

Sources

HCl & Enzymes:

<https://pubmed.ncbi.nlm.nih.gov/17509031/>

<https://pubmed.ncbi.nlm.nih.gov/22525304/>

<https://pubmed.ncbi.nlm.nih.gov/18702653/>

A growing number of studies show correlations between PPIs—and lower stomach acid—and lower nutrients status for many vitamins and minerals:

- Vitamin B12 ([39](#), [40](#), [41](#), [42](#))
- Iron ([43](#), [44](#), [45](#), [46](#))
- Magnesium ([47](#), [48](#), [49](#), [50](#))
- Calcium ([51](#), [52](#), [53](#))
- Folate ([54](#), [55](#))
- Vitamin C ([56](#))
- Zinc ([57](#))

<https://chriskresser.com/get-rid-of-heartburn-and-gerd-forever-in-three-simple-steps/>

<https://chriskresser.com/how-to-cure-gerd-without-medication/>

<https://kresserinstitute.com/wp-content/uploads/Treating-the-Top-Five-Chronic-Conditions.pdf>

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<https://www.ibgard.com/ibgardr-difference>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4965625/#!po=82.6923>

<https://practicalgastro.com/2020/07/01/three-year-safety-data-analysis-indicates-no-pattern-of-heartburn-with-ibgard-an-advanced-technology-peppermint-oil-in-contrast-to-the-heartburn-issues-with-older-technologies/>

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Cash, Brooks D., Michael S. Epstein, and Syed M. Shah. "A novel delivery system of peppermint oil is an effective therapy for irritable bowel syndrome symptoms." *Digestive diseases and sciences* 61.2 (2016): 560-571.

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https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4965625/#_ffn_sectitle

Efficacy of Garlic as Anti-bacterial:

adare, O. S., et al. "In vitro evaluation of the synbiotic effect of probiotic Lactobacillus strains and garlic extract against Salmonella species." *LWT* 153 (2022): 112439.

https://scholar.google.com/scholar?hl=en&as_sdt=0%2C44&q=In+vitro+evaluation+of+the+synbiotic+effect+of+probiotic+Lactobacillus+strains+and+garlic+extract+against+Salmonella+species&btnG=#d=gs_qabs&u=%23p%3D6PJJoVeqwIJ

Journal 'Nature'

<https://www.nature.com/articles/s41598-018-25154-9>

Ross, Z. M., et al. "Antimicrobial properties of garlic oil against human enteric bacteria: evaluation of methodologies and comparisons with garlic oil sulfides and garlic powder." *Applied and environmental microbiology* 67.1 (2001): 475-480.

https://scholar.google.com/scholar?hl=en&as_sdt=0%2C44&q=Antimicrobial+Properties+of+Garlic+Oil+against+Human+Enteric+Bacteria%3A+Evaluation+of+Methodologies+and+Comparisons+with+Garlic+Oil+Sulfides+and+Garlic+Powder&btnG=#d=gs_qabs&u=%23p%3DsnNBQ425e3QJ

