



nutrition for athletes

A practical guide to eating for health and performance.

Prepared by the Nutrition Working Group of the Medical Commission of the International Olympic Committee.

Based on an International Consensus Conference held at the IOC in Lausanne in June 2003.



Message from Powerade



The Coca-Cola Company, via the Powerade brand, has formed a very successful partnership with the IOC Nutrition Working Group and the IOC Athletes'

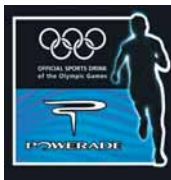
Commission. This partnership has created a nutrition brochure which we hope will provide you with practical information for this most prestigious sporting event.

We are dedicated to supporting athletes who continue to push the boundaries of personal achievement. Powerade was developed to help athletes perform at their best for longer, thanks to its formulation, which can help delay the onset of fatigue during exercise and prevent dehydration.

This brochure also recognises the importance of diet as a crucial part of sporting performance and we hope you find the information useful.

Good luck in your chosen sport.

A.R.C. (Sandy) Allan
President and Chief Operating Officer
Coca-Cola Europe Eurasia and Middle East



Foreword by Dr Patrick Schamasch



The IOC and its Medical Commission are pleased to provide athletes with this brochure, developed under the leadership of the IOC 'Nutrition' working group, in close collaboration with the IOC Athletes' Commission.

Its simplicity and reader-friendly layout make this work a reference for all those who, like the IOC Medical Commission, believe that nutrition is one of the decisive elements in high-level athletes' preparations.

Powerade is the partner of the IOC's Medical Commission for this publication and helps us to spread the information in a worldwide campaign to athletes at all levels.

For all those who, without aspiring to take part in the Olympic Games, place sport and physical activity as a top priority, this brochure will ensure better management of their efforts and preparations.

IOC Medical Director



Key messages

Whenever highly talented, motivated and well trained athletes gather for competition, the margin between victory and defeat is small. Attention to detail can make that vital difference.

Diet affects performance, and the foods that we choose in training and competition will affect how well we train and compete. Athletes need to be aware of their nutritional goals and of how they can select an eating strategy to meet those goals.

Diet may have its biggest impact on training, and a good diet will help support consistent intensive training without the athlete succumbing to illness or injury. Good food choices can also promote adaptations to the training stimulus.

Athletes are all different, and there is no single diet that meets the needs of all athletes at all times. Individual needs also change across the season and athletes must be flexible to accommodate this.

Getting the right amount of energy to stay healthy and to perform well is key. Too much and body fat increases: too little and performance falls and illness results.

Carbohydrate is a key nutrient for energy supply. Athletes must be aware of foods that can help meet their carbohydrate needs and make these a focus of their diet.

Protein foods are important for building and repairing muscles, but a varied diet containing everyday foods will generally supply more than enough protein. Well-chosen vegetarian diets can also meet protein needs.

A varied and wholesome nutrient-rich diet that meets energy needs and is based largely

on vegetables, fruits, beans, legumes, grains, animal meats, oils and carbohydrate should ensure an adequate intake of vitamins and minerals.

Maintaining hydration is important for performance. Fluid intake before, during (where appropriate) and after exercise is especially important in hot climates. Salt replacement is important when sweat losses are high.

Athletes are cautioned against the indiscriminate use of dietary supplements.

This booklet contains information that will help athletes to make informed choices to meet their nutritional needs in different situations. It is no substitute for individual advice from a qualified professional, but tries to give practical information that will be of use to the serious athlete.

Introduction: the benefits of eating well

A well-chosen diet offers many benefits to the elite athlete:

- Optimal gains from the training program
- Enhanced recovery between workouts and events
- Achievement and maintenance of an ideal body weight and physique
- A reduced risk of injury and illness
- Confidence in being well-prepared to face competition
- Consistency in achieving high level competition performances
- Enjoyment of food and social eating occasions

Despite these advantages, many athletes do not meet their nutrition goals. Common problems and challenges include:

- Poor knowledge of foods and inadequate cooking skills
- Poor or outdated knowledge of sports nutrition
- Inadequate finances
- Busy lifestyle leading inadequate time to obtain or consume appropriate foods
- Poor availability of good food choices
- Frequent travel
- Indiscriminate use of large amounts of supplements and sports foods

The information in this booklet is designed to provide coaches and athletes with an overview of the latest guidelines in sports nutrition. While there is no such thing as a magic diet or food, there are many ways in which eating well can

allow athletes at all levels of performance to achieve the special goals of their training and competition programs. It makes no sense to train hard and ignore the benefits that follow from good food choices.

'Nutrition for Athletes' is based on the conclusions of the IOC Consensus Conference on Nutrition for Sport, held in Lausanne in June 2003. We gratefully acknowledge the contribution of the conference participants as the expert scientific sources for this booklet.

This booklet was prepared for the **IOC Medical Commission Working Group on Sports Nutrition** by

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