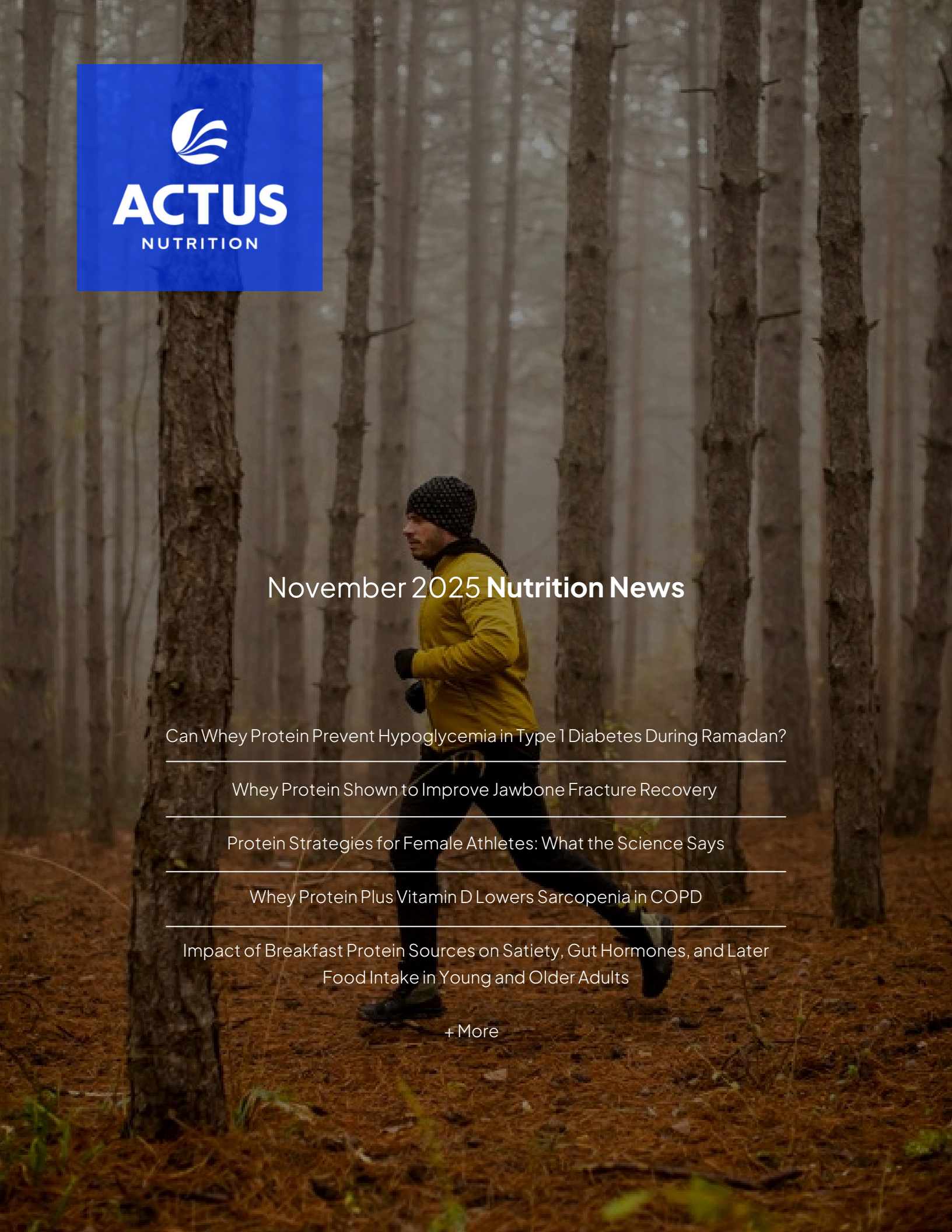


ACTUS NUTRITION

November 2025 **Nutrition News**

Can Whey Protein Prevent Hypoglycemia in Type 1 Diabetes During Ramadan?

Whey Protein Shown to Improve Jawbone Fracture Recovery

Protein Strategies for Female Athletes: What the Science Says

Whey Protein Plus Vitamin D Lowers Sarcopenia in COPD

Impact of Breakfast Protein Sources on Satiety, Gut Hormones, and Later Food Intake in Young and Older Adults

+ More

Can Whey Protein Prevent Hypoglycemia in Type 1 Diabetes During Ramadan?

Fasting during Ramadan can be challenging for people with type 1 diabetes (T1D), especially because of the risk of low blood sugar (hypoglycemia). One possible solution is adding whey protein (WP) to the predawn meal (Suhoor) to help stabilize blood glucose and support a safer fast. One recent study explored whether taking whey protein at Suhoor could reduce hypoglycemia and help people with T1D complete their fast without interruption.

