

Metal-X-Synergy™

Natural, safe formula for the promotion of heavy metal detoxification



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Metal-X-Synergy™ is a natural formula designed to help safely shed the body burden of toxic metals including aluminum, arsenic, cadmium, lead, and mercury without many of the common side effects found with the use of harsh synthetic chelating agents. The array of ingredients in Metal-X-Synergy™ work together to decrease the total heavy metal burden, blocking the initial absorption of metals into the body's tissues and organs, pulling them out more effectively, and also helping to block their reabsorption through enterohepatic recirculation.

Heavy Metal Dangers

Heavy metals, which have a specific gravity at least five times that of water, cannot be efficiently metabolized or eliminated by the body and are left to accumulate in soft tissues and bones, with a special affinity for fatty-based tissue, including the nervous system. Chronic exposure to heavy metals can lead to critical vitamin and mineral deficiencies and serious health consequences, including neurological, cardiovascular, hormonal and autoimmune disturbances, as well as infertility in both men and women. Heavy metals can be highly damaging to the rapidly developing tissues and organs of children, where impaired cognition, learning disabilities and behavior issues can ensue. Even fetuses can be affected, as certain metals including mercury and lead can pass through the placenta to the fetal brain tissue.

Sources of toxic metals include:

- **Fish/Seafood:** shark, swordfish, king mackerel, tuna, shrimp, salmon, pollock and catfish can contain mercury
- **Coal-burning Plants/Waste Incinerators**
- **Cigarette smoke** (first and second hand) - arsenic, cadmium and lead exposure
- **Vaccinations** - may contain the mercury preservative thimerosal (a neurotoxin)
- **Dental Fillings** - mercury-based amalgams
- **Antiperspirant Deodorants** - many commercial varieties contain aluminum chlorohydrate
- **Insecticides, Fungicides and Fertilizers** - cadmium may be present

PectaSol-C® and Algimate® combination for healthy chelation

Metal-X-Synergy™ contains patented complexes of modified citrus pectin (PectaSol-C®) and alginate (Algimate®), two polyuronides, which are naturally occurring complex polysaccharides. These polysaccharides work together to safely remove heavy metals without depleting essential minerals from the body.

- **Modified Citrus Pectin as PectaSol-C®:** Pectin is a polysaccharide found in the cell wall of many citrus fruits. While normally pectin is too large to work at the cellular level, PectaSol-C® was developed using a unique proprietary process which allows for the correct low molecular weight and structure of pectin necessary for it to chelate to toxic metals.
- **Modified Alginate Complex as Algimate®:** Alginates are the carbohydrates that make up the cell wall of seaweed and have the distinct capability to bind heavy metals to their own molecules. Alginates work mainly in the gastrointestinal tract to prevent reabsorption of toxins as they are being pulled from tissues. This is a critical step, as other chelation methods may only bind toxins from tissues, which are then dumped into the intestinal tract where they are left to become easily reabsorbed, creating a potentially vicious cycle that never allows for the complete elimination of the heavy metals.

Metal-X-Synergy™ may be useful for:

- Safe detoxification of heavy metals
- Heavy metal testing as a provocation agent

Supplement Facts

Serving Size 6 capsules
Servings Per Container 15

Amount Per Serving	% Daily Value	Amount Per Serving	% Daily Value
Dietary Fiber	1 g 4%*	Modified Alginate Complex (as Algimate®)	750 mg †
Sodium	120 mg 5%	Garlic (<i>Allium sativum</i>)(bulb)	400 mg †
Potassium	130 mg 3%	L-Glutathione (reduced)	200 mg †
Modified Citrus Pectin (as PectaSol-C®)	1.5 g †	Alpha Lipoic Acid	200 mg †
Organic Chlorella-broken cell wall (<i>Chlorella vulgaris</i>)(whole plant)	1 g †		
N-Acetyl-L-Cysteine	900 mg †		

*Percent Daily Values are based on a 2,000 calorie diet.
†Daily Value not established.

Other Ingredients: Cellulose (capsule), microcrystalline cellulose, vegetable stearate.

Additional Highlights

Chlorella (*Chlorella vulgaris*) is a green algae considered to be one of the most nutrient-dense substances on earth, and has been shown to support the healthy function of the digestive, circulatory, and pulmonary systems. It has been extensively researched in its role in heavy metal chelation, having the ability to bind with metals such as mercury, lead, and cadmium. As with alginates, chlorella also plays an integral role in helping to prevent the reabsorption of minerals after they have been released from the tissues.

Besides being organic, the chlorella found in Metal-X-Synergy™ is broken cell wall chlorella, which means that the cell wall, which normally is not digestible, has been broken open through a patented process in order to unlock its benefits and allows for greater bioavailability.

Glutathione is a tripeptide of the amino acids glycine, cystine, and glutamic acid, and is one of the most powerful antioxidants known for its ability to protect the body against the damages caused by heavy metal toxicity and environmental toxins. The predominant antioxidant found in the liver, glutathione breaks down wastes, toxins, and heavy metals into less harmful compounds and is extremely important during toxic metal elimination, as well as any condition involving free radical stress. Glutathione is also essential as a featured conjugating substance used by the body to eliminate many toxins.

N-Acetyl-Cysteine (NAC), a derivative of the amino acid cysteine, is a precursor to glutathione and has powerful antioxidant and liver-protective actions. In addition to protecting the body from oxidative damage, NAC can be used for heavy metal damage and where there is a need to rebuild the liver and promote optimal detoxification. Research shows that NAC can be used as a biomonitoring provoking agent for mercury, as it was shown to cause an increase in urinary excretion proportional to the body burden, deeming it effective at enhancing mercury excretion.

Alpha Lipoic Acid (ALA) is a broad-spectrum antioxidant exhibiting protective properties for both water- and lipid-based tissues. Lipoic acid also acts as an orally effective repletter of reduced glutathione. It is believed that ALA participates in the chelation process because it can easily penetrate cell membranes and thus, is absorbed into the intracellular environment. Supplemental lipoic acid exists unbound in the circulation (as opposed to being bound to proteins), and it is this unbound form that allows it to bind with circulating heavy metals in order to prevent them from causing cellular damage. Unbound lipoic acid has the ability to cross the blood brain barrier, which is significant since lead and mercury are known to accumulate within the brain's supportive glial cells (which provide support for neurons).

Garlic (*Allium sativum*) is one of the richest dietary sources of various health-promoting sulfur compounds. These components help to oxidize heavy metals and make them water-soluble, allowing for their excretion. Garlic also protects blood cells from the damage caused by metals that appear in the bloodstream as they work their way through the detoxification process. Garlic can also stimulate the production of glutathione.

How to Take:

- Take six capsules daily with meals
- Can safely increase dosage for more aggressive use, as directed by a health care professional
- It is recommended that Metal-X-Synergy™ be taken two hours before or after any medications or other supplements
- Consider combining with Hepatone Plus™, Amino D-Tox™ and/or VegeCleanse™ powder for liver and detoxification support

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

<https://www.designsforhealth.com/techsheet-references/Metal-X-Synergy.pdf>

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

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