

## Microbiome Information for: Menopause

### 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**

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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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## Bacteria being reported because of atypical values.

These bacteria were reported atypical in studies of Menopause

*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>
Acinetobacter guillouiae	species	Low	106649	Corynebacterium stationis	species	Low	1705
Aggregatibacter segnis	species	Low	739	Helicobacter rodentium	species	Low	59617
Bacteroides ovatus	species	High	28116	Holdemanella biformis	species	High	1735
Bifidobacterium adolescentis	species	High	1680	Ligilactobacillus ruminis	species	High	1623
Bifidobacterium animalis	species	Low	28025	Phocaeicola coprophilus	species	Low	387090
Bifidobacterium longum	species	High	216816	Ruminococcus albus	species	Low	1264
Clostridium celatum	species	Low	36834	Veillonella dispar	species	High	39778

## 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.

almonds/ almond skins 90 gram/day

apple

arabinogalactan (prebiotic) 21 gram/day

bacillus subtilis (probiotics) 10 BCFU/day

barley,oat

Burdock Root

Cacao 20 gram/day

fructo-oligosaccharides (prebiotic) 15 gram/day

galacto-oligosaccharides (prebiotic) 10 gram/day

green tea

gum arabic (prebiotic) 30 gram/day

Human milk oligosaccharides (prebiotic, Holigos, Stachyose) 2

gram/day

inulin (prebiotic) 32 gram/day

jerusalem artichoke (prebiotic) 40 gram/day

lactobacillus casei (probiotics) 48 BCFU/day

lactobacillus paracasei (probiotics) 40 BCFU/day

lactobacillus plantarum (probiotics) 60 BCFU/day

lactulose

pomegranate 1 gram/day

raffinose(sugar beet)

resveratrol (grape seed/polyphenols/red wine) 2 gram/day

rosmarinus officinalis,rosemary

sesame cake/meal

soy 25 gram/day

wheat

wheat bran

## Retail Probiotics

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

Physician Choice /60 Billion Probiotics  
 garden of life / primal defense  
 theramedix / probiotic  
 newrhythm / probiotics 20 stains  
 fürstenmed / lacto-bifido  
 Lake Avenue Nutrition / Probiotics 10 Strain Blend  
 Windlove Probiotics / Ecologic®825  
 Wholesome Wellness / Raw Probiotic  
 organic 3 / primal gut  
 Garden of Life / Dr. Formulated Once Daily Women's  
 hyperbiotics / pro-15  
 nature's way (au) / restore probiotic 100 billion  
 bioglan bio (au) / happy probiotic 50  
 HLH BIOPHARMA(DE) / LACTOBACT ® PREMIUM  
 renew life / ultimate flora  
 up4 / ultra  
 bioglan bio (au) / happy probiotic 100  
 douglas laboratories / multi probiotic 40 billion  
 renew life men's probiotic - ultimate  
 7 AM Ultra Probiotics  
 quantum wellness / restora flora  
 naturopathica (au) / gastrohealth probiotic dairy free 50 billion  
 SuperSmart / Full Spectrum Probiotic Formula  
 vita miracle / ultra-30 probiotics  
 jarro formulas / jarro-dophilus® ultra  
 Bio Schwartz / Advance Strength Probiotics (40 BCFU)  
 OMNI-BIOTIC®/ TRAVEL  
 MegaFood / MegaFlora  
 seed / female version  
 1 md / complete probiotics platinum  
 SuperSmart / Derma Relief  
 fairvital / microflora basic  
 Invivo / Bio.Me Femme UT  
 naturopathica (au) / gastrohealth probiotic dairy free 20 bcfu  
 OMNI-BIOTIC®/ 10 AAD  
 nature's bounty / probioti 10  
 bioray / cytoflora  
 HLH BIOPHARMA(DE) / LACTOBACT ® 60PLUS  
 Thryve Inside/ L.Reu,Rham,Casi; B.Lactis  
 SuperSmart / Probio Forte  
 jarro formulas / jarro-dophilus eps  
 ferring / vsl#3  
 nature's way (au) /restore probiotic bowel & colon health 30s  
 visbiome  
 SuperSmart / Lactoxira  
 jarro formulas / bifidus balance® + fos  
 naturopathica (au) /gastrohealth probiotic ultimate daily care 100billion  
 udo's choice /super 8 gold  
 Jetson (US) / Immunity Probiotics  
 spain (es) / vivomixx  
 Advanced Bio-Cultures / Advance Multi Strain Probiotics  
 Krauterhaus / Lactopro  
 elixa / probiotic  
 solaray / mycrobioime probiotic colon formula

