

Algae extract increases good cholesterol levels, research finds

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A Wayne State University researcher has found that an extract from algae could become a key to regulating cardiovascular disease.

In a study funded by Health Enhancement Products of Bloomfield Hills, Mich., Smiti Gupta, Ph.D., assistant professor in the department of nutrition and food science in the College of Liberal Arts and Sciences, has found that dietary intake of ProAlgaZyme increased the level of high-density lipoprotein (HDL) in an animal model.

While medications for the control of high plasma cholesterol levels such as statins and numerous [dietary supplements](#) primarily function by lowering levels of low-density lipoproteins (LDL), or "[bad cholesterol](#)," Gupta's research explores the effects of raising levels of HDL, or "good cholesterol," which work in part by carrying cholesterol out of the arterial wall.

Results of her study, titled "ProAlgaZyme and its Sub-fractions Increase Plasma HDL-Cholesterol via Up Regulation of ApoA1, ABCA1 and SRB1 and Inhibition of CETP in Hypercholesterolemic Hamsters," were published recently in the [Journal of Nutrition and Dietary Supplements](#).

"The cholesterol mechanism is crucial to heart disease," Gupta said. "Very few agents increase [good cholesterol](#), but we found that this algae extract does. The ratio of total to HDL cholesterol improved significantly. This result, if replicated in humans, would be consistent with a decreased risk of heart disease."

ProAlgaZyme, a clear liquid, was administered as part of the drinking fluid over four weeks. In addition to increasing HDL levels, the group found that it also changed the expression of genes involved in the reverse cholesterol transport mechanism. And while they don't know exactly how it will function in humans, Gupta said other research suggests a similar outcome.

"Its [biological effect](#) over time and toxic effects, if any, need to be further investigated in a long-term study in an [animal model](#) before testing its effects in humans," she said. "But this is a step in the right direction, since increased HDL is considered an important therapeutic target for improvement of the lipid profile and thus reduction of the risk for cardiovascular disease."

Provided by Wayne State University

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