

## Microbiome Information for: Brain Trauma

### For 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 *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**

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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/>)

Thome (<https://www.thome.com/products/dp/gut-health-test>)

Worldwide: BiomeSight (<https://biomesight.com>) - Discount Code 'MICRO'

### Analysis Provided by Microbiome Prescription

A Microbiome Analysis Company

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Email: [Research@MicrobiomePrescription.com](mailto:Research@MicrobiomePrescription.com)

## Bacteria being reported because of atypical values.

These bacteria were reported atypical in studies of Brain Trauma

*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.

<b>Bacteria Name</b>	<b>Rank</b>	<b>Shift</b>	<b>Taxonomy ID</b>	<b>Bacteria Name</b>	<b>Rank</b>	<b>Shift</b>	<b>Taxonomy ID</b>
Bifidobacteriaceae	family	High	31953	Lactobacillus	genus	Low	1578
Enterobacteriaceae	family	High	543	Megasphaera	genus	High	906
Peptococcaceae	family	High	186807	Oscillibacter	genus	High	459786
Prevotellaceae	family	Low	171552	Prevotella	genus	Low	838
Bacteroides	genus	Low	816	Roseburia	genus	Low	841
Bifidobacterium	genus	High	1678	Staphylococcus	genus	Low	1279
Collinsella	genus	High	102106	Turicibacter	genus	Low	191303
Desulfovibrio	genus	High	872	Anaeroplasmatales	order	Low	186332
Enterobacter	genus	High	547	Bacteroidales	order	Low	171549
Eubacterium	genus	Low	1730	Eubacteriales	order	High	186802
Faecalibacterium	genus	Low	216851	Lactobacillales	order	Low	186826
				Faecalibacterium prausnitzii	species	Low	853

## 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.

Antibiotics annotated with [CFS] have been used with various degree of success with Myalgic Encephalomyelitis, Chronic Fatigue Syndrome, Chronic Lyme, Chronic Q-Fever and Long COVID conditions. Rotation of antibiotics with 3 weeks off between courses is recommended.

alcoholic beverages		metformin (prescription)	
aspartame (sweetner)		<b>nalidixic acid sodium salt (antibiotic)</b>	
bean		<b>norfloxacin (antibiotic)</b>	
<b>benzylpenicillin sodium (antibiotic)</b>		<b>omega-3 fatty acids</b> 4 gram/day	
<b>cadium</b>		<b>partially hydrolyzed guar gum</b> 6 gram/day	
cannabinoids		<b>propidium iodide non-drug</b>	
<b>floxacin (antibiotic)</b>		rare meat	
<b>fructo-oligosaccharides (prebiotic)</b> 15 gram/day		refined wheat breads	
fruit/legume fibre		risperidone,(prescription)	
<b>gentamicin (antibiotic)s</b>		<b>rosa rugosa</b>	
<b>glycyrrhizic acid (licorice)</b> 32 gram/day		<b>rosmarinus officinalis, rosemary</b>	
Goji (berry,juice)		<b>tetracycline (antibiotic)s</b>	
green tea		<b>thyme (thymol, thyme oil)</b>	
<b>Human milk oligosaccharides (prebiotic, Holigos, Stachyose)</b> 2 gram/day		<b>triphala</b> 9000 mg/day	
ku ding cha tea		<b>VANCOMYCIN (ANTIBIOTIC)[CFS]</b>	
<b>lactobacillus brevis (probiotics)</b> 10 BCFU/day		<b>vitamin B3,niacin</b> 3000 mg/day	
lactulose		<b>Vitamin B9,folic acid</b> 5 mg/day	
linseed(flaxseed) 30 mg/day		wasabi	
low carbohydrate diet		whey 60 gram/day	
<b>mastic gum (prebiotic)</b> 1000 mg/day		whole grain diet	
<b>melatonin supplement</b> 10 mg/day		whole-grain barley 60 gram/day	
		<b>zinc</b> 300 mg/day	

## **Retail Probiotics**

Over 260 retail probiotics were evaluated with the following deemed beneficial with no known adverse risks.

