

Prebiotic Galacto-oligosaccharides Impact Stool Frequency and Fecal Microbiota in Self-reported Constipated Adults: A Randomized Clinical Trial[#]

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Constipation is a major issue for 10-20% of the global population. In a double-blind randomized placebo-controlled clinical trial, we aimed to determine a dose-response effect of galacto-oligosaccharides (GOS) on stool characteristics and fecal microbiota in 132 adults with self-reported constipation according to Rome IV criteria (including less than 3 bowel movements per week). Subjects (94% females, aged: 18-59 years) received either 11g or 5.5g of Biotis™ GOS, or a control product, once daily for three weeks. Validated questionnaires were conducted weekly to study primarily stool frequency and secondary stool consistency. At base- and endline, stool samples were taken to study fecal microbiota. A trend towards an increased stool frequency was observed after the intervention with 11g of GOS compared to control. While during screening everybody was considered constipated, not all subjects (n=78) had less than 3 bowel movements per week at baseline. 11g of GOS increased stool frequency compared to control in subjects with a low stool frequency at baseline (≤ 3 bowel movements per week) and in self-reported constipated adults 35 years of age or older. A clear dose-response of GOS was seen on fecal *Bifidobacterium*, and 11g of GOS significantly increased *Anaerostipes hadrus*. In conclusion, GOS seems to be a solution to benefit adults with a low stool frequency and middle-aged adults with self-reported constipation.

[#]Reference: Schoemaker et al. *Nutrients*. 2022 Jan 12;14(2):309