BINDER PLUS

NutraMedix

APPLICATIONS

- Detox Support
- Antioxidant Support
- Prebiotic

INTRODUCTION

Binder Plus consists of a proprietary blend of inulin, bentonite zeolite, aloe vera, activated charcoal, fulvic minerals, and chitosan. These ingredients may help synergistically support healthy detoxification pathways to detoxify the body's natural toxins.*

INULIN

Inulin from *Agave* spp. is a soluble, indigestible fiber that is fermented by colonic bacteria to support normal levels of short-chain fatty acids (SCFAs) and may help to support *bifidobacterium* levels already within the normal range.*[1,2] Inulin may help to maintain a healthy gut barrier, support a healthy inflammatory response, and maintain normal immune function.*[3]

Meta-analyses have suggested that inulin may help to support regularity and maintain normal bowel function;[4] may help to support metabolic health by maintaining fasting blood glucose (FBG), hemoglobin A1c (HbA1c), fasting insulin, and insulin resistance already within the normal range;[5] and may support a normal BMI by maintaining C-reactive protein and ghrelin levels already within the normal range.*[6]

BENTONITE

Bentonite clay, also known as montmorillonite, has been used in traditional health practices for centuries.[7,8] Bentonite is a polycationic aluminosilicate clay with the ability to bind to negatively-charged substances, which may help support healthy detoxification and support a healthy mucosal gut barrier.*[9,10,11] It may also help with microbial support.*[8]

ZEOLITE

Zeolite is also a polycationic aluminosilicate clay with the ability to bind to negatively-charged substances, which may help to support healthy detoxification, facilitating excretion through stool.*[12,13,14] Zeolite clinoptilolite, the natural-source form, is the most researched and commonly used.[15] It may also support antioxidant activity,[15,16] maintain normal immune function,[13] maintain healthy gastrointestinal barrier function,[14] and support a healthy inflammatory response.*[17]

ALOE VERA

Aloe vera (leaf) contains polysaccharides and phenolics,[18] and the most-studied constituents include aloe-emodin, emodin, aloesin, aloin, and acemannan.*[19] Both aloe-emodin and acemannan may help with prebiotic support.*[19] In addition, Aloe may help with antioxidant support,[20,21] support a healthy inflammatory response in intestinal tissue,[19,21] maintain normal glucose already within the normal range,[22,23] and maintain normal lipids already within the normal range.*[24]

ACTIVATED CHARCOAL

Charcoal has been used to support gastrointestinal detoxification for over a century.*[25] Activated charcoal has more pores and thus greater absorption.*[25] Activated charcoal may help to support healthy detoxification and healthy elimination through the stool.*[26] It may also help to maintain a healthy gut microbiome.*[27]

FULVIC MINERALS

Fulvic minerals come from humic substances made by soil micro-organisms.[28,29] Fulvic minerals may help support healthy gastrointestinal function, maintain healthy immune function, and support a healthy inflammatory response.*[29] They may also help with antioxidant support.*[29]

CHITOSAN

Chitosan is a polysaccharide that can be derived from a number of sources,[30] and NutraMedix chitosan is from mushrooms. As with bentonite and zeolite, chitosan is polycationic with the ability to bind with the body's natural toxins that are negatively charged.*[31] Meta-analyses have shown that chitosan may also help to maintain blood pressure,[32,33] blood sugar, body weight,[33,35] and lipids, already within the normal range.*[33,36]

DETOX SUPPORT

Inulin's dietary fiber may help to maintain normal intestinal flora by acting as a prebiotic to support and maintain beneficial flora, including *bifidobacterium* and *lactobacillus*, which may help with healthy detoxification support by maintaining the integrity of the gut barrier.*[1] It may also support a healthy fecal weight, aiding in the elimination of the body's natural toxins.*[1]

Bentonite is a polycationic aluminosilicate clay with the ability to absorb

the body's natural negatively-charged toxins.[*7] It may also help support the elimination of the body's natural toxins through the stool.[*7] In animals, it has been shown to support and maintain liver health.[*7] Bentonite clay may maintain creatinine levels already within the normal range by absorption and excretion through stool.[*7] In addition, it may help to support the transfer of urea from blood vessels to intestines, and then to excretion via stool, helping to maintain renal health.[*7] Randomized, controlled trials have shown that bentonite may help to support healthy detoxification,[9,10] as well as maintain healthy gut barrier function.[*11]

Zeolite, similar to bentonite, is a polycationic aluminosilicate clay with the ability to absorb the body's natural negatively-charged toxins,[14] which are then excreted through the stool.[*12] It may support healthy detoxification through the maintenance of zonulin already within the normal range, supporting intestinal mucosal integrity.[*14] Its support of antioxidant activity may be partially responsible for its role in detoxification support.[*16]

