

Study Shows Supplementation with XSurge™ Reduces Inflammation After Damaging Exercise

Kemin supplement ingredient shown to support muscle recovery after exercise

Des Moines, Iowa (April 13, 2017) – A recent study conducted at the University of Central Florida showed supplementation with XSurge™, a sports nutrition ingredient developed by Kemin Industries, reduces inflammation after damaging exercise. Findings from this study were published in [“The effect of polyphenols on cytokine and granulocyte response to resistance exercise”](#) in *Physiological Reports* late last year.¹

The goal of the study was to explore the effect of polyphenols on muscle damage and recovery after resistance exercise in an untrained population. Polyphenols are the natural bioactive compounds found in the tea-based ingredient, XSurge.

The study revealed that polyphenol supplementation reduced interleukin-8 (IL-8) protein content in vastus lateralis muscle tissue after damaging exercise, compared to placebo. The study was the first to collect fine-needle biopsies at multiple time points to assess the effects of polyphenol supplementation on IL-8 protein content within skeletal muscle *in vivo*.

“This publication is important for showing the substantiating benefits of XSurge supplementation, and the results contribute to greater understanding of the physiology of recovery after damaging exercise,” said Emily Pankow, Ph.D. ACSM EP-C, Technical Services Manager for the Kemin active wellness platform, which includes XSurge.

“The inclusion of fine-needle muscle biopsies at multiple time points post-exercise provides novel information on the effects of polyphenols, and also provides valuable insights to the field of exercise physiology.”

Additional research outcomes were included in [an abstract presented at the 2016 National Strength and Conditioning Annual Meeting in New Orleans](#). These findings support the results of the first study completed on XSurge, indicating that supplementation with polyphenols does not reduce the effects of strength gains during resistance training.²

[The first XSurge supplementation study](#) showed improved muscle recovery after a downhill treadmill run in recreationally active subjects. Measured outcomes of this study included muscle soreness, muscle strength recovery and circulating markers of physiological stress and muscle damage like cortisol and creatine kinase.³

To learn more about the benefits of XSurge, visit xsurgeperformance.com.

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About Kemin Industries

Kemin (<https://www.kemin.com/en>) has been dedicated to using applied science to improve the quality of life for over half a century. As a global company touching 3.4 billion people every day with its products, Kemin is committed to improving the quality, safety and efficacy of food, feed and health-related products to feed a growing population and be a resource for others in need.

Committed to feed and food safety, Kemin maintains top-of-the-line manufacturing facilities where over 500 specialty ingredients are made for humans and animals in the global feed and food industries, as well as the health, nutrition and beauty markets. The company provides product solutions and options to customers in more than 120 countries.

A privately held, family-owned and operated company, Kemin has more than 2,000 global employees and operates in 90 countries including manufacturing facilities in Belgium, Brazil, China, India, Italy, Singapore, South Africa and the United States.

References

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Media Contact

Stacy Dill, World Wide Marketing Director, Human Nutrition & Health stacy.dill@kemin.com, 515-559-5287

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