Wholesome Wellness / Raw Probiotic  
reg'activ / immune & vitality  
klair labs / target gb-x  
optibac / for every day  
CustomProbiotics.com / L. Brevis Probiotic Powder  
ISCON Elegance/ Ochek Capsule 10  
Nutrition Essentials / Probiotic (900 BCFU)  
nature's bounty / probioti 10  
optibac / bifidobacteria & fibre  
VSL Pharmaceuticals / Oxadrop

**Note:** Some of these are only available regionally – search the web for sources.

## Substance to Consider Reducing or Eliminating

These are the most significant 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.

arabinogalactan (prebiotic)

berberine

high-fat diets

inulin (prebiotic)

*Lactobacillus plantarum* (probiotics)

*Lactobacillus rhamnosus* GG (probiotics)

Mediterranean diet

Pulses

red wine

vegetarians

xylan (prebiotic)

## Sample of Literature Used

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

[An integrated analysis of gut microbiota and the brain transcriptome reveals host-gut microbiota interactions following traumatic brain injury.](#)

**Brain research** , Volume: 1799 2023 Jan 15

Authors Bao W,Sun Y,Lin Y,Yang X,Chen Z

[Traumatic brain injury induces gastrointestinal dysfunction and dysbiosis of gut microbiota accompanied by alterations of bile acid profile.](#)

**Journal of neurotrauma** , 2021 Mar 7

Authors You W,Zhu Y,Wei A,Du J,Wang Y,Zheng P,Tu M,Wang H,Wen L,Yang X

[Gut dysbiosis impairs recovery after spinal cord injury.](#)

**The Journal of experimental medicine** , Volume: 213 Issue: 12 2016 Nov 14

Authors Kigerl KA,Hall JC,Wang L,Mo X,Yu Z,Popovich PG

[The Gut Microbiome as Therapeutic Target in Central Nervous System Diseases: Implications for Stroke](#)

**Neurotherapeutics** , Volume: 13 Issue: 4 2016 Oct 6

Authors Winek K,Dirnagl U,Meisel A

[Brain injury induces specific changes in the caecal microbiota of mice via altered autonomic activity and mucoprotein production.](#)

**Brain, behavior, and immunity** , Volume: 57 2016 Oct

Authors Houlden A,Goldrick M,Brough D,Vizi ES,Lénárt N,Martinecz B,Roberts IS,Denes A

[Dysbiosis of Gut Microbiota With Reduced Trimethylamine-N-Oxide Level in Patients With Large-Artery Atherosclerotic Stroke or Transient Ischemic Attack.](#)

**Journal of the American Heart Association** , Volume: 4 Issue: 11 2015 Nov 23

Authors Yin J,Liao SX,He Y,Wang S,Xia GH,Liu FT,Zhu JJ,You C,Chen Q,Zhou L,Pan SY,Zhou HW

[Symptomatic atherosclerosis is associated with an altered gut metagenome.](#)

**Nature communications** , Volume: 3 2012

Authors Karlsson FH,Fåk F,Nookaew I,Tremaroli V,Fägerberg B,Petranovic D,Bäckhed F,Nielsen J

[Positive efficacy of Lactiplantibacillus plantarum MH-301 as a postoperative adjunct to endoscopic sclerotherapy for internal hemorrhoids: a randomized, double-blind, placebo-controlled trial.](#)

**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

[Comparing the Influences of Metformin and Berberine on the Intestinal Microbiota of Rats With Nonalcoholic Steatohepatitis.](#)

**In vivo (Athens, Greece)** , Volume: 37 Issue: 5 2023 Sep-Oct

Authors Chen D,Xiong J,Chen G,Zhang Z,Liu Y,Xu J,Xu H

[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

[Gentamicin alleviates cholestatic liver injury by decreasing gut microbiota-associated bile salt hydrolase activity in rats.](#)

