

Microbiome Information for: ADHD

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 *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/>)

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

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 ADHD

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	Taxonomy ID	Bacteria Name	Rank	Shift	Taxonomy ID
Actinomycetia	class	High	1760	Fusobacterium	genus	High	848
Clostridia	class	Low	186801	Gracilibacter	genus	Low	342658
Deltaproteobacteria	class	Low	28221	Lactobacillus	genus	Low	1578
Bifidobacteriaceae	family	High	31953	Megamonas	genus	High	158846
Catabacteriaceae	family	Low	424536	Neisseria	genus	High	482
Gracilibacteraceae	family	Low	541019	Odoribacter	genus	High	283168
Lachnospiraceae	family	Low	186803	Parabacteroides	genus	High	375288
Neisseriaceae	family	High	481	Phascolarctobacterium	genus	High	33024
Prevotellaceae	family	Low	171552	Prevotella	genus	High	838
Rikenellaceae	family	High	171550	Roseburia	genus	High	841
Ruminococcaceae	family	Low	541000	Subdoligranulum	genus	Low	292632
Selenomonadaceae	family	High	1843491	Bifidobacteriales	order	High	85004
Veillonellaceae	family	High	31977	Eubacteriales	order	Low	186802
Acetivibrio	genus	Low	35829	Bacteroides ovatus	species	High	28116
Acidaminococcus	genus	High	904	Bacteroides uniformis	species	High	820
Agathobacter	genus	High	1766253	Bifidobacterium adolescentis	species	High	1680
Alistipes	genus	High	239759	Bifidobacterium longum	species	High	216816
Anaerotaenia	genus	Low	1843206	Bifidobacterium pseudocatenulatum	species	High	28026
Bifidobacterium	genus	High	1678	Coprococcus eutactus	species	Low	33043
Coprococcus	genus	Low	33042	Francisella tularensis	species	Low	263
Desulfovibrio	genus	High	872	Phocaeicola coprocola	species	Low	310298
Faecalibacterium	genus	Low	216851	Phocaeicola vulgatus	species	High	821
				Sutterella stercoricanis	species	High	234908

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.

apple

arabinogalactan (prebiotic) 21 gram/day

fructo-oligosaccharides (prebiotic) 15 gram/day

galacto-oligosaccharides (prebiotic) 10 gram/day

Glucomannan 700 mg/day

glycyrrhizic acid (licorice) 32 gram/day

Human milk oligosaccharides (prebiotic, Holigos, Stachyose) 2

gram/day

inulin (prebiotic) 32 gram/day

lactulose

soy 25 gram/day

wheat bran

Retail Probiotics

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

jarrow formulas / bifidus balance® + fos
nature's way (au) / restore probiotic bowel & colon health 30s
naturopathica (au) / gastrohealth fibrepro
blackmore (au) / probiotics+ eczema relief
optibac / for every day
Thryve Inside/ L.Reu,Rham,Casi; B.Lactis
Physician Choice /60 Billion Probiotics
naturopathica (au) / gastrohealth probiotic dairy free 20 bcfu
blackmores (au) / probiotics+ immune defence
ISCON Elegance/ Ochek Capsule 10
Nutrition Essentials / Probiotic (900 BCFU)
optibac / bifidobacteria & fibre
Bio Schwartz / Advance Strength Probiotics (40 BCFU)
nature's way (au) / restore probiotic 30 billion 30s
blackmore (au) / probiotics+ daily health
Swiss BioEnergetics / Full Spectrum Probiotic Defence
theramedix / probiotic
blackmores (au) / probiotics + adults daily (90 capsules)
nature's way (au) / restore probiotic daily health 90s

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.

