

Risk for Diabetes Increases with Statin Dose

Risk was highest with intensive-dose therapy.

Small trials and a meta-analysis have suggested that intensive- versus moderate-dose statin therapy is associated with elevated risk for developing insulin resistance and type 2 diabetes ([JW Gen Med Mar 4 2010](#)). Researchers explored this association in a meta-analysis of five randomized statin trials with nearly 33,000 participants who did not have diabetes at baseline. During a mean follow-up of 4.9 years, 8.4% of participants developed diabetes, and 20.4% experienced major adverse cardiovascular (CV) events. Intensive-dose therapy (daily atorvastatin [Lipitor; 80 mg] or simvastatin [80 mg]) was compared with moderate-dose therapy (daily atorvastatin [10 mg], simvastatin [20 mg], or pravastatin [40 mg]). Risk for diabetes was higher by 12% in the intensive-dose group, with a number needed to treat [NNT] of 498 patients treated for 1 year for 1 patient to develop diabetes. Risk for CV events was lowered by 16% with an NNT of 155 for 1 patient to benefit.

Comment: These somewhat counterintuitive results have no obvious biological explanation.

The excess risk for developing type 2 diabetes is less than the lower risk for a CV event. Closer-than-usual monitoring might be appropriate for these patients, but they likely are monitored closely already because they are usually at elevated risk.

— [Thomas L. Schwenk, MD](#)

Published in [Journal Watch General Medicine](#) July 19, 2011