

Is Pitavastatin better than older statins for lowering lipids?

Clinical Question	What are the effects of various doses of pitavastatin on the surrogate markers: blood low-density lipoprotein (LDL) cholesterol, total cholesterol, high-density lipoprotein (HDL) cholesterol and triglycerides in participants with and without cardiovascular disease?
Bottom Line	<p>Pitavastatin causes a linear dose-response reduction in the per cent change from control of blood LDL cholesterol, total cholesterol and blood triglycerides. There is no dose-response relationship for HDL cholesterol, which is increased by 4% on average for all doses. This effect on HDL is not different from the other studied statins. Pitavastatin doses of 1 mg/day to 16 mg/day resulted in a range of 33.3% to 54.7% decrease of LDL cholesterol. From the slope of the lines for every 2-fold dose increase, there was a 3.93%, 5.35%, and 3.76% decrease in blood total cholesterol, LDL cholesterol, and triglycerides, respectively. The slope of the dose response is similar to the other studied statins: atorvastatin, rosuvastatin, fluvastatin and cerivastatin.</p> <p>For reducing LDL cholesterol, pitavastatin is about 77-fold more potent than fluvastatin, 6.2-fold more potent than atorvastatin, 1.7-fold more potent than rosuvastatin and 3.3-fold less potent than cerivastatin.</p> <p>There was not enough data to determine risk of withdrawal due to adverse effects due to pitavastatin.</p>
Caveat	The quality of evidence was graded as high. The main reason for this is although the majority of the evidence came from before and after studies, the outcomes were objectively measured and so less prone to bias. In addition, a strong dose-response relationship was shown and funnel plots did not suggest any publication bias.
Context	Cardiovascular disease is a major cause of death and disability in the developed world. The current recommended treatment for secondary prevention of adverse cardiovascular events consists of diet and lifestyle changes plus drug therapy with the drug class widely known as 'statins'. Pitavastatin is the newest statin on the market, and the dose-related magnitude of effect of pitavastatin on blood lipids is not known.
Cochrane Systematic Review	Adams SP, Alaeiikhchi N, Wright JM. Pitavastatin for lowering lipids. Cochrane Database of Systematic Reviews 2020, Issue 6. Art. No.: CD012735. DOI: 10.1002/14651858.CD012735.pub2. This review contains 47 trials with a total of 5,659 participants.

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Systematic review link:

<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD012735.pub2/full#CD012735-sec-0073>