Arbutin (polyphenol)	<i>Lactobacillus rhamnosus</i> GG (probiotics)
ascophyllum nodosum (sea weed)	<i>Laminaria hyperborea</i> (tangle/cuvie - seaweed)
aspartame (sweetner)	Lithium
bifidobacterium adolescentis,(probiotics)	luteolin (flavonoid)
bifidobacterium catenulatum,(probiotics)	melatonin supplement
bifidobacterium lactis,streptococcus thermophilus probiotic	N-Acetyl Cysteine (NAC),
bifidobacterium pseudocatenulatum,(probiotics)	quercetin, resveratrol
black raspberries	raw potato starch
brown rice	retinoic acid,(Vitamin A derivative)
Caffeine	rice
capsaicin (hot pepper)	<i>Saccharomyces boulardii</i> (probiotics)
chitosan,(sugar)	<i>Saccharomyces cerevisiae</i> (probiotics)
diosmin,(polyphenol)	salt (sodium chloride)
disodium fumarate (food additive)	sodium butyrate
enterococcus durans (probiotics)	β -glucan
fasting	sucralose
Fisetin	tea
<i>Galla chinensis</i> (herb)	vegetarians
garlic (<i>Allium sativum</i>)	Vitamin B-12
glycine	vitamin B3,niacin
Guaiacol (polyphenol)	Vitamin B6,pyridoxine hydrochloride
Hesperidin (polyphenol)	vitamin B7, biotin
high resistant starch	Vitamin C (ascorbic acid)
	walnuts

Sample of Literature Used

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

[Association between Gut Microbiota and Emotional-Behavioral Symptoms in Children with Attention-Deficit/Hyperactivity Disorder.](#)

Journal of personalized medicine , Volume: 12 Issue: 10 2022 Oct 2

Authors Lee MJ,Lai HC,Kuo YL,Chen VC

[Gut microbiota signature in treatment-naïve attention-deficit/hyperactivity disorder.](#)

Translational psychiatry , Volume: 11 Issue: 1 2021 Jul 8

Authors Richarte V,Sánchez-Mora C,Corrales M,Fadeuille C,Vilar-Ribó L,Arribas L,Garcia E,Rosales-Ortiz SK,Arias-Vasquez A,Soler-Artigas M,Ribasés M,Ramos-Quiroga JA

[Systematic review of gut microbiota and attention-deficit hyperactivity disorder \(ADHD\).](#)

Annals of general psychiatry , Volume: 20 Issue: 1 2021 Feb 16

Authors Sukmajaya AC,Lusida MI,Soetjipto,Setiawati Y

[Current Limitations for the Assessment of the Role of the Gut Microbiome for Attention Deficit Hyperactivity Disorder \(ADHD\).](#)

Frontiers in psychiatry , Volume: 11 2020

Authors Hiergeist A,Gessner J,Gessner A

[Investigating the Gut Microbiota Composition of Individuals with Attention-Deficit/Hyperactivity Disorder and Association with Symptoms.](#)

Microorganisms , Volume: 8 Issue: 3 2020 Mar 13

Authors Szopinska-Tokov J,Dam S,Naaijen J,Konstanti P,Rommelse N,Belzer C,Buitelaar J,Franke B,Aarts E,Arias Vasquez A

[A Systematic Review of the Microbiome in Children With Neurodevelopmental Disorders.](#)

Frontiers in neurology , Volume: 10 2019

Authors Lacorte E,Gervasi G,Bacigalupo I,Vanacore N,Raucci U,Parisi P

[Gut microbiota and dietary patterns in children with attention-deficit/hyperactivity disorder.](#)

European child & adolescent psychiatry , Volume: 29 Issue: 3 2020 Mar

Authors Wang LJ,Yang CY,Chou WJ,Lee MJ,Chou MC,Kuo HC,Yeh YM,Lee SY,Huang LH,Li SC

[Identifying psychiatric disorder-associated gut microbiota using microbiota-related gene set enrichment analysis.](#)

Briefings in bioinformatics , 2019 Apr 5

Authors Cheng S,Han B,Ding M,Wen Y,Ma M,Zhang L,Qi X,Cheng B,Li P,Kafle OP,Liang X,Liu L,Du Y,Zhao Y,Zhang F

