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# A randomized, double-blind, placebo-controlled, parallel, research study to investigate the safety and efficacy of a probiotic *Lactobacillus plantarum* 276 (Lp 276) on gastrointestinal health in healthy adults

**Study Conducted and Report Written by:**
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**Protocol Number:** 19PGHC

**Study Conducted:** 12 NOV 2019 – 8 APR 2021
**Final Study Report Date:** 25 OCT 2021

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|---|---|
| **Supplementation Period:** | 28 Days |
| **Probiotic Lp 276 Dosage:** | 1 Capsule containing 5 Billion CFU Daily |
| **Number of Participants:** | 50, 25 assigned to each arm.<br>48 Completed – 2 dropped from placebo group |
| **Eligibility Criteria (part):** | Male / Female<br>18-55 years of age<br>Self-reported history of diarrhea over previous 3 months (greater than 4 bowel movements (BMs) with at least 40% of BMs / week being Bristol Stool Scale (BSS) form types 5, 6 or 7) |

**Conclusions from the report:**

In conclusion, all participants enrolled in this study self-reported with diarrheal symptoms. While there was not a significant difference between the treatment and placebo group in stool frequency, stool consistency or GSRS [Gastrointestinal Symptom Rating Scale] total score, supplementation with Lp 276 did demonstrate a significant improvement compared to baseline.

It is significant that 81% of the participant's stools in the Lp 276 group were BSS types 5-7 at baseline showed continuous reductions at days 7, 14, and 21 that were maintained until day 28.

The 28 days of Lp 276 supplementation significantly improved gastrointestinal symptoms, stool consistency and quality of life [QoL] compared to baseline. With Lp 276 supplementation, there

was a significant decrease in the mean proportion of bowel movements categorized as Diarrhea (BSS Types 5-7) and increase in those categorized as normal (BSS Types 3, 4) at day 14.

In conjunction, there were significant improvements to self-reported diarrheal symptoms including urgent need for defecation and loose stools as early as day 7 and day 14 respectively and carried through to day 28.

Participants supplemented with Lp 276 for 28 days reported significant improvements in their QoL. They had a decrease in abdominal discomfort after meals, decrease in having a hard time tolerating foods and increase in feeling physically strong. It is noteworthy that these improvements were not reported in the placebo group. The approximately 4.9% improvement in proportion of stool with normal consistency with Lp 276 over placebo observed in this study is similar to improvements to acute diarrhea symptoms found with over-the-counted [sic] medications such as Loperamide and simethicone. Particularly as supplementation with Lp 276 for 28 days was found to be safe and well tolerated by healthy adult participants, this is of value. This study suggests a future role of Lp 276 in the management of diarrhea symptoms in healthy adults and studies to investigate the efficacy of Lp 276 on more vulnerable populations are warranted.

Compiled / Reviewed 05 August 2025