

GI Microb-X™

Supports GI Microbial Balance*



By David M. Brady, ND, DACBN, IFMCP, FACN and Kendra Whitmire, MS, CNS

This information is provided as a medical and scientific educational resource for the use of physicians and other licensed health-care practitioners ("Practitioners"). This information is intended for Practitioners to use as a basis for determining whether to recommend these products to their patients. All recommendations regarding protocols, dosing, prescribing, and/or usage instructions should be tailored to the individual needs of the patient considering their medical history and concomitant therapies. This information is not intended for use by consumers.

GI Microb-X™ is a targeted blend of nutrients and botanicals with a long history of use for supporting a healthy microbial balance within the gastrointestinal (GI) tract.* This proprietary blend of botanicals includes Tribulus extract, berberine, bearberry extract, black walnut powder, barberry extract, artemisinin, along with magnesium and caprylic acid from magnesium caprylate. Research shows that the bioactive constituents in these botanicals possess properties that may help promote a healthy balance of normal gut flora.*

Formula Highlights

Each 1-capsule serving contains

- 200 mg of Tribulus extract standardized to contain 40% saponins to support GI microbial balance*
- 100 mg of berberine sulfate and 50 mg of barberry extract standardized to contain 6% berberine to support gut health*
- 150 mg of magnesium caprylate, yielding 120 mg caprylic acid to support the disruption of bacteria cell formations and biofilm synthesis*
- 100 mg of bearberry extract standardized to contain 20% arbutin, 100 mg of black walnut powder, and 15 mg of artemisinin to help support the body's immune responses*

Ingredient Highlights

Tribulus Extract (*Tribulus terrestris*) is an annual shrub native to warm, subtropical, and desert climates such as Southern Europe, Southern Asia, and the Middle East. It has been used medicinally in traditional Chinese and Indian medicines for centuries.¹ It contains many bioactive compounds including saponins and alkaloids that may have health-promoting properties, such as the support of GI microbial balance.*¹ Tribulus has been shown to exhibit antibacterial activity against several types of pathogenic bacteria and yeast, including *Enterococcus faecalis*, *Staphylococcus aureus*, *Escherichia coli*, *Candida albicans*, *Salmonella typhimurium*, *Proteus vulgaris*, *Corynebacteria diphtheriae*, and *Pseudomonas aeruginosa*.¹⁻⁶

Berberine Sulfate (*Berberis aristata*) and Barberry Extract (*Berberis spp.*)

Berberine is a bitter-tasting, yellow plant alkaloid found in the roots, rhizomes, and stem bark of various plants, including Oregon grape, barberry, and goldenseal. Berberine has been shown to have antimicrobial, antiviral, and anti-parasitic properties, including properties against potential pathogens in the GI microbiome.⁷⁻¹³ It has been shown to inhibit the growth of *Giardia lamblia*, *Vibrio cholera*, and *Entamoeba histolytica*.^{8,9} Studies have also demonstrated its potential to inhibit yeast and several species of bacteria, including *C. albicans*, *S. aureus*, *E. coli*, and *P. aeruginosa*.¹⁰

A systematic review and meta-analysis reviewed 13 randomized controlled trials that added berberine in doses ranging from 120 mg to 500 mg to standard triple therapy treatment for 1 to 2 weeks for *Helicobacter pylori* eradication. The researchers found that the addition of berberine significantly improved *H. pylori* eradication rates. It also increased the healing rate of peptic ulcers, supported the relief of clinical symptoms, and reduced the incidence of adverse events compared to standard therapy.⁷

Studies have also demonstrated the potential for berberine to be effective against *Clostridium difficile*, including as an adjunct therapy alongside vancomycin, helping to prevent a relapsed infection of *C. difficile*.^{14,15} Berberine may support GI health by strengthening intestinal tight junctions and reducing gut permeability, an effect observed in human intestinal epithelial cells in vitro.¹⁶

Benefits*

- Supports a healthy GI microbial balance
- Support immune health in the GI tract
- Supports gut health