blackmore (au) / probiotics+ daily health  
Dr. Mercola / Complete Probiotics  
vinco / probiotic eight 65  
Physis / Advance Probiotics  
ASEA VIA / BIOME  
blackmores (au) / probiotics + adults daily (90 capsules)  
HLH BIOPHARMA(DE) / LACTOBACT ® METABOLIC  
jarro formula / jarro-dophilus original  
aor / probiotic-3  
vitamin angels / just thrive  
CustomProbiotics.com / L. Casei Probiotic Powder  
solgar / advanced multi-billion dophilus  
nature's way (au) / restore probiotic daily health 90s  
optibac / for daily immunity  
Swiss BioEnergetics / Full Spectrum Probiotic Defence  
bio-k+  
bio-botanical research / proflo4r restorative probiotic  
HLH BIOPHARMA(DE) / LACTOBACT ® OMNI FOS  
NOW FOODS / Clinical GI Probiotic  
ecology\_allergycare  
seed / male version  
lifted naturals / mood boosting probiotic  
HLH BIOPHARMA(DE) / LACTOBACT ® LDL-CONTROL  
powerlabs (au) / ultra blend  
Ombre / Ultimate Immunity  
LiveWell Nutrition / Pro-45  
Metabolics / Lactobacillus Plantarum Powder  
INVIVO THERAPEUTICS / Bio.Me IB +  
zint nutrition / probiotic collagen +  
Smidge / Sensitive Probiotic  
SuperSmart / Candalb  
custom probiotics / four strain lactobacilli  
Bromatech (IT) / Aflugenex  
ProbioMax® Daily DF  
SuperSmart / Lactobacillus Plantarum Postbiotic (Pasturized)  
organic 3 / primal soil  
SuperSmart / Bacillus Subtilis  
optibac / for your cholesterol  
CustomProbiotics.com / L. Paracasei Probiotic Powder  
Ombre / Mood Enhancer  
BIO-BOTANICAL RESEARCH / Megacidin  
reserveage nutrition / beautiflora  
amy meyers / primal earth probiotic  
Jetson / Gut Prep  
up4 / adult  
Resbiotic / resB® Lung Support  
spain (es) / I3.1  
jamieson (can) / probiotic 10 bcfu  
Thryve LPCasei Th1, LPCasei Th2,LFerm IBF1, Lacidoph  
naturopathica (au) / gastrohealth fibrepro  
Sash Vitality / Bio-Cultures Probiotics for Adults  
blackmore (au) / probiotics+ eczema relief  
SuperSmart / Vaginal Health  
Jetson / FIT  
Seeking Health / Probiota HistaminX  
bravo europe / starter and complex  
optibac / for every day  
Prescript-Assist®/SBO Probiotic

organic 3 / gutpro  
naturopathica (au) / gastrohealth antacid  
bravo europe / freeze-dried bravo  
enviromedica terraflora sbo probiotic  
Jetson (US) / Mood Probiotics  
Ombre / Heart Health  
solgar / advanced 40+ acidophilus  
klaire labs / target gb-x  
jarrow formula / ideal bowel support® lp299v®  
mwsb / candida yeast support  
microbiome labs/ megasporebiotic  
optibac / bifidobacteria & fibre  
klaire labs / biospora  
up4 / women's  
young living / life 9  
Bromatech (IT) / Adomelle  
biospec / probiotic-5  
corebiotic  
blackmores (au) / probiotics+ immune defence  
CustomProbiotics.com / L. Plantarum Probiotic Powder  
ISCON Elegance/ Ochek Capsule 10  
just for tummies / live bacteria  
custom probiotics / six strain probiotic powder  
Bromatech (IT) / Citogenex  
ImmuneBiotech Medical Sweden AB / GutMagnific®  
perfect pass / perfect pass probiotic bacillus spore  
PharmExtracta (IT) / INatal Sachets  
NaturalPharma / Profit Probiotics  
Energybalance / ColoBiotica 28 Colon Support  
danactive drink  
Nutrition Essentials / Probiotic (900 BCFU)  
microbiome labs / hu58  
global health trax / threelac  
nature's way (au) / restore probiotic 30 billion 30s

**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)	non-starch polysaccharides
ascophyllum nodosum (sea weed)	polydextrose
berberine	Pulses
bile (acid/salts)	retinoic acid,(Vitamin A derivative)
Caffeine	rice
cellulose (prebiotic)	saccharomyces boulardii (probiotics)
diosmin,(polyphenol)	salt (sodium chloride)
disodium fumarate (food additive)	$\beta$ -glucan
galla chinensis (herb)	sucralose
Guaiacol (polyphenol)	vegetarians
gynostemma pentaphyllum (Jiaogulan)	Vitamin B1,thiamine hydrochloride
Hesperidin (polyphenol)	Vitamin B-12
laminaria hyperborea( tangle/cuvie - seaweed)	vitamin B3,niacin
linseed(flaxseed)	Vitamin B6,pyridoxine hydrochloride
luteolin (flavonoid)	vitamin B7, biotin
melatonin supplement	Vitamin B9,folic acid
N-Acetyl Cysteine (NAC),	Vitamin C (ascorbic acid)
	white button mushrooms

## Sample of Literature Used

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

### The relationship between menopausal syndrome and gut microbes.

**BMC women`s health** , Volume: 22 Issue: 1 2022 Nov 8

Authors Liu Y,Zhou Y,Mao T,Huang Y,Liang J,Zhu M,Yao P,Zong Y,Lang J,Zhang Y

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

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

Food for thought about manipulating gut bacteria.

