

Some considerations regarding aspirin use in the primary prevention of cardiovascular events

Algunas consideraciones acerca del consumo de aspirina en la prevención primaria de eventos cardiovasculares

Laura Adalys Guillén-León, MD¹ ; Yudileidy Brito Ferrer, MD² 

¹Hospital Provincial Universitario Cardiocentro Ernesto Guevara. Universidad de Ciencias Médicas de Villa Clara. Villa Clara, Cuba.

²Universidad de Ciencias Médicas de Villa Clara, Cuba.

ARTICLE INFORMATION

Received: 12/02/2026
Accepted: 19/02/2026

Competing interests:

The authors declare no competing interests.

Article category:

Clinical Cardiology and Risk Factors

KEYWORDS: Aspirin; Primary Prevention; Cardiovascular Diseases; Secondary Prevention

PALABRAS CLAVE: Aspirina; Prevención Primaria; Enfermedades Cardiovasculares; Prevención Secundaria

DEAR EDITOR:

Acetylsalicylic acid (ASA), marketed since 1899 under the name aspirin, has become one of the most widely used drugs worldwide¹ and is included on the World Health Organization's (WHO) list of essential medicines.² Its analgesic and anti-inflammatory properties are well known, but its most significant role has been as an antiplatelet agent in the secondary prevention of cardiovascular events.¹

However, its use in primary prevention has generated controversy. A report from the National Institutes of Health indicates that approximately 29 million adults without heart disease use low-dose ASA, and a quarter of them do so without a prescription.³ First clinical trials (1988–2005), such as the Physicians' Health Study⁴, the British Doctors Trial⁵, the Thrombosis Prevention Trial⁶, and the Women's Health Study⁷, suggested a net benefit of acetylsalicylic acid in primary prevention, although with risks of bleeding. However, meta-analyses and modern reviews show very modest reductions in non-fatal infarction and ischemic stroke, with no reduction in all-cause or cardiovascular mortality. At the same time, there is a clear increase in major bleeding, including gastrointestinal and intracranial bleeding, with an approximate relative risk ranging from 1.3 to 1.5.⁸⁻¹⁰

In the large recent trials: ASPREE,¹¹ ASCEND,¹² ARRIVE,¹³ the benefit was negligible or minimal, and bleeding increased, with a possible increase in all-cause mortality in the elderly. Recent meta-analyses agree that, in adults without established cardiovascular disease, the risks outweigh the benefits.¹⁴

Major international guidelines reflect this evidence: the European Society of Cardiology (ESC)¹⁵ and the American College of Cardiology, in conjunction with the American Heart Association (ACC/AHA),¹⁶ advise against its routine use in low- or moderate-risk individuals, limiting its indication to selected patients with high cardiovascular risk and low bleeding risk. Similarly, the guidelines of the European Society of Cardiology in conjunction with the European Association for the Study of Diabetes (ESC/EASD)¹⁷, the American



Corresponding author:

Laura Adalys Guillén-León, MD
lauraguillen0811@gmail.com

Diabetes Association (ADA)¹⁸ and the United States Preventive Services Task Force (USP-TF)¹⁹, restrict its use to specific groups, while contraindicating it in people over 70 years of age or in those with a high bleeding risk.

It is particularly concerning that there are no epidemiological studies in the Cuban population measuring the true extent of aspirin use for primary prevention. Daily clinical practice suggests that its use is frequent, often without a formal medical indication, but there is a lack of data to assess the degree to which it constitutes a public health problem in our context. This absence of evidence at the national level limits the ability to adapt international recommendations to the Cuban reality and underscores the need to promote our own research that evaluates both the prevalence of use and its clinical consequences.

It is considered essential to insist on a critical re-evaluation of the indication for acetylsalicylic acid in the primary prevention of cardiovascular events. Work protocols in this area and continuing medical education should be updated, as well as the development of national studies that provide evidence on its impact on the Cuban population, in order to reduce unnecessary exposure to hemorrhagic risks and ensure the rational and beneficial use of the drug.

REFERENCES:

