

Advanced Chelex



Clinical Applications

- Helps Protect Tissues from Oxidative Stress*
- Supports Detoxification*

***Advanced Chelex** is an extraordinary combination of unique and specialized ingredients designed to help the body rid itself of damaging oxidative elements. This all-natural formula provides DMSA and EDTA, which work in conjunction with carefully chosen herbs and antioxidant-stimulating nutrients to help protect cells from oxidative damage and help the body lower its toxic load.**

All 3rd Opinion Inc Formulas Meet or Exceed cGMP Quality Standards

Discussion

DMSA (2,3-dimercaptosuccinic acid) is a non-toxic, water soluble compound that has been used since the 1950s to bind to metals in living tissue.^[1] Containing two sulfhydryl groups, this relatively stable compound has a high affinity for toxic elements. DMSA has been studied with regard to reducing the toxic effects of various elements, and human studies support its efficacy in oral doses ranging from 10 to 30 mg/kg/day.^[2-4] Human research suggests that oral DMSA is an excellent follow-up to intravenous (IV) EDTA treatment.*^[1,5]

EDTA (ethylenediaminetetraacetic acid) is a synthetic amino acid compound and perhaps the most well-known and often-used IV chelating agent. Oral EDTA is poorly absorbed, but it is believed to support detoxification of metals largely in the gastrointestinal tract.^[6,7] More studies are needed to validate this approach. There is believed to be a benefit in combining EDTA with other chelators because EDTA acts slowly and could potentially lead to redeposition of metals.^[8] Due to EDTA's metal-binding ability, it is important to replace beneficial minerals, such as zinc, copper, iron, cobalt, and manganese.*

Cilantro (*Coriandrum sativum*), also known as Chinese parsley or coriander, suppresses the deposition of lead by chelating the metal.^[9] Furthermore, in an experimental animal study, lead-induced histological changes in testis of albino mice were prevented to some extent by concomitant daily administration of *C sativum* extracts, perhaps due to a reduction in associated oxidative stress.*^[10]

Allicin is the main biologically active component of garlic clove extracts and has promising effects on toxic metal accumulation in experimental research.^[11] In animal and in vitro models, garlic was able to reduce cellular exposure to, or accumulation of, lead, cadmium, and mercury.^[12-14] Furthermore, various extracts and forms of garlic have demonstrated its ability to positively affect detoxification pathways.*^[15]

Chlorella is a naturally occurring micro-algae and an excellent source of chlorophyll—a detoxifying substance that is also thought to bind toxic metals. The positive effect of chlorella supplementation on toxic metals, including methylmercury and lead, is supported by animal research.^[16,17] For example, testing its metal chelating ability, researchers observed a dramatic 66.03% reduction in blood lead levels in mice receiving chlorella extract (50 mg/kg/day) concurrent with lead exposure compared to lead-exposed, non-treated mice.*^[16]

N-Acetyl-L-Cysteine (NAC) and Alpha Lipoic Acid are well-known for their antioxidant activity. Exposure to heavy metals increases free radical production and oxidative stress.^[18] Research suggests that there is a beneficial role for free radical scavengers in reducing the oxidative stress that is common with toxic metal exposure.^[19] NAC has the ability to interact with reactive oxygen species (ROS) and stimulate the body to produce glutathione. This can enhance cell survival after exposure to heavy metals or toxins.^[20] In addition, ALA may directly chelate or reduce the oxidative capacity of metals, such as copper, arsenic, cadmium, and mercury.*^[21-24]



Supplement Facts

Serving Size: 4 Capsules
Servings Per Container: 30

	Amount Per Serving	%Daily Value
Allicin (from garlic extract)(<i>Allium sativum</i>)(fruit)	6 mg	**
Calcium Disodium EDTA	300 mg	**
Chlorella	300 mg	**
Cilantro Aqueous Extract (<i>Coriandrum sativum</i>)(leaves)	300 mg	**
N-Acetyl-L-Cysteine	200 mg	**
Alpha-Lipoic Acid	100 mg	**
DMSA (meso-2,3-dimercaptosuccinic acid)	100 mg	**
** Daily Value not established.		

Other Ingredients: HPMC (capsule), microcrystalline cellulose, stearic acid, magnesium stearate, and silica.

Directions

Take two to four capsules twice daily, or as directed by your healthcare practitioner.

Children and individuals receiving medical treatment or taking any prescription medication should consult their healthcare practitioner prior to use. Do not use if tamper seal is damaged.

Cautions

Do not take if you are pregnant or lactating.

References

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Does Not Contain

Wheat, gluten, corn protein, yeast, soy, animal or dairy products, fish, shellfish, peanuts, tree nuts, egg, artificial colors, artificial sweeteners, or preservatives.

***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.**