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- Nale, Dr Janet, Chutia, Mahananda, Carr, Philippa, Timothy Hickenbotham, Peter, Clokie, Martha. 8/22/2016. ‘Get in Early’; Biofilm and Wax Moth (*Galleria mellonella*) Models Reveal New Insights into the Therapeutic Potential of *Clostridium difficile* Bacteriophages. *Frontiers in Microbiology*. VL - 7, DO - 10.3389/fmicb.2016.01383. <https://www.frontiersin.org/articles/10.3389/fmicb.2016.01383/full>
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- [1] [What Is Gut Microbiota?](#)
- [2] [Micronutrients, Agriculture and Nutrition: Linkages for Improved Health and Well Being](#)
- [3] [How Modern Life Depletes Our Gut Microbes](#)
- [4] [The Gut Microbiota of Rural Papua New Guineans: Composition, Diversity Patterns, and Ecological Processes](#)
- [5] [NIH Human Microbiome Project defines normal bacterial makeup of the body](#)
- [6] [Human microbiome project: Diversity of human microbes greater than previously predicted](#)
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- [8] [Ecological and Evolutionary Forces Shaping Microbial Diversity in the Human Intestine](#)
- [9] [Cesarean versus Vaginal Delivery: Long term infant outcomes and the Hygiene Hypothesis](#)
- [10] [Reduced anxiety-like behavior and central neurochemical change in germ-free mice](#)
- [11] [The microbiome regulates amygdala-dependent fear recall](#)
- [12] [Gut Microbiota and Its Possible Relationship With Obesity](#)
- [13] [Getting To Know “Friendly Bacteria”](#)
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- [15] [The impact of a consortium of fermented milk strains on the gut microbiome of gnotobiotic mice and monozygotic twins](#)
- [16] [Spore-forming bacteria and their utilisation as probiotics](#)
- [17] [Anti-candida effect of bacillomycin D-like lipopeptides from Bacillus subtilis B38](#)
- [18] [Probiotic Bifidobacterium longum NCC3001 Reduces Depression Scores and Alters Brain Activity: A Pilot Study in Patients With Irritable Bowel Syndrome](#)
- [19] [The Intestinal Life Cycle of *Bacillus subtilis* and Close Relatives](#)
- [20] [The use of bacterial spore formers as probiotics](#)
- [21] [Study of the antifungal activity of Bacillus vallismortis ZZ185 in vitro and identification of its antifungal components](#)

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- [23] [Prescript-assist probiotic-prebiotic treatment for irritable bowel syndrome: an open-label, partially controlled, 1-year extension of a previously published controlled clinical trial](#)

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10. Kim, Ji Yeun, et al. "Effect of probiotic mix (*Bifidobacterium bifidum*, *Bifidobacterium lactis*, *Lactobacillus acidophilus*) in the primary prevention of eczema: a double-blind, randomized, placebo-controlled trial." *Pediatric Allergy and Immunology* 21.2p2 (2010): e386-e393.
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<https://www.amymyersmd.com/article/soil-based-probiotics-sibo/>

Prebiotics:

We recommend Partially Hydrolyzed Guar Gum as a prebiotic! This is safe from those recovering from SIBO! Take with your probiotics. See the research below and the product link below:

Sources

Ohashi Y, Sumitani K, Tokunaga M, Ishihara N, Okubo T, Fujisawa T. Consumption of partially hydrolysed guar gum stimulates Bifidobacteria and butyrate-producing bacteria in the human large intestine. *Benef Microbes*. 2015;6(4):451-5. doi: 10.3920/BM2014.0118. Epub 2015 Feb 12. PMID: 25519526.

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Furnari, M et al. "Clinical trial: the combination of rifaximin with partially hydrolysed guar gum is more effective than rifaximin alone in eradicating small intestinal bacterial overgrowth." *Alimentary pharmacology & therapeutics* vol. 32,8 (2010): 1000-6. doi:10.1111/j.1365-2036.2010.04436.x

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1. *Burkholderia pseudomallei*

<https://journals.asm.org/doi/10.1128/Spectrum.00102-21>

2. *Blastomyces gilchristii*

Verdict: *blastomyces gilchristii* is a fungi which is mold spores are converted into a pathogenic yeast once the spores are inhaled.

Eradication: GI Synergy (contains 3 products in 1 - one of which is called Paristonol which is a product that fight fungal overgrowth)

Probiotics to fight fungal infections:

Lactobacillus acidophilus, *Lactobacillus casei*, *Saccharomyces boulardii*, *Lactobacillus rhamnosus*

Research:

Sources

<https://www.frontiersin.org/articles/10.3389/fmicb.2022.814831/full>

<https://journals.asm.org/doi/10.1128/JCM.02078-20> Campylobacter (C. jejuni, C. coli and C. lari only)

