

The Importance of Sport Nutrition in an Athletes Diet

Terms and Definition

Diet: *described as a particular selection of food, especially as prescribed to improve the physical condition, regulate weight, or cure a disease (Macquarie Dictionary word Genius 2007)*

Sports Nutrition: *those aspects of nutrition science that relate to the interaction of nutrition and physical activity Maughan (2001)*

History



According to legend, ancient Olympians were reported to have a high meat intake, especially pork, with particular hydration strategies of Wine before competition.



1809, the famous pedestrian Captain Barclay walked 1000 miles in 1000 hours. His dietary strategies were "An animal diet is alone prescribed, and beef or mutton. Biscuits and stale bread are the only form of vegetable matter permitted. Vegetables are too watery and are hard to digest. Liquors must be taken cold and



This is a typical Dinner a cyclist in the tour the France, (2008) would consume . Consisting of Pasta, Meat, Salad, Cheeses, Yogurt, Fruit,

The Components of a Sports Diet



Carbohydrates are necessary to meet the demands of energy needed during exercise, to maintain blood glucose and replenish muscle glycogen store. During sub-maximal exercise, carbohydrate in the body is the major fuel sources



Protein is needed for: nutrient transfer in the blood, connective tissue support, and the repair of tissue in response to periods of exercise. Athletes should have a slightly higher intake of protein than the general population. Protein can also be used as an energy source, particularly when carbohydrate reserves are very low.



Fat intake is important for: energy production, protecting organs, providing insulation to the body, and facilitating fat-soluble vitamin uptake, and essential fatty acid intake. During sub-maximal exercise, fat and carbohydrate are both fuel sources.



Micronutrients are essential players in energy production, haemoglobin synthesis, bone health, immune function and antioxidant activity. Micronutrient needs can be met, through athletes consuming a high energy and balanced diet

Hydration

- regulates the body's temperature,
- cushions and protects vital organs,
- Aids the digestive system.
- Acts within each cell to transport nutrients and dispel waste.
- It is impossible to sustain life for more than a week without maintain hydration .

Dehydration leads to

- Dehydration leads to muscle fatigue and loss of coordination. Even small amounts of water loss may hinder athletic performance.
- In a dehydrated state the body is unable to cool itself efficiently, leading to heat exhaustion and possibly heat stroke.
- Without an adequate supply of water the body will lack energy and muscles may develop cramps.



Water, salt and sugar; basic content of sports drink.
Water is essential for maintaining hydration.

Conclusion

Diet is of great importance to athletes, the key to achieving an optimal sports diet in relationship to peak performance and good health is balance. Athletes must fuel their bodies with the appropriate nutritional foods to meet their individual energy requirements in competition, training and recovery. If these nutritional needs are not met, there is an increased risk of poor performance and health issues.

Useful information

<http://www.ausport.gov.au/ais/nutrition>

www.sportsdietitians.com

Clinical Sports Nutrition, Edited by; Louse Burk & Vicky Deaken , 2000. Roseville, NSW:

McGraw-Hill Book Company Australia Pty Lit.

This Presentation also may be reviewed at

www.vimeo.com/1710181: Robyn Van Lijsonk on Sports Nutrition

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