**European journal of pharmacology** , Volume: 951 2023 May 12

Authors Ma Y,Wang H,Yang J,Xin M,Wu X

[Folic acid attenuates chronic visceral pain by reducing Clostridiales abundance and hydrogen sulfide production.](#)

**Molecular pain** , 2022 Dec 22

Authors Weng RX,Wei YX,Li YC,Xu X,Zhuang JB,Xu GY,Li R

[A red wine intervention does not modify plasma trimethylamine N-oxide but is associated with broad shifts in the plasma metabolome and gut microbiota composition.](#)

**The American journal of clinical nutrition** , Volume: 116 Issue: 6 2022 Dec 19

Authors Haas EA,Saad MJA,Santos A,Vitolo N,Lemos WJF,Martins AMA,Picossi CRC,Favarato D,Gaspar RS,Magro DO,Libby P,Laurindo FRM,Da Luz PL,WineFlora Study

[Licorice extract ameliorates hyperglycemia through reshaping gut microbiota structure and inhibiting TLR4/NF- \$\kappa\$ B signaling pathway in type 2 diabetic mice.](#)

**Food research international (Ottawa, Ont.)** , Volume: 153 2022 Mar

Authors Zhang Y,Xu Y,Zhang L,Chen Y,Wu T,Liu R,Sui W,Zhu Q,Zhang M

[Metformin attenuated sepsis-related liver injury by modulating gut microbiota.](#)

**Emerging microbes & infections** , Volume: 11 Issue: 1 2022 Dec

Authors Liang H,Song H,Zhang X,Song G,Wang Y,Ding X,Duan X,Li L,Sun T,Kan Q

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

Fructooligosaccharides Increase in Plasma Concentration of (-)-Epigallocatechin-3-Gallate in Rats.

**Journal of agricultural and food chemistry** , Volume: 69 Issue: 49 2021 Dec 15

Authors Unno T, Araki Y, Inagaki S, Kobayashi M, Ichitani M, Takihara T, Kinugasa H

Gut microbiome and metabolome in a non-human primate model of chronic excessive alcohol drinking.

**Translational psychiatry** , Volume: 11 Issue: 1 2021 Dec 1

Authors Piacentino D, Grant-Beurmann S, Vizioli C, Li X, Moore CF, Ruiz-Rodado V, Lee MR, Joseph PV, Fraser CM, Weerts EM, Leggio L

Bifidobacterium catabolism of human milk oligosaccharides overrides endogenous competitive exclusion driving colonization and protection.

**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

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

**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

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 Protection of *Lactiplantibacillus plantarum* CCFM8661 Against Benzopyrene-Induced Toxicity via Regulation of the Gut Microbiota.

**Frontiers in immunology** , Volume: 12 2021

Authors Yu L, Zhang L, Duan H, Zhao R, Xiao Y, Guo M, Zhao J, Zhang H, Chen W, Tian F

Low-Dose Lactulose as a Prebiotic for Improved Gut Health and Enhanced Mineral Absorption.

**Frontiers in nutrition** , Volume: 8 2021

Authors Karakan T, Tuohy KM, Janssen-van Solingen G

Dose-response and functional role of whey permeate as a source of lactose and milk oligosaccharides on intestinal health and growth of nursery pigs.

**Journal of animal science** , Volume: 99 Issue: 1 2021 Jan 1

Authors Jang KB, Purvis JM, Kim SW

Prebiotic fructans have greater impact on luminal microbiology and CD3+ T cells in healthy siblings than patients with Crohn's disease: 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

Intestinal Microbiota Mediates High-Fructose and High-Fat Diets to Induce Chronic Intestinal Inflammation.

**Frontiers in cellular and infection microbiology** , Volume: 11 2021

Authors Tan R, Dong H, Chen Z, Jin M, Yin J, Li H, Shi D, Shao Y, Wang H, Chen T, Yang D, Li J

Concentrated Raw Fibers Enhance the Fiber-Degrading Capacity of a Synthetic Human Gut Microbiome.

