Researchers at the University of Georgia have found that a high-fat diet enriched with cottonseed oil drastically improved cholesterol profiles in young adult men.

The subjects, all healthy men between the ages of 18 and 45, were provided high-fat meals for five days in two separate, tightly controlled trials, the only difference being the use of either cottonseed oil or olive oil in the meals.

Participants showed an average decrease of 8 percent in total cholesterol on the cottonseed oil diet, along with a 15 percent decrease in low-density lipoprotein, or LDL (the "bad" cholesterol) and a 30 percent decrease in triglycerides.

This diet also increased high-density lipoproteins, or HDL (the "good" cholesterol) by 8 percent.

Researchers suggested a fatty acid unique to cottonseed oil, dihydrosterculic acid, may help prevent the accumulation of triglycerides, a type of fat, in the body.

"By doing that, it pushes the body to burn more of that fat because it can't store it properly, so you have less lipid and cholesterol accumulation," Cooper said.

That mechanism, in addition to the high polyunsatured fat and omega-6 content of cottonseed oil, seems to be a key component to the beneficial effects on lipid profiles, Cooper said.

Researchers plan to expand the study to include older adults with high cholesterol as well as a longer feeding intervention.
