

## Microbiome Information for: Multiple system atrophy (MSA)

### 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

892 Lake Samish Rd, Bellingham WA 98229

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

## Bacteria being reported because of atypical values.

These bacteria were reported atypical in studies of Multiple system atrophy (MSA)

*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
Aggregatibacter	genus	Low	416916	Alistipes onderdonkii	species	High	328813
Akkermansia	genus	High	239934	Bifidobacterium pseudocatenulatum	species	Low	28026
Bifidobacterium	genus	Low	1678	Granulicatella adiacens	species	Low	46124
Blautia	genus	Low	572511	Megamonas funiformis	species	Low	437897
Gordonibacter	genus	High	644652	Phocaeicola coprocola	species	Low	310298
Lactobacillus	genus	High	1578	Phocaeicola plebeius	species	Low	310297
Megamonas	genus	Low	158846	Roseburia hominis	species	High	301301
Ruminococcus	genus	Low	1263	Staphylococcus xylosus	species	High	1288
Akkermansia muciniphila	species	High	239935	Streptococcus parasanguinis	species	High	1318
				Tyzzereella nexilis	species	Low	29361

## 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.

**Akkermansia muciniphila (probiotic)** 10 BCFU/day

chitosan,(sugar) 3 gram/day

cranberry bean flour

grapes

metformin (prescription)

pomegranate 1 gram/day

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

## **Retail Probiotics**

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

SuperSmart / Akkermansia Muciniphila Postbiotic (pasturized)

Pendulum / akkermansia muciniphila

Pendulum / Pendulum Glucose Control

**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.

gentamicin (antibiotic)

Human milk oligosaccharides (prebiotic, Holigos, Stachyose)

inulin (prebiotic)

*lactobacillus plantarum* (probiotics)

resistant starch

saccharin

soy

## Sample of Literature Used

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

### Alterations of the Gut Microbiota in Multiple System Atrophy Patients.

**Frontiers in neuroscience** , Volume: 13 2019

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Gentamicin alleviates cholestatic liver injury by decreasing gut microbiota-associated bile salt hydrolase activity in rats.

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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**