

Sports nutrition - cyclists



Sports Nutrition –Cyclists Sports Nutrition –Cyclists Metabolism of carbohydrates refers to the process of breaking down carbohydrates to provide energy for important body processes. Carbohydrates are divided into simple and complex ones where simple carbohydrates, known as sugars convert to glucose in one step and therefore give quick energy and this can include sugars from fruits and energy drinks (Seebohar, 2004). Complex carbohydrates such as those from potatoes and bread take a longer time to break down and may not give energy to the athlete in the required amount and time. The body uses carbohydrates in the amounts it needs and stores the rest in the liver and muscles. During an athlete's activity, the body uses stored carbohydrates which raise epinephrine and norepinephrine level which causes glucagon to increase. Increase in glucagon converts glycogen into glucose which is supplied to the blood stream for use in the activity. Carbohydrates are stored in the form of simple sugars (glucose, fructose, and galactose) in the body which makes it easier for absorption. A gram of carbohydrates is equal to four calories of energy, and an athlete can store up to 1200 grammes of glycogen (4800 calories) for an activity (Seebohar, 2004). The amount of time an athlete can rely on stored carbohydrates will vary with various factors such as the weather and the intensity of the activity.

Protein anabolism refers to development of complex protein molecules from simpler ones. It occurs after hard work or after the body does vigorous activities to build or repair body tissues and also to restore broken down tissues. Anabolism sees to it that amino acids, which form proteins, are broken down to form final protein. Proteins help in enzyme and hormone formation and production which help in body functions and reactions, this

plays a key role in the body such as protection against diseases, and also can be used to produce energy if insufficient carbohydrates and fats are available.

Catabolism of proteins is the process of breaking down proteins and its components to simpler ones. During exercise, protein catabolism is an inevitable process in the body, and this is as a result of strain of muscles, tissues and organs. The body is in turn expected to repair the damaged areas in the body so as to reduce breakdown. Protein catabolism occurs during strain, hard work and may also occur during damages or injuries to the body.

Fat as another nutrient required by the body can also be used as fuel by the body, and this varies with the activities in the body. Although fats produce low energy levels compared to carbohydrates, they can be used as fuel by the body during exercises like cycling. During low intensity exercise the body uses less fat and therefore it is unlikely to use fats, while in moderate exercise, the body uses fat as fuel and carbohydrates in equal portions. This is because the body demands energy as well as the muscles so as to contribute to muscle and joints movement. During exercise of high intensity, the body requires more fat than the other nutrients, this is to help in easier and more flexible muscle movements which help prevent breakdown and fatigue during these movements.

Reference

Seebohar, B. (2004). Nutrition Periodization For Endurance Athletes: Taking Traditional Sports

Nutrition To The Next Level. Broxbourne: Bull Pub. Co.