Microbiome Information for: ME/CFS with IBS

For non-prescribing Medical professionals Review

The suggestions below are based on an Expert System (Artificial Intelligence) modelled after the MYCIN Expert System produced at Stanford University School of Medicine in 1972. The system uses over 1,800,000 facts with backward chaining to sources of information. The typical sources are studies published on the US National Library of Medicine.

Many recent studies has found that symptoms and symptom severity has strong associations to the microbiome for many conditions. Correcting the microbiome dysfunction is beleived to reduce the severity of symptoms. In some cases, this correction may cause symptoms to disappear.

These are a priori suggestions that are predicted to independently reduce microbiome dysfunction. Suggestions should only be done after a review by a medical professional factoring in patient's conditions, allergies and other issues.

This report may be freely shared by a patient to their medical professionals

Best practise for making microbiome adjustments is to obtain the individuals microbiome. The following are the best microbiome to use with this expert system model. The suggestions below are intended as temporary suggestions until a test result in received.

In the USA

Ombre (https://www.ombrelab.com/)
Thorne (https://www.thorne.com/products/dp/gut-health-test)
Worldwide: BiomeSight (https://biomesight.com) - Discount Code 'MICRO'

Analysis Provided by Microbiome Prescription

A Microbiome Analysis Company

892 Lake Samish Rd, Bellingham WA 98229 Email: Research@MicrobiomePrescription.com

Bacteria being reported because of atypical values.

These bacteria were reported atypical in studies of ME/CFS with IBS

Nota Bena: Many studies are done with a small sample size or mixtures of condition subsets which can greatly diminish the ability to detect bacteria shifts.

Bacteria Name	Rank Shift T	axonomy ID	Bacteria Name	Rank Shift Ta	xonomy ID
Alistipes	genus High	239759	Blautia obeum	species Low	40520
Bacteroides	genus Low	81 6	Coprococcus catus	species Low	116085
Bifidobacterium	genus Low	1678	Coprococcus comes	species Low	410072
Clostridium	genus High	1485	Dorea formicigenerans	species Low	39486
Faecalibacterium	genus Low	216851	Dorea longicatena	species Low	88431
Streptococcus	genus High	1301	Enterocloster bolteae	species High	208479
Anaerobutyricum hall	ii species Low	39488	Faecalibacterium prausnit	tzii species Low	853
Anaerostipes caccae	species High	105841	Roseburia inulinivorans	species Low	360807

Substance to Consider Adding or Taking

These are the most significant substances that are likely to improve the microbiome dysfunction. Dosages are based on the dosages used in clinical studies. For more information see: https://microbiomeprescription.com/library/dosages. These are provided as examples only

Colors indicates the type of substance: i.e. probiotics and prebiotics, herbs and spices, etc. There is no further meaning to them.

Caffeine

candida albicans (prescription)

dairy

Hesperidin (polyphenol) 15 gram/day

linseed(flaxseed) 30 mg/day

N-Acetyl Cysteine (NAC), 2400 mg/day

sucralose 340 mg/day

Tributyrin

vitamin a 25000 IU/day

vitamin B7, biotin 300 mg/day Vitamin B9,folic acid 5 mg/day

Vitamin C (ascorbic acid) 30 g/day

Substance to Consider Reducing or Eliminating

These are the most signigicant substances have been identified as probably contributing to the microbiome dysfunction.

In some cases blood work may show low levels of some vitamins, etc. listed below. This may be due to *greedy* bacteria reported at a high level above. Viewing bacteria data on the Kyoto Encyclopedia of Genes and Genomes (https://www.kegg.jp/) may provide better insight on the course of action to take.

apple arabinogalactan (prebiotic) bacillus subtilis (probiotics)

Cacao fasting

fructo-oligosaccharides (prebiotic) galacto-oligosaccharides (prebiotic)

Human milk oligosaccharides (prebiotic, Holigos, Stachyose)

inulin (prebiotic)

lactobacillus casei (probiotics) lactobacillus paracasei (probiotics) lactobacillus plantarum (probiotics) partially hydrolyzed guar gum

pectin

resistant starch

resveratrol (grape seed/polyphenols/red wine)

rosmarinus officinalis, rosemary

soy triphala vitamin d wheat wheat bran

Sample of Literature Used

The following are the most significant of the studies used to generate these suggestions.

Correction to: Open-label pilot for treatment targeting gut dysbiosis in myalgic encephalomyelitis/chronic fatigue syndrome: neuropsychological symptoms and sex comparisons.

Journal of translational medicine, Volume: 16 Issue: 1 2018 Feb 23

Authors Wallis A,Ball M,Butt H,Lewis DP,McKechnie S,Paull P,Jaa-Kwee A,Bruck D

Fecal metagenomic profiles in subgroups of patients with myalgic encephalomyelitis/chronic fatigue syndrome.

Microbiome, Volume: 5 Issue: 1 2017 Apr 26

Authors Nagy-Szakal D,Williams BL,Mishra N,Che X,Lee B,Bateman L,Klimas NG,Komaroff AL,Levine S,Montoya JG,Peterson DL,Ramanan D,Jain K,Eddy ML,Hornig M,Lipkin W

Increased d-lactic Acid intestinal bacteria in patients with chronic fatigue syndrome.

