

NeuroPress™

Neuroprotection

Synergistic vitamin, antioxidant, and mushroom formula

Our NeuroPress™ formula contains *alpha*-lipoic acid, benfotiamine, and lion's mane for its neuroprotective effects.^[1] NeuroPress™ can be used to support diabetic neuropathy as well as chemotherapy-induced neuropathy. It is a multifaceted formula to address neuropathic pain through proposed mechanisms: mitochondrial regulation, antioxidation, nerve regeneration, myelin protection, vitamin B₁ deficiency, and glucose management.

ALA

alpha-Lipoic acid's neuroprotective potential has been investigated in various conditions. These conditions include diabetic neuropathy,^{[2][3][4][5]} carpal-tunnel syndrome,^{[6][7]} sciatica,^[8] and peripheral neuropathy related to cancer chemotherapy treatment.

The effect of *alpha*-lipoic acid has been investigated in an in vitro model of chemotherapy induced peripheral neuropathy. Lipoic acid was shown to exert neuroprotective effects against cisplatin and paclitaxel induced neurotoxicity in sensory neurons. This neuroprotective effect is achieved through *alpha*-lipoic acid's antioxidant and mitochondrial regulatory functions, possibly inducing the expression of frataxin.^[9] An in vivo study on rats examined the effect of *alpha*-lipoic acid on cisplatin-induced neurotoxicity. *alpha*-Lipoic acid started 1 day before cisplatin injection, for a total of 7 days, was found to restore conventional conduction velocity and conduction velocity distribution disturbed by cisplatin.^[10]

A clinical trial investigated the use of *alpha*-lipoic acid to counteract docetaxel plus cisplatin-related peripheral neuropathy. The study included 14 cancer patients who experienced at least one symptom of paresthesia, dysesthesia, or pain, including a burning sensation, after receiving docetaxel plus cisplatin. *alpha*-Lipoic acid (600 mg) was administered intravenously once a week for 3–5 weeks, followed by 600 mg oral *alpha*-lipoic acid three times per day. Treatment with *alpha*-lipoic acid resulted in an improvement in neurological symptoms (by ≥ 1 WHO



toxicity score) in six patients with grade 2, and two patients with grade 3 peripheral neuropathy.^[11]

Benfotiamine

Benfotiamine has antioxidant, anti-inflammatory, anti-AGEs, and neuroprotective effects in neurodegenerative diseases, and has impacts on neuronal plasticity.^[12] Human clinical trials have demonstrated that benfotiamine is a useful treatment for painful diabetic neuropathy.^{[13][14][15][16]}

A randomized, placebo-controlled, double-blind, two-center pilot study examined the effect of benfotiamine in 40 patients with a history of type 1 or 2 diabetes and polyneuropathy for longer than two years. Over the three-week study period, 20 patients received 50 mg benfotiamine four times daily, and 20 patients received placebo. A statistically significant ($p = 0.0287$) improvement in the neuropathy score was observed in the treatment group compared to the placebo group. The most pronounced patient assessment was a decrease in pain ($p = 0.0414$), and more patients in the benfotiamine group considered their clinical condition to have improved ($p = 0.052$).^[17] A double-blind, randomized, placebo-controlled, parallel group pilot study investigated the effect of benfotiamine on 22 participants with type 1 or type 2 diabetes mellitus and diabetic sensorimotor polyneuropathy. The treatment group received 600 mg/d benfotiamine for 3 months, followed by 300 mg/d until the study end. At 6 months, the investigators found that benfotiamine reduced neuropathic symptoms based on the Michigan Neuropathy Screening Instrument Questionnaire ($p = 0.036$).^[18]

An animal study in mice and rats demonstrated the effects of benfotiamine on paclitaxel-induced peripheral neuropathy. Positive effects included amelioration of all electrophysical changes in peripheral motor nerves, decreased histological effects on sciatic nerve, and increased sensitivity to cold and hot.^[19]

Lion's mane (*Hericium erinaceus*)

Human clinical trials have demonstrated the safe and beneficial effects of lion's mane for the improvement of cognitive function.^{[20][21][22]} In vivo and in vitro animal studies have demonstrated lion's mane's neuroprotective and regenerative capabilities for treating peripheral nerve injuries.^{[22][24]}

Each vegetable capsule contains:

DL-*alpha*-Lipoic acid 200 mg
Benfotiamine 66 mg
Lion's mane (*Hericium erinaceus*) extract,
40% polysaccharides, 35% *beta*-glucans 166 mg

Suggested use: Take 1 capsule three times daily. Please consult your health-care practitioner or naturopathic doctor for use over 1 month.

Cautions and warnings: Consult a health-care practitioner prior to use if you are pregnant or breast-feeding or if you have diabetes. Stop use and consult a health-care practitioner if you experience sweating, paleness, chills, headache, dizziness and/or confusion (as these may be symptoms of serious low blood sugar).

References

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