[Reduced microbiome alpha diversity in young patients with ADHD.](#)

PloS one , Volume: 13 Issue: 7 2018

Authors Prehn-Kristensen A,Zimmermann A,Tittmann L,Lieb W,Schreiber S,Baving L,Fischer A

[Reduced microbiome alpha diversity in young patients with ADHD.](#)

PloS one , Volume: 13 Issue: 7 2018

Authors Prehn-Kristensen A,Zimmermann A,Tittmann L,Lieb W,Schreiber S,Baving L,Fischer A

[Gut microbiota profiles in treatment-naïve children with attention deficit hyperactivity disorder.](#)

Behavioural brain research , Volume: 347 2018 Jul 16

Authors Jiang HY,Zhou YY,Zhou GL,Li YC,Yuan J,Li XH,Ruan B

[Gut microbiome in ADHD and its relation to neural reward anticipation.](#)

PloS one , Volume: 12 Issue: 9 2017

Authors Aarts E,Ederveen THA,Naaijen J,Zwiers MP,Boekhorst J,Timmerman HM,Smeekens SP,Netea MG,Buitelaar JK,Franke B,van Hijum SAFT,Arias Vasquez A

[Gut microbiome in ADHD and its relation to neural reward anticipation.](#)

PloS one , Volume: 12 Issue: 9 2017

Authors Aarts E,Ederveen THA,Naaijen J,Zwiers MP,Boekhorst J,Timmerman HM,Smeekens SP,Netea MG,Buitelaar JK,Franke B,van Hijum SAFT,Arias Vasquez A

[Influences of wheat bran fiber on growth performance, nutrient digestibility, and intestinal epithelium functions in Xiangcun pigs.](#)

Heliyon , Volume: 9 Issue: 7 2023 Jul

Authors Liu J,Luo Y,Kong X,Yu B,Zheng P,Huang Z,Mao X,Yu J,Luo J,Yan H,He J

[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

[Sodium butyrate ameliorates diabetic retinopathy in mice via the regulation of gut microbiota and related short-chain fatty acids.](#)

Journal of translational medicine , Volume: 21 Issue: 1 2023 Jul 7

Authors Huang Y,Wang Z,Ye B,Ma JH, Ji S,Sheng W,Ye S,Ou Y,Peng Y,Yang X,Chen J,Tang S

[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

[Gut microbiota-derived metabolites mediate the neuroprotective effect of melatonin in cognitive impairment induced by sleep deprivation.](#)

Microbiome , Volume: 11 Issue: 1 2023 Jan 31

Authors Wang X,Wang Z,Cao J,Dong Y,Chen Y

[Effects of a *Saccharomyces cerevisiae* fermentation product on fecal characteristics, metabolite concentrations, and microbiota populations of dogs subjected to exercise challenge.](#)

Journal of animal science , 2022 Dec 27

Authors Oba PM,Carroll MQ,Sieja KM,Nogueira JPS,Yang X,Epp TY,Warzecha CM,Varney JL,Fowler JW,Coon CN,Swanson KS

[Lactobacillus rhamnosus GG protects against atherosclerosis by improving ketone body synthesis.](#)

Applied microbiology and biotechnology , Volume: 106 Issue: 24 2022 Dec

Authors Zhai T,Ren W,Wang P,Zheng L

[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

[Gut microbiota modulation as a possible mediating mechanism for fasting-induced alleviation of metabolic complications: a systematic review.](#)

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

[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,Takahara T,Kinugasa H

[Effects of molecular weight of chitosan on anti-inflammatory activity and modulation of intestinal microflora in an ulcerative colitis model.](#)

International journal of biological macromolecules , 2021 Nov 5

Authors Niu W,Dong Y,Fu Z,Lv J,Wang L,Zhang Z,Huo J,Ju J

[A Comparison of Production Performance, Egg Quality, and Cecal Microbiota in Laying Hens Receiving Graded Levels of Vitamin B₁₂.](#)