In vivo (Athens, Greece), Volume: 23 Issue: 4 2009 Jul-Aug

Authors Sheedy JR, Wettenhall RE, Scanlon D, Gooley PR, Lewis DP, McGregor N, Stapleton DI, Butt HL, DE Meirleir KL

<u>Positive efficacy of Lactiplantibacillus plantarum MH-301 as a postoperative adjunct to endoscopic sclerotherapy for internal hemorrhoids: a randomized, double-blind, placebo-controlled trial.</u>

Food & function, 2023 Sep 1

Authors Zhang K,Liu H,Liu P,Feng Q,Gan L,Yao L,Huang G,Fang Z,Chen T,Fang N

Bile Acids and Short-Chain Fatty Acids Are Modulated after Onion and Apple Consumption in Obese Zucker Rats.

Nutrients, Volume: 15 Issue: 13 2023 Jul 5

Authors Balderas C, de Ancos B, Sánchez-Moreno C

Targeted modification of gut microbiota and related metabolites via dietary fiber.

Carbohydrate polymers, Volume: 316 2023 Sep 15

Authors Nie Q,Sun Y,Li M,Zuo S,Chen C,Lin Q,Nie S

Alterations in the composition of the gut microbiota affect absorption of cholecalciferol in severe osteoporosis.

Journal of bone and mineral metabolism, 2022 Feb 1

Authors Cheng J,Zhong WL,Zhao JW,Zhai JH,Chen C,Chao AJ,Ren Z,Zhou L,Wang BM

<u>Substitution of Refined Conventional Wheat Flour with Wheat High in Resistant Starch Modulates the Intestinal Microbiota and Fecal Metabolites in Healthy Adults: A Randomized, Controlled Trial.</u>

The Journal of nutrition . 2022 Jan 31.

Authors Gondalia SV, Wymond B, Benassi-Evans B, Berbezy P, Bird AR, Belobrajdic DP

Effects of Dietary Supplementation With Bacillus subtilis, as an Alternative to Antibiotics, on Growth Performance, Serum Immunity, and Intestinal Health in Broiler Chickens.

Frontiers in nutrition, Volume: 8 2021

Authors Qiu K,Li CL,Wang J,Qi GH,Gao J,Zhang HJ,Wu SG

<u>Gut microbiota modulation as a possible mediating mechanism for fasting induced alleviation of metabolic complications: a systematic review.</u>

Nutrition & metabolism, Volume: 18 Issue: 1 2021 Dec 14

Authors Angoorani P, Ejtahed HS, Hasani-Ranjbar S, Siadat SD, Soroush AR, Larijani B

The relationship between human milk, a functional nutrient, and microbiota.

Critical reviews in food science and nutrition, 2021 Dec 6

Authors Sakarya E, Sanlier NT, Sanlier N

<u>Bacillus subtilis Attenuates Hepatic and Intestinal Injuries and Modulates Gut Microbiota and Gene Expression Profiles in Mice Infected with Schistosoma japonicum.</u>

Frontiers in cell and developmental biology, Volume: 9 2021.

Authors Lin D,Song Q,Zhang Y,Liu J,Chen F,Du S,Xiang S,Wang L,Wu X,Sun X

Regulatory Effect of Resveratrol on Inflammation Induced by Lipopolysaccharides via Reprograming Intestinal Microbes and Ameliorating Serum Metabolism Profiles.

Frontiers in immunology, Volume: 12 2021.

Authors Ding S, Jiang H, Fang J, Liu G

<u>Effects of dietary tributyrin and physterol ester supplementation on growth performance, intestinal morphology, microbiota and metabolites in weaned piglets.</u>

Journal of applied microbiology, 2021 Oct 27

Authors Chen G,Zhuo R,Ding H,Yang K,Xue J,Zhang S,Chen L,Yin Y,Fang R

<u>Bifidobacterium catabolism of human milk oligosaccharides overrides endogenous competitive exclusion driving colonization and protection.</u>

Gut microbes, Volume: 13 Issue: 1 2021 Jan-Dec

Authors Heiss BE,Ehrlich AM,Maldonado-Gomez MX,Taft DH,Larke JA,Goodson ML,Slupsky CM,Tancredi DJ,Raybould HE,Mills DA Effects of fermented wheat bran and yeast culture on growth performance, immunity and intestinal microflora in growingfinishing pigs.

Journal of animal science, 2021 Oct 23

Authors He W, Gao Y, Guo Z, Yang Z, Wang X, Liu H, Sun H, Shi B

<u>Supplementation with Lactiplantibacillus plantarum IMC 510 Modifies Microbiota Composition and Prevents Body Weight</u>
<u>Gain Induced by Cafeteria Diet in Rats.</u>

International journal of molecular sciences, Volume: 22 Issue: 20 2021 Oct 16

Authors Micioni Di Bonaventura MV,Coman MM,Tomassoni D,Micioni Di Bonaventura E,Botticelli L,Gabrielli MG,Rossolini GM,Di Pilato V,Cecchini C,Amedei A,Silvi S,Verdenelli MC,Cifani C

<u>Treatment with a spore-based probiotic containing five strains of Bacillus induced changes in the metabolic activity and community composition of the gut microbiota in a SHIME® model of the human gastrointestinal system.</u>

Food research international (Ottawa, Ont.), Volume: 149 2021 Nov

Authors Marzorati M, Van den Abbeele P, Bubeck S, Bayne T, Krishnan K, Young A

Bacillus pumilus and Bacillus subtilis Promote Early Maturation of Cecal Microbiota in Broiler Chickens.

