

Borage Oil for Normalizing Hypertension

If you are having blood pressure problems, we want to tell you about a newly introduced, natural pathway for conquering this condition. Borage oil is a rich source of the essential fatty acid, gamma-linolenic acid (GLA). Studies show that borage oil may be beneficial for persons with the most common type of high blood pressure.

The oil, derived from the seed of the blue, star-shaped, borage flower, is nature's richest source of GLA. Evidence suggests that certain individuals may lack the necessary activity of a specific enzyme to effectively metabolize the linoleic acid found in other polyunsaturated oils to GLA. This can have devastating effects on circulatory health since for most of us linoleic acid is required to produce adequate amounts of the more biologically active GLA.

When you consume foods rich in linoleic acid, your body must metabolize this compound to GLA. But the body requires the enzyme delta-6 desaturase (D6D) in order to convert linoleic acid to GLA. For many people, however, advancing age or a poor diet is correlated with a marked drop off in D6D activity.¹ Without adequate amounts of GLA, the body goes into a state of chronic inflammation. This promotes onset of heart disease, diabetes, alcoholism, atopic dermatitis, premenstrual syndrome, rheumatoid arthritis, and cancer.²

The exciting health news is that with borage seed oil we circumvent the D6D enzyme system by providing preformed GLA. In fact, borage seed oil enhances D6D activity in aged animals, according to experimental studies.²

Supplements containing GLA have become popular in recent years for numerous applications. But let's look at one of the most important benefits of borage seed oil: helping to lower high blood pressure.

Powerful Natural Blood Pressure Normalizer

In 95 percent of the cases of high blood pressure, doctors are not sure about the cause. They call such cases idiopathic hypertension. In

fact, some cases of hypertension are linked to impaired D6D activity, leading to a deficiency in gamma-linolenic acid.³

At the Department of Physiological Nursing, University of California, San Francisco, the effect of oils enriched with GLA on blood pressure was examined in spontaneously hypertensive rats (SHR).⁴ "Significant reductions in blood pressure were obtained in SHR rats maintained on diets enriched with GLA oils. . . . the results suggest that GLA-enriched oils inhibit the development of hypertension in the SHR rat," said the researchers.

In a clinical study involving 25 non-obese patients with moderately elevated blood pressure, one group was given a combination of GLA and eicosapentaenoic acid (EPA, another essential fatty acid usually derived from fish oils). The control group was given the parent compounds of GLA and EPA.

The group receiving GLA and EPA experienced a ten percent reduction in blood pressure after eight to twelve weeks. There was no change in the control group, indicating impaired D6D enzyme activity to be the cause since their bodies could not convert the parent compounds to their fully active metabolites, GLA and EPA.

Borage oil helps in cases of high blood pressure in other ways. Elevated levels of aldosterone may also cause high blood pressure. In this condition, the kidneys release renin which stimulates, with the aid of angiotensin I and II, the adrenal gland to produce aldosterone. This influences the



body's sodium and water uptake and raises blood pressure.

Studies show GLA helps to normalize the body's production of aldosterone. In a recent experimental study, spontaneously hypertensive rats fed borage oil experienced significant declines in aldosterone levels and decreases in systolic blood pressure.⁵ Apparently, GLA works by inhibiting the body's response to angiotensin II, one of the intermediate chemicals leading to excess aldosterone production.

Another way that GLA benefits circulatory health is by markedly reducing cholesterol and triglyceride levels. In one clinical trial, 12 men with elevated cholesterol were given 240 mg of GLA for four months.⁶ Triglyceride levels quickly decreased by as much as 48 percent. Total cholesterol and levels of low-density lipoprotein (LDL, the bad cholesterol) went down significantly, while the beneficial high-density lipoprotein (HDL) increased by 22 percent. In experimental studies, GLA also increases levels of HDLs and may promote human longevity.^{7,8}

The Doctor's Prescription

Borage oil is available in liquid and capsule form. This is one food your doctor will likely approve of using, and you may find that borage oil is all you need to normalize your blood pressure.

You can buy borage oil alone or combined with lignan-rich flaxseed in a twin oil product, available either as a liquid or capsules. Such quality products combine organic flaxseed oil, the world's richest source of alpha-linolenic acid with borage oil, the world's richest source of gamma-linolenic acid. A special synergism exists between these two important fatty acids that may potentiate their benefits. Make sure your borage oil is **Fresh Expressed**, unrefined, unfiltered, 100% expeller expressed, and 100% herbicide and pesticide free.

The scientifically validated dosage of GLA to use is approximately 1/2 tsp. daily.

References:

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