**International journal of molecular sciences** , Volume: 22 Issue: 13 2021 Jun 25

Authors Steimle A, Neumann M, Grant ET, Turner JD, Desai MS

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

**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

The Potential Roles of Very Low Calorie, Very Low Calorie Ketogenic Diets and Very Low Carbohydrate Diets on the Gut Microbiota Composition.

**Frontiers in endocrinology** , Volume: 12 2021

Authors Rondanelli M, Gasparri C, Peroni G, Faliva MA, Naso M, Perna S, Bazire P, Sajuox I, Maugeri R, Rigon C

A multi-omics approach for understanding the effects of moderate wine consumption on human intestinal health.

**Food & function** , Volume: 12 Issue: 9 2021 May 11

Authors Belda I, Cueva C, Tamargo A, Ravarani CN, Acedo A, Bartolomé B, Moreno-Arribas MV

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

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

Dose-response and functional role of whey permeate as a source of lactose and milk oligosaccharides on intestinal health and growth of nursery pigs.

**Journal of animal science** , Volume: 99 Issue: 1 2021 Jan 1

Authors Jang KB,Purvis JM,Kim SW

Effects of Iron and Zinc Biofortified Foods on Gut Microbiota In Vivo (*Gallus gallus*): A Systematic Review.

**Nutrients** , Volume: 13 Issue: 1 2021 Jan 9

Authors Juste Contin Gomes M,Stampini Duarte Martino H,Tako E

Dose-response and functional role of whey permeate as a source of lactose and milk oligosaccharides on intestinal health and growth of nursery pigs.

**Journal of animal science** , 2021 Jan 12

Authors Jang K,Purvis JM,Kim SW

Combined Lycium barbarum polysaccharides and C-phycoerythrin increase gastric Bifidobacterium relative abundance and protect against gastric ulcer caused by aspirin in rats.

**Nutrition & metabolism** , Volume: 18 Issue: 1 2021 Jan 6

Authors Hsieh SY,Lian YZ,Lin IH,Yang YC,Tinkov AA,Skalny AV,Chao JC

Lactulose ingestion causes an increase in the abundance of gut-resident bifidobacteria in Japanese women: a randomised, double-blind, placebo-controlled crossover trial.

**Beneficial microbes** , 2021 Jan 4

Authors Sakai Y,Hamano H,Ochi H,Abe F,Masuda K,Iino H

Algal Oil Rich in n-3 PUFA Alleviates DSS-Induced Colitis via Regulation of Gut Microbiota and Restoration of Intestinal Barrier.

**Frontiers in microbiology** , Volume: 11 2020

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

Probiotic *Lactobacillus rhamnosus* GG Promotes Mouse Gut Microbiota Diversity and T Cell Differentiation.

**Frontiers in microbiology** , Volume: 11 2020

Authors Shi CW,Cheng MY,Yang X,Lu YY,Yin HD,Zeng Y,Wang RY,Jiang YL,Yang WT,Wang JZ,Zhao DD,Huang HB,Ye LP,Cao X,Yang GL,Wang CF

Selective Utilization of the Human Milk Oligosaccharides 2'-Fucosyllactose, 3-Fucosyllactose, and Difucosyllactose by Various Probiotic and Pathogenic Bacteria.

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

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

Exopolysaccharides from *Lactobacillus plantarum* YW11 improve immune response and ameliorate inflammatory bowel disease symptoms.

**Acta biochimica Polonica** , Volume: 67 Issue: 4 2020 Dec 17

Authors Min Z,Xiaona H,Aziz T,Jian Z,Zhennai Y

Impact of Mediterranean Diet on Disease Activity and Gut Microbiota Composition of Rheumatoid Arthritis Patients.

**Microorganisms** , Volume: 8 Issue: 12 2020 Dec 14

Authors Picchianti Diamanti A,Panebianco C,Salerno G,Di Rosa R,Salemi S,Sorgi ML,Meneguzzi G,Mariani MB,Rai A,Iacono D,Sesti G,Pazienza V,Laganà B

Lycium barbarum polysaccharide attenuates myocardial injury in high-fat diet-fed mice through manipulating the gut microbiome and fecal metabolome.