Microorganisms, Volume: 9 Issue: 9 2021 Sep 7

Authors Bilal M,Achard C,Barbe F,Chevaux E,Ronholm J,Zhao X

The Prebiotic Potential of Inulin-type Fructans: A Systematic Review.

Advances in nutrition (Bethesda, Md.), 2021 Sep 23

Authors Hughes RL, Alvarado DA, Swanson KS, Holscher HD

The role of genotype and diet in shaping gut microbiome in a genetic Vitamin A deficient mouse model.

Journal of genetics and genomics = Yi chuan xue bao, 2021 Sep 16

Authors Xu J,Zhang JN,Sun BH,Liu Q,Ma J,Zhang Q,Liu YX,Chen N,Chen F

Vitamin D and The Gut Microbiota: a Narrative Literature Review.

Clinical nutrition research, Volume: 10 Issue: 3 2021 Jul

Authors Tangestani H,Boroujeni HK,Djafarian K,Emamat H,Shab-Bidar S

<u>Prebiotic fructans have greater impact on luminal microbiology and CD3+T cells in healthy siblings than patients with Crohn`s disease:</u> A pilot study investigating the potential for primary prevention of inflammatory bowel disease.

Clinical nutrition (Edinburgh, Scotland), Volume: 40 Issue: 8 2021 Jun 23

Authors Hedin CR, McCarthy NE, Louis P, Farquharson FM, McCartney S, Stagg AJ, Lindsay JO, Whelan K

Effects of Bacillus subtilis and Bacillus licheniformis on growth performance, immunity, short chain fatty acid production, antioxidant capacity, and cecal microflora in broilers.

Poultry science, Volume: 100 Issue: 9 2021 Jun 26

Authors Xu Y,Yu Y,Shen Y,Li Q,Lan J,Wu Y,Zhang R,Cao G,Yang C

<u>Effect of Dietary Inulin Supplementation on the Gut Microbiota Composition and Derived Metabolites of Individuals Undergoing Hemodialysis: A Pilot Study.</u>

Journal of renal nutrition: the official journal of the Council on Renal Nutrition of the National Kidney Foundation, 2021. Jun 11.

Authors Biruete A,Cross TL,Allen JM,Kistler BM,de Loor H,Evenepoel P,Fahey GC Jr,Bauer L,Swanson KS,Wilund KR

Resveratrol and its derivative pterostilbene ameliorate intestine injury in intrauterine growth-retarded weanling piglets by modulating redox status and gut microbiota.

Journal of animal science and biotechnology, Volume: 12 Issue: 1 2021 Jun 10

Authors Chen Y,Zhang H,Chen Y,Jia P,Ji S,Zhang Y,Wang T

Effect of Lacticaseibacillus paracasei Strain Shirota on Improvement in Depressive Symptoms, and Its Association with Abundance of Actinobacteria in Gut Microbiota.

Microorganisms , Volume: 9 Issue: 5 2021 May 10

Authors Otaka M,Kikuchi-Hayakawa H,Ogura J,Ishikawa H,Yomogida Y,Ota M,Hidese S,Ishida I,Aida M,Matsuda K,Kawai M,Yoshida S,Kunugi H

Lactobacillus Sps in Reducing the Risk of Diabetes in High-Fat Diet-Induced Diabetic Mice by Modulating the Gut Microbiome and Inhibiting Key Digestive Enzymes Associated with Diabetes.

Biology, Volume: 10 Issue: 4 2021 Apr 20

Authors Gulnaz A, Nadeem J, Han JH, Lew LC, Son JD, Park YH, Rather IA, Hor YY

<u>Cloudy Apple Juice Fermented by Lactobacillus Prevents Obesity via Modulating Gut Microbiota and Protecting Intestinal</u>
Tract Health.

Nutrients, Volume: 13 Issue: 3 2021 Mar 17

Authors Han M,Zhang M,Wang X,Bai X,Yue T,Gao Z

<u>Potato resistant starch inhibits diet-induced obesity by modifying the composition of intestinal microbiota and their</u> metabolites in obese mice.

International journal of biological macromolecules, Volume: 180 2021 Mar 9

Authors Liang D,Zhang L,Chen H,Zhang H,Hu H,Dai X

Effects of colon-targeted vitamins on the composition and metabolic activity of the human gut microbiome- a pilot study.

Gut microbes, Volume: 13 Issue: 1 2021 Jan-Dec

Authors Pham VT, Fehlbaum S, Seifert N, Richard N, Bruins MJ, Sybesma W, Rehman A, Steinert RE

<u>Prevention and Alleviation of Dextran Sulfate Sodium Salt-Induced Inflammatory Bowel Disease in Mice With Bacillus subtilis-Fermented Milk via Inhibition of the Inflammatory Responses and Regulation of the Intestinal Flora.</u>

Frontiers in microbiology, Volume: 11 2020

Authors Zhang X,Tong Y,Lyu X,Wang J,Wang Y,Yang R

<u>Selective Utilization of the Human Milk Oligosaccharides 2`-Fucosyllactose, 3-Fucosyllactose, and Difucosyllactose by Various Probiotic and Pathogenic Bacteria.</u>

Journal of agricultural and food chemistry, Volume: 69 Issue: 1 2021 Jan 13

Authors Salli K, Hirvonen J, Siitonen J, Ahonen I, Anglenius H, Maukonen J

Adjunctive treatment with probiotics partially alleviates symptoms and reduces inflammation in patients with irritable bowel syndrome.

