

Amino Acids and Healthy Muscle

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Amino acid intake through meals and supplements has a great influence on the maintenance and promotion of our body muscles. In particular, the Branched Chain Amino Acids (BCAAs) which cannot be produced in our living body are called “essential amino acids”. Human beings should take BCAAs (valine, leucine and isoleucine) through meal (and / or supplement if needed) in considering the balance of amino acids composition in protein foods. BCAA absorbed from food, along with free amino acids of skeletal muscle are called protein and amino acid reservoir, is an energy source during exercise. Leucine has the function of regulating secretion of insulin and regulating protein metabolism. The effects of BCAA on muscle injury and its recovery from exercise depend on intake volume and its ingestion timing. Based on scientific evidences on BCAAs, we would like to share the expectation as the supplements while considering the metabolic pathway and the contribution for protein/ glucose metabolism. In addition to the instantaneous power, muscular strength and endurance at top athletes, other functions of the amino acids in the body, including for child’s growth and elderly’s ability to exercise will be shared. Moreover, amino acids contribute to achieve the Sustainable Development Goals (SDGs) by the United Nations, such as lysine fortification in developmental stage and environmental sustainability on the earth. Amino acids are significant for healthy muscle and are essential for our healthy life.