

New study sheds light on the role of prebiotics in sports nutrition

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A new study has further revealed the potential for prebiotics to support athletic health and sports nutrition. The study, "Effects of 24-week prebiotic intervention on self-reported upper respiratory symptoms,

gastrointestinal symptoms, and markers of immunity in elite rugby players," published in the *European Journal of Sport Science*, was conducted by a research team led by Dr. Neil Williams of Nottingham Trent University, in partnership with Clasado Biosciences ("Clasado"), developer of the prebiotic ingredient Bimuno GOS.

Focused on a cohort of professional rugby players from the Gallagher Premiership, the trial focused on the role of Bimuno GOS in reducing the incidence and duration of illnesses in top-flight athletes during a competitive season. Over 24 weeks, the study collected data on daily upper respiratory symptoms and weekly [gastrointestinal symptoms](#), as well as biomarkers of immune function.

Demonstrating [enormous potential](#) in sports health formulation, the study revealed that daily consumption of 2.8g Bimuno GOS, reduced the duration of cold or flu-like symptoms in players by an average of 2.4 days (24%) compared to the 10 days experienced by the placebo group.

In addition, the results of the study showed that over the 24-week program, the players taking [prebiotic](#) supplements reduced the incidence and severity of gastrointestinal symptoms, especially the number of weekly upper gastrointestinal symptoms scores which were lower in the Bimuno GOS group compared to the placebo group. The results indicate that supplementation with Bimuno GOS could help to reduce the total number of days missed from training and competition, which is undoubtably important for elite level athletes.

Dr. Neil Williams, principal investigator and senior lecturer in [exercise physiology](#) and nutrition in Nottingham Trent University's Department of Sport Science, said, "Through our latest study and the wider, rapidly advancing field of gut health science, we are enhancing our understanding of how [gut microbiota](#) and appropriate nutrition can support gastrointestinal immune function. This research provides

interesting indications on how prebiotic GOS which target beneficial bacteria could be key in the future of [sports nutrition](#) and supporting athlete health.

"From the results of the study and the biomarkers we were measuring, we can see emerging mechanisms at work. For example, we saw an increase in the secretion rate of salivary IgA, an antibody responsible for fighting-off respiratory infections. It's important to note that with a prebiotic intervention, we are not putting up a 'force field' against illness or disease, what we're doing is improving the body's tolerance and ability to fight off potential illnesses.

"We're uncovering the important role of the gut microbiome, but studies such as this, enable us to turn that understanding into action."

Dr. Lucien Harthoorn, R&D Director at Clasado, adds, "Sports nutrition is an exciting area of exploration in the prebiotic field. Athletic performance is invariably connected to the body's ability to perform, which naturally is interconnected with immune function. We know from numerous studies that our galactooligosaccharide, Bimuno GOS, can support immune health, making it an excellent choice for next-generation sports health formulation.

"Notably, Bimuno GOS stands out in the market as the most studied ingredient of its kind. It's backed by over 110 published scientific studies, including more than 20 clinical trials. Consumers are looking for products they can trust, and this latest study, conducted in partnership with Nottingham Trent University, is further evidence of its benefits.

"With prebiotics providing such a great opportunity for sports nutrition brands, we look forward to supporting the future of sports nutrition product development through prebiotic powered gut microbiome modulation."

More information: C. Parker et al, Effects of 24-week prebiotic intervention on self-reported upper respiratory symptoms, gastrointestinal symptoms, and markers of immunity in elite rugby union players, *European Journal of Sport Science* (2023). [DOI: 10.1080/17461391.2023.2216657](https://doi.org/10.1080/17461391.2023.2216657)

Provided by Nottingham Trent University

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