**Food research international (Ottawa, Ont.)** , Volume: 138 Issue: Pt B 2020 Dec

Authors Zhang Z,Liu H,Yu B,Tao H,Li J,Wu Z,Liu G,Yuan C,Guo L,Cui B

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

Effects of Different Human Milk Oligosaccharides on Growth of *Bifidobacteria* in Monoculture and Co-culture With *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

Alcohol decreases intestinal ratio of *Lactobacillus* to *Enterobacteriaceae* and induces hepatic immune tolerance in a murine model of DSS-colitis.

**Gut microbes** , Volume: 12 Issue: 1 2020 Nov 9



Authors Kuprys PV,Cannon AR,Shieh J,Iftekhhar N,Park SK,Eberhardt JM,Ding X,Choudhry MA

[Coadministration of metformin prevents olanzapine-induced metabolic dysfunction and regulates the gut-liver axis in rats.](#)

**Psychopharmacology** , Volume: 238 Issue: 1 2021 Jan

Authors Luo C,Wang X,Huang HX,Mao XY,Zhou HH,Liu ZQ

[Effects of Non-insulin Anti-hyperglycemic Agents on Gut Microbiota: A Systematic Review on Human and Animal Studies.](#)

**Frontiers in endocrinology** , Volume: 11 2020

Authors Cao TTB,Wu KC,Hsu JL,Chang CS,Chou C,Lin CY,Liao YM,Lin PC,Yang LY,Lin HW

[Relative abundance of the Prevotella genus within the human gut microbiota of elderly volunteers determines the inter-individual 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

[Impacts of Habitual Diets Intake on Gut Microbial Counts in Healthy Japanese Adults.](#)

**Nutrients** , Volume: 12 Issue: 8 2020 Aug 12

Authors Sugimoto T,Shima T,Amamoto R,Kaga C,Kado Y,Watanabe O,Shiinoki J,Iwazaki K,Shigemura H,Tsuji H,Matsumoto S

[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

[Long-term Consumption of 2-O-?-D-Glucopyranosyl-L-ascorbic Acid from the Fruits of Lycium barbarum Modulates Gut Microbiota in C57BL/6 Mice.](#)

**Journal of agricultural and food chemistry** , 2020 Jul 24

Authors Dong W,Huang K,Yan Y,Wan P,Peng Y,Zeng X,Cao Y

[Thyroid-Gut-Axis: How Does the Microbiota Influence Thyroid Function?](#)

**Nutrients** , Volume: 12 Issue: 6 2020 Jun 12

Authors Knezevic J,Starchl C,Tmava Berisha A,Amrein K

[The influence of wasabi on the gut microbiota of high-carbohydrate, high-fat diet-induced hypertensive Wistar rats.](#)

**Journal of human hypertension** , 2020 May 26

Authors Thomaz FS,Altemani F,Panchal SK,Worrall S,Dekker Nitert M

[The influence of wasabi on the gut microbiota of high-carbohydrate, high-fat diet-induced hypertensive Wistar rats.](#)

**Journal of human hypertension** , 2020 May 26

Authors Thomaz FS,Altemani F,Panchal SK,Worrall S,Dekker Nitert M

[The Protective Effects of 2`-Fucosyllactose against E. Coli O157 Infection Are Mediated by the Regulation of Gut Microbiota 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

[Prebiotic Effects of Partially Hydrolyzed Guar Gum on the Composition and Function of the Human Microbiota-Results from 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,Przywiecki N,Sturm S,Tilg H,Stuppner H,Rattei T,Moschen AR

[2`-fucosyllactose Supplementation Improves Gut-Brain Signaling and Diet-Induced Obese Phenotype and Changes the Gut Microbiota in High Fat-Fed Mice.](#)

