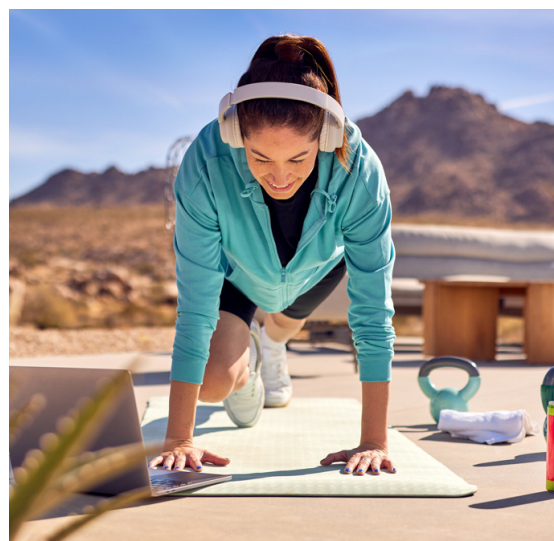




Probiotics + Plants

Supporting Enhanced Amino Acid Absorption
with Probiotics and Plant-Based Proteins





In the realm of health and wellness, the significance of a balanced diet cannot be overstated. As more individuals adopt plant-based lifestyles, the focus on obtaining essential nutrients, such as protein and amino acids, has intensified. However, simply ingesting protein-rich foods or supplements might not ensure optimal absorption and utilization of amino acids by the body.

Plant Proteins 101

Plant-based protein sources such as pea, oat, soy, or wheat offer individuals an excellent way to maximize protein intake while still adhering to their specific diet/lifestyle of choice. While these offerings provide the protein needed in your diet, they are limited by the fact they do not offer the same level of Branched Chain Amino Acids (BCAAs) or essential amino acids such as L-lysine and L-methionine. These compounds are widely believed to be necessary to kickstart muscle recovery and repair, making optimum absorption of these amino acids critical to advanced athletic performance.¹



No Whey...No Problem?

Despite plant-based protein sources offering slightly lower levels of key amino acids, current research suggests that athletes who consume plant-based protein experienced no adverse effects on their athletic performance compared to athletes who used only whey protein (Spoelder et al., 2023).

The growing popularity of plant-based diets, fueled by the belief in its health benefits, has captured the attention of athletes and physically active individuals alike. Many now are considering or have already begun incorporating plant proteins into their diets as a way to support their performance and recovery.

An exploratory clinical study investigated the effects of transitioning from an omnivorous diet to veganism on exercise performance. Fifteen omnivorous subjects, 18 to 35 years old, maintained their regular diet for 8 weeks then transitioned to a vegan diet in the following 8 weeks. Every 4 weeks, participants tested their strength via a leg press and bench press.

The realization that athletes can rely on plant-based proteins for effective training and recovery marks a significant milestone for the plant-based community. However, this does not negate the fact that amino acids such as BCAAs are paramount to initiating muscle recovery and protein synthesis.¹

If one could consume plant-based protein and absorb higher levels of BCAAs, it may contribute to enhanced athletic performance and recovery times.

The Research

In a randomized, double-blind, placebo-controlled trial, 47 adults, 60 years and older, were randomized to receive either 25g of whey protein, pea protein, or iso-caloric matching placebo control. The results showed that whey protein, but not pea or placebo, attenuated the exercise-induced muscle damage 24 hours after exercise, based on decreased creatine kinase plasma levels (Spoelder et al., 2023).



The idea of consuming plant-based proteins while absorbing high levels of BCAAs underscores the potential of pairing plant-based proteins with probiotics — a combination that offers remarkable benefits for overall health and well-being.

Unlocking Synergistic Benefits

Probiotics are live microorganisms that, when administered in adequate amounts, confer a health benefit on the host.² These beneficial bacteria are crucial in maintaining gut health, modulating immune function, and enhancing nutrient absorption. When combined with plant-based protein, probiotics exert synergistic effects that promote optimal amino acid absorption and utilization.

Probiotics aid in the breakdown of complex carbohydrates.
Enzymes break down proteins into amino acids to enhance their bioavailability.



The Research

A clinical trial assessed the effects of a probiotic addition to pea proteins. Recreational athletes consumed 20g of vegetable proteins isolated from yellow pea, with or without 10 B colony forming units (CFU) multi-strain probiotics. Maximum plasma amino acid concentrations (C_{max}) were assessed at baseline, 30, 60, 120, or 180 minutes after ingestion. There was a significant increase in methionine, histidine, valine, leucine, isoleucine, tyrosine, total BCAA, and EAA in the group supplemented with the probiotic group compared to the placebo.



Animal protein consumption has been reported to lead to higher plasma levels in branch-chain amino acids (BCAAs) and methionine compared to plant protein ingestion. This is because most plant proteins are low in absorbable methionine BCAAs, which are important for muscle building and performance.



Plant-Powered Protein

Incorporating probiotics into a diet rich in plant-based proteins creates a comprehensive strategy for optimizing amino acid absorption and promoting overall health. By addressing digestive challenges associated with plant-based protein sources and enhancing nutrient bioavailability, probiotics can help maximize the benefits of a plant-centric diet. Whether aiming to support muscle recovery, immune function, or overall well-being, the synergy between probiotics and plant-based protein represents a promising avenue for achieving optimal nutrition and vitality.

By embracing the symbiotic relationship between probiotics and plant-based protein, individuals can embark on a journey towards improved health and vitality, one amino acid at a time!

¹ <https://pubmed.ncbi.nlm.nih.gov/37681443/>

² FAO/ WHO 2002



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