Frontiers in veterinary science , Volume: 8 2021

Authors Wang R,Bai Y,Yang Y,Wu X,Li R

[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

[Effects of fermented wheat bran and yeast culture on growth performance, immunity and intestinal microflora in growing-finishing 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

[In Vitro Study of Cricket Chitosan`s Potential as a Prebiotic and a Promoter of Probiotic Microorganisms to Control Pathogenic Bacteria in the Human Gut.](#)

Foods (Basel, Switzerland) , Volume: 10 Issue: 10 2021 Sep 29

Authors Kipkoech C,Kinyuru JN,Imathiu S,Meyer-Rochow VB,Roos N

[Potential use of ground brown rice for weanling pigs.](#)

Journal of animal science , 2021 Sep 24

Authors Lee JJ,Kim S,Cho JH,Kyoung H,Lee S,Choe J,Liu Y, Ji P,Xiong X,Kim Y,Kim HB,Song M

[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

[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

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

Natural capsicum extract replacing chlortetracycline enhances performance via improving digestive enzyme activities, antioxidant capacity, anti-inflammatory function, and gut health in weaned pigs.

Animal nutrition (Zhongguo xu mu shou yi xue hui) , Volume: 7 Issue: 2 2021 Jun

Authors Long S,Liu S,Wang J,Mahfuz S,Piao X

Habitual Dietary Intake Affects the Altered Pattern of Gut Microbiome by Acarbose in Patients with Type 2 Diabetes.

Nutrients , Volume: 13 Issue: 6 2021 Jun 19

Authors Takewaki F,Nakajima H,Takewaki D,Hashimoto Y,Majima S,Okada H,Senmaru T,Ushigome E,Hamaguchi M,Yamazaki M,Tanaka Y,Nakajima S,Ohno H,Fukui M

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

Protective effects of glycine against lipopolysaccharide-induced intestinal apoptosis and inflammation.

Amino acids , 2021 Jun 4

Authors Zhang Y,Mu T,Jia H,Yang Y,Wu Z

Beneficial gut microbiome remodeled during intermittent fasting in humans.

Rejuvenation research , 2021 May 27

Authors Larrick JW,Mendelsohn AR,Larrick J

Aberrant Gut Microbiome Contributes to Intestinal Oxidative Stress, Barrier Dysfunction, Inflammation and Systemic Autoimmune Responses in MRL/lpr Mice.

Frontiers in immunology , Volume: 12 2021

Authors Wang H,Wang G,Banerjee N,Liang Y,Du X,Boor PJ,Hoffman KL,Khan MF

Glycine regulates mucosal immunity and the intestinal microbial composition in weaned piglets.

Amino acids , 2021 Apr 11

Authors Ji Y,Fan X,Zhang Y,Li J,Dai Z,Wu Z

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

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

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

Fisetin Regulates Gut Microbiota and Exerts Neuroprotective Effect on Mouse Model of Parkinson`s Disease.

Frontiers in neuroscience , Volume: 14 2020

Authors Chen TJ,Feng Y,Liu T,Wu TT,Chen YJ,Li X,Li Q,Wu YC

Microbial Metabolism of Theaflavin-3,3`-digallate and Its Gut Microbiota Composition Modulatory Effects.

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

Authors Liu Z,de Bruijn WJC,Bruins ME,Vincken JP

Administration of Saccharomyces boulardii mafic-1701 improves feed conversion ratio, promotes antioxidant capacity, alleviates intestinal inflammation and modulates gut microbiota in weaned piglets.

Journal of animal science and biotechnology , Volume: 11 Issue: 1 2020 Dec 4

Authors Zhang W,Bao C,Wang J,Zang J,Cao Y

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

Prebiotic-like effects of chitosan on the intestinal microflora in mice.

Pakistan journal of pharmaceutical sciences , Volume: 33 Issue: 3 2020 May

Authors Zhang D,Xing Y,Liu LK,Li XL

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

Associations of sodium and potassium consumption with the gut microbiota and host metabolites in a population-based study in Chinese adults.

