

## Control of Lipids in Patients with Type 2 Diabetes: Recommendations from the American College of Physicians

*Summaries for Patients* are a service provided by *Annals* to help patients better understand the complicated and often mystifying language of modern medicine.

The full reports are titled “Lipid Control in the Management of Type 2 Diabetes Mellitus: A Clinical Practice Guideline from the American College of Physicians” and “Pharmacologic Lipid-Lowering Therapy in Type 2 Diabetes Mellitus: Background Paper for the American College of Physicians.” They are in the 20 April 2004 issue of *Annals of Internal Medicine* (volume 140, pages 644-649 and pages 650-658). The authors of the first report are V. Snow, M.D. Aronson, E.R. Hornbake, C. Mottur-Pilson, and K.B. Weiss, for the Clinical Efficacy Assessment Subcommittee of the American College of Physicians; the authors of the second report are S. Vijan and R.A. Hayward.

### Who developed these guidelines?

The American College of Physicians developed these recommendations. Members of the College are internists, specialists in the care of adults.

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

Diabetes mellitus is a common disease that interferes with the body’s ability to store energy from food. The pancreas makes a substance called insulin that helps to store energy from food. In type 2 diabetes (also called adult-onset diabetes), the body makes plenty of insulin but is unable to use it normally. The result is high blood sugar levels that, over time, can lead to complications that include blindness, kidney failure, nerve damage, and cardiovascular disease (heart attacks and strokes). While good blood sugar control can prevent the development of most of these complications, it does not prevent the development of cardiovascular disease. The control of lipids (cholesterol and other fats in the blood) is very important in preventing the cardiovascular complications of type 2 diabetes.

### How did the American College of Physicians develop these recommendations?

The authors reviewed studies about lipid-lowering drugs and cardiovascular complications in people with type 2 diabetes. They used these studies to identify the benefits of lipid control in 2 groups of people with diabetes: those who had already developed cardiovascular disease and those who had not. They also collected information about the side effects of lipid-lowering drugs.

### What did the authors find?

The authors found 8 high-quality studies of lipid-lowering drugs in patients with type 2 diabetes and known cardiovascular disease and 6 studies in patients who did not yet have cardiovascular disease. Lipid-lowering drugs decreased the chances of developing future cardiovascular events, such as heart attacks or strokes, in both groups. Most of the trials had used moderate doses of drugs called statins to lower lipids. The studies did not provide definite answers about the lipid levels at which treatment should start or the levels to aim for with treatment. Generally, they showed that the lower the level of low-density lipoprotein cholesterol (bad cholesterol), the better. Severe liver or muscle side effects of the statins were rare.

### What does the American College of Physicians recommend that patients and doctors do?

Men and women with type 2 diabetes should be receiving lipid-lowering treatment regardless of whether they have or do not yet have cardiovascular disease. Since available studies do not provide good information about the best cholesterol levels for people with type 2 diabetes, patients and doctors should consider lipid-lowering drugs regardless of patients’ lipid levels. Moderate doses of drugs called statins are the lipid-lowering drugs of choice for patients with type 2 diabetes. Doctors do not need to monitor liver function and muscle enzyme tests for patients taking statins unless patients develop symptoms of liver or muscle disease.

### What are the cautions related to these recommendations?

Recommendations may change as new studies become available. Some patients may not be able to tolerate statins because of side effects. For these patients, the risks of statins may outweigh their benefits. Doctors should consider other ways to control lipids in such patients.

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