**Nature** , Volume: 577 Issue: 7788 2020 Jan

Authors Delzenne NM,Bindels LB

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

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

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

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

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

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

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

Lactate- and acetate-based cross-feeding interactions between selected strains of lactobacilli, bifidobacteria and colon bacteria in the presence of inulin-type fructans.

**International journal of food microbiology** , Volume: 241 2017 Jan 16

Authors Moens F,Verce M,De Vuyst L

Fucosyllactose and L-fucose utilization of infant Bifidobacterium longum and Bifidobacterium kashiwanohense.

**BMC microbiology** , Volume: 16 Issue: 1 2016 Oct 26

Authors Bunesova V,Lacroix C,Schwab C

Dietary supplementation of Rosmarinus officinalis L. leaves in sheep affects the abundance of rumen methanogens and other microbial populations.

**Journal of animal science and biotechnology** , Volume: 7 2016

Authors Cobellis G,Yu Z,Forte C,Acuti G,Trabalza-Marinucci M

Dietary flaxseed modulates the colonic microenvironment in healthy C57Bl/6 male mice which may alter susceptibility to gut-associated diseases.



**The Journal of nutritional biochemistry** , Volume: 28 2016 Feb

Authors Power KA,Lepp D,Zarepoor L,Monk JM,Wu W,Tsao R,Liu R

High purity galacto-oligosaccharides enhance specific Bifidobacterium species and their metabolic activity in the mouse gut microbiome.

**Beneficial microbes** , Volume: 7 Issue: 2 2016

Authors Monteagudo-Mera A,Arthur JC,Jobin C,Keku T,Bruno-Barcena JM,Azcarate-Peril MA

RNA-stable-isotope probing shows utilization of carbon from inulin by specific bacterial populations in the rat large bowel.

**Applied and environmental microbiology** , Volume: 80 Issue: 7 2014 Apr

Authors Tannock GW,Lawley B,Munro K,Sims IM,Lee J,Butts CA,Roy N

Utilization of major fucosylated and sialylated human milk oligosaccharides by isolated human gut microbes.

**Glycobiology** , Volume: 23 Issue: 11 2013 Nov

Authors Yu ZT,Chen C,Newburg DS

The principal fucosylated oligosaccharides of human milk exhibit prebiotic properties on cultured infant microbiota.

**Glycobiology** , Volume: 23 Issue: 2 2013 Feb

Authors Yu ZT,Chen C,Kling DE,Liu B,McCoy JM,Merighi M,Heidtman M,Newburg DS

Green tea increases the survival yield of Bifidobacteria in simulated gastrointestinal environment and during refrigerated conditions.

**Chemistry Central journal** , Volume: 6 Issue: 1 2012 Jun 22

Authors Vodnar DC,Socaciu C

Effects of disodium fumarate on ruminal fermentation and microbial communities in sheep fed on high-forage diets.

**Animal : an international journal of animal bioscience** , Volume: 6 Issue: 5 2012 May

Authors Zhou YW,McSweeney CS,Wang JK,Liu JX

Arabinoxylans and inulin differentially modulate the mucosal and luminal gut microbiota and mucin-degradation in humanized rats.

**Environmental microbiology** , Volume: 13 Issue: 10 2011 Oct

Authors Van den Abbeele P,Gérard P,Rabot S,Bruneau A,El Aidy S,Derrien M,Kleerebezem M,Zoetendal EG,Smidt H,Verstraete W,Van de Wiele T,Possemiers S

Prebiotic effects of wheat arabinoxylan related to the increase in bifidobacteria, Roseburia and Bacteroides/Prevotella in diet-induced obese mice.

**PloS one** , Volume: 6 Issue: 6 2011

Authors Neyrinck AM,Possemiers S,Druart C,Van de Wiele T,De Backer F,Cani PD,Larondelle Y,Delzenne NM

Consumption of human milk oligosaccharides by gut-related microbes.

**Journal of agricultural and food chemistry** , Volume: 58 Issue: 9 2010 May 12

Authors Marcobal A,Barboza M,Froehlich JW,Block DE,German JB,Lebrilla CB,Mills DA

Molecular monitoring of the fecal microbiota of healthy human subjects during administration of lactulose and Saccharomyces boulardii.

**Applied and environmental microbiology** , Volume: 72 Issue: 9 2006 Sep

Authors Vanhoutte T,De Preter V,De Brandt E,Verbeke K,Swings J,Huys G

The fermentation of lactulose by colonic bacteria.

**Journal of general microbiology** , Volume: 128 Issue: 2 1982 Feb

Authors Sahota SS,Bramley PM,Menzies IS

Fermentation of mucins and plant polysaccharides by anaerobic bacteria from the human colon.

**Applied and environmental microbiology** , Volume: 34 Issue: 5 1977 Nov

Authors Salyers AA,West SE,Vercellotti JR,Wilkins TD

Curated database of commensal, symbiotic and pathogenic microbiota

**Generative Bioinformatics** , Volume: Issue: 2014 Jun

Authors D'Adamo Peter

## 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