Sports Nutrition

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1. Introduction

Sports nutrition is the study and practice of nutrition and diet as it relates to athletic performance. All the an important part many sports training regimens , it is most commonly consider in strength sports (for example weight lifting and bodybuilding) and endurance sports (for example cycling , running, and triathlon). Sports nutrition is a science that produces or provides and maintains the food (or dietary ergogenic aids) necessary for health, growth and physical performance. It deal with nutrient such as vitamin, minerals, supplements and organic substances such as carbohydrates, proteins and sugars in serious athletes of all sorts who want to make use of nutrition for their benefit. An athlete's dietary regimen places a vital part in accomplishing his/her goals because it allows the athlete to reach his/her maximum performance. This illustrates how an athlete should apply the necessary nutrition in order to benefit from training and to maximize his/her capability during exercise and activity. Thus, every sport type of physical activity varies in its appropriate diet which benefits the athlete. Sports nutrition also consists of many different concerns such as the amount of certain foods and fluids one should consume that are specific to training. The goals of sports nutrition try to answer the questions such as: What types of foods and fluids should be consumed? What to eat and when throughout the day?

2. History

Since the beginning of mankind, the idea of diet and exercise has always been in place. From the time when the ancient Greeks and Romans started the Olympic games, the athletes had their own special regimen for great performance However, the view of sports nutrition today has much evolved from the ancient Olympic gladiators' meal plan. Scientists are continually interested in learning more about this abiding subject. Research shows that the coupling of exercise and proper diet is what produces a healthy lifestyle that can maintain the "prevention/management of [chronic diseases such as] noninsulin-independent diabetes; hypertension, coronary heart disease, osteoporosis, obesity, mental health, colon cancers, stroke and back injury." Other physical activities, thus the importance of proper nutrition is of great interest to athletes and exercisers for optimal performance and long term benefits**.** In addition to diet, social and cultural influences, lifestyle habits, motivation and training determine successful athletic performance an," Understanding sports nutrition leads to optimal athletic performance and lifetime health benefit and can thus be evaluated by the intake of certain nutrients and supplements when exercising, by learning the way the body utilizes these materials and how these practices complement future diet and exercise of the individual.

Sports nutrition has many goals to chance performance. It improves performance by improving body composition, which increases speed, quickness, mobility, and strength. Second, it will help the speed of recovery, which will in turn create more capacity for practicing and competition as the body is becoming more fit and adjusted to the coupling of the good nutrition incorporated into the workout regimen. Third, it will allow one to increase energy for both practice and competition, which will definitely help one's performance. Strategic diet will also increase immunity, allowing one to stay healthy and be able to continue and intensify practice and training. Most importantly, it will improve your overall health as proper health is essential to all aspects of life.

3. Supplements

Many athletes consider taking dietary supplement because they are looking for the "magic ingredient" to increase performance. In the extreme case of performance-enhancing supplement, athletes (particularly body-builders) may choose to use illegal substances such as anabolic steroid, compound which are related to the hormone testosterone, which can quickly build mass and strength, but have many adverse effects such as high blood pressure and negative gender specific effects. Blood doping, another illegal ergogenic, Dietary protein began to be consumed for muscle building results were found in resistance and strength training athletes. Protein intake is a part of the nutrient requirements for the regular athlete and is an important component of exercise training, because it can also aid in performance and recovery. Dietary protein intake for well-trained athletes should occur before, during and after physical activity as it is advantageous in gaining muscle mass and strength. However, if too much protein and amino acid supplements are consumed it can be more harmful than beneficial; health risks include: "dehydration, gout calcium loss, liver, and renal damage [and] gastrointestinal side effects include diarrhea, and water loss" High energy supplements have shown to increase the performance of physical activity

4. Post-Exercise

Post-exercise nutrition is just as important, if not more important than pre-exercise nutrition as it pertains to recovery. Traditionally, sports drinks are consumed during and after exercise because they effectively rehydrate the body by refueling the body with minerals and electrolytes.. However, sports drinks lack protein.

New studies have found milk, especially skim milk and chocolate milk may be the new sports drink, as milk leads to protein the synthesis which boosts net muscle protein balance. Milk naturally contains many electrolytes, nutrients and other properties that help to make it great post-exercise beverage to commercial sports drinks. Lean mass has been observed when an individual has had at least 12 weeks of resistance training. With post-exercise milk as an efficient rehydration beverage, it increase hypertrophy, has acute alterations in protein synthesis and replaces nutrients than traditional sports drinks.. In post-exercise nourishment, athletes like body builders may find more beneficial for gaining muscle mass, yet both traditional sports drinks and milk and milk are found to be sufficient and adequate for the majority of exercisers for replenishment.

5. Anaerobic Exercise

During anaerobic exercise, the process of glycol sis breaks down the sugars from carbohydrates for energy without the use of oxygen. This type of exercise occurs in physical activity such as power sprints, strength resistances and quick explosive movement where the muscles are being used for power and speed, with short time energy use. After this type of exercise, there is a need to refill glycogen storages in the body (the long simple sugar chains in the body that store energy), although they are not likely fully depleted.

To compensate for this glycogen reduction, athletes will often take in a large amount of carbohydrates in the period immediately following exercise. Typically, high glycemic index carbohydrates are preferred for their ability to rapidly raise blood glucose level. For the purpose of protein synthesis, protein or individual amino acids are ingested as well.

Often in the continuation of this anaerobic exercise, the product from this metabolic mechanism builds up in what is called lactic acid fermentation.

6. Aerobic Exercise

In aerobic exercise, oxygen is needed to supply energy and this oxidation helps neutralizes free radicals. After aerobic exercise, it is necessary to refill the glycogen stores on the skeletal muscles and liver. Before doing anything else, drink something for recovery. Liquids are ideal (like water, juice or sports drink) and as mentioned above, low-fat milk and chocolate milk are effective

recovery beverages because if their ideal 4:1 combination of carbohydrate and protein that fuels and replenishes muscles the best.

Metabolism is slow so that the body can work through endurance exercises such as long distance running or swimming because these activities require constant use of oxygen to supply energy. Fats (lipids), carbohydrates (sugars), proteins and other substrates are different substances the body can utilize to make sufficient energy. In addition, men and women have different ways of metabolizing these substrates. It has been found that women oxidize more lipids (fat-burning), less carbohydrates, and less amino acids than do men during endurance exercise.

7. Here are some sports nutrition diet tips

There is a need to consume fats and infact 20-25% of your energy should come from fats. If the fat intake would be less than that, it won't be able to make any contribution in boosting your performance level. There is a need to eat food before, during and after your exercise session, as that helps to control blood glucose level, thereby helping in enhancing your sports performance.

When an athlete performs his\her sporting activity, lot of fluid loss takes place, which causes dehydration. Dehydration can eventually cause heat stroke. So, it is vital to drink adequate water during and after your sports performance. It is advisable for sportspersons to eat a balanced diet consisting of plenty of proteins, vitamins quantities. It is vital plan out your pre exercising or sports meal that works best towards charging your energy. Limit the quantity of salt and simple sugar. Don't change your diet plan before going in for your sports competition. Fasting is not recommended for sportspersons, as it is likely to hamper their performance level. If you feel some kind of an uncomforted or pain in your abdomen or intestine, then you must have had a high fiber or high fat content food in your pre exercise/sports meal, so take care that it doesn't happen again.

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