Researchers conducted a randomized, controlled trial where participants with T1D fasted during Ramadan under two conditions: one week with whey protein at Suhoor and one week without. Blood sugar patterns were tracked using continuous glucose monitors, and participants kept food logs and completed surveys before and after Ramadan. The main focus was on how often fasting was broken and the number of low blood sugar episodes.

Forty-one adults with T1D took part, most using multiple daily insulin injections. Adding whey protein at Suhoor led to fewer days where fasting had to be stopped because of hypoglycemia (0.94 days vs. 1.15 days without WP, p=0.008). Low blood sugar episodes were slightly less frequent with whey protein, especially in the early morning and late afternoon, though overall glucose control was similar in both weeks. Importantly, there were no severe complications such as diabetic ketoacidosis or hospitalizations. Over half of participants said whey protein was helpful, and two-thirds would use it again during Ramadan.

Including whey protein at Suhoor may help reduce interruptions in fasting for people with T1D without increasing risk. While these findings are promising, larger studies are needed to confirm the benefits and guide practical recommendations.

Alamoudi et al. (2025). J Diabetes Endocrine Practice.

Whey Protein Shown to Improve Jawbone Fracture Recovery

Mandibular fractures (lower jawbone) can severely impair chewing and overall oral function, making effective rehabilitation essential. A recent investigation looked into whether whey protein supplementation could accelerate recovery in patients with unilateral mandibular fractures treated via open reduction.

Forty patients were randomly assigned to two groups: one received whey protein supplementation, while the other served as a control. Recovery was monitored by measuring electromyographic (EMG) activity of the superficial masseter and anterior temporalis muscles at multiple postoperative intervals.

Patients who received whey protein showed greater improvements in muscle activity compared to controls, indicating enhanced functional recovery. These findings suggest that targeted nutritional support may play a role in optimizing rehabilitation outcomes.

Whey protein supplementation appears to improve masticatory muscle function during postoperative recovery in mandibular fracture patients. While promising, these results warrant further research with larger sample sizes to confirm the benefits of dietary interventions in maxillofacial rehabilitation.

Ganguly et al. (2025). Journal of Maxillofacial and Oral Surgery, 1-10.

Protein Strategies for Female Athletes: What the Science Says

Regular exercise places high demands on muscle repair and recovery, making dietary protein essential for adaptation, performance, and resilience. Current evidence shows that sex-based differences in protein metabolism are minimal, and menstrual cycle phase or hormonal contraceptive use does not require major adjustments to protein intake. Instead, athletes should focus on meeting total daily protein targets (1.4–1.6 g/kg/day, up to 2.2 g/kg/day during heavy training or energy restriction) and distributing intake evenly across meals (~0.31 g/kg per meal every 3–4 hours). Plant-focused athletes can achieve similar outcomes by combining diverse protein sources. Across life stages—including menopause—consistent protein intake and resistance training remain the cornerstone of muscle health and performance.

D'Souza et al. (2025) GSSI SSE #270

7500 Flying Cloud Drive
Eden Prairie, MN
actus.com | 952.942.7310

Whey Protein Plus Vitamin D Lowers Sarcopenia in COPD

Patients with chronic obstructive pulmonary disease (COPD) often face accelerated muscle loss, weakness, and reduced physical function—a condition known as sarcopenia. This decline not only impacts mobility but also overall quality of life. While nutritional strategies have been explored, the combined effects of whey protein and vitamin D supplementation (whey-D) on sarcopenia remain unclear.

To investigate this, researchers conducted a 16-week randomized, controlled, double-blind trial involving COPD patients and age-matched healthy controls. Participants were assigned to either a whey-D supplement group or a placebo group. Key measures included handgrip strength (HGS), gait speed (GS), short physical performance battery (SPPB), and biomarkers such as CAF22 (neuromuscular junction integrity) and NfL (neurodegeneration).

At baseline, COPD patients showed lower muscle strength and functional scores, alongside elevated CAF22 and NfL levels compared to controls. After 16 weeks, the whey-D group demonstrated significant improvements in HGS, GS, and SPPB scores, while the placebo group showed no change. Whey-D also reduced CAF22 levels, suggesting neuromuscular junction repair, though NfL remained unaffected. Additionally, whey-D lowered inflammation markers and boosted vitamin D status.