L. salivarius and L. reuteri

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8150830/>

3. Campylobacter (C. jejuni, C. coli and C. lari only)

L. salivarius and L. reuteri

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8150830/>

4. Candidiasis Albicans

Lactobacillus acidophilus, Lactobacillus casei, Saccharomyces boulardii

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4603435/>

<https://pubmed.ncbi.nlm.nih.gov/6762128/>

<https://pubmed.ncbi.nlm.nih.gov/8228371/>

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0012050>

<https://pubmed.ncbi.nlm.nih.gov/17885943/>

5. Overgrowth of Citrobacter

L. plantarum, L. salivarius, L. casei, L. acidophilus, B. animalis subsp. lactis and B. bifidum, Lactobacillus helveticus, Lactobacillus rhamnosus

<https://pubmed.ncbi.nlm.nih.gov/22430833/>

Sources

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5609747/>

6. Clostridiodes difficile (C. Diff):

Saccharomyces boulardii, Lactobacillus rhamnosus

Na, Xi, and Ciaran Kelly. "Probiotics in Clostridium difficile infection." *Journal of clinical gastroenterology* 45.Suppl (2011): S154.

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Na, Xi, and Ciaran Kelly. "Probiotics in Clostridium difficile infection." *Journal of clinical gastroenterology* 45.Suppl (2011): S154.

https://scholar.google.com/scholar?hl=en&as_sdt=0%2C44&q=Probiotics+in+Clostridium+difficile+Infection&btnG=#d=gs_qabs&u=%23p%3DyL1_mJJXCK4J

Lactobacillus reuteri

<https://www.frontiersin.org/articles/10.3389/fmicb.2021.689958/full>

7. Enterotoxigenic E. coli (ETEC) LT/ST

Lactobacillus Plantarum, Saccharomyces: *Pediococcus acidilactici* and *S. cerevisiae boulardii*, Lactobacillus rhamnosus, L. reuteri, *Lactobacillus johnsonii*, bacillus licheniformis

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5510153/#!po=69.9219>

8. Escherichia coli (E. coli) O157:H7

L. rhamnosus, L. acidophilus, bifidobacterium breve, Saccharomyces boulardii, Bifidobacterium animalis, Lactobacillus reuteri, Lactobacillus acidophilus,

Sources

**Lactobacillus plantarum, Lactobacillus rhamnosus, Bifidobacterium longum
Bifidobacterium infantis**

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6069398/>

<https://pubmed.ncbi.nlm.nih.gov/10424093/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1201237/>

9. Enterobacter hormaechei

Here's the verdict: enterobacter hormaechei is a bacterial pathogen related to Enterobacter cloacae.

Eradication: GI Synergy (antibacterial herbs)

Probiotic Strain Needed: Lactobacillus Plantarum

Products:

Lactoprime Plus

<https://klaire.com/k-lpp-lactoprime-plus>

Research:

<https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/enterobacter-hormaechei>

<https://www.liebertpub.com/doi/abs/10.1089/jmf.2018.4329>

<https://bmcvetres.biomedcentral.com/articles/10.1186/s12917-019-2207-z>

10. Enterococcus (faecium ...)

L. rhamnosus

<https://journals.asm.org/doi/10.1128/AEM.01243-16>

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11. *Klebsiella pneumoniae*, *Klebsiella*

Bifidobacterium longum, *L. plantarum*, *L. salivarius*, *L. casei*, *L. acidophilus*, *B. animalis* subsp. *lactis* and *B. bifidum*

<https://www.sciencedirect.com/science/article/pii/S1286457915002312>

<https://pubmed.ncbi.nlm.nih.gov/19462517/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5609747/>

12. *Methanobrevibacter Smithii* (M *Smithii*)

L. plantarum, *Lactobacillus reuteri*, *L. salivarius*, *L. casei*, *L. acidophilus*, *B. animalis* subsp. *lactis* and *B. bifidum*

<https://pubmed.ncbi.nlm.nih.gov/28429333/>

<https://www.scientificwellness.com/blog-view/probiotic-for-methane-dependant-constipation--635>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5609747/>

<https://www.nature.com/articles/s41598-021-84641-8>

13. Overgrowth of *Prevotella Copri*

Lactobacillus acidophilus, *Lactobacillus casei*, *Bifidobacterium bifidum*

Guerreiro, Catarina Sousa, et al. "Diet, microbiota, and gut permeability—the unknown triad in rheumatoid arthritis." *Frontiers in Medicine* (2018): 349.

