

Dietary Analysis

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Investigating what an athlete eats is a daily activity for a sports dietitian, so it would be expected that the practice would make it an efficient and effective task. However, dietary assessment remains a challenge in sports nutrition, with the potential for significant errors of validity and reliability. These errors challenge the accuracy of estimates of what the athlete usually eats or actually ate over a specific period and may also prevent the detection of a real change if an assessment is repeated. Developing expertise in this activity requires an appreciation that there are different reasons for undertaking an assessment, different approaches to completing it and different tools that can be employed. Therefore, the outcome can be enhanced by matching the best approach to each specific situation. Nevertheless, there is also a need to take into account the errors involved in a dietary assessment when interpreting the data that is collected. This session outlines the available options as well as an understanding of how the results of an assessment need to be viewed in light of the residual limitations. It needs to be remembered that almost all interrogations of dietary survey methods have been undertaken on non-athletic populations; therefore, some of the commentary is by necessity based on professional experience rather than sound research. New technologies to assist dietary assessments of athletes will also be discussed.

Determinants of Food Choices in Athletes

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The science of sports nutrition has greatly evolved over the past 60 years to provide athletes with a robust evidence base to guide a large number of everyday and specialised dietary strategies. Yet, surveys frequently identify a mismatch between sports nutrition guidelines and athlete practice, or variation between the practices of different athletes. Poor knowledge of sports nutrition guidelines by athletes might be one contributor to the mismatch. Nevertheless, our recognition of the determinants of food choices and eating behaviours of athletes is an underdeveloped area of sports nutrition research, despite playing a large role in our success in translating knowledge into action. Within the general community, it is recognised that dietary intake—timing, quantity and choice—is governed by a complex interaction of factors. Some are extrinsic and environmental, such as food availability/security at a community or household level, while others are intrinsic. The Eating Motivation Survey (TEMS) identifies 15 different constructs (with sub themes) that contribute to eating behaviour, including Liking, Habits, Need & Hunger, Health, Convenience, Pleasure, Price, Visual Appeal and Social Image. This presentation will present an overview of three different themes related to food determinants in athletes: a brief examination of constructs within the general nutrition literature, specific tools that are being developed to identify determinants of food behaviour in athletes, and personal insights on entering new research territory: covert monitoring of food intake in athletes to determine factors that might alter biological contributions to eating behaviour.

Female athletes

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Over the past ISENC conferences, attention has been called to the under-representation of female athletes in sports nutrition research. Indeed, although many expert groups encourage athletes and coaches to choose sports nutrition practices that are evidence-based, audits of sex-balance in research identify that female participants are under-represented across all areas of sports science research, with the theme of greatest imbalance being interventions for performance optimisation. Indeed, one audit identified that only 3% of the

subjects involved in performance research were engaged in projects aimed at identifying specific protocols for female athletes. Although some concessions have been made to “one size fits all” sports nutrition guidelines, to scale nutrient recommendations to body mass or muscle mass to allow for the female athlete, most guidelines fail to recognise that female athletes could have different responses to sports nutrition strategies based on differences such as the complexity of their reproductive hormone exposure. This session will provide an update on our success in raising awareness of the need to undertake female specific research, and programs and resources which have been developed to accelerate the process. Key research projects and summaries which have been recently undertaken to contribute new knowledge about the special nutrition needs of female athletes will be discussed. Challenges and priorities for future work will also be identified. According to a Chinese proverb “Women hold up half the sky” and are gradually gaining parity in opportunities to participate in sports. Modern sports nutrition needs to cater for the specific strategies that can help them go “faster, higher, stronger” and to enjoy all the benefits of sport. Continual updates on progress that is being made to enhance sports nutrition knowledge for female athletes will hopefully serve to encourage future endeavours as well as quickly disseminate the emerging knowledge.