

## Red Yeast Rice to Treat Cholesterol Problems in Patients Who Cannot Tolerate Statin Therapy Because of Muscle Pain

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The full report is titled “Red Yeast Rice for Dyslipidemia in Statin-Intolerant Patients. A Randomized Trial.” It is in the 16 June 2009 issue of *Annals of Internal Medicine* (volume 150, pages 830-839). The authors are D.J. Becker, R.Y. Gordon, S.C. Halbert, B. French, P.B. Morris, and D.J. Rader.

### What is the problem and what is known about it so far?

Abnormal cholesterol levels put people at risk for health problems, including heart attack and stroke. Higher levels of “good cholesterol,” known as high-density lipoprotein (HDL), protect blood vessels against blockage by fatty deposits, whereas “bad cholesterol,” known as low-density lipoprotein (LDL), worsens fatty deposits. Treatment of cholesterol problems with medication is recommended for people at high risk for these health problems. Statins are a class of medications that are very effective at lowering LDL cholesterol levels to the desired range, and they have had few side effects. However, in some people, statins can cause muscle pain (myalgias) and weakness. In most cases, people experience muscle pain without muscle damage. If there is muscle damage, the condition is called myopathy.

Some patients who need cholesterol-lowering treatments cannot take statins because of muscle pain. Red yeast rice is a dietary supplement that has been shown in some studies to lower LDL cholesterol levels. Red yeast rice could be an option for patients with cholesterol problems who cannot take statins.

### Why did the researchers do this particular study?

To see whether red yeast rice improved cholesterol levels without causing muscle symptoms in patients with high cholesterol levels who had developed muscle pain in the past from statin therapy.

### Who was studied?

62 patients with high cholesterol levels and a history of stopping statin therapy because of muscle pain.

### How was the study done?

The researchers assigned patients at random to receive either three 600-mg red yeast rice capsules or 3 placebo capsules twice per day for 24 weeks. The placebo capsules looked, tasted, and smelled like the red yeast rice capsules but contained no active ingredients to lower cholesterol levels. All patients were also enrolled in a 12-week program to improve diet and exercise.

### What did the researchers find?

During the 24 weeks of the study, LDL cholesterol levels decreased more in patients receiving red yeast rice (average decrease, 35 mg/dL) than in patients receiving placebo (average decrease, 15 mg/dL). Total cholesterol levels also improved more in the red yeast rice group than in the placebo group. Muscle pain scores, HDL cholesterol levels, weight loss, and liver or muscle enzyme levels did not differ between groups.

### What were the limitations of the study?

The study was too small and too short to know whether the observed improvements, continued over the long term, would lead to better health outcomes in people who received red yeast rice.

### What are the implications of the study?

Red yeast rice capsules may offer patients an option for lowering their LDL and total cholesterol levels if they cannot receive statins because of muscle pain.

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