The American journal of clinical nutrition , 2020 Oct 6

Authors Wang Y,Wang H,Howard AG,Tsilimigras MCB,Avery CL,Meyer KA,Sha W,Sun S,Zhang J,Su C,Wang Z,Zhang B,Fodor AA,Gordon-Larsen P

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

Nuts and their Effect on Gut Microbiota, Gut Function and Symptoms in Adults: A Systematic Review and Meta-Analysis of Randomised Controlled Trials.

Nutrients , Volume: 12 Issue: 8 2020 Aug 6

Authors Creedon AC,Hung ES,Berry SE,Whelan K

Soy food intake associates with changes in the metabolome and reduced blood pressure in a gut microbiota dependent manner.

Nutrition, metabolism, and cardiovascular diseases : NMCD , 2020 May 18

Authors Shah RD,Tang ZZ,Chen G,Huang S,Ferguson JF

Co-Culture with *Bifidobacterium catenulatum* Improves the Growth, Gut Colonization, and Butyrate Production of *Faecalibacterium prausnitzii*: In Vitro and In Vivo Studies.

Microorganisms , Volume: 8 Issue: 5 2020 May 25

Authors Kim H,Jeong Y,Kang S,You HJ,Jeon GE

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

Lactobacillus reuteri NK33 and *Bifidobacterium adolescentis* NK98 alleviate *Escherichia coli*-induced depression and gut dysbiosis in mice.

Journal of microbiology and biotechnology , 2020 Apr 29

Authors Han SK,Kim JK,Joo MK,Lee KE,Han SW,Kim DH

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

Prebiotic activity of garlic (*Allium sativum*) extract on *Lactobacillus acidophilus*.

Veterinary world , Volume: 12 Issue: 12 2019 Dec

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

Fisetin regulates gut microbiota to decrease CCR9⁺/CXCR3⁺/CD4⁺ T-lymphocyte count and IL-12 secretion to alleviate premature ovarian failure in mice.

American journal of translational research , Volume: 12 Issue: 1 2020

Authors Lin J,Nie X,Xiong Y,Gong Z,Chen J,Chen C,Huang Y,Liu T

Carboxymethyl chitosan perturbs inflammation profile and colonic microbiota balance in mice.

Journal of food and drug analysis , Volume: 28 Issue: 1 2020 Jan

Authors Liu Y,Zong S,Li J

Food for thought about manipulating gut bacteria.

Nature , Volume: 577 Issue: 7788 2020 Jan

Authors Delzenne NM,Bindels LB

Gut microbiota composition during a 12-week intervention with delayed-release dimethyl fumarate in multiple sclerosis - a pilot trial.

Multiple sclerosis journal - experimental, translational and clinical , Volume: 5 Issue: 4 2019 Oct-Dec

Authors Storm-Larsen C,Myhr KM,Farbu E,Midgard R,Nyquist K,Broch L,Berg-Hansen P,Buness A,Holm K,Ueland T,Fallang LE,Burum-Auensen E,Hov JR,Holmøy T

