

Whey protein lent healthy ageing opportunity with new research: Volac

By Ben Bouckley, 12-Apr-2012

Related topics: Ingredients and additives, Formulation, Health & Wellness

Europe's largest whey protein supplier Volac claims that new scientific research backs the ingredient's healthy ageing benefits for older consumers, and the need for 'tailored nutrition strategies' to meet their demands.

Three new studies published this year – by [Yang et al.](#), [Pennings et al.](#) and [Burd et al.](#) – reinforced earlier data showing that whey protein could help overcome a 'blunted' muscle response to nutritional stimuli, and thus offset sarcopenia, the degenerative loss of skeletal muscle mass that affects older people, Volac said.

Suzane Leser, nutrition manager for Lifestyle Ingredients at Volac said that the studies showed positive results for protein nutrition and, specifically, whey protein's role in slowing muscle wastage in later life.

"These studies may contribute to debunk previous concepts that as people get older they would require less protein as they would be unable to utilise any increase, and therefore their protein requirements would probably fall," she said.

Adult protein needs

Specific research findings from the [Yang et al.](#) and [Pennings et al.](#) papers suggested that adults may need higher protein doses (40g) after resistance exercise than the young – whose response plateaus at moderate doses of 20g – to optimise muscle protein synthesis (MPS).

[Yang et al.](#) measured MPS in the leg muscles of 37 elderly men either at rest or after resistance training, when they had consumed either 0, 10, 20 or 40g of whey protein isolate (WPI) after exercise.

The scientists wrote: *"At rest, the optimal whey protein dose for non-frail older adults to consume, to increase myofibrillar MPS above fasting rates was 20g. Resistance exercise increases MPS in the elderly at all protein doses, but to a greater extent with 40g of whey ingestion."*

[Yang et al.](#)'s work suggested that "eating protein smartly" was probably more important than simply looking to achieve total daily protein needs, [Leser](#) said, and that adult populations could benefit from spreading intake (via 10-25g portions with each meal or snack) throughout the day.

She added: *"About 50% of age-related muscle loss is down to environmental factors, and as we learn that older people would particularly benefit from eating 40g of high quality protein around a strength exercise routine, the industry has a great opportunity here to offer convenient high protein products for seniors seeking solutions that will support them to achieve a lifelong active lifestyle."*

[Burd et al.](#) compared MPS in a small cohort of elderly men (seven in two groups) who consumed 20g of either WPI or casein, with MPS measured at rest and during four hours of resistance exercise recovery.

MPS in rested legs was 65% higher after ingestion of whey rather than casein, while exercise-stimulated rates were also greater, the team found.

Tailored nutrition strategy

Whey protein's high leucine content delivered this benefit, [Leser](#) said, adding that another 2012 study by [Churchward-Venne et al.](#) found that only intact whey protein sustained increased rates of muscle protein synthesis in young adults for up to five hours post exercise, compared with enriched protein alternatives.

[Leser](#) said the new data provided tools to develop products for tailored nutritional strategies, which include eating the right type of foods at the right time so that people could reach their 70s in good health.

"For muscle health, research strongly points to a need for a shift to protein sources that are fast digested and naturally high in leucine, such as whey protein," she added.

Euromonitor International figures sent to DairyReporter.com show steady, if not spectacular, volume consumption growth for whey protein concentrate (WPC) and WPI in Western Europe from 2009 to 2011.

WPC volume consumption in tonnes hit 116,839 in 2011 (111,068: 2009), while WPC volumes rose from 368.3 tonnes to 382 tonnes over the period; by far the biggest market for WPC was Turkey (43,098 tonnes in 2011), while WPI's biggest market was France (50.6 tonnes: 2011).

Copyright - Unless otherwise stated all contents of this web site are © 2012 - William Reed Business Media SAS - All Rights Reserved - For permission to reproduce any contents of this web site, please email our Syndication department copyright@wrbm.com - Full details for the use of materials on this site can be found in the Terms & Conditions

© 2012 - William Reed Business Media SAS - All rights reserved.