European journal of nutrition, 2020 Nov 22

Authors Xu H,Ma C,Zhao F,Chen P,Liu Y,Sun Z,Cui L,Kwok LY,Zhang H

<u>Effects of Different Human Milk Oligosaccharides on Growth of Bifidobacteria in Monoculture and Co-culture With</u> Faecalibacterium prausnitzii.

Frontiers in microbiology, Volume: 11 2020

Authors Cheng L, Kiewiet MBG, Logtenberg MJ, Groeneveld A, Nauta A, Schols HA, Walvoort MTC, Harmsen HJM, de Vos P Alginate- and Gelatin-Coated Apple Pieces as Carriers for Bifidobacterium animalis subsp. lactis DSM 10140.

Frontiers in microbiology, Volume: 11 2020

Authors Campaniello D, Bevilacqua A, Speranza B, Sinigaglia M, Corbo MR

<u>Enterococcus faecium R0026 combined with Bacillus subtilis R0179 prevent obesity-associated hyperlipidaemia and modulate gut microbiota in C57BL/6 mice.</u>

Journal of microbiology and biotechnology, 2020 Oct 20

Authors Huang J, Huang J, Yin T, Lv H, Zhang P, Li H

Neuroprotective effects associated with immune modulation by selected lactic acid bacteria in a Parkinson's disease model.

Nutrition (Burbank, Los Angeles County, Calif.), Volume: 79-80 2020 Nov - Dec

Authors Perez Visñuk D,Savoy de Giori G,LeBlanc JG,de Moreno de LeBlanc A

<u>Modulatory Effects of Triphala and Manjistha Dietary Supplementation on Human Gut Microbiota: A Double-Blind, Randomized, Placebo-Controlled Pilot Study.</u>

Journal of alternative and complementary medicine (New York, N.Y.), 2020 Sep 18

Authors Peterson CT, Pourang A, Dhaliwal S, Kohn JN, Uchitel S, Singh H, Mills PJ, Peterson SN, Sivamani RK

<u>Modulatory Effects of Triphala and Manjistha Dietary Supplementation on Human Gut Microbiota: A Double-Blind,</u> <u>Randomized, Placebo-Controlled Pilot Study.</u>

Journal of alternative and complementary medicine (New York, N.Y.), Volume: **26** Issue: **11 2020** Nov Authors Peterson CT, Pourang A, Dhaliwal S, Kohn JN, Uchitel S, Singh H, Mills PJ, Peterson SN, Sivamani RK

Relative abundance of the Prevotella genus within the human gut microbiota of elderly volunteers determines the interindividual responses to dietary supplementation with wheat bran arabinoxylan-oligosaccharides.

BMC microbiology, Volume: 20 Issue: 1 2020 Sep 14

Authors Chung WSF, Walker AW, Bosscher D, Garcia-Campayo V, Wagner J, Parkhill J, Duncan SH, Flint HJ

Characterizing the gut microbiota in females with infertility and preliminary results of a water-soluble dietary fiber intervention study.

Journal of clinical biochemistry and nutrition, Volume: 67 Issue: 1 2020 Jul

Authors Komiya S,Naito Y,Okada H,Matsuo Y,Hirota K,Takagi T,Mizushima K,Inoue R,Abe A,Morimoto Y

Effect of High versus Low Dairy Consumption on the Gut Microbiome: Results of a Randomized, Cross-Over Study.

Nutrients, Volume: 12 Issue: 7 2020 Jul 17

Authors Swarte JC, Eelderink C, Douwes RM, Said MY, Hu S, Post A, Westerhuis R, Bakker SJL, Harmsen HJM

<u>Dietary supplementation with Bacillus subtilis DSM 32315 alters the intestinal microbiota and metabolites in weaned piglets.</u>

Journal of applied microbiology, 2020 Jul 6

Authors Ding H,Zhao X,Ma C,Gao Q,Yin Y,Kong X,He J

Cocoa Polyphenols and Gut Microbiota Interplay: Bioavailability, Prebiotic Effect, and Impact on Human Health.

Nutrients, Volume: 12 Issue: 7 2020 Jun 27

Authors Sorrenti V,Ali S,Mancin L,Davinelli S,Paoli A,Scapagnini G

Cocoa Polyphenols and Gut Microbiota Interplay: Bioavailability, Prebiotic Effect, and Impact on Human Health.

Nutrients . Volume: 12 Issue: 7 2020 Jun 27

Authors Sorrenti V,Ali S,Mancin L,Davinelli S,Paoli A,Scapagnini G

<u>The Protective Effects of 2`-Fucosyllactose against E. Coli O157 Infection Are Mediated by the Regulation of Gut Microbiota</u> and the Inhibition of Pathogen Adhesion.

Nutrients, Volume: 12 Issue: 5 2020 May 1

Authors Wang Y,Zou Y,Wang J,Ma H,Zhang B,Wang S

<u>Prebiotic Effects of Partially Hydrolyzed Guar Gum on the Composition and Function of the Human Microbiota-Results from</u> the PAGODA Trial.