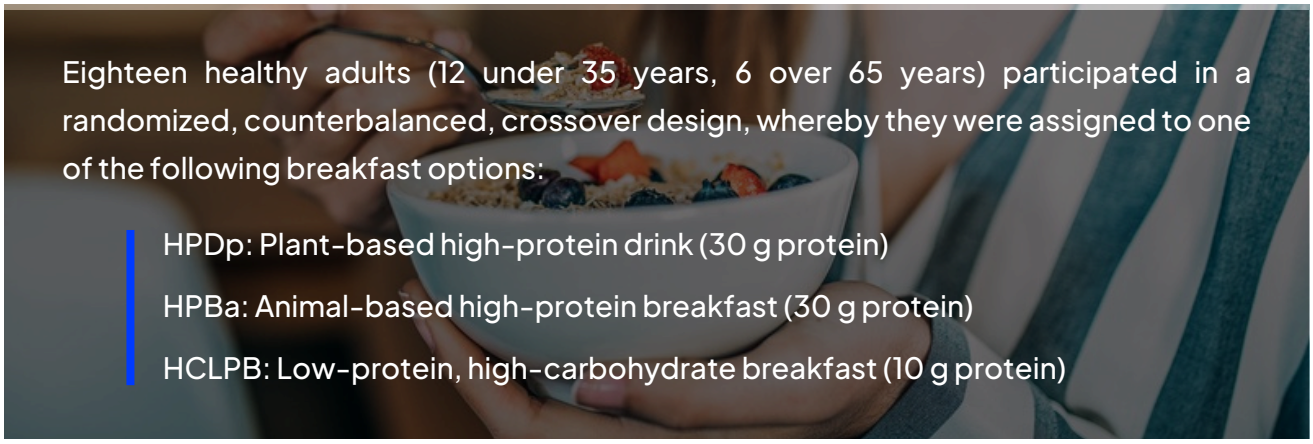
These findings highlight that targeted nutritional supplementation can improve muscle strength and physical performance in COPD patients, partly through neuromuscular repair. By addressing sarcopenia, whey-D supplementation may help reduce disability and enhance quality of life in this vulnerable population.

As COPD management evolves, integrating evidence-based nutritional strategies like whey-D supplementation could become a cornerstone in combating sarcopenia. Future research should explore long-term benefits and potential synergy with exercise interventions to maximize outcomes.

Qaisar et al. Arch Med Res. 2025 Nov 12;57(4):103330.

Impact of Breakfast Protein Sources on Satiety, Gut Hormones, and Later Food Intake in Young and Older Adults

Interest in plant-based protein is growing in the UK, driven by health, environmental, and ethical factors. Research has shown that protein source can influence satiety and gut hormone responses, with differences observed between plant and animal proteins. Additionally, protein intake is often unevenly distributed throughout the day, especially at breakfast, creating an opportunity to improve dietary patterns for populations needing higher protein intake but experiencing reduced appetite.



Eighteen healthy adults (12 under 35 years, 6 over 65 years) participated in a randomized, counterbalanced, crossover design, whereby they were assigned to one of the following breakfast options:

> HPDp: Plant-based high-protein drink (30 g protein)
>
> HPBa: Animal-based high-protein breakfast (30 g protein)
>
> HCLPB: Low-protein, high-carbohydrate breakfast (10 g protein)

Appetite was measured at baseline and at intervals up to 240 minutes post-meal. Plasma GLP-1 and PYY were assessed at baseline and up to 180 minutes.

Both high-protein meals (HPDp and HPBa) produced similar satiety responses and significantly higher GLP-1 and PYY levels ($p < 0.004$) compared to the low-protein, high-carb meal. No differences were observed in subsequent ad libitum energy intake.

Plant-based and animal-based high-protein breakfasts elicit comparable satiety and gut hormone responses, outperforming low-protein, high-carb options. These findings support the role of protein-rich breakfasts in appetite regulation, particularly for populations with reduced morning appetite.

Watson et al. (2025). Eur J Nutr. 12;64(8):315.

IN THE **NEWS**

ICYMI: **Actus Nutrition launches BeneSpore™ probiotic, the only FDA-approved *Bacillus velezensis* strain**

BeneSpore™ BV379 is a next-generation probiotic featuring a proprietary strain of *Bacillus velezensis*. Clinically shown to reduce bloating, help produce digestive enzymes, and support a balanced gut microbiome; BeneSpore™ delivers proven digestive wellness benefits for the use in supplements, beverages and fortified foods. BeneSpore™ is the only FDA approved *Bacillus velezensis* strain.

Women are shaping the next frontier of protein innovation

With the health halo of protein attracting more people into the category, will the increased demand from this demographic shape the products we'll see in the future?

Is yogurt good for you?

A healthy product that been around for centuries, USA Today shine a light on the different types of yogurt, some of the unique nutrients they contain and how their benefits go beyond just gut health.