

Table S1. Summary of studies on the role of *L. reuteri* in constipation and diarrhea.

Study	Patients	Probiotic (<i>L. reuteri</i> DSM 17938)	Duration	Results in <i>constipation</i>
Coccorullo et al [38]	44 infants (5–10 months old) 22 probiotics vs 22 placebo	1x 10 ⁸ CFU/day drops of oily suspension	8 weeks	No therapeutic success in constipation Higher frequency of bowel movements in probiotic group at 2-4-8 weeks. No difference in stool consistency
Ojetti et al [3]	20 adults (mean age 36.2 ± 13.7)	10 ⁸ CFU in 1 capsule	4 weeks	Beneficial effect on chronic constipation, via a significant decrease of CH ⁴ production.
Riezzo et al [42]	56 patients	4×10 ⁸ CFU (28 patients) vs 2×10 ⁸ CFU (28 patients)	105 days	Useful in association therapy rather than as single-drug therapy in the management of constipation.
Indrio et al [39]	468 infants (first 3 months of life) 238 in probiotics groups vs 230 placebo	1 × 10 ⁸ CFU/day drops of oily suspension	90 days	Improves constipation during the first 3 months of life.
Kubota et al [2]	60 (>6 months- <6 years old) 20 probiotics + placebo of MgO vs 19 probiotics + MgO vs 21 placebo of probiotics and MgO	10 ⁸ CFU in 5 drops of a commercially available oil suspension, twice a day	4 weeks	<i>L. reuteri</i> DSM 17938 was effective in functional constipation in young children. MgO caused an imbalance in the gastrointestinal microbiome, which was not reported in the group treated with this probiotic.
Ojetti et al [37]	40 adults (18M/22F, 35+/-15 years) 20 probiotics vs 20 placebo	10 ⁸ CFU in tablets twice per day	4 weeks	Effective in improving bowel movement frequency in adult patients with functional constipation but no effect on stool consistency.
Study	Patients	Probiotic (<i>L. reuteri</i>)	Duration	Results in <i>diarrhea</i>
Francavilla et al [18]	69 infants (6-36 months old) 35 probiotics vs 34 placebo	4 x 10 ⁸ CFU/day drops of oily suspension	7 days	<i>L. reuteri</i> plus rehydration therapy was effective in acute diarrhea reducing the frequency, duration and recurrence rate of the disease.

Shornikova et al [24]	86 children (6-36 months) positive for rotavirus 43 probiotics vs 43 placebo	either 10^{10} or 10^7 CFU/daily	5 days	It shortens the duration of acute watery diarrhea with a dose-related effect.
Dinleyici et al [25]	64 children (32 probiotics + oral rehydration vs 32 oral rehydration)	1×10^8 CFU/day + oral rehydration solution	5 days	It reduces the duration of acute diarrhea in hospitalized children.
Urbańska et al [26]	review including 1229 infants and children up to 18 years of age	1×10^8 to 4×10^8 CFU/day	5-7 days	The use of this probiotic may be considered in the management of acute gastroenteritis as an adjunct to rehydration.
Szymański et al [27]	99 children (< 5 years old)	2×10^8 CFU	5 days	It, in addition to standard rehydration therapy, reduces the duration of hospitalization but not the duration of diarrhea.
Patro-Golab et al [29]	review of 347 participants (172 probiotic group and 175 controls)	daily doses ranged from 1×10^8 CFU (5 days) to 2×10^8 CFU (5 days) to 4×10^8 CFU (7 days)	5-7 days	Useful and safe for the treatment and prevention of diarrhea, reducing both the diarrhea duration and the intensity of symptoms.