**Nutrients** , Volume: 12 Issue: 4 2020 Apr 5

Authors Lee S,Goodson M,Vang W,Kalanetra K,Barile D,Raybould H

[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

[Effect of Berberine on Atherosclerosis and Gut Microbiota Modulation and Their Correlation in High-Fat Diet-Fed ApoE-/- Mice.](#)

**Frontiers in pharmacology** , Volume: 11 2020

Authors Wu M,Yang S,Wang S,Cao Y,Zhao R,Li X,Xing Y,Liu L

[Prebiotic activity of garlic \(<i>Allium sativum</i>\) extract on <i>Lactobacillus acidophilus</i>.](#)

**Veterinary world** , Volume: 12 Issue: 12 2019 Dec

Authors Sunu P,Sunarti D,Mahfudz LD,Yunianto VD

[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

[<i>Lactobacillus brevis</i> Alleviates DSS-Induced Colitis by Reprogramming Intestinal Microbiota and Influencing Serum Metabolome in Murine Model.](#)

**Frontiers in physiology** , Volume: 10 2019

Authors Ding S, Ma Y, Liu G, Yan W, Jiang H, Fang J

[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, Blädel T, Larsen LH, Iglesias JR, Madera C, Sanz Y, Larsen TM, MyNewGut Consortium.

[Lactulose drives a reversible reduction and qualitative modulation of the faecal microbiota diversity in healthy dogs.](#)

**Scientific reports** , Volume: 9 Issue: 1 2019 Sep 16

Authors Ferreira MDF, Salavati Schmitz S, Schoenebeck JJ, Clements DN, Campbell SM, Gaylor DE, Mellanby RJ, Gow AG, Salavati M

[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, Takagí T, Honda A, Naito Y

[Prevotella Abundance Predicts Weight Loss Success in Healthy, Overweight Adults Consuming a Whole-Grain Diet Ad Libitum: A Post Hoc Analysis of a 6-Wk Randomized Controlled Trial.](#)

**The Journal of nutrition** , 2019 Aug 28

Authors Christensen L, Vuholm S, Roager HM, Nielsen DS, Krych L, Kristensen M, Astrup A, Hjorth MF

[Raw Bowl Tea \(TuoCha\) Polyphenol Prevention of Nonalcoholic Fatty Liver Disease by Regulating Intestinal Function in Mice.](#)

**Biomolecules** , Volume: 9 Issue: 9 2019 Sep 1

Authors Liu B, Zhang J, Sun P, Yi R, Han X, Zhao X

[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 MJ, 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

[Supplementation of diet with non-digestible oligosaccharides alters the intestinal microbiota, but not arthritis development, in IL-1 receptor antagonist deficient mice.](#)

**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 effects of dietary supplementation with porous zinc oxide on growth performance, intestinal microbiota, morphology, and permeability in weaned piglets.](#)

**Animal science journal = Nihon chikusan Gakkaiho** , 2019 Jul 4

Authors Peng P, Chen J, Yao K, Yin Y, Long L, Fang R

[Different duck products protein on rat physiology and gut microbiota.](#)

**Journal of proteomics** , Volume: 206 2019 Jun 29

Authors Wei T, Dang Y, Cao J, Wu Z, He J, Sun Y, Pan D, Tian Z

[The Combination of Wheat Peptides and Fucoidan Protects Against Chronic Superficial Gastritis and Regulates Gut Microbiota: A Double-blinded, Placebo-controlled Study \(P06-104-19\).](#)

**Current developments in nutrition** , Volume: 3 Issue: Suppl 1 2019 Jun

Authors Kan J, Du J

[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

[High-fat diet reduces the level of secretory immunoglobulin A coating of commensal gut microbiota.](#)

**Bioscience of microbiota, food and health** , Volume: 38 Issue: 2 2019

Authors Muhomah TA, Nishino N, Katsumata E, Haoming W, Tsuruta T

[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 Canigía L, Pérez GT

Inulin-type fructans improve active ulcerative colitis associated with microbiota changes and increased short-chain fatty acids levels.

