

Is it Time to Abandon Your Baby Aspirin?



By *Kedist Tedla* — December 20, 2016



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“An aspirin a day keeps the doctor away” has been the mantra for prevention of cardiovascular disease (CVD) since the early 2000s, but that seems to be changing in some cases.

It is well documented that taking aspirin helps prevent the recurrence of heart attack, stroke, and other vascular events after they have already occurred - known as “secondary prevention”. But there is debate over the benefits of taking aspirin in people without a history of prior cardiovascular disease - primary prevention. The current consensus advocates using low-dose aspirin, for primary prevention, in certain high risk groups: those with advanced age, diabetes, high cholesterol, high blood pressure, smoking etc. Not so, says a new [study](#) [2] from Japan, which showed that people with diabetes (a known risk factor for CVD) did not benefit from taking aspirin for up to 10 years.

The multi-center [study](#) [2], published in *Circulation* 2016, sought to evaluate the efficacy of low-dose (81 mg or 100 mg) aspirin for prevention of cardiovascular events like heart attack, stroke, or sudden death in diabetic patients without pre-existing CVD. The study was done on 2,160 diabetic patients who were divided into a group that took aspirin, and a group that did not. At the end of a 4-year follow-up period, there was no difference in the number of cardiovascular events between those who took aspirin and those who did not. The follow up period was further extended to 10 years for 1,621 of the study participants. At the end of the 10 years, there were a total of 317 cardiovascular events; 151 of which happened to those who took aspirin and 166, to those who did not. Again, there was no statistical difference between the two groups. So, the result was the same regardless of the duration of aspirin use. The lack of benefit from aspirin also persisted when the researchers did a sub-group analysis of the patients by other conditions like age, sex,

high blood pressure, kidney function, cholesterol, and smoking status.

Conversely, there was a higher number of gastrointestinal (GI) bleeding events in those who took aspirin: 25 (2.0%) vs 12 (0.9%) - a difference of 1.1%. Interestingly, there was no statistical difference between the two groups when it came to serious bleeding in the brain, 11 (0.9%) vs 4 (0.3%) as well as overall bleeding events, 80 (6%) vs 67 (5%).

Although the study suggests that taking low-dose aspirin does not decrease cardiovascular events in Japanese patients with diabetes, other [randomized controlled trials](#) [3], as well as a recent [meta-analysis](#) [4], have shown benefits and safety of aspirin for primary prevention of CVD in some patients who are at high risk. But some recent [studies](#) [5] have also showed a lack of benefit in diabetic patients.

The researchers had some thoughts on why recent studies are showing that aspirin may not decrease CVD in diabetics, compared to much earlier studies:

- The recent prevalence of high-dose statin use (a cholesterol lowering medicine), which improves cardiovascular outcome in diabetics, makes it difficult to assess the impact of aspirin by itself.
- In recent years, there has also been optimization of other risk factors such as high blood pressure and smoking, which can lower CVD risk in the diabetic population compared to the past.

The findings of the current study certainly raise the question about using low-dose aspirin for primary prevention in otherwise healthy diabetics, but that does not mean all diabetics should stop taking it. Aspirin is still effective for secondary prevention of CVD in people with existing disease, barring any contraindications. Furthermore, the United States Preventive Services Task Force ([USPSTF](#)) [4] still recommends taking a baby ASA in those of age 50-59, with at least a 10% risk of CVD in the next 10 years ([risk calculator](#)) [6] and at least a 10-year life expectancy, without a known contraindication. The USPSTF goes further to recommend low dose aspirin for prevention of colorectal cancer in the same population "who are willing to take [it] for at least 10 years".

While aspirin use is not a one-size-fits-all solution to CVD prevention, it has a role as part of a comprehensive approach in individuals who are at high risk.

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