

# Current recommendations on the use of aspirin to prevent cardiovascular events<sup>1-4</sup>

History of ASCVD