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14. Overgrowth of *Proteus* spp

Lactobacillus casei, *Lactobacillus reuteri*, *Lactobacillus Plantarum*

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7355612/>

<https://jmb.tums.ac.ir/index.php/jmb/article/view/335>

15. *Streptococcus* spp.

Lactobacillus rhamnosus GG,[10] *Lactobacillus reuteri*, *Bifidobacterium*

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6519182/#!po=9.57447>

16. *Streptococcus agalactiae*

Lactobacillus salivarius, *L. jensenii*, *L. crispatus*, *L. rhamnosus*, *L. gasseri*

<https://www.nature.com/articles/s41598-020-76896-4>

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17. *Streptococcus suis*:

Lactobacillus plantarum

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<https://www.sciencedirect.com/science/article/abs/pii/S0882401017308677>

18. *Salmonella typhimurium*:

Saccaromyces Boulardii, Bacillus Subtilis, Lactobacillus Plantarum, Bifidobacterium Bifidus

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Wagner, R. Doug, and Shemedi J. Johnson. "Probiotic bacteria prevent *Salmonella*-induced suppression of lymphoproliferation in mice by an immunomodulatory mechanism." *BMC microbiology* 17.1 (2017): 1-12.

<https://bmcmicrobiol.biomedcentral.com/articles/10.1186/s12866-017-0990-x>

19. *Salmonella enteritidis*

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<https://www.sciencedirect.com/science/article/abs/pii/S0034528811003419>

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20. Overgrowth of *Salmonella enteric*

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21. *Shigella boydii*

<https://archive.hshsl.umaryland.edu/handle/10713/4621>

Overgrowth of *Shigella dysenteriae*

22. *Shigella dysenteriae*

(*Lactobacillus Rhamnosus*, *Bifidobacterium Lactis*)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5644304/>

https://ijml.ssu.ac.ir/browse.php?a_id=318&sid=1&slc_lang=en&html=1

23. *Shigella sonnei*

Lactobacillus paracasei, *Lactobacillus rhamnosus*, *Lactobacillus casei*

<https://www.sciencedirect.com/science/article/pii/S0944501311000206>

24. *Shigella flexneri*

Sources

Lactobacillus reuteri, *Lactobacillus casei*

<https://www.spandidos-publications.com/10.3892/etm.2020.8469>

<https://journals.aai.org/jimmunol/article/176/2/1228/73611/Anti-Inflammatory-Effect-of-Lactobacillus-casei-on>

<https://www.spandidos-publications.com/10.3892/etm.2020.8469>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5644304/>

25. Overgrowth of Shiga-like Toxin producing E. coli (STEC) stx1/

Bifidobacterium, Pediococcus, and Lactobacillus

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4364364/#!po=11.6162>

26. Overgrowth of Parasites

Probiotics strains to fight overgrowth:

L. reuteri, *Lactobacillus casei* ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3182331/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6799552/>

27. Pseudomonas aeruginosa

Lactobacillus rhamnosus, Bifidobacterium longum

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7556188/>

Sources

28. Tryanosoma Cruzi

Here is the verdict: It's a Parasite. Tryanosoma cruzi is a flagellate protozoan.

Eradication Plan: Do the Parasite protocol and recipe plan. Weeks 1-4 you will follow the eradication supplements based on if you have SIBO or not. Then in weeks 5-8 you will swap out GI Synergy for the parasite supplement (either R.U.G. or SCRAM and follow the directions on the back of the bottle, slowly increasing pills as instructions on back of bottle)

Probiotic strains needed:

Lactobacillus casei

Research:

https://www.researchgate.net/publication/51687710_Probiotics_for_the_Control_of_Parasites_An_Overview

29. Vibrio cholerae, cholera toxin gene (ctx)

Lactobacillus rhamnosus, Bifidobacterium longum

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3763660/>

30. Serratia marcescens

Lactobacillus acidophilus, Lactobacillus plantarum

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5825935/>

Sources

*****Medical Disclosure: (No medical advice, diagnosis or treatment.)**

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