1. Werz O, Stettler H, Theurer C, Seibel J. The 125th anniversary of aspirin—the story continues. *Pharmaceuticals (Basel)*. 2024;17(4):437. doi: [10.3390/ph17040437](https://doi.org/10.3390/ph17040437).
2. World Health Organization. The selection and use of essential medicines, 2025: WHO Model List of Essential Medicines 24th list [Internet]. Geneva: OMS; 2025 [citado 2026 feb. 11]. Disponible en: <https://iris.who.int/server/api/core/bits-treams/17642505-ecd3-4940-a691-4f1d-fa0d835a/content>
3. O'Brien CW, Juraschek SP, Wee CC. Prevalence of aspirin use for primary prevention of cardiovascular disease in the united states: results from the 2017 National Health Interview Survey. *Ann Intern Med*. 2019;171(8):596-598. doi:[10.7326/M19-0953](https://doi.org/10.7326/M19-0953).
4. Steering Committee of the Physicians' Health Study Research Group. Final report on the aspirin component of the ongoing Physicians' Health Study. *N Engl J Med*. 1989;321(3):129-135. doi:[10.1056/NEJM198907203210301](https://doi.org/10.1056/NEJM198907203210301).
5. Peto R, Gray R, Collins R, Wheatley K, Hennekens C, Jamrozik K, et al. Randomised trial of prophylactic daily aspirin in British male doctors. *Br Med J (Clin Res Ed)* [Internet]. 1988 [citado 2026 feb. 11];296(6618):313-6. Disponible en: <https://pmc.ncbi.nlm.nih.gov/articles/PMC2544821/pdf/bmj00270-0009.pdf>
6. The Medical Research Council's General Practice Research Framework. Thrombosis prevention trial: randomised trial of low-intensity oral anticoagulation with warfarin and low-dose aspirin in the primary prevention of ischaemic heart disease in men at increased risk. *Lancet*. 1998;351(9098):233-241. doi:[10.1016/S0140-6736\(97\)11475-1](https://doi.org/10.1016/S0140-6736(97)11475-1).
7. Ridker PM, Cook NR, Lee IM, Gordon D, Gaziano JM, Manson JE, et al. A randomized trial of low-dose aspirin in the primary prevention of cardiovascular disease in women. *N Engl J Med*. 2005;352(13):1293-304. doi: [10.1056/NEJMoa050613](https://doi.org/10.1056/NEJMoa050613).
8. Guirguis-Blake JM, Evans CV, Senger CA, O'Connor EA, Whitlock EP. Aspirin for the primary prevention of cardiovascular events: a systematic evidence review for the u.s. preventive services task force. *Ann Intern Med*. 2016;164(12):804-13. doi:[10.7326/M15-2113](https://doi.org/10.7326/M15-2113).
9. Mahmoud AN, Gad MM, Elgendy AY, Elgendy IY, Bavry AA. Efficacy and safety of aspirin for primary prevention of cardiovascular events: a meta-analysis and trial sequential analysis of randomized controlled trials. *Eur Heart J*. 2019;40(7):607-17. doi:[10.1093/eurheartj/ehy813](https://doi.org/10.1093/eurheartj/ehy813).
10. Zheng SL, Roddick AJ. Association of Aspirin Use for Primary Prevention with cardiovascular events and bleeding events: a systematic review and meta-analysis. *JAMA*. 2019;321(3):277-87. doi:10.1001/jama.2018.20578.
11. McNeil JJ, Nelson MR, Woods RL, Lockery JE, Wolfe R, Reid CM, et al. Effect of Aspirin on All-Cause Mortality in the Healthy Elderly. *New Engl J Med*. 2018;379(16):1519-28. doi:[10.1056/NEJMoa1803955](https://doi.org/10.1056/NEJMoa1803955).
12. ASCEND Study Collaborative Group, Bowman L, Mafham M, Wallendszus K, Stevens W, Buck G, et al. Effects of aspirin for primary prevention in persons with diabetes mellitus. *N Engl J Med*. 2018;379(16):1529-1539. doi:[10.1056/NEJMoa1804988](https://doi.org/10.1056/NEJMoa1804988).

13. Gaziano JM, Brotans C, Coppolecchia R, Cricelli C, Darius H, Gorelick PB, et al. Use of aspirin to reduce risk of initial vascular events in patients at moderate risk of cardiovascular disease (ARRIVE): a randomised, double-blind, placebo-controlled trial. *Lancet*. 2018;392(10152):1036-1046. doi:[10.1016/S0140-6736\(18\)31924-X](https://doi.org/10.1016/S0140-6736(18)31924-X).
14. Mazzola M, De Caterina R. Aspirin for primary prevention: time to reconcile discrepancies. *Eur J Prev Cardiol*. 2025;zwaf365. doi:[10.1093/eurjpc/zwaf365](https://doi.org/10.1093/eurjpc/zwaf365).
15. Visseren FLJ, Mach F, Smulders YM, Carballo D, Koskinas KC, Bäck M, et al. 2021 ESC Guidelines on cardiovascular disease prevention in clinical practice. *Eur Heart J*. 2021;42(34):3227-3337. doi:[10.1093/eurheartj/ehab484](https://doi.org/10.1093/eurheartj/ehab484).
16. Arnett DK, Blumenthal RS, Albert MA, Buraker AB, Goldberger ZD, Hahn EJ, et al. 2019 ACC/AHA Guideline on the primary prevention of cardiovascular disease: a report of the american college of cardiology/american heart association task force on clinical practice guidelines. *Circulation*. 2019;140(11):e596-e646. doi:[10.1161/CIR.0000000000000678](https://doi.org/10.1161/CIR.0000000000000678).
17. Cosentino F, Grant PJ, Aboyans V, Bailey CJ, Ceriello A, Delgado V, et al. 2019 ESC Guidelines on diabetes, pre-diabetes, and cardiovascular diseases developed in collaboration with the EASD. *Eur Heart J*. 2020;41(2):255-323. doi:[10.1093/eurheartj/ehz486](https://doi.org/10.1093/eurheartj/ehz486).
18. American Diabetes Association Professional Practice Committee for Diabetes. 10. Cardiovascular disease and risk management: standards of care in diabetes-2026. *Diabetes Care*. 2025;49(Suppl 1):S216-S245. doi:[10.2337/dc26-S010](https://doi.org/10.2337/dc26-S010).
19. US Preventive Services Task Force; Davidson KW, Barry MJ, Mangione CM, Cabana M, Chelmow D, et al. Aspirin use to prevent cardiovascular disease: us preventive services task force recommendation statement. *JAMA*. 2022;327(16):1577-1584. doi:[10.1001/jama.2022.4983](https://doi.org/10.1001/jama.2022.4983).