- Chitosan Ameliorates DSS-Induced Ulcerative Colitis Mice by Enhancing Intestinal Barrier Function and Improving Microflora.
International journal of molecular sciences , Volume: 20 Issue: 22 2019 Nov 15
 Authors Wang J,Zhang C,Guo C,Li X
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
Adhesive *Bifidobacterium* Induced Changes in Cecal Microbiome Alleviated Constipation in Mice.
Frontiers in microbiology , Volume: 10 2019
 Authors Wang L,Chen C,Cui S,Lee YK,Wang G,Zhao J,Zhang H,Chen W
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 *Akkermansia muciniphila* and *Faecalibacterium prausnitzii*: 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
Walnuts and Vegetable Oils Differentially Affect the Gut Microbiome and Associations with Cardiovascular Risk Factors (OR29-06-19).
Current developments in nutrition , Volume: 3 Issue: Suppl 1 2019 Jun
 Authors Tindall A,McLimans C,Petersen K,Kris-Etherton P,Lamendella R
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
Psychotropics and the Microbiome: a Chamber of Secrets....
Psychopharmacology , Volume: 236 Issue: 5 2019 May
 Authors Cusotto S,Clarke G,Dinan TG,Cryan JF
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
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
Exploring Effects of Chitosan Oligosaccharides on Mice Gut Microbiota in *in vitro* Fermentation and Animal Model.
Frontiers in microbiology , Volume: 9 2018
 Authors Zhang C,Jiao S,Wang ZA,Du Y
Effect of a butyrate-fortified milk replacer on gastrointestinal microbiota and products of fermentation in artificially reared dairy calves at weaning.
Scientific reports , Volume: 8 Issue: 1 2018 Oct 8
 Authors O'Hara E,Kelly A,McCabe MS,Kenny DA,Guan LL,Waters SM
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
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

Effects of garlic polysaccharide on alcoholic liver fibrosis and intestinal microflora in mice.

Pharmaceutical biology , Volume: 56 Issue: 1 2018 Dec

Authors Wang Y,Guan M,Zhao X,Li X

Intermittent Fasting Confers Protection in CNS Autoimmunity by Altering the Gut Microbiota.

Cell metabolism , Volume: 27 Issue: 6 2018 Jun 5

Authors Cignarella F,Cantoni C,Ghezzi L,Salter A,Dorsett Y,Chen L,Phillips D,Weinstock GM,Fontana L,Cross AH,Zhou Y,Piccio L

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

Walnut Consumption Alters the Gastrointestinal Microbiota, Microbially Derived Secondary Bile Acids, and Health Markers in Healthy Adults: A Randomized Controlled Trial.

The Journal of nutrition , Volume: 148 Issue: 6 2018 Jun 1

Authors Holscher HD,Guterman HM,Swanson KS,An R,Matthan NR,Lichtenstein AH,Novotny JA,Baer DJ

Prebiotic Mannan-Oligosaccharides Augment the Hypoglycemic Effects of Metformin in Correlation with Modulating Gut Microbiota.

Journal of agricultural and food chemistry , Volume: 66 Issue: 23 2018 Jun 13

Authors Zheng J,Li H,Zhang X,Jiang M,Luo C,Lu Z,Xu Z,Shi J

Modifications in gut microbiota and fermentation metabolites in the hindgut of rats after the consumption of galactooligosaccharide glycated with a fish peptide.

Food & function , Volume: 9 Issue: 5 2018 May 1

Authors Jin W,Han K,Dong S,Yang Y,Mao Z,Su M,Zeng M

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

High salt diet exacerbates colitis in mice by decreasing Lactobacillus levels and butyrate production.

Microbiome , Volume: 6 Issue: 1 2018 Mar 22

Authors Miranda PM,De Palma G,Serkis V,Lu J,Louis-Auguste MP,McCarville JL,Verdu EF,Collins SM,Bercik P

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

A Walnut-Enriched Diet Affects Gut Microbiome in Healthy Caucasian Subjects: A Randomized, Controlled Trial.

Nutrients , Volume: 10 Issue: 2 2018 Feb 22

Authors Bamberger C,Rossmeyer A,Lechner K,Wu L,Waldmann E,Fischer S,Stark RG,Altenhofer J,Henze K,Parhofer KG

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

Determination of reactive oxygen generated from natural medicines and their antibacterial activity.

Journal of pharmaceutical analysis , Volume: 6 Issue: 4 2016 Aug

Authors Tajima N,Takasaki M,Fukamachi H,Igarashi T,Nakajima Y,Arakawa H

[Assessment of the impact of vitamin and dietary fiber content in the diet on the characteristics of protective colon

microbiota populations of rats].

Voprosy pitaniia , Volume: 84 Issue: 6 2015

Authors Markova YM,Sheveleva SA

Chemoprevention of colorectal cancer by black raspberry anthocyanins involved the modulation of gut microbiota and SFRP2 demethylation.

