Eating a low-fat diet packed with vegetables, fruit, beans and whole grains reduces levels of "bad" cholesterol twice as much as eating a low-fat diet that is heavy on processed foods, a small study has found.

Researchers said it suggested that - at least in the short term - there was more to healthy eating than counting fat grams and more to controlling cholesterol than taking drugs.

"The effect of diet on lowering cholesterol has been really minimized and undermined by a lot of clinicians and researchers saying: 'Yes, it has an effect, but it's really trivial. It would be better to put you on drugs to control cholesterol,'" said Christopher Gardner, lead author of the study, in a recent issue of Annals of Internal Medicine.

"But we think part of the reason was that we weren't really giving diet a fair shake," said Gardner, director of nutrition studies at Stanford University's Prevention Research Center. "We were so focused on the negative - just what to avoid and not what to include."

The study involved 120 adults and lasted four weeks. The group was divided in half and put on two different low-fat weight-maintenance diets that had identical total-fat, saturated-fat, protein, carbohydrate and cholesterol content. The volunteers were not allowed to change their usual amount of exercise, and their weight stayed the same.

Half the test group followed a diet with large quantities of plant-based foods - vegetables, fruits, legumes, soy and whole grains - and limited amounts of meat and dairy.

The other half followed a diet that included packaged foods such as reduced-fat cheeses, lunch meat, frozen dinners and diet soda. Researchers described it as a more typical low-fat diet for U.S. consumers.

After a month, the plant-based diet group's bad cholesterol dropped 9.4 percent, compared with the prepared-foods diet group's reductions of about 4.6 percent.

Earlier studies have shown that plant-based diets can lower cholesterol, Gardner said. But plant-based eaters often consume less saturated fat and cholesterol than conventional low-fat eaters do, and researchers wanted to see what happened when fat and cholesterol levels were the same for both diets.

After one month, the people who ate the diet that was heavy on plant-based foods saw bigger improvements in levels of LDL, or "bad" cholesterol, than the people who ate processed dinners and snacks.

Gardner was disappointed to discover that levels of triglycerides, another fat that contributes to heart disease, were essentially the same in both groups after four weeks. The reason is unclear, but exercise levels or the study's length might be a factor, he said.

"The success of diets that combine foods containing cholesterol-lowering components may make diet relevant in the age of powerful drugs like statins," said David J.A. Jenkins of the University of Toronto's Clinical Nutrition and Risk Factor Modification Center.