Nutrients, Volume: 12 Issue: 5 2020 Apr 28

Authors Reider SJ,Moosmang S,Tragust J,Trgovec-Greif L,Tragust S,Perschy L,Przysiecki N,Sturm S,Tilg H,Stuppner H,Rattei T.Moschen AR

<i>Lactobacillus paracasei</i> subsp. <i>paracasei</i> NTU 101 lyophilized powder improves loperamide-induced constipation in rats.

Heliyon, Volume: 6 Issue: 4 2020 Apr

Authors Chen CL, Chao SH, Pan TM

Effects of Tributyrin Supplementation on Growth Performance, Insulin, Blood Metabolites and Gut Microbiota in Weaned Piglets.

Animals: an open access journal from MDPI, Volume: 10 Issue: 4 2020 Apr 22

Authors Sotira S,Dell`Anno M,Caprarulo V,Hejna M,Pirrone F,Callegari ML,Tucci TV,Rossi L

Conserved and variable responses of the gut microbiome to resistant starch type 2.

Nutrition research (New York, N.Y.), Volume: 77 2020 Feb 22

Authors Bendiks ZA, Knudsen KEB, Keenan MJ, Marco ML

Beneficial effects of flaxseed polysaccharides on metabolic syndrome via gut microbiota in high-fat diet fed mice.

Food research international (Ottawa, Ont.), Volume: 131 2020 May

Authors Yang C,Xu Z,Deng Q,Huang Q,Wang X,Huang F

The effects of high doses of vitamin D on the composition of the gut microbiome of adolescent girls.

Clinical nutrition ESPEN, Volume: 35 2020 Feb

Authors Tabatabaeizadeh SA,Fazeli M,Meshkat Z,Khodashenas E,Esmaeili H,Mazloum S,Ferns GA,Abdizadeh MF,Ghayour-Mobarhan M

Dietary prophage inducers and antimicrobials: toward landscaping the human gut microbiome.

Gut microbes, 2020 Jan 13

Authors Boling L, Cuevas DA, Grasis JA, Kang HS, Knowles B, Levi K, Maughan H, McNair K, Rojas MI, Sanchez SE, Smurthwaite C, Rohwer F

The Effect of Various Doses of Oral Vitamin D₃ Supplementation on Gut Microbiota in Healthy Adults: A Randomized, Double-blinded, Dose-response Study.

Anticancer research, Volume: 40 Issue: 1 2020 Jan

Authors Charoenngam N, Shirvani A, Kalajian TA, Song A, Holick MF

<u>Islamic fasting leads to an increased abundance of Akkermansia muciniphila and Bacteroides fragilis group: A preliminary study on intermittent fasting.</u>

The Turkish journal of gastroenterology: the official journal of Turkish Society of Gastroenterology, Volume: 30 Issue: 12 2019 Dec

Authors Özkul C, Yalinay M, Karakan T

Dietary resistant starch modifies the composition and function of caecal microbiota of broilers.

Journal of the science of food and agriculture, Volume: 100 Issue: 3 2020 Feb

Authors Zhang Y,Liu Y,Li J,Xing T,Jiang Y,Zhang L,Gao F

The effect of inulin and resistant maltodextrin on weight loss during energy restriction: a randomised, placebo-controlled, double-blinded intervention.

European journal of nutrition, 2019 Oct 11.

Authors Hess AL, Benítez-Páez A, Blædel T, Larsen LH, Iglesias JR, Madera C, Sanz Y, Larsen TM, MyNewGut Consortium.

Effect of Repeated Consumption of Partially Hydrolyzed Guar Gum on Fecal Characteristics and Gut Microbiota: A Randomized, Double-Blind, Placebo-Controlled, and Parallel-Group Clinical Trial.

Nutrients, Volume: 11 Issue: 9 2019 Sep 10

Authors Yasukawa Z,Inoue R,Ozeki M,Okubo T,Takagi T,Honda A,Naito Y

Immunomodulatory and Prebiotic Effects of 2`-Fucosyllactose in Suckling Rats.

Frontiers in immunology, Volume: 10 2019

Authors Azagra-Boronat I,Massot-Cladera M,Mayneris-Perxachs J,Knipping K,Van`t Land B,Tims S,Stahl B,Garssen J,Franch À,Castell M,Rodríguez-Lagunas NJ,Pérez-Cano FJ

Dietary Factors and Modulation of Bacteria Strains of <i>Akkermansia muciniphila</i> and <i>Faecalibacterium

prausnitzii</i>: A Systematic Review.

Nutrients, Volume: 11 Issue: 7 2019 Jul 11

Authors Verhoog S, Taneri PE, Roa Díaz ZM, Marques-Vidal P, Troup JP, Bally L, Franco OH, Glisic M, Muka T

<u>Supplementation of diet with non-digestible oligosaccharides alters the intestinal microbiota, but not arthritis development, in IL-1 receptor antagonist deficient mice.</u>

PloS one, Volume: 14 Issue: 7 2019

Authors Rogier R,Ederveen THA,Wopereis H,Hartog A,Boekhorst J,van Hijum SAFT,Knol J,Garssen J,Walgreen B,Helsen MM,van der Kraan PM,van Lent PLEM,van de Loo FAJ,Abdollahi-Roodsaz S,Koenders MI

The role of short-chain fatty acids in microbiota-gut-brain communication.

