

An Exploratory Study on the Effect of a Fermented Dairy Product on Self-Reported Gut Complaints in US Recreational Athletes

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Abstract : Background: Around one third of people, including athletes, suffer from feelings of gut discomfort. Fermentation of dairy is a process that has been associated with products that can improve gut health. However, insight in (potential) health benefits of most fermented foods is limited to chemical analyses and in-vitro models. Objective: The aim of this open-label, single-arm explorative trial was to investigate in a real life setting the effect of consumption of a fermented whey product for 3 weeks on self-perceived physical and mental wellbeing and digestive issues in 150 US recreational athletes (20-50 years of age) with self-reported gut complaints at enrolment. Methods: Participants living at the West-Coast of the US received for 3 weeks a daily powder of 15 g of Biotis™ Fermentis to be mixed in water using a supplied shaker. Weekly questionnaires were conducted by MMR research to study the effect on physical/mental health issues and self-perceived gut complaints. Non-parametric tests (e.g., Friedman test) were used to assess statistical differences over time while the Kruskal-Wallis and Wilcoxon signed-rank tests were used for sub-groups analysis. Results: Bloating, stress and anxiety were the top 3 issues of the US recreational athletes. Satisfaction of physical wellbeing increased significantly throughout the 3-weeks of fermented whey product consumption ($p < 0.0005$). Combined digestive issues decreased significantly after 2- and 3-weeks of product consumption, with bloating showing a significant reduction ($p < 0.05$). There was a trend that self-reported stress levels reduced after 3 weeks and participants said to significantly feel more active, energetic, and vital ($p < 0.05$). Subgroup analysis showed that gender and habitual protein supplement consumption were associated with specific health issues and modulated the response to the fermented dairy product. Conclusion: Daily consumption of the fermented Biotis™ Fermentis product is associated with a reduction in self-perceived gastrointestinal symptoms and improved overall wellbeing and mood state in US recreational athletes. This large nutrition and health consumer study brings valuable insights in self-reported gut complaints of recreational athletes in the US and their response to a fermented dairy product. A controlled clinical trial in a targeted population is recommended to scientifically substantiate the product effect as observed in this explorative study.

Keywords : real-life study, digestive health, fermented whey, sports

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