

Intensive-dose statin therapy associated with increased risk of diabetes

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An analysis of data from previously published studies indicates that intensive-dose statin therapy is associated with an increased risk of new-onset diabetes compared with moderate-dose therapy, according to a study in the June 22/29 issue of *JAMA*.

Compared with [placebo](#), statin therapy significantly reduces cardiovascular events among individuals with and without a history of [diabetes](#) mellitus. Recently, findings of several trials comparing intensive- to moderate-dose statin therapy suggested an excess risk of new diabetes among those treated with intensive statin regimens, according to background information in the article. According to the authors, "Given the cardiovascular benefits of [statins](#) and the likely increasing use of intensive statin regimens, it is important to quantify any potential long-term risks to enable physicians and patients to make informed choices."

David Preiss, M.R.C.P., of the University of Glasgow, United Kingdom, and colleagues examined the associations of intensive-dose statin therapy vs. moderate-dose therapy with the development of diabetes and the occurrence of major cardiovascular events by conducting a meta-analysis of published and unpublished data from relevant clinical trials. The researchers identified 5 statin trials that met criteria for inclusion in the analysis.

The 5 randomized clinical trials provided data on 32,752 nondiabetic participants over a weighted average follow-up of 4.9 years. During follow-up, 2,749 participants (8.4 percent) developed diabetes (1,449 of whom were assigned intensive-dose therapy, 1,300 assigned moderate-dose therapy), and 6,684 (20.4 percent) experienced a major [cardiovascular event](#) (3,134 assigned intensive-dose therapy, 3,550 assigned moderate-dose therapy). There were 149 more cases of incident diabetes in participants assigned to

intensive statin treatment than in those receiving moderate therapy and 416 fewer patients with cardiovascular events who received intensive-dose therapy.

An analysis of the data indicated that use of intensive-dose statin therapy compared with moderate-dose statin therapy was associated with a higher incidence of new-onset diabetes. However, intensive statin therapy was associated with fewer major cardiovascular events. As compared with moderate-dose statin therapy, the number needed to harm per year for intensive-dose statin therapy was 498 for new-onset diabetes while the number needed to treat per year for intensive-dose statin therapy was 155 for [cardiovascular events](#).

"Our findings suggest that clinicians should be vigilant for the development of diabetes in patients receiving intensive statin therapy," the authors write. "In conclusion, this [meta-analysis](#) extends earlier findings of an increased incidence of diabetes with statin therapy by providing evidence of a dose-dependent association."

More information: *JAMA*.

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