Nature reviews. Gastroenterology & hepatology, Volume: 16 Issue: 8 2019 Aug

Authors Dalile B, Van Oudenhove L, Vervliet B, Verbeke K

Fermented Momordica charantia L. juice modulates hyperglycemia, lipid profile, and gut microbiota in type 2 diabetic rats.

Food research international (Ottawa, Ont.), Volume: 121 2019 Jul

Authors Gao H, Wen JJ, Hu JL, Nie QX, Chen HH, Xiong T, Nie SP, Xie MY

Arabinoxylan from Argentinian whole wheat flour promote the growth of Lactobacillus reuteri and Bifidobacterium breve.

Letters in applied microbiology, Volume: 68 Issue: 2 2019 Feb

Authors Paesani C,Salvucci E,Moiraghi M,Fernandez Canigia L,Pérez GT

<u>Simultaneous Supplementation of <i>Bacillus subtilis</i> and Antibiotic Growth Promoters by Stages Improved Intestinal</u> Function of Pullets by Altering Gut Microbiota.

Frontiers in microbiology, Volume: 9 2018

Authors Li X, Wu S, Li X, Yan T, Duan Y, Yang X, Duan Y, Sun Q, Yang X

<u>Probiotic <i>Lactobacillus plantarum</i> Promotes Intestinal Barrier Function by Strengthening the Epithelium and Modulating Gut Microbiota.</u>

Frontiers in microbiology, Volume: 9 2018

Authors Wang J, Ji H, Wang S, Liu H, Zhang W, Zhang D, Wang Y

Introducing insoluble wheat bran as a gut microbiota niche in an in vitro dynamic gut model stimulates propionate and butyrate production and induces colon region specific shifts in the luminal and mucosal microbial community.

Environmental microbiology, Volume: 20 Issue: 9 2018 Sep

Authors De Paepe K, Verspreet J, Verbeke K, Raes J, Courtin CM, Van de Wiele T

<u>Inulin fiber dose-dependently modulates energy balance, glucose tolerance, gut microbiota, hormones and diet preference in high-fat-fed male rats.</u>

The Journal of nutritional biochemistry, Volume: 59 2018 Sep

Authors Singh A, Zapata RC, Pezeshki A, Reidelberger RD, Chelikani PK

<u>Pectin Alleviates High Fat (Lard) Diet-Induced Nonalcoholic Fatty Liver Disease in Mice: Possible Role of Short-Chain Fatty Acids and Gut Microbiota Regulated by Pectin.</u>

Journal of agricultural and food chemistry, 2018 Jul 20

Authors Li W,Zhang K,Yang H

Beneficial effects of the commercial lactic acid bacteria product, Vigiis 101, on gastric mucosa and intestinal bacterial flora in rats.

Journal of microbiology, immunology, and infection = Wei mian yu gan ran za zhi , 2018 Jun 23 Authors Kao L,Liu TH,Tsai TY,Pan TM

Prebiotic Potential of Herbal Medicines Used in Digestive Health and Disease.

Journal of alternative and complementary medicine (New York, N.Y.), Volume: 24 Issue: 7 2018 Jul

Authors Peterson CT, Sharma V, Uchitel S, Denniston K, Chopra D, Mills PJ, Peterson SN

Extensive impact of non-antibiotic drugs on human gut bacteria.

Nature . Volume: 555 Issue: 7698 2018 Mar 29

Authors Maier L,Pruteanu M,Kuhn M,Zeller G,Telzerow A,Anderson EE,Brochado AR,Fernandez KC,Dose H,Mori H,Patil KR,Bork P,Typas A

Wheat-derived arabinoxylan oligosaccharides with bifidogenic properties abolishes metabolic disorders induced by western diet in mice.

Nutrition & diabetes, Volume: 8 Issue: 1 2018 Mar 7

Authors Neyrinck AM, Hiel S, Bouzin C, Campayo VG, Cani PD, Bindels LB, Delzenne NM

Effects of a galacto-oligosaccharide-rich diet on fecal microbiota and metabolite profiles in mice.

Food & function, 2018 Feb 21.

Authors Cheng W,Lu J,Lin W,Wei X,Li H,Zhao X,Jiang A,Yuan J

Prebiotic Wheat Bran Fractions Induce Specific Microbiota Changes.

Frontiers in microbiology, Volume: 9 2018

Authors D`hoe K,Conterno L,Fava F,Falony G,Vieira-Silva S,Vermeiren J,Tuohy K,Raes J

<u>Lactobacillus plantarum HNU082-derived improvements in the intestinal microbiome prevent the development of hyperlipidaemia.</u>

Food & function, Volume: 8 Issue: 12 2017 Dec 13

Authors Shao Y, Huo D, Peng Q, Pan Y, Jiang S, Liu B, Zhang J

Effects of microencapsulated Lactobacillus plantarum LIP-1 on the gut microbiota of hyperlipidaemic rats.

The British journal of nutrition, Volume: 118 Issue: 7 2017 Oct

Authors Song JJ, Tian WJ, Kwok LY, Wang YL, Shang YN, Menghe B, Wang JG

Effects of microencapsulated Lactobacillus plantarum LIP-1 on the gut microbiota of hyperlipidaemic rats.