**Gut microbes** , 2018 Nov 5

Authors Valcheva R,Koleva P,Martínez I,Walter J,Gänzle MG,Dieleman LA

Prevalence and Antimicrobial Susceptibility of Bacterial Uropathogens Isolated from Pediatric Patients at Yekatit 12 Hospital Medical College, Addis Ababa, Ethiopia.

**International journal of microbiology** , Volume: 2018 2018

Authors Merga Duffa Y,Terfa Kitila K,Mamuye Gebretsadik D,Bitew A

Antidepressant Effects of Rosemary Extracts Associate With Anti-inflammatory Effect and Rebalance of Gut Microbiota.

**Frontiers in pharmacology** , Volume: 9 2018

Authors Guo Y,Xie J,Li X,Yuan Y,Zhang L,Hu W,Luo H,Yu H,Zhang R

Goji Berry Modulates Gut Microbiota and Alleviates Colitis in IL-10-Deficient Mice.

**Molecular nutrition & food research** , Volume: 62 Issue: 22 2018 Nov

Authors Kang Y,Yang G,Zhang S,Ross CF,Zhu MJ

Effects of in vitro gastrointestinal digestion and colonic fermentation on a rosemary (*Rosmarinus officinalis* L) extract rich in rosmarinic acid.

**Food chemistry** , Volume: 271 2019 Jan 15

Authors Gonçalves GA,Corrêa RCG,Barros L,Dias MI,Calhêha RC,Correa VG,Bracht A,Peralta RM,Ferreira ICFR

Probiotic *Lactobacillus plantarum* Promotes Intestinal Barrier Function by Strengthening the Epithelium and Modulating Gut Microbiota.

**Frontiers in microbiology** , Volume: 9 2018

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

[Microbiological profiles of pathogens causing nosocomial bacteremia in 2011, 2013 and 2016].

**Sheng wu gong cheng xue bao = Chinese journal of biotechnology** , Volume: 34 Issue: 8 2018 Aug 25

Authors Wang X,Zhao C,Li H,Chen H,Jin L,Wang Z,Liao K,Zeng J,Xu X,Jin Y,Su D,Liu W,Hu Z,Cao B,Chu Y,Zhang R,Luo Y,Hu B,Wang H

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

**The Journal of nutritional biochemistry** , Volume: 59 2018 Sep

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

Gut Microbiome Composition in Non-human Primates Consuming a Western or Mediterranean Diet.

**Frontiers in nutrition** , Volume: 5 2018

Authors Nagpal R,Shively CA,Appt SA,Register TC,Michalson KT,Vitolins MZ,Yadav H

Anti-inflammatory and antibacterial evaluation of *Thymus sipyleus* Boiss. subsp. *sipyleus* var. *sipyleus* essential oil against rhinosinusitis pathogens.

**Microbial pathogenesis** , Volume: 122 2018 Sep

Authors Demirci F,Karaca N,Tekin M,Demirci B

Changes in metabolism and microbiota after 24-week risperidone treatment in drug naive, normal weight patients with first episode schizophrenia.

**Schizophrenia research** , 2018 May 30

Authors Yuan X,Zhang P,Wang Y,Liu Y,Li X,Kumar BU,Hei G,Lv L,Huang XF,Fan X,Song X

Niacin alters the ruminal microbial composition of cattle under high-concentrate condition.

**Animal nutrition (Zhongguo xu mu shou yi xue hui)** , Volume: 3 Issue: 2 2017 Jun

Authors Luo D,Gao Y,Lu Y,Qu M,Xiong X,Xu L,Zhao X,Pan K,Ouyang K

Catechin supplemented in a FOS diet induces weight loss by altering cecal microbiota and gene expression of colonic epithelial cells.

**Food & function** , Volume: 9 Issue: 5 2018 May 23

Authors Luo J,Han L,Liu L,Gao L,Xue B,Wang Y,Ou S,Miller M,Peng X

Microbiome Responses to an Uncontrolled Short-Term Diet Intervention in the Frame of the Citizen Science Project.

