

Medscape NEWS

# Statin Medications and Increased Risk for Diabetes Mellitus

What Clinicians and Patients Need to Know

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Hello, this is Dr. JoAnn Manson, Professor of Medicine at Harvard Medical School and Brigham and Women's Hospital. I would like to talk with you today about a recently published study on the link between cholesterol-lowering statin medications and an increased risk for new-onset diabetes. A paper was just published online in the January 9 issue of Archives of Internal Medicine.<sup>[1]</sup> Along with my colleagues, I looked at this question in the Women's Health Initiative observational analysis of more than 153,000 women, ages 50-79 at baseline. During follow-up, more than 10,000 cases of diabetes were diagnosed.

We found that statin therapy -- statins of all types -- were associated with an increased risk for diabetes, about 48% overall, or moderate increase in risk. This was similar to the magnitude seen between rosuvastatin and diabetes risk in the JUPITER trial, and meta-analyses of randomized trials have further supported that there may be an increased risk for diabetes with a very wide range of statins. This could be a medication class effect.

Our analyses similarly suggested that this could be a medication class effect that was relevant to all forms of statins. We found increased risk for diabetes with both low-potency and high-potency statins across the board, but no clear relationship with dose or with duration of therapy.

What are the implications of these findings? We don't think the findings should change clinical practice guidelines, because for the vast majority of patients who are on statins, the benefits are expected to outweigh the risks. Statins are very effective at lowering risk for heart disease and stroke. We hope that the public and patients won't be alarmed about these findings and abruptly stop taking their statin medications. But we do believe that the findings should lead to increased vigilance about testing for diabetes in patients who are on statins and that the awareness of this link is important. Patients are aware of it and they are aware of some symptoms of diabetes to look for (increased thirst, increased frequency of urination, blurred vision, etc.) and they may be more likely to report these symptoms to their clinicians and have diabetes diagnosed earlier than it might be otherwise.

We hope this research will stimulate additional studies to understand the mechanisms involved. Is this at the level of the liver, the pancreas, the tissue's response to insulin? We also hope that it will spur development of new statins or new medications that won't be associated with these adverse events. We also hope for research that will indicate ways to minimize or avoid these risks altogether.

For those who advocate even more widespread use of statins -- virtually "putting statins in the water supply" -- these findings give pause and suggest that perhaps if statins are used even more widely in those at lower risk and from very early ages, at some point this increased risk for diabetes could begin to offset some of the benefits of statins, unless new statins are developed without this risk or new medications are found to be of comparable benefit without the increased risk for diabetes.

So, overall, there are some clinical implications, but we definitely do not think that this should lead to abrupt stopping of statin medications. Thank you very much for listening. This is Dr. JoAnn Manson.

#### References

Culver AL, Ockene IS, Balasubramanian R, et al. Statin use and risk of diabetes mellitus in postmenopausal women in the Women's Health Initiative. Arch Intern Med. Published online 2012 Jan 9. doi:10.1001/archinternmed.2011.625

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