Amino-D-Tox™

designs for health®
Science first.

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All of us live in an ever-increasing toxic environment. This body burden from environmental toxins, including pesticides, herbicides, chemical solvents, xenobiotics, and industrial chemicals of all types come to us through our food, water, and air supply. Internal toxins from our own metabolism add to this burden, as does toxins from our intestinal tract, particularly when imbalances in intestinal microbial ecology exist.

This increased toxic load puts a tremendous burden on the liver to detoxify and render harmless these chemicals, which have the potential to produce excessive oxidative stress in the body, leading over time to chronic disease. The end result: fatigue, lethargy, headaches, multiple chemical sensitivities (MCS), skin disorders, chronic fatigue, neuromuscular problems and more.

Amino-D-Tox™ was designed by clinicians to biochemically upregulate phase 2 detoxification. It is free of herbals, minerals and B vitamins which would also upregulate Phase 1 detoxification. Patients who are chemically injured, who have chronic illness, and who are pathologic detoxifiers (blocked Phase 2 pathway), will find that this product will gently upregulate all the conjugation pathways resulting in excretion of the pollutants without mobilizing more oxidized pollutants in the body from body fat stores.*

Supplement Facts

Serving Size 6 capsules
Servings Per Container 30

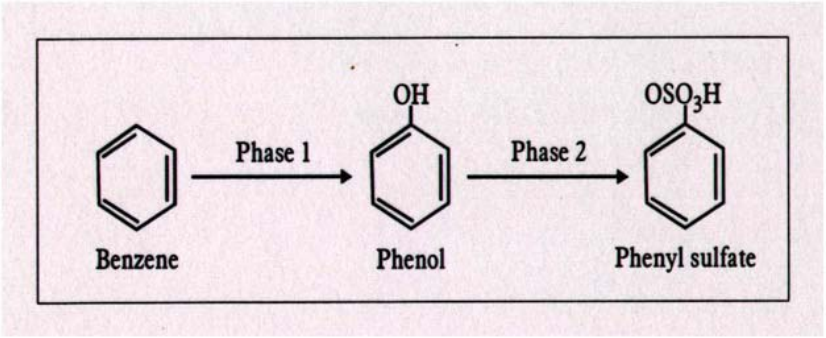
Amount Per Serving		% Daily Value
Glutamine	500 mg	*
Glycine	500 mg	*
Methylsulfonylmethane (MSM)	400 mg	*
N-Acetyl L-Cysteine	250 mg	*
Taurine	250 mg	*
Alpha Ketoglutarate	200 mg	*
Glutathione	200 mg	*
Methionine	200 mg	*
Ornithine	200 mg	*
Calcium-D-Glucarate	200 mg	*

*Daily Value not established.

Other Ingredients: Microcrystalline cellulose, vegetable stearate.

These oxidized pollutants can be more toxic and harmful than the original substance. The phase 2 conjugating pathways must be prepared to deal with Phase 1 metabolites before these pathways are stimulated. For repairing the liver's ability to detoxify chemicals, this product should be used before any other nutraceutical, or powdered detoxification formula, until the conjugating pathways are all working optimally. It is the first line treatment in optimizing liver function in very ill patients.

Amino-D-Tox™
Fixes Phase 2 detoxification so that an overall detox can occur safely afterwards.
Pertinent for patients with chemical sensitivity – they should not detox without starting with Amino-D-Tox™.



Phase 2 detoxification requires amino acids, sulfur (sulfur containing amino acids) and glutathione. Methionine, cysteine, and taurine are the three most common sulfur-containing amino acids. MSM provides sulfur as does glutathione (made up of 3 joining amino acids).

NAC is the most stable nutritional supplement form of the amino acid L-Cysteine

NAC has been shown in research to protect the liver from damaging effects of alcohol and protect the liver from acetaminophen poisoning. Alcohol combined with acetaminophen is synergistically more toxic. Again, supplementation of NAC (N-acetyl L-cysteine)prevents this toxicity by preventing acetaldehyde build-up. NAC prevents death of liver cells from acetaminophen poisoning by raising glutathione levels and preventing severe oxidative damage.

Product Highlights:

- Encapsulated formula for support of liver detoxification
- Perfect for those who may need added cleansing support in addition to PaleoCleanse™
- Ideal for patients who prefer not to use functional powders
- Convenient for travel and for taking to work for mid-day dosing
- Supports Phase 2 without upregulating Phase 1 for imbalanced or pathological detoxifiers
- Formulated for the absolute minimal potential for allergenicity (no botanicals)
- Suited for the most sensitive of patients, such as those with multiple chemical sensitivity (MCS)
- Consider using Amino-D-Tox™ along with Detox Antiox™ for additional antioxidant protection

NAC is effective in the detoxification of heavy metals in the body. A common source of heavy metal toxicity is mercury from amalgam fillings in the teeth. Although the Environmental Protection Agency (EPA) declared in 1989 that dental amalgams are a hazardous substance under the Superfund law, many people still have them in their mouths. L-cysteine has a high affinity for mercury and other heavy metals, and can aid removal from the body any mercury leached from mercury-based tooth fillings. Methionine has been shown to protect mitochondria and liver cells from methylmercury damage.

NAC can also be used to bind to copper, lead and cadmium. Lead and cadmium are particularly toxic to the human body, and even though lead is no longer used in plumbing or paints, and cadmium in toys or paints, there are still many sources of these two heavy metals available that can lead to human toxification. This direct involvement in heavy metal detoxification is a very useful property of this amino acid.

Calcium-D-Glucarate is a potent beta-glucuronidase inhibitor. Elevated b-glucuronidase activity is associated with an increased risk for various cancers, particularly hormone-dependent cancers such as breast and prostate cancer. When Calcium-D-Glucarate is metabolized through the glucuronic acid pathway, one of the end- products is D-glucaro-l,4-lactone. D-glucaro-l,4-lactone increases detoxification of carcinogens and tumor promoters by inhibiting b-glucuronidase and preventing the hydrolysis of their glucuronides. These oxidized pollutants can be more toxic and harmful than the original substance. The Phase 2 conjugating pathways must be prepared to deal with Phase 1 metabolites before these pathways are stimulated. For enhancing the liver's ability to detoxify chemicals, this product should be used before any other powdered or encapsulated detoxification formula until all conjugating pathways are all working optimally.

References

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