**Nutrients** , Volume: 10 Issue: 5 2018 May 8

Authors Klimenko NS,Tyakht AV,Popenko AS,Vasiliev AS,Altukhov IA,Ischenko DS,Shashkova TI,Efimova DA,Nikogosov DA,Osipenko DA,Musienko SV,Selezneva KS,Baranova A,Kurilshikov AM,Toshchakov SM,Korzhenkov AA,Samarov NI,Shevchenko MA,Tepluk AV,Alexeev DG

Metformin: old friend, new ways of action-implication of the gut microbiome?

**Current opinion in clinical nutrition and metabolic care** , Volume: 21 Issue: 4 2018 Jul

Authors Rodríguez J,Hiel S,Delzenne NM

Effect of lactulose intervention on gut microbiota and short chain fatty acid composition of C57BL/6J mice.

**MicrobiologyOpen** , Volume: 7 Issue: 6 2018 Dec

*Authors Zhai S,Zhu L,Qin S,Li L*

Lactobacillus plantarum MTCC 9510 supplementation protects from chronic unpredictable and sleep deprivation-induced behaviour, biochemical and selected gut microbial aberrations in mice.

**Journal of applied microbiology** , Volume: 125 Issue: 1 2018 Jul

*Authors Dhaliwal J,Singh DP,Singh S,Pinnaka AK,Boparai RK,Bishnoi M,Kondepudi KK,Chopra K*

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*

Inulin-type fructan improves diabetic phenotype and gut microbiota profiles in rats.

**PeerJ** , Volume: 6 2018

*Authors Zhang Q,Yu H,Xiao X,Hu L,Xin F,Yu X*

Potential of Lactobacillus plantarum ZDY2013 and Bifidobacterium bifidum WBIN03 in relieving colitis by gut microbiota, immune, and anti-oxidative stress.

**Canadian journal of microbiology** , 2018 Feb 5

*Authors Wang Y,Guo Y,Chen H,Wei H,Wan C*

Evaluation of the effects of different diets on microbiome diversity and fatty acid composition of rumen liquor in dairy goat.

**Animal : an international journal of animal bioscience** , 2018 Jan 8

*Authors Cremonesi P,Conte G,Severgnini M,Turri F,Monni A,Capra E,Rapetti L,Colombini S,Chessa S,Battelli G,Alves SP,Mele M,Castiglioni B*

Impact of Omega-3 Fatty Acids on the Gut Microbiota.

**International journal of molecular sciences** , Volume: 18 Issue: 12 2017 Dec 7

*Authors Costantini L,Molinari R,Farinon B,Merendino N*

Systematic review: human gut dysbiosis induced by non-antibiotic prescription medications.

**Alimentary pharmacology & therapeutics** , Volume: 47 Issue: 3 2018 Feb

*Authors Le Bastard Q,Al-Ghalith GA,Grégoire M,Chapelet G,Javaudin F,Dailly E,Batard E,Knights D,Montassier E*

Genes and Gut Bacteria Involved in Luminal Butyrate Reduction Caused by Diet and Loperamide.

**Genes** , Volume: 8 Issue: 12 2017 Nov 28

*Authors Hwang N,Eom T,Gupta SK,Jeong SY,Jeong DY,Kim YS,Lee JH,Sadowsky MJ,Unno T*

Gut Microbiome-Induced Shift of Acetate to Butyrate Positively Manages Dysbiosis in High Fat Diet.

**Molecular nutrition & food research** , Volume: 62 Issue: 3 2018 Feb

*Authors Si X,Shang W,Zhou Z,Strappe P,Wang B,Bird A,Blanchard C*

Modulation of the gut microbiota by metformin improves metabolic profiles in aged obese mice.

**Gut microbes** , 2017 Nov 20

*Authors Lee H,Lee Y,Kim J,An J,Lee S,Kong H,Song Y,Lee CK,Kim K*

Lactobacillus plantarum HNU082-derived improvements in the intestinal microbiome prevent the development of hyperlipidaemia.

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

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

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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