Chelatox

Excipients

Chlorella, calcium hydrogen phosphate, povidone, cellulose microcrystalline, silica colloidal anhydrous, magnesium stearate, crospovidone, carnauba wax, opadry clear

Pack size

120 tablets

Dosage

1 tablet daily, or as prescribed

Indications

May be beneficial for:
- Supporting antioxidant defences
- Supporting immune function

Interactions

Chelatox should not be taken within two hours of antibiotic medications as zinc and magnesium may reduce absorption of antibiotics.

Contraindications

May stimulate detoxification, and therefore should not be used during pregnancy or lactation.

Formulations

Glutamine	50mg
Cysteine	50mg
Grape seed extract equiv. dry	1g
Pine bark extract equiv. dry	600mg
Parsley equiv. dry	60mg
Bilberry equiv. dry	60mg
Garlic equiv. fresh bulb	60mg
Biotin	100µg
Ascorbic acid	60mg
Hesperidin	50mg
d-alpha tocopherol succinate	20mg (24.2IU)
Selenium (as selenomethionine)	25µg
Zinc (as amino acid chelate)	2mg
Magnesium (as orotate)	10mg
Broccoli sprout extract equiv. dry	500mg

TECHNICAL INFORMATION

Orthoplex Chelatox contains a number of herbs and nutrients with specific actions, to provide antioxidant support, immune support as well as specific support for chelation and detoxification strategies.

PHASE I AND PHASE II DETOXIFICATION

Cysteine

Cysteine is extremely helpful for liver and detoxification support as it is an antioxidant in its own right, and also a precursor to the endogenous antioxidant glutathione. Taurine can also be manufactured from cysteine.

Cysteine has been described as having a pivotal role in inducible, endogenous detoxification mechanisms in the body.[1] As such, it is a precursor nutrient (with glutamine and vitamin C) to the endogenous antioxidant and detoxification enzyme glutathione. As mentioned above, glutathione is important as an antioxidant to protect against free radical damage induced through phase I liver detoxification and also as a phase II enzyme.

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Broccoli sprouts

Edible plants belonging to the family Cruciferae and genus Brassica (e.g. broccoli and cauliflower) contain substantial quantities of isothiocyanates (mostly in the form of their glucosinolate precursors) some of which (e.g. sulforaphane or 4-methylsulfinylbutyl isothiocyanate) are very potent inducers of phase II enzymes.[2] Some isothiocyanates have been shown to inhibit cytochrome P450 and increase the carcinogen excretion or detoxification by the phase II detoxification enzymes.[3] Sulforaphane, derived from cruciferous vegetables, is the most potent known inducer of phase II enzymes involved in the detoxification of xenobiotics.[4] Extracts of broccoli sprouts contain 10 – 100 times the phase II inducer activity of mature broccoli plants.[5]

Grape Seed Extract

Grape seed proanthocyanidins in particular have been shown to have significantly greater free radical scavenging ability than vitamins C, E and beta carotene. Grape seed proanthocyanidins may protect multiple target organs from chemical induced toxicity.[6]

HEAVY METAL CHELATION

Chelation

Mercury, cadmium and lead can all be conjugated and excreted with the assistance of glutathione.

Cysteine is also required for the activity of metallothionein, a protein that binds metals. Metallothionein, in animal studies, has been shown to be effective in binding cadmium specifically.[7]

Selenium

Selenium may bind and excrete several heavy metals including arsenic, cadmium and both inorganic and methyl forms of mercury.[8, 9]

Chlorella

Recent studies suggest that Chlorella may be capable of dislodging and removing accumulated Dioxin from the body.

Several animal studies show results that indicate a potential role for chlorella in the detoxification of dioxins. These studies show Chlorella to inhibit the GI absorption of dioxins and also promote the excretion of dioxin that has already been absorbed into the tissues.[10-12] Authors claim these results suggest a useful role for chlorella in humans.[10] A 2005 published study from Japan indicates that chlorella supplementation may help to reduce the maternal transfer of dioxins.[13] Few studies also suggest chlorella to have immune enhancing effects.[14]

Garlic

A protective effect against heavy metal toxicity has been observed when garlic is co-administered with cadmium or mercury in animals. Decreased accumulation of the metals was seen in the liver, kidneys and bones.[15]

Vitamin C

As well as being a powerful antioxidant, vitamin C may protect against the toxic effects of heavy metals such as alumiunium, lead and cadmium.[16] It has also been stated to facilitate the removal of aluminium from the body.[17]

References

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