



DOCTOR FORMULATED ■ RESEARCH DRIVEN ■ CLINICAL SYNERGY STANDARD

Advanced Integrative Therapy for Promoting:*

Removal of Toxic Metals & Environmental Toxins from Body	☑
Maintaining Healthy Detoxification	☑

- **Features clinically studied, patent-protected ingredients**
- **Formulated for dual action**, targeting intestine and systemic circulation to bind and eliminate toxins and prevent reabsorption*
- **Excellent safety profile** for use as intensive support or for long-term maintenance*
- **Detoxification action** with no depletion of essential minerals*

Supplement Facts

Serving Size: 1 Capsules

Servings per Container: 180

Amount Per Serving		% DV
Total Carbohydrates	less than 1 g	<1%
Dietary Fiber	less than 1 g	2%
Sodium	40 mg	2%
Potassium	45 mg	1%
PectaSol-C® Modified Citrus Pectin	500 mg	†
Algimate® Modified Alginate Complex	250 mg	†

*Percent Daily Value (DV) based on a 2,000 calorie diet.

† Daily Value (DV) not established.

Other Ingredients: Vegetable capsule (natural vegetable cellulose, water), stearic acid, magnesium stearate, microcrystalline cellulose, silicon dioxide.

Suggested Use: As a dietary supplement, for long term maintenance, take 1 capsule, twice per day on an empty stomach, or as directed by your healthcare practitioner.

**For additional product use, please refer to the Advanced Integrative Protocols.

What is PectaSol® Metal Detox?

PectaSol® Metal Detox provides a precise combination of two specially modified forms of pectin and alginate: PectaSol-C® Professional Modified Citrus Pectin (MCP) derived from the pith of citrus fruit peels, and Algimate® Modified Alginate Complex purified from kelp seaweed.

How does it support healthy detoxification?

PectaSol® Metal Detox works both within the intestine and circulation to provide gentle, everyday protection against the accumulation of toxic metals and other pollutants.*

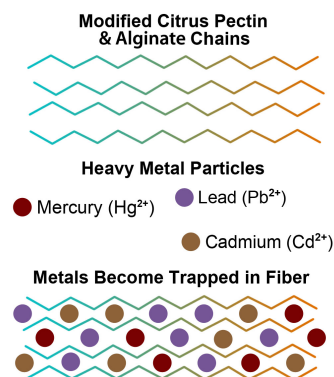
What are the advantages of modified forms?

Naturally occurring pectin and alginate are complex polysaccharides (polyuronides) that have a binding affinity for heavy metals and environmental toxins. Modifying these molecules to reduce their molecular weight and structural complexity enhances their ability to chelate toxins. For example, PectaSol-C® Professional Modified Citrus Pectin is derived using an enzymatic process to yield low molecular weight molecules with fewer degrees of esterification that, unlike native pectins, can be readily absorbed from the digestive tract into the circulation.¹ In a similar manner, Algimate® Modified Alginate Complex is derived from a process that yields low viscosity alginates that remain in the gastrointestinal tract to reduce absorption of toxins from the diet and environment as well as prevent reabsorption from bile production.²

How does pectin bind toxins?

In the body, the pectin and alginate polyuronides in **PectaSol® Metal Detox** have the ability to form stacks in solution described as the “egg box model.”

The pockets of the egg box contain positively charged ions, typically sodium and potassium, to balance the negatively charged chains. However, toxic metals – especially lead, mercury, cadmium, arsenic and radioactive particles – and other environmental toxins have





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a higher binding affinity for the polyuronides. These toxins become trapped and are eliminated from the body.³

What research supports its use?

PectaSol-C® Professional Modified Citrus Pectin has been the subject of several human studies demonstrating its ability to reduce the total body burden of toxic metals:

- In a study involving healthy adults and conducted in collaboration with the U.S. Dept. of Agriculture, PectaSol-C® Professional Modified Citrus Pectin significantly increased urinary excretion of arsenic, cadmium, lead, mercury and tin, without any effect on essential minerals or other adverse effects.¹
- In a second long-term study involving healthy adults, PectaSol-C® Professional Modified Citrus Pectin significantly reduced total body mercury burden with no significant side effects reported.⁴
- Another clinical study of children hospitalized for acute lead toxicity, PectaSol-C® Professional Modified Citrus Pectin significantly reduced blood lead levels, and increased urinary excretion without any adverse effects.

Published case studies

The patented ingredients in **PectaSol® Metal Detox** play a central role detoxification. In a clinical report of five case studies, PectaSol-C® Professional Modified Citrus Pectin alone or in combination with Algimate® Modified Alginate Complex helped progressively remove lead and mercury as measured by sequential urine challenge testing. Improvement in symptoms and enhanced response to concomitant therapies were also reported and attributed, in part, to the reduction in toxic heavy metal load. In one patient, a 64-year-old woman with potential toxic metal exposure from living in an old house for 25 years, the combination of PectaSol-C® Professional Modified

Citrus Pectin (1.2 g/day) and Algimate® Modified Alginate Complex (1.8 g/day) for 2 months decreased lead from a highly toxic level to an undetectable level and decreased mercury by 83%, correlating with an increase in mood.⁶

What other research supports its detoxification use?

Pectins and/or alginates have been reported to significantly reduce radioactive cesium in children exposed during the Chernobyl disaster.^{7,8} Another study showed slower absorption of paraquat in patients who ingested the herbicide (allowing other treatment components to have a better effect).⁹ In vivo studies demonstrated their ability to effectively bind and inhibit absorption of dioxins,¹⁰ dioxin-like compounds, and strontium¹¹.

What is its safety profile?

PectaSol® Metal Detox has an excellent safety profile with no known adverse effects with long-term use.

Are there any product precautions?

- As with all dietary fibers, this product has the potential to affect absorption. Taking the product on an empty stomach and waiting at least 30 minutes before taking drugs or other supplements is recommended.
- Insufficient reliable information is available about its safe use during pregnancy or while nursing.

What product quality control tests are performed?

PectaSol® Metal Detox is manufactured in facilities that meet or exceed current Good Manufacturing Practices (cGMP). Quality control tests are performed at every stage of the process from rigorous raw material testing to finished product testing.

PectaSol-C® Professional has been studied under PectaSol-C®

PectaSol-C® and Algimate® are protected under U.S. Patent Nos. 6,274,566; 6,462,029; 7,026,302; 7,452,871; and 8,426,567.

References: 1. Eliaz I, et al. *Phytother Res*. 2006;20:859-64. 2. Gupta S, et al. *Trends Food Sci Technol*. 2011;22:315-26. 3. Grant GT, et al. *FEBS Lett*. 1973;32:195-98. 4. Eliaz, I. Presented at the 228th ACS National Meeting; Aug 22-26, 2004; Philadelphia, PA. 5. Zhao ZY, *Altern Ther Health Med*. 2008;14(4):34-8. 6. Eliaz I, et al. *Forsch Komplementmed*. 2007;14(6):358-64. 7. Nesterenko VB, et al. *Swiss Med Wkly*. 2004;134(1-2):24-7. 8. Hill P, et al. *Radiat Prot Dosimetry*. 2007;125(1-4):523-6. 9. Wilks MF, et al. *PLoS Med*. 2008;5(2):e49. 10. Aozasa O, et al. *Chemosphere*. 2001;45(2):195-200. 11. Waldron-Edward D. *Can Med Assoc J*. 1968;99(20):986-92.