Sports-Nutrition Ingredient Velositol Doubles the Power of Protein, Firm Says

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By Jennifer Grebow

Nutrition 21 (Purchase, NY) is sharing more details from its recent study on new sports-nutrition ingredient Velositol, introduced late last year. Velositol combines a highly soluble amylopectin polysaccharide and a modified-release version of chromium. When added to whey protein, Velositol can help increase muscle protein synthesis (MPS) significantly more than when whey protein is taken alone.

On its own, whey protein is effective at increasing MPS...to a point, explained Sara Perez Ojalvo, scientific affairs manager, Nutrition 21, at this year's Natural Products Expo West trade show. “When you start taking 20-30 g of whey protein, the amount of MPS you get out of it levels off,” she said.

With this in mind, Velositol looks toward other avenues to keep muscle building. “We hypothesized that the mechanism of action of Velositol is that we’d stimulate uptake of leucine and other amino acids and stimulate the pancreas”—by way of Velositol’s chromium component—“to release insulin, which also helps increase the amount of amino acids, along with glucose, taken into muscle cells during exercise,” Ojalvo said.
In the 10-subject, double-blind, single-dose, crossover study, the researchers used 6 g of whey protein isolate. The control group took the whey protein alone, while the test group took whey protein plus Velositol.

At two hours, the researchers performed a baseline muscle biopsy on the subjects to look for a specific amino acid marker, phenylalanine, which is active during the muscle-building process. (Muscle biopsies are a standard protocol in MPS studies.) At four hours, researchers again performed a muscle biopsy and measured the level of phenylalanine.

Subjects were then asked to perform eight sets of leg extensions, and four hours after that, the researchers took a final muscle biopsy. (Researchers also measured blood insulin and glucose levels throughout the study.)

“We measured MPS two ways, both plasma and intracellular, as a double-check,” Ojalvo said. “What we found was that when you add Velositol to whey protein, you significantly double the MPS when compared to whey protein alone.”

In the sports nutrition market, where consumers are clamoring for protein—and whey protein especially—Velositol can give protein products an edge. Nutrition 21 says that thanks to this study, marketers can use claims that Velositol “doubles the increase in MPS when added to whey, versus whey alone” and that Velositol “doubles the power of protein after a single dose.”

“This is the first time that something has been able to shake up the protein market like this,” said Dorothy McEntee, marketing director, ingredients, Nutrition 21.

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