

ULTRA BINDER®



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Ultra Binder® is a broad-spectrum blend of binding agents including bentonite clay, activated charcoal, chitosan, zeolite, and our proprietary mercury-binding complex, IMD®, combined with the GI soothing and fluidizing compounds acacia gum and aloe vera. This comprehensive formula is designed to adhere to toxins in the GI tract for their safe elimination from the body and supports detoxification from multiple contaminants including heavy metals, pesticides, herbicides, endocrine disrupters, drug residues, food additives, as well as mold and bacterial toxins.



Supplement Facts

Serving Size: 4 grams (1 rounded tsp.)
Servings Per Container: 30

	Amount Per Serving	% Daily Value
Dietary Fiber	1g	4%
Fiber/Clay Proprietary Blend: Inavea™ Original (gum Arabic), Zeolite, Sodium Bentonite Clay	1.36g	**
Proprietary Blend: Activated Charcoal, Chitosan, BiAloe® Aloe Vera leaf, Silica extract†	2.64g	**

**Daily Value not established

††Percent Daily Values are based on a 2,000 calorie diet.

EDUCATION

ENDOTOXIN COMPROMISES DETOXIFICATION

Our bodies face a continuous onslaught of toxin exposure in our modern-day environment. The gastrointestinal system is a primary route of excretion for many of the toxins to which we are exposed. Factors that compromise the gut's ability to efficiently eliminate toxins can cause toxins to recirculate through the enterohepatic circulation, the movement of bile acids and toxins between the liver, bloodstream, and small intestine.¹ Endotoxin is a highly inflammatory lipopolysaccharide component of the cell wall of numerous gram negative bacteria that interferes with toxin elimination via the gut.¹ The inflammation from endotoxin shuts down key detoxification transporters and enzymes in the liver and gut.^{3,4,5,6} Binders capture endotoxin and increase general detoxification capacity, both on a daily basis and in more intensive, focused regimens.

ACTIVATED CHARCOAL: A UNIVERSAL ANTIDOTE

Ultrafine, activated charcoal contains millions of tiny pores that capture and remove positively charged toxins in the gastrointestinal tract, and thus charcoal has long been considered a universal antidote in acute and chronic poisoning.^{7,8,9} Charcoal captures metals,¹⁰ bacterial endotoxin,¹¹ plant toxins and alkaloids, pharmaceuticals,¹² and gasses and vapors.¹³ Activated charcoal adsorbs bile salts, thereby lowering cholesterol.^{14,15} Charcoal's adsorbent properties have the ability to spare the kidneys by binding to urinary toxins.¹⁶ Charcoal is well tolerated and easily excreted in the feces.

CHITOSAN: A POLYFUNCTIONAL BINDER THAT ADDRESSES BIOTOXINS

Chitosan is a water soluble polysaccharide derived from the hard outer skeleton of shellfish; the long-chain sugar is devoid of allergens and has been extensively studied for its ability to lower cholesterol, including LDL, and reduce obesity.^{17,18,19,20} It supports friendly flora such as bifidobacteria and lactobacilli, and may help reduce

obesity by reducing phylum firmicutes (associated with weight gain). Chitosan is particularly useful in addressing chronic inflammatory response syndrome (CIRS), which is often activated by conjugated toxins from mold and algae, and has been extensively described by Ritchie Shoemaker, MD.^{21,22}

BENTONITE CLAY: A BROAD-SPECTRUM ANTIMICROBIAL BINDER THAT AIDS DIGESTION

Bentonite clay made from volcanic ash known as “Montmorillonite” is a creamy grey color with an extremely soft and fine consistency. Due to the small particle size, bentonite clay has a vast surface area capable of binding to multiple harmful substances. Clay has extraordinary adsorptive properties and is rich in minerals, including silica, magnesium, sodium, calcium, iron, and potassium.²³ Clay is a broad-spectrum antimicrobial that binds mold toxins, heavy metals, microbes²⁴ and various chemicals.²⁵ Clay has been shown to specifically bind endotoxin and lipopolysaccharides.²⁶

ZEOLITE

Zeolite is a microporous mineral compound that occurs naturally in the earth's crust. The unique molecular structure of zeolite makes it a powerful “cation exchanger,” or a substance capable of binding small molecules, including toxins such as heavy metals and organophosphate pesticides.²⁶ Zeolite has also been found to improve the health of the intestinal microenvironment and support balanced immune function.

SILICA EXTRACT: NATURAL ELIMINATION OF METALS THROUGH THE INTESTINES

Mercury is perhaps the most well-recognized toxic heavy metal in the environment and perhaps the most complex one. Industrial plants, coal burning, incinerators, and chlor-alkali facilities have historically released copious amounts of mercury into the atmosphere, resulting in widespread contamination of oceans, soil, and air. Mercury is also a primary component of dental amalgams, which reside in the teeth of more than 100 million Americans. Thiol resins, such as thiol-functionalized silica, are highly specific mercury binders. Thiol resins optimize the natural elimination of metals through the intestine while quenching metal-induced free radicals, providing multifaceted support for heavy metal detoxification.²⁷

ALOE VERA AND ACACIA GUM IMPROVE GUT HEALTH & INHIBIT CONSTIPATION

Aloe vera contains a glucose-rich, mannose-containing oligosaccharide called acemannan that is soothing to gastric mucosa,²⁸ supports the growth of beneficial gut bacteria,²⁹ and supports the immune system and tissue repair.^{30,31,32} Aloe also contains other polysaccharides and phenols that function as antioxidants³³ and reduce side effects of constipation normally associated with binders.³⁴

Acacia gum has a long history of use in normalizing gut motility and function. It is packed with soluble fiber—95%-that offers unique benefits.³⁵ Fermentation of acacia gum in the gut by resident flora yields health-promoting metabolites such as short chain fatty acids, which can stimulate the growth of lactic acid bacteria (lactobacilli and bifidobacteria).^{36,37,38} Acacia gum is well tolerated even at higher doses.

Our Quicksilver Delivery System® improve upon liposomal and emulsification technology with smaller, more stable particles made from the highest-grade ingredients available. In addition to exceptional absorption rates, these tiny liposomal and nanoemulsified particles increase diffusion across mucus membranes, enhance lymphatic circulation of nutrients and support cellular delivery.

References available at quicksilverscientific.com/ultrabinderreferences

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This information is for the use of licensed healthcare practitioners only and is intended to use as a basis for determining whether or not to recommend these products to their patients. This medical and scientific information is not for use by consumers.

WARNING: NOT FOR USE BY INDIVIDUALS UNDER THE AGE OF 18 YEARS. DO NOT USE IF PREGNANT, BREAST-FEEDING, OR PLANNING TO BECOME PREGNANT. KEEP OUT OF REACH OF CHILDREN. Consult a healthcare professional before use if you have any medical condition or are taking any other supplements or medications. Do not exceed recommended dosage. See www.quicksilverscientific.com for additional safety information.

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