Carcinogenesis , 2018 Jan 19

Authors Chen L,Jiang B,Zhong C,Guo J,Zhang L,Mu T,Zhang Q,Bi X

Protective effects of natural and partially degraded konjac glucomannan on Bifidobacteria against antibiotic damage.

Carbohydrate polymers , Volume: 181 2018 Feb 1

Authors Mao YH,Song AX,Yao ZP,Wu JY

Low-Molecular-Weight Chitosan Supplementation Increases the Population of *Prevotella* in the Cecal Contents of Weanling Pigs.

Frontiers in microbiology , Volume: 8 2017

Authors Yu T,Wang Y,Chen S,Hu M,Wang Z,Wu G,Ma X,Chen Z,Zheng C

A combination of quercetin and resveratrol reduces obesity in high-fat diet-fed rats by modulation of gut microbiota.

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

Authors Zhao L,Zhang Q,Ma W,Tian F,Shen H,Zhou M

High-Salt Diet Has a Certain Impact on Protein Digestion and Gut Microbiota: A Sequencing and Proteome Combined Study.

Frontiers in microbiology , Volume: 8 2017

Authors Wang C,Huang Z,Yu K,Ding R,Ye K,Dai C,Xu X,Zhou G,Li C

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

Decaffeinated green and black tea polyphenols decrease weight gain and alter microbiome populations and function in diet-induced obese mice.

European journal of nutrition , 2017 Sep 30

Authors Henning SM,Yang J,Hsu M,Lee RP,Grojean EM,Ly A,Tseng CH,Heber D,Li Z

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

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

Authors Bai G,Tsuruta T,Nishino N

Whole-Grain Starch and Fiber Composition Modifies Ileal Flow of Nutrients and Nutrient Availability in the Hindgut, Shifting Fecal Microbial Profiles in Pigs.

The Journal of nutrition , Volume: 147 Issue: 11 2017 Nov

Authors Foulse JM,Gänzle MG,Beattie AD,Vasanthan T,Zijlstra RT

Fructooligosaccharide (FOS) and Galactooligosaccharide (GOS) Increase Bifidobacterium but Reduce Butyrate Producing 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

Bifidobacterium pseudocatenulatum LI09 and Bifidobacterium catenulatum LI10 attenuate D-galactosamine-induced liver injury by modifying the gut microbiota

Scientific Reports , Volume: 7 2017 Aug 18

Authors Fang D,Shi D,Lv L,Gu S,Wu W,Chen Y,Guo J,Li A,Hu X,Guo F,Ye J,Li Y,Li L

Worse inflammatory profile in omnivores than in vegetarians associates with the gut microbiota composition.

Diabetology & metabolic syndrome , Volume: 9 2017

Authors Franco-de-Moraes AC,de Almeida-Pititto B,da Rocha Fernandes G,Gomes EP,da Costa Pereira A,Ferreira SRG

Beef, Chicken, and Soy Proteins in Diets Induce Different Gut Microbiota and Metabolites in Rats.

Frontiers in microbiology , Volume: 8 2017

Authors Zhu Y,Shi X,Lin X,Ye K,Xu X,Li C,Zhou G

Changes in the gut microbial communities following addition of walnuts to the diet.

The Journal of nutritional biochemistry , Volume: 48 2017 Oct

Authors Byerley LO,Samuels D,Blanchard E 4th,Luo M,Lorenzen BN,Banks S,Ponder MA,Welsh DA,Taylor CM

Dose-Dependent Prebiotic Effect of Lactulose in a Computer-Controlled In Vitro Model of the Human Large Intestine.

Nutrients , Volume: 9 Issue: 7 2017 Jul 18

Authors Bothe MK,Maathuis AJH,Bellmann S,van der Vossen JMBM,Berressem D,Koehler A,Schwejda-Guettes S,Gaigg B,Kuchinka-Koch A,Stover JF

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