Aloe Vera leaf may help with detoxification support through antioxidant support,[20,21] prebiotic support,[19] and maintaining a healthy inflammatory response in intestinal tissue.[*19,21] Activated charcoal, as with bentonite and zeolite, has many pores and may help to bind the body's natural toxins,[25] supporting healthy elimination.[*26] It is widely used for detoxification support,[37-39] and may also help maintain a healthy gut microbiome.[*27]

Fulvic Minerals may help with detoxification support, antioxidant support, and healthy inflammatory response support through maintaining CRP levels, NF-kappaB, and COX-2 levels already within the normal range.[*40,41] Chitosan may also help with detoxification support.[*42] As with bentonite and zeolite, chitosan is polycationic with the ability to bind with the body's natural toxins.[*31,43]

SAFETY AND CAUTIONS

Inulin has GRAS (Generally Recognized As Safe) status in the United States and is generally well-tolerated.[2] The most common side effects of inulin are gastrointestinal, including constipation, diarrhea, gas, and cramps.[2] Theoretically, inulin may have additive effects with hypoglycemic medications.[2]

Bentonite and zeolite clays are generally well tolerated, in short-term use.[44] Bentonite clay has been used safely in dosages up to 3 g/day for three months.[44] Zeolite (clinoptilolite) is considered to be nontoxic and biologically neutral for internal use.[13] Adverse effects from clay consumption are rare, and generally mild, including vomiting, diarrhea, and/or constipation. Long-term use may lead to more severe adverse effects.[44] In vitro studies have shown that clays may inhibit the absorption of quinine by 30%, and clinical studies have shown that clays may inhibit the absorption of cimetidine when taken concurrently.[44]

Aloe is generally well tolerated when used in the recommended dosages.[45] While whole aloe leaf contains latex, we use only the gel from the inner leaf. Aloe latex may cause gastrointestinal effects like cramps, abdominal pain, and diarrhea, and high doses of aloe latex have been known to cause hypersensitivity hepatitis.[45]

Aloe latex should not be taken with digoxin, as it may increase the risk of serious adverse effects when taken with cardiac glycosides. Aloe may have additive effects with hypoglycemic drugs. Theoretically, aloe gel may increase risk of bleeding when taken with anticoagulant or antiplatelet drugs, and may do the same when taken with warfarin. Theoretically, aloe may increase electrolyte disturbance when taken with stimulant laxatives and may increase the risk of hypokalemia when taken with diuretics.[45]

Activated charcoal is generally well tolerated. Short-term use is safe and activated charcoal has been used in dosages up to 1.2 grams three times daily for up to 3 years.[25] Common side effects include gastrointestinal symptoms such as abdominal pain, bloating, constipation, and flatulence. Black stools may also occur, due to the color of charcoal.[25] Activated charcoal should not be routinely combined with laxatives,[46] and should not be taken at the same time as oral pharmaceuticals, as it may decrease their efficacy.[25] Activated charcoal will inactivate syrup of ipecac, and may decrease the efficacy of oral contraceptives. Alcohol may decrease the effects of activated charcoal.[25]

Fulvic minerals are generally well-tolerated, though may cause headache, sore throat, or diarrhea.[28] Fulvic acid can shorten prothrombin time, increasing the risk of clotting, and may theoretically decrease the effectiveness of antiplatelet or anticoagulant drugs.[28] It may also decrease the effectiveness of immunosuppressants and increase both TSH levels and T4:T3 ratio.[28]

Chitosan is nontoxic and generally well tolerated. It has been safely used in studies in dosages up to 1.35 g/day for up to 3 months.[30] Side effects, when they occur, are generally gastrointestinal and may include nausea, flatulence, diarrhea, or constipation.[30] Chitosan may increase the risk of bleeding when taken with warfarin, and may reduce the effectiveness of acyclovir.[30]

Safety not documented in breastfeeding or pregnant women, or in children under 3 years of age due to insufficient safety research.

*** This statement has not been evaluated by the Food and Drug Administration. This product is not intended to treat, cure, or prevent any diseases.**

NutraMedix

KEEP OUT OF REACH OF CHILDREN

STORAGE: Keep tightly closed in a dry place at room temperature. (59-86°F or 15-30°C)

SUGGESTED USE: Take two capsules once or twice daily or as directed by your physician. Do not use if pregnant or nursing. Stop use if adverse reactions develop.

⚠WARNING:This product can expose you to chemicals including lead, which is known to the state of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

†This statement has 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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BINDER PLUS

COMPREHENSIVE TOXIN BINDER †

DAIRY FREE GLUTEN FREE

Dietary Supplement
120 Vegetable Capsules

Supplement Facts

V350137

Serving Size 2 Capsules
Servings Per Container 60

Amount Per Serving		% DV
Proprietary Blend	1200 mg	*

Zeolite, Activated Charcoal, Inulin, Aloe Vera leaf, Fulvic Minerals, Bentonite Clay, Chitosan from mushrooms

*Daily Value not established

Other ingredients: Vegetable Capsule, Vegetable Magnesium Stearate

GLUTEN, SUGAR & DAIRY FREE

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