Supplement Facts

Serving Size 1 capsule

Amount Per Serving	% Daily Value
Magnesium (from Magnesium Caprylate)	10 mg 2%
Tribulus Extract (<i>Tribulus terrestris</i>)(aerial) [standardized to contain 40% saponins]	200 mg *
Magnesium Caprylate (yielding 120 mg caprylic acid)	150 mg *
Berberine Sulfate (<i>Berberis aristata</i>)(root)	100 mg *
Bearberry Extract (<i>Arctostaphylos uva-ursi</i>) (leaf)[standardized to contain 20% arbutin]	100 mg *
Black Walnut Powder (<i>Juglans nigra</i>)(hull)	100 mg *
Barberry Extract (<i>Berberis spp.</i>)(bark) [standardized to contain 6% berberine]	50 mg *
Artemisinin (from Sweet Wormwood) (<i>Artemisia annua</i>)(herb)	15 mg *

*Daily Value not established.

Other Ingredients: Cellulose (capsule), vegetable stearate, silicon dioxide.

Contains tree nuts (walnuts).

Artemisinin (*Artemisia annua*; Sweet Wormwood) is derived from the inner bark of the *Artemisia annua* tree. Its common name was dubbed “wormwood,” owing to its noted ability to kill parasitic worms. This compound has long been used as an antimalarial.¹⁷ It contains many bioactive compounds that may promote health and support a healthy microbial balance, including flavonoids, eriodictol, luteolin, and quercetin.¹⁸ Studies have demonstrated its efficacy against parasites that induce GI symptoms and various pathogenic bacteria and fungi, including *S. aureus*, *Staphylococcus epidermidis*, *E. faecalis*, *Enterobacter cloacae*, *E. coli*, *S. typhimurium*, and *C. albicans*.^{18,19} It has also been shown to be effective against a range of viruses, including human cytomegalovirus, Epstein-Barr virus, herpes simplex type 1, and hepatitis B and C.²⁰⁻²² Artemisinin also supports antioxidant status and immune function.^{18*}

Black Walnut Extract (*Juglans nigra*) has a long history of use as an intestinal antiparasitic (vermifuge, anthelmintic) in botanical medicine. It also possesses activity against common bacterial and fungal pathogens that occur in GI dysbiosis. There have been at least six distinct bioactive compounds with antibacterial effects identified in black walnuts, some of which are also antiviral, antifungal, and antiparasitic/antiprotozoal.^{23,24} These include glansreginin A, azelaic acid, quercetin, and eriodictyol-7-O-glucoside.²³ Black walnut extract has been shown to be effective against *S. aureus*.²³ Black walnut extract also has potent anti-inflammatory effects and was shown to inhibit secretion of several inflammatory cytokines in cultured human promonocytes.²⁵

Bearberry Extract (*Arctostaphylos uva-ursi*) grows in subarctic northern climates in Asia, North America, and Europe, and its medicinal use dates back to the 13th century. Uva-ursi contains a compound called arbutoside, which is converted in the gut and liver to hydroquinone. Hydroquinone has antiseptic effects in the GI and urinary tracts.^{26,27} Uva-ursi has been shown to have antibacterial action against pathogenic organisms including *P. aeruginosa*.^{27,28}

Caprylic Acid is a medium-chain fatty acid containing eight carbon atoms found naturally in coconut and palm kernel oils and breast milk. Due to its relatively short chain length, caprylic acid is able to penetrate and disrupt bacterial cell membranes and reduce biofilm formation.^{29,30} It has been shown to be effective against inhibiting the growth of *C. difficile*.³¹ It has also been found effective against inhibiting *C. albicans* and its biofilm formation.³²

Recommended Use: Take 1 capsule per day on an empty stomach or as directed by your health-care practitioner.

Warning: Do not use if pregnant or breastfeeding. Consult your healthcare practitioner for use beyond 30 days.

For a list of references cited in this document, please visit:

<https://www.designsforhealth.com/api/library-assets/literature-reference---gi-microb-x-tech-sheet-references>

Dosing recommendations are given for typical use based on an average 150 pound healthy adult. Healthcare practitioners are encouraged to use clinical judgement with case-specific dosing based on intended goals, subject body weight, medical history, and concomitant medication and supplement usage.

***These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.**

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