The British journal of nutrition, Volume: 118 Issue: 7 2017 Oct

Authors Song JJ, Tian WJ, Kwok LY, Wang YL, Shang YN, Menghe B, Wang JG

Prebiotics Mediate Microbial Interactions in a Consortium of the Infant Gut Microbiome.

International journal of molecular sciences, Volume: 18 Issue: 10 2017 Oct 4

Authors Medina DA,Pinto F,Ovalle A,Thomson P,Garrido D

<u>Dietary soy, meat, and fish proteins modulate the effects of prebiotic raffinose on composition and fermentation of gut microbiota in rats.</u>

International journal of food sciences and nutrition, Volume: 69 Issue: 4 2018 Jun

Authors Bai G,Tsuruta T,Nishino N

<u>Fructooligosaccharide (FOS) and Galactooligosaccharide (GOS) Increase Bifidobacterium but Reduce Butyrate Producing</u>
Bacteria with Adverse Glycemic Metabolism in healthy young population.

Scientific reports, Volume: 7 Issue: 1 2017 Sep 18

Authors Liu F,Li P,Chen M,Luo Y,Prabhakar M,Zheng H,He Y,Qi Q,Long H,Zhang Y,Sheng H,Zhou H

Assessment of plaque regrowth with a probiotic toothpaste containing <i>Lactobacillus paracasei</i> A spectrophotometric study.

Journal of the Indian Society of Pedodontics and Preventive Dentistry, Volume: 35 Issue: 4 2017 Oct-Dec Authors Srinivasan S,Nandlal B,Rao MVS

Effect of Probiotic Lactobacilli on the Growth of Streptococcus Mutans and Multispecies Biofilms Isolated from Children with Active Caries.

Medical science monitor: international medical journal of experimental and clinical research, Volume: 23 2017 Aug 30

Authors Lin X,Chen X,Tu Y,Wang S,Chen H

<u>Lactobacillus plantarum LP-Onlly alters the gut flora and attenuates colitis by inducing microbiome alteration in interleukin-10 knockout mice.</u>

Molecular medicine reports, Volume: 16 Issue: 5 2017 Nov

Authors Chen H,Xia Y,Zhu S,Yang J,Yao J,Di J,Liang Y,Gao R,Wu W,Yang Y,Shi C,Hu D,Qin H,Wang Z

Lactobacillus casei CCFM419 attenuates type 2 diabetes via a gut microbiota dependent mechanism.

Food & function, Volume: 8 Issue: 9 2017 Sep 20

Authors Wang G,Li X,Zhao J,Zhang H,Chen W

Fat binding capacity and modulation of the gut microbiota both determine the effect of wheat bran fractions on adiposity.

Scientific reports, Volume: 7 Issue: 1 2017 Jul 17

Authors Suriano F, Bindels LB, Verspreet J, Courtin CM, Verbeke K, Cani PD, Neyrinck AM, Delzenne NM

Effect of Soy Isoflavones on Growth of Representative Bacterial Species from the Human Gut.

Nutrients, Volume: 9 Issue: 7 2017 Jul 8

Authors Vázquez L,Flórez AB,Guadamuro L,Mayo B

Prebiotic Potential and Chemical Composition of Seven Culinary Spice Extracts.

Journal of food science, Volume: 82 Issue: 8 2017 Aug

Authors Lu QY, Summanen PH, Lee RP, Huang J, Henning SM, Heber D, Finegold SM, Li Z

Cocoa and Dark Chocolate Polyphenols: From Biology to Clinical Applications

Frontiers in Immunology, Volume: 8 2017 Jun 9

Authors Magrone T,Russo MA,Jirillo E

Cocoa and Dark Chocolate Polyphenols: From Biology to Clinical Applications.

Frontiers in immunology, Volume: 8 2017

Authors Magrone T,Russo MA,Jirillo E

The effects of the Lactobacillus casei strain on obesity in children: a pilot study.

Beneficial microbes, Volume: 8 Issue: 4 2017 Aug 24

Authors Nagata S,Chiba Y,Wang C,Yamashiro Y

Human Milk Oligosaccharides Exhibit Antimicrobial and Antibiofilm Properties against Group B Streptococcus.

ACS infectious diseases , Volume: 3 Issue: 8 2017 Aug 11

Authors Ackerman DL, Doster RS, Weitkamp JH, Aronoff DM, Gaddy JA, Townsend SD

<u>Effects of Commercial Apple Varieties on Human Gut Microbiota Composition and Metabolic Output Using an In Vitro Colonic</u> Model.

Nutrients, Volume: 9 Issue: 6 2017 May 24

Authors Koutsos A,Lima M,Conterno L,Gasperotti M,Bianchi M,Fava F,Vrhovsek U,Lovegrove JA,Tuohy KM

The effects of micronutrient deficiencies on bacterial species from the human gut microbiota.

Science translational medicine, Volume: 9 Issue: 390 2017 May 17

Authors Hibberd MC, Wu M, Rodionov DA, Li X, Cheng J, Griffin NW, Barratt MJ, Giannone RJ, Hettich RL, Osterman AL, Gordon JI Influence of diet on the gut microbiome and implications for human health.

Journal of translational medicine, Volume: 15 Issue: 1 2017 Apr 8

Authors Singh RK,Chang HW,Yan D,Lee KM,Ucmak D,Wong K,Abrouk M,Farahnik B,Nakamura M,Zhu TH,Bhutani T,Liao W

Anti Bacterial Efficacy of <i>Terminalia Chebula, Terminalia Bellirica, Embilica Officinalis</i> and <i>Triphala</i> on
Salivary <i>Streptococcus Mutans</i> Count - A Linear Randomized Cross Over Trial.

