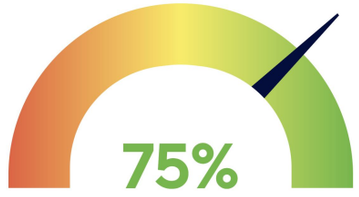
B. longum 35624

Bifidobacterium GENUS | **longum** SPECIES | **35624** STRAIN

Summary

Bifidobacterium longum 35624, previously known as Bifidobacterium infantis 35624, is a probiotic often recommended for managing irritable bowel syndrome (IBS). There have been three randomized placebo-controlled trials (RCTs) (1,2,3) and two open-label trials investigating this strain in IBS populations.(4,5) Given the significant placebo response in IBS, our evaluation focused solely on the three RCTs with a placebo control. **Continues next page...**

Evidence Quality Grade



SYMPTOM	IMPROVEMENT	# PARTICIPANTS	STUDIED DOSE
Diarrhea	WEAK	207	100 million CFU
Constipation	WEAK	207	100 million CFU
Bowel Habits	WEAK	146	10 billion CFU
Global IBS Symptoms	WEAK	229	10 billion CFU
Abdominal Pain /...	WEAK	229	10 billion CFU
Bloating / Distension	WEAK	229	100 million CFU
Gas / Flatulence	WEAK	207	100 million CFU
Nausea / Vomiting	NOT STUDIED	0	N/A
Mental Health	NOT STUDIED	0	N/A

Dosing

Potentially Effective Doses(s)	• 100 million CFU/day • 10 billion CFU/day
Form	• Capsules (100 million CFU dose) • Malted Milk Beverage (10 billion CFU dose)
Suggested Minimum Trial Duration	4 to 8 weeks

How to select a product

Many commercial products contain this strain. But not all are suitable. You need to find one that:

1. has a transparent formula, so we know what is in it and how much
2. only contains active ingredients that are probiotic strains, which have been clinically studied in IBS populations
3. can deliver the studied dose
4. has undergone 3rd party testing for active ingredient and potency, as well as microbiological testing, heavy metals analysis and allergen testing

Search **probioticfinder.org** to see which products match this criteria.

Notes:

Summary (continued)

1. O'Mahony et al.: This study highlighted beneficial effects when the probiotic was delivered via a malted milk beverage at 10 billion CFU/day.(1) However, the evidence quality was poor due to inadequate reporting of participant allocation, baseline imbalances between treatment groups suggestive of poor randomization, and the study being underpowered.
2. Whorwell et al.: This dose-ranging study found benefits only for the 100 million CFU/day dose.(2) The 1 million CFU and 10 billion CFU doses showed no improvement in IBS symptoms compared to placebo. The 10 billion CFU dose was disqualified from our final analysis due to reported formulation challenges and suspected poor capsule dispersion.
3. Charbonneau et al.: This study evaluated a 1 billion CFU/day dose, with IBS symptom improvement as a secondary measure.(3) For participants with IBS, symptom reduction generally appeared more robust in the placebo group compared to the probiotic group, but these results were not statistically significant.

Key Takeaways

- Effectiveness: B. longum 35624 may improve various IBS symptoms such as bowel habits, distention or bloating, constipation, diarrhea, flatulence, global IBS symptoms, and abdominal pain/discomfort. However, the efficacy has been inconsistent depending on the dose and form administered.
- Clinical Benefit: When benefits have been observed, effect sizes have been within the small to moderate range, suggesting a modest clinical benefit at best.
- Dose and Form Uncertainty: There are uncertainties surrounding the optimal dose and form of administration for B. longum 35624. Notably, the robust effects observed in the study by O'Mahony et al. may have been influenced by the dairy matrix used.
- Practical Limitations: Commonly available products are typically provided in capsule form at recommended doses of 1 or 5 billion CFU/day, which are forms and doses that have not demonstrated efficacy in placebo-controlled trials.
- Need for Further Research: More well-designed, placebo-controlled trials are needed to answer key questions about the therapeutic value of B. longum 35624 in IBS.

References

1. O'Mahony L, McCarthy J, Kelly P, et al. Lactobacillus and bifidobacterium in irritable bowel syndrome: symptom responses and relationship to cytokine profiles.Gastroenterol 2005;128(3):541–51.
2. Whorwell PJ, Altringer L, Morel J, et al. Efficacy of an encapsulated probiotic Bifidobacterium infantis 35624 in women with irritable bowel syndrome. Am J Gas-troenterol 2006;101(7):1581–90. doi: 10.1111/j.1572-0241.2006.00734.x.
3. Duane Charbonneau, Roger D. Gibb & Eamonn M.M. Quigley (2013) Fecal excretion of Bifidobacterium infantis 35624 and changes in fecal microbiota after eight weeks of oral supplementation with encapsulated probiotic, Gut Microbes, 4:3, 201-211, DOI: 10.4161/ gmic.24196
4. Sabaté JM, Iglicki F. Effect of Bifidobacterium longum 35624 on disease severity and quality of life in patients with irritable bowel syndrome. World J Gastroenterol. 2022 Feb 21;28(7):732-744. doi: 10.3748/wjg.v28.i7.732. PMID: 35317278; PMCID: PMC8891724.
5. Lenoir, M., Wienke, J., Fardao-Beyler, F. et al. An 8-Week Course of Bifidobacterium longum 35624® Is Associated with a Reduction in the Symptoms of Irritable Bowel Syndrome. Probiotics & Antimicro. Prot. (2023). https://doi.org/10.1007/s12602-023-10151-w