PectaSol® Chelation Complex™

*Supports Healthy Chelation**

PectaSol® Chelation Complex™ is designed to:

- Promote removal of toxins without depleting essential minerals.*
- Function systemically and intestinally*
- Bind toxins to prevent re-absorption*

Polyuronide Chemistry
Polyuronides, such as pectin and alginates, are naturally occurring complex polysaccharides. Citrus pectin is a soluble dietary fiber composed predominately of repeating galacturonic acid units. Alginate, found in seaweed, is made of linear chains of mannuronic (M) and guluronic (G) acid. The structure and charge of these compounds make them superior toxic metal chelators.*

Metal Chelation Properties
The toxic metal binding properties of polyuronides is dependent on their degree of esterification and the type and pattern of the molecules that comprise the pectin or alginate chains. The highest binding affinities are found in pectins with a low degree of esterification and alginates that are rich in guluronic acid blocks.[1]*

Metal Complex Formation
Polyuronides form stacks in solution in what is known as an "egg box" structure[2]. (See figure 1) Each pocket of the "egg carton" contains a positively charged ion to balance the negatively charged chains. Normally the positive ions are sodium and potassium. However, toxic metals especially lead, mercury, cadmium, and radioactive metals have a higher affinity for polyuronides than the essential ions like calcium, magnesium, and potassium.[1,3] Toxic metal ions become trapped in the "egg box" structure and are eliminated from the body.* USDA-ARS scientist attributed the 10% rhamnogalacturonan II content in PectaSol to the selective binding to these toxic metals.[4]*

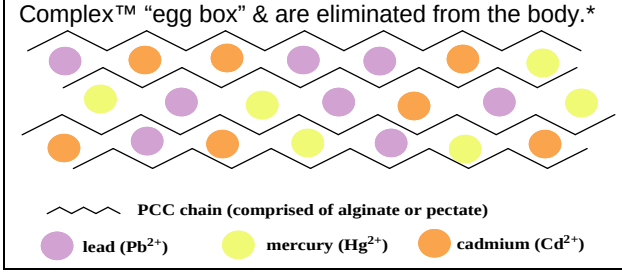
PectaSol® Chelation Complex™
PectaSol® Chelation Complex™ (PCC) is a carefully designed blend of modified citrus pectin (MCP) and modified alginates formulated by Isaac Eliaz, MD for optimal toxic metal chelation.* The use of alginates and pectates for metal chelation is protected by US patents #6,462,029 and #7,026,302. PCC is an integral part of Dr. Eliaz's detoxification protocols.* The modified citrus pectin component works systemically in the circulatory system and the alginates work predominantly in the gastrointestinal tract to prevent re-absorption of toxins.*

Clinical Studies
PectaSol® Modified Citrus Pectin's ability to support the removal of toxic metals from the body via the urinary tract was validated in a short term pilot study. Oral administration of PectaSol® Modified Citrus Pectin to healthy humans resulted in significant increases in the urinary excretion of lead, arsenic, cadmium, and mercury.[4]* The results of this clinical trails were published in collaboration with the USDA in the peer reviewed journal, Phytotherapy Research.[5] The study shows that Pectasol® safely and effectively chelates lead, mercury, arsenic and other toxic metals out of the human body, and without affecting the essential minerals in the body.

A clinical trial to investigate the ability of PectaSol® Modified Citrus Pectin to decrease mercury burden as measured by DMPS (2,3-dimercapto-1-propanesulfonic acid) challenge, showed a significant reduction in mercury levels after five to ten months of oral administration of PectaSol® Modified Citrus Pectin.[6,7] * Heavy metal removal with PectaSol® Modified Citrus Pectin has been shown in case studies to possibly play a role in clinical outcome of chronic diseases.[8] A recent study reported that PectaSol significantly decreased lead levels in children (ages 5 to 12) who suffered from severe lead poisoning.[9]

Awards for PectaSol
PectaSol® MCP won the Nutritional Business Journal Product Merit Award in 2004. Dr. Eliaz was honored with an award for his Original Clinical Research presented at the Scripps Annual Conference in 2005 for his studies that indicate this new application of PectaSol® MCP for reducing heavy metal toxicity.

Toxic metals become trapped in PectaSol® Chelation Complex™ "egg box" & are eliminated from the body.*



* 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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References

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Manufacturing

EcoNugenics® produces PectaSol® Chelation Complex™ from select citrus peel and seaweed starting material using a scientifically validated proprietary process that carefully controls both the molecular weight (MW) and degree of esterifcation (DE). The specific molecular weight of PCC fosters easy absorption into the bloodstream. The MW and DE for each batch of PectaSol® Chelation Complex™ are verified by state of the art analytical methods in a certified laboratory.

Quality Control

PectaSol® Chelation Complex™ is produced under conditions that meet or exceed good manufacturing practices (GMP) as defined by the FDA. Every batch of PectaSol® Chelation Complex™ is thoroughly tested to ensure no microbiological or heavy metal contamination is present.

How Supplied

Capsules: 60 and 180 capsules per bottle (750 mg/cap).

Suggested Use

1 to 3 capsules, twice a day on an empty stomach or as directed by your health care professional. An empty stomach is considered 30 minutes before food and 2 hours after. For long term maintenance and for children less than 12 years of age, take 2 capsules daily.

Advisory Notes on Usage

PectaSol® Chelation Complex™ is recommended to be used in conjunction with Detox Complete™ (the Phase II product) after one to six months of PCC use. PectaSol® Chelation Complex™ is designed to selectively chelate and remove toxic metals. Due to its structure, PCC will also form weak associations with other minerals such as selenium, zinc, magnesium, and calcium. Although the potential exists, mineral deficiencies have not been observed clinically, even with long term use of PCC, since PCC forms stronger bonds with toxic metals. To ensure adequate availability of essential minerals, a multivitamin/mineral supplement is recommended.

Contraindications

The scientific research on modified citrus pectin and alginates as well as observations report no adverse effects or toxicity with long term consumption.

Although there are no known drug interactions with MCP or alginates, it is recommended that PCC be taken two hours before or after intake of drugs or other supplements because dietary fibers have the potential to bind to drugs and may affect absorption.

Supplement Facts

Serving Size: 3 Capsule
Servings Per Container: 20 or 60

Amount Per Serving		% Daily Value**
Total Carbohydrate	2g	<1%
Dietary Fiber	2g	8%
Sodium	160mg	7%
Potassium	75mg	2%
Algimate® Modified Alginate Complex	1350mg	†
PectaSol® Modified Citrus Pectin	900mg	†

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

† Daily Value not established

Other ingredients: Vegetable capsules (Natural vegetable cellulose, water), stearic acid, magnesium stearate, microcrystalline cellulose, silicon dioxide.

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