

REVIEW

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ISSN exercise & sport nutrition review: research & recommendations

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Abstract

Sports nutrition is a constantly evolving field with hundreds of research papers published annually. For this reason, keeping up to date with the literature is often difficult. This paper is a five year update of the sports nutrition review article published as the lead paper to launch the JISSN in 2004 and presents a well-referenced overview of the current state of the science related to how to optimize training and athletic performance through nutrition. More specifically, this paper provides an overview of: 1.) The definitional category of ergogenic aids and dietary supplements; 2.) How dietary supplements are legally regulated; 3.) How to evaluate the scientific merit of nutritional supplements; 4.) General nutritional strategies to optimize performance and enhance recovery; and, 5.) An overview of our current understanding of the ergogenic value of nutrition and dietary supplementation in regards to weight gain, weight loss, and performance enhancement. Our hope is that ISSN members and individuals interested in sports nutrition find this review useful in their daily practice and consultation with their clients.

Introduction

Sports nutrition professionals need to know how to evaluate the scientific merit of articles and advertisements about exercise and nutrition products so they can separate marketing hype from scientifically-based training and nutritional practices. In order to help ISSN members keep informed about the latest in sports nutrition, we have updated the ISSN Exercise & Sports Nutrition Review that was used to help launch the JISSN (originally called the Sports Nutrition Review Journal). This paper provides an overview of: 1.) The definitional category of ergogenic aids and dietary supplements; 2.) How dietary supplements are legally regulated; 3.) How to evaluate the scientific merit of nutritional supplements; 4.) General nutritional strategies to optimize performance and enhance recovery; and, 5.) An overview of our current understanding of the ergogenic value in regards to weight gain, weight loss, and performance enhancement supplements. We have also categorized nutritional supplements into

'apparently effective', 'possibly effective', 'too early to tell', and 'apparently ineffective' as well a description of our general approach into educating athletes about sports nutrition. Over the last five years there have been many changes to our original categorization of supplements. In addition, a number of new supplements have been introduced to the market are reviewed in this article. While some may not agree with all of our interpretations of the literature and/or categorization of a particular supplement, and some classifications may change over time as more research is forthcoming, these interpretations are based on current available scientific evidence and have been well received within the broader scientific community. Our hope is that ISSN members find this information useful in their daily practice and consultation with their clients.

Ergogenic Aid

An ergogenic aid is any training technique, mechanical device, nutritional practice, pharmacological method, or psychological technique that can improve exercise performance capacity and/or enhance training adaptations [1-3]. This includes aids that may help prepare an

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Issn Exercise Sport Nutrition Review Research Recommendations

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