



IMPORTANCE OF BALANCE DIET & NUTRITION FOR ATHLETES PERFORMANCE

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ABSTRACT Nutrition is a decisive factor of growth and development of a young organism. It has also a major impact on sports performance. Balanced diet and Good dietary practices allow athletes to train hard, regenerate quickly, adapt better, while reducing the risk of illness and injury. Athletes should use appropriate nutritional strategies before and after their performances, so as to achieve the best results. They should pay special attention to the amounts of carbohydrates, proteins, fats, vitamins, minerals in their food. The aim of this paper is to discuss the basic importance principles of Balance diet and nutrition (Carbohydrates, fats, Proteins, Vitamins, and Minerals) in sports training and health training. Healthy diet meets biological, psychological and social needs; allows achieving full physical and mental development; maintaining body's resistance to diseases and fitness until old age for Athletes sport performance.

KEYWORDS : Nutrition, Carbohydrates, Fats, Proteins, Vitamins, Minerals

INTRODUCTION

Nutrition plays a very important role in sports performance. Without adequate carbohydrate and fluid, an athlete will get tired very easily and quickly. Protein is needed to rebuild muscles. Without all three of these plus adequate vitamins and minerals, an athlete will never be able to perform to their maximum potential. Evidence supports a range of dietary strategies in enhancing sports performance. It is likely that combining several strategies will be of greater benefit than one strategy in isolation. Dietary strategies to enhance performance include optimizing intakes of macronutrients, micronutrients, and fluids, including their composition and spacing throughout the day. The importance of individualized or personalized dietary advice is becoming increasingly recognized, with dietary strategies varying according to the individual athlete's sport, personal goals, and practicalities (eg, food preferences). "Athlete" includes individuals competing in a range of sport types, such as strength and power (eg, weight-lifting), team (eg, football), and endurance (eg, marathon running). The use of dietary supplements can enhance performance, provided these are used appropriately.

WHAT IS SPORTS NUTRITION?

Sports nutrition is a specialization within the field of nutrition that partners closely with the study of the human body and exercise science. Sports nutrition can be defined as the application of nutrition knowledge to a practical daily eating plan focused on providing the fuel for physical activity, facilitating the repair and rebuilding process following hard physical work, and optimizing athletic performance in competitive events, while also promoting overall health and wellness. The area of sports nutrition is often thought to be reserved only for "athletes," which insinuates the inclusion of only those individuals who are performing at the elite level. In this text, the term athlete refers to any individual who is regularly active, ranging from the fitness enthusiast to the competitive amateur or professional. Differences may exist in specific nutrient needs along this designated spectrum of athletes, creating the exciting challenge of individualizing sports nutrition plans.

WHY SPORTS NUTRITION IS IMPORTANT?

Participating in endurance sports requires optimal nutrition, with specific focus on dietary modifications. Targeted fitness development at an early age, especially in adolescence is deemed the foundation for leading an active lifestyle, avoiding potential overweight, reducing motor deficiencies and thus improving the general quality of life. At the time of final performance an athlete is supposed to be well nourished, uninjured, fit, focused and ready to compete. Sports nutrition is not just about calories to achieve weight or body composition goals; nor is it all about protein for muscles or carbohydrates for fuel. Nutritional and eating habits have been of specific interest in sports, especially given their impression on athletic performance. General recommendations need to be suggested by sports nutrition experts to accommodate the specific requirements of individual athlete regarding health, sports, nutrient, food choices and body weight and body composition. Athlete challenges their bodies on a regular basis through tough physical training and competitions. In

order to keep up with demand for stamina of their activity or sport, athlete needs adequate fuel for their body on day to day basis

WHAT ARE THE BASIC NUTRIENTS?

Food and beverages are composed of six nutrients that are vital to the human body for producing energy, contributing to the growth and development of tissues, regulating body processes and preventing deficiency and degenerative diseases. The six nutrients are classified as essential nutrients. They are carbohydrates, proteins, fats, vitamins, minerals and water. The body requires these nutrients to function properly however the body is unable to endogenously manufacture them in the quantities needed on a daily basis

CARBOHYDRATES:

Carbohydrates are stored in the body in a form of glycogen, which can be used during physical activity. Carbohydrate is necessary to meet the demands of energy needed during exercise, to maintain blood glucose level and replenish muscle glycogen store. During sub-maximal exercise, carbohydrates in the body are the major source of fuel

- **Protein:** Protein is needed for nutrient transfer in the blood, connective tissue support and the repair of tissue in response to periods of exercise
- **Fats:** Fat is primarily used as a fuel during low to moderate intensity exercise. Fat is also engaged in providing structure to cell membranes, helping in the production of hormones, lining of nerves for proper activity and make it easier for process of absorption of fat soluble vitamins
- **Vitamin and Minerals:** Vitamins are required in wide variety of bodily functions and operations which helps to sustain the body healthy and disease free. The function of minerals is for structural development of tissues as well as the regulation of bodily process.

WHEN TO EAT AND REHYDRATE

For athletes, knowing when to eat is as important as knowing what to eat. Try to eat a pre-game meal 2 to 4 hours before your event. For a race, this could be dinner the night before. A good pre-game meal is high in complex carbs and low in protein and sugar. Avoid rich and greasy foods. These can be harder for you to digest and can cause an upset stomach. You may find it helpful to avoid food the hour before a sporting event. This is because digestion uses up energy.

Staying hydrated is the most important thing athletes can do. This is especially true on game day. Your body is made up of nearly 60% water. During a workout, you quickly lose fluid when you sweat. Thirst is a sign of dehydration. Don't wait until you are thirsty to drink. A good rule of thumb is to take a drink at least every 15 to 20 minutes. But, don't drink so much that you feel full.

Water is the best way to rehydrate. For short events (under an hour), water can replace what you lose from sweating. For longer events, you may benefit from sports drinks. They provide electrolytes and carbohydrates. Many experts now recommend drinking chocolate milk after exercise. The protein in milk helps with muscle recovery. It

can have less sugar than sports or energy drinks, and contains many vitamins and minerals. Avoid drinks that contain caffeine. They can dehydrate you more and cause you to feel anxious or jittery.

CONCLUSION

Nutrition 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 like vitamin, protein, carbohydrates, minerals to meet their 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. The use of a nutritional supplement within established guidelines is safe, effective and ethical. Thus a well balanced diet and effective training and coaching will be the winning combination and will help the athlete to build up strength and stamina. Becoming an elite athlete requires good genes, good training and conditioning, and a sensible diet. Optimal nutrition is essential for peak performance. Nutritional misinformation can do as much harm to the ambitious athlete as good nutrition can help.

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