the challenges faced by these athletes and offering actionable solutions to foster their development. Overall, it underscored the collective responsibility to nurture talent and establish a sustainable framework for success in Indian sports.

Ms. Stuti Pahuja, a Nutrition Specialist at QUA Nutrition Clinics in Bangalore, delivered an insightful session on "Methods and strategies to enhance health and fitness with exercise." Ms. Pahuja defined health and fitness as a blend of physical strength, endurance, and mental well-being, advocating for a holistic approach where nutrition complements physical activity. She provided actionable strategies for participants, stressing the need for realistic goals and gradual adjustments in both diet and exercise for sustained success. Her session highlighted the synergistic relationship between exercise and nutrition, inspiring attendees to adopt a comprehensive approach for improved health outcomes and fitness achievements.

The next talk was delivered by **Dr. Geetanjali Bhide** on "Smart Supplement Choices: Label Reading and Doping Prevention," emphasizing the importance of informed decision-making in dietary supplements. Her talk highlighted the increasing use of supplements in sports and fitness and the need to understand their components for safety and regulatory compliance.



Dr. Bhide's session empowered attendees to make informed supplement choices, fostering critical thinking and prioritizing health, safety, and compliance in their fitness journeys.

The workshop had a dedicated session on "Sports Nutrition for Young Female Athletes: Concerns and Challenges," which was crucial for addressing the unique needs and obstacles faced by this demographic. The session addressed challenges and concerns of young female athletes essential for their performance and long-term health. By focusing on adequate energy intake, nutrient requirements, hydration, and healthy attitudes towards food, we can help these athletes thrive both on and off the field. The session empowered the female athletes with knowledge and resources which enabled them to make informed decisions and develop lifelong healthy habits.

Dr. Meera M. delivered the valedictory address on the crucial role of nutrition in optimizing athletic performance. She emphasized that evidence-based strategies are essential for tailoring nutrition plans that enhance both performance and recovery. Acknowledging the unique needs of each athlete, she highlighted the importance of personalized nutrition plans based on factors like age, gender, sport type, and training intensity. Dr. Meera's address aimed to empower athletes, coaches, and nutritionists with the knowledge needed to make informed nutritional choices, reinforcing that a well-planned nutrition strategy is vital for achieving athletic excellence.

Ms. Sai Vani, III BSc FNS student, SSSIHL briefed the gathering about the events and activities conducted at the Department and hosted the prize distribution for the events. The Sports & Fitness Nutrition Club of the Department of Food and Nutritional Sciences organized a competition called "Recharge and Power-up" on September 21, 2024. Third-year BSc FNS students enrolled in the Sports Nutrition course actively participated, showcasing various types of ergogenic aids for athletes. The students also displayed engaging and informative posters on current trends in sports nutrition, supplements, and ergogenic aids, as well as the role of AI in enhancing performance.

Ms. Yauvani Govindsamy, III BSc FNS student, SSSIHL delivered the vote of thanks. The session concluded with Mangala Arati to Bhagawan Sri Sathya Sai Baba.