

## **Statins and diabetes: do the benefits outweigh the risks?**

Cardiovascular disease (heart attack and stroke) is the leading cause of death in the United States. Prescription cholesterol-lowering medications have been shown to lower the risks for heart attacks and stroke. In fact, roughly 28% of Americans aged 40 years and older reported use of a prescription cholesterol-lowering medications. Statins are the most commonly used type of cholesterol-lowering medications.

While the wide use of statins has likely prevented many heart attacks and strokes, statin use has also been shown to elevate the risk for diabetes. Diabetes itself is a major health concern, affecting about 30 million Americans, with a majority of those having type 2 diabetes. Individuals who have type 2 diabetes are at greater risk for heart disease and are often candidates for cholesterol-lowering medications. Thus, understanding the link between statin use and diabetes risk is important.

In 2008, the results from a large-scale study with nearly 18,000 participants showed that use of a statin was associated with a modest increase in risk of developing type 2 diabetes, a condition characterized by chronically elevated levels of blood sugar. This risk appeared to be isolated to individuals with risk factors for diabetes such as obesity and above average levels of fasting blood sugar. The results from this and other studies support the view that statins increase the likelihood of developing diabetes if the individual is already at increased risk, perhaps only accelerating the onset of diabetes in those who were already on their way to its development.

Despite the link between statins and higher risk for developing diabetes for some individuals, the benefits of statin use still appear to substantially outweigh the risks. For every excess case of diabetes associated with statin use, several heart attacks and strokes are prevented. Also, risk for diabetes can be reduced through lifestyle modification, including a healthy diet, weight loss for those who are overweight or obese (most Americans), and regular walking or other aerobic-type exercise for 30-60 minutes most days of the week. Therefore, a healthy diet and regular exercise are especially important for people taking a statin drug, both to promote heart health and to lower the risk for diabetes.

In summary, use of statin drugs for cholesterol lowering may modestly increase the risk of developing type 2 diabetes, mainly in people who are already at increased risk for its development. Use of statins for cholesterol lowering is still encouraged as an important way to help reduce the risks for heart attack and stroke in those people whose risk is sufficiently high to warrant cholesterol-lowering drug therapy. However, individuals with risk factors for diabetes should be screened for diabetes regularly before and after starting a statin drug. Furthermore, lifestyle therapies including a healthy diet, weight control, and regular physical activity are critical for reducing risks for cardiovascular diseases (heart attack and stroke) and for lowering the risk of developing type 2 diabetes while taking a statin.

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