Journal of clinical and diagnostic research : JCDR , Volume: 11 Issue: 2 2017 Feb

Authors Saxena S,Lakshminarayan N,Gudli S,Kumar M

Carbohydrate Staple Food Modulates Gut Microbiota of Mongolians in China.

Frontiers in microbiology, Volume: 8 2017

Authors Li J,Hou Q,Zhang J,Xu H,Sun Z,Menghe B,Zhang H

Effect of dietary polyphenol-rich grape seed on growth performance, antioxidant capacity and ileal microflora in broiler chicks.

Journal of animal physiology and animal nutrition, Volume: 102 Issue: 1 2018 Feb

Authors Abu Hafsa SH, Ibrahim SA

Prebiotic inulin-type fructans induce specific changes in the human gut microbiota.

Gut , Volume: 66 Issue: 11 2017 Nov

Authors Vandeputte D,Falony G,Vieira-Silva S,Wang J,Sailer M,Theis S,Verbeke K,Raes J

Biological activities of Rosmarinus officinalis L (rosemary) extract as analyzed in microorganisms and cells.

Experimental biology and medicine (Maywood, N.J.), Volume: 242 Issue: 6 2017 Mar

Authors de Oliveira JR,de Jesus D,Figueira LW,de Oliveira FE,Pacheco Soares C,Camargo SE,Jorge AO,de Oliveira LD

Impact of short-chain galactooligosaccharides on the gut microbiome of lactose-intolerant individuals.

Proceedings of the National Academy of Sciences of the United States of America , Volume: 114 Issue: 3 2017 Jan 17

Authors Azcarate-Peril MA,Ritter AJ,Savaiano D,Monteagudo-Mera A,Anderson C,Magness ST,Klaenhammer TR

Improved Glucose Homeostasis in Obese Mice Treated With Resveratrol Is Associated With Alterations in the Gut Microbiome.

Diabetes, Volume: 66 Issue: 2 2017 Feb

Authors Sung MM,Kim TT,Denou E,Soltys CM,Hamza SM,Byrne NJ,Masson G,Park H,Wishart DS,Madsen KL,Schertzer JD,Dyck JR

Additional APriori Analysis Available

Available at: https://microbiomeprescription.com/Library/PubMed

Acne

ADHD

Allergic Rhinitis (Hay Fever)

Allergies

Alopecia (Hair Loss)

Alzheimer's disease

Amyotrophic lateral sclerosis (ALS) Motor Neuron

Ankylosing spondylitis

Anorexia Nervosa

Antiphospholipid syndrome (APS)

Asthma

Atherosclerosis

Autism

Autoimmune Disease

Barrett esophagus cancer

Bipolar Disorder

Brain Trauma

Carcinoma

Celiac Disease

Cerebral Palsy

Chronic Fatigue Syndrome

Chronic Kidney Disease

Chronic Lyme

Chronic Obstructive Pulmonary Disease (COPD)

Chronic Urticaria (Hives)

Coagulation / Micro clot triggering bacteria

Colorectal Cancer

Constipation

Coronary artery disease

COVID-19

Crohn's Disease

cystic fibrosis

deep vein thrombosis

Depression

Dermatomyositis

Eczema

Endometriosis

Eosinophilic Esophagitis

Epilepsy

Fibromyalgia

Functional constipation / chronic idiopathic constipation

gallstone disease (gsd)

Gastroesophageal reflux disease (Gerd) including Barrett's esophagus

Generalized anxiety disorder

Gout

Graves' disease

Hashimoto's thyroiditis

Hidradenitis Suppurativa

Histamine Issues From Ubiome

Histamine Issues, Mast Cell Issue, DAO Insufficiency

hypercholesterolemia (High Cholesterol)

hyperglycemia

Hyperlipidemia (High Blood Fats)

hypersomnia

hypertension (High Blood Pressure

Hypoxia

IgA nephropathy (IgAN)

Inflammatory Bowel Disease

Insomnia

Intelligence

Irritable Bowel Syndrome

Juvenile idiopathic arthritis

Liver Cirrhosis

Long COVID

Lung Cancer

ME/CFS with IBS

ME/CFS without IBS

Menopause

Metabolic Syndrome

Mood Disorders

Multiple Sclerosis

Multiple system atrophy (MSA)

Neuropathy (all types)

neuropsychiatric disorders (PANDAS, PANS)

Nonalcoholic Fatty Liver Disease (nafld) Nonalcoholic

NonCeliac Gluten Sensitivity

Obesity

obsessive-compulsive disorder

Osteoarthritis

Osteoporosis

Parkinson's Disease

Postural orthostatic tachycardia syndrome

Premenstrual dysphoric disorder

Psoriasis

rheumatoid arthritis (RA), Spondyloarthritis (SpA)

Rosacea

Schizophrenia

Sjögren syndrome

Sleep Apnea

Small Intestinal Bacterial Overgrowth (SIBO)

Stress / posttraumatic stress disorder

Systemic Lupus Erythematosus

Tic Disorder

Tourette syndrome

Type 1 Diabetes

Type 2 Diabetes

Ulcerative colitis

Unhealthy Ageing