

Heart disease research challenges 'one size fits all' aspirin guidelines

February 27 2024



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Heart disease researchers have identified a group of patients for whom international guidelines on aspirin use for heart health may not apply.

In the study [published](#) in the journal *Circulation*, the findings of a review of data from three [clinical trials](#) challenge current best practice for use of the drug for primary prevention of heart disease or stroke—otherwise known as atherosclerotic cardiovascular disease.

The research examined the results from clinical trials involving more than 47,000 patients in 10 countries, including the U.S., the U.K. and Australia, which were published in 2018.

The analysis focused on findings for a subgroup of 7,222 patients who were already taking aspirin before the three trials commenced. Those studied were at increased risk for cardiovascular disease and were taking aspirin to prevent the first occurrence of a heart attack or stroke.

The data showed a higher risk of heart disease or stroke—12.5% versus 10.4%—for patients who were on aspirin before the trials and who then stopped, compared to those who stayed on the drug.

Analyses also found no significant statistical difference in the risk for major bleeding between the two groups of patients.

The research team said the [data points](#) to a need for further evidence on best practice among adults already taking aspirin for cardiovascular disease prevention.

The research was led by Professor J. William McEvoy, Established Professor of Preventive Cardiology at University of Galway and Consultant Cardiologist at Saolta University Health Care Group, in collaboration with researchers in University of Tasmania and Monash University, Melbourne.

Professor McEvoy said, "We challenged the notion that aspirin discontinuation is a one-size-fits-all approach."

The research team noted results from [observational studies](#) which suggest a 28% higher risk of heart disease or stroke among adults who were prescribed aspirin to reduce the risk for a first heart attack or stroke, but who subsequently chose to stop taking the aspirin without being told to do so by their doctor.

Based in large part on three major clinical trials published in 2018, international guidelines no longer recommend the routine use of aspirin to prevent the first occurrence of heart attack or stroke.

Importantly, aspirin remains recommended for high-risk adults who have already had a heart disease or stroke event, to reduce the risk of a second event.

The move away from primary prevention aspirin in recent guidelines is motivated by the increased risk of major bleeding seen with this common medication in the three trials, albeit [major bleeding](#) is relatively uncommon on aspirin and was most obvious only among trial participants who were started on aspirin during the trial, rather than those who were previously taking aspirin safely.

These trials primarily tested the effect of starting aspirin among adults who have not previously been treated with the drug to reduce the risk of atherosclerotic [cardiovascular disease](#). Less is known about what to do in the common scenario of adults who are already safely taking aspirin for primary prevention.

Professor McEvoy said, "Our findings of the benefit of aspirin in reducing heart disease or [stroke](#) without an excess risk of bleeding in some patients could be due to the fact that adults already taking aspirin without a prior bleeding problem are inherently lower risk for a future bleeding problem from the medication. Therefore, they seem to get more of the benefits of aspirin with less of the risks.

"These results are hypothesis-generating, but at present are the best available data. Until further evidence becomes available, it seems reasonable that persons already safely treated with [low-dose aspirin](#) for primary prevention may continue to do so, unless new risk factors for aspirin-related bleeding develop."

More information: Ruth Campbell et al, Outcomes After Aspirin Discontinuation Among Baseline Users in Contemporary Primary Prevention Aspirin Trials: A Meta-Analysis, *Circulation* (2024). [DOI: 10.1161/CIRCULATIONAHA.123.065420](#)

Provided by University of Galway

Citation: Heart disease research challenges 'one size fits all' aspirin guidelines (2024, February 27) retrieved 27 April 2024 from <https://medicalxpress.com/news/2024-02-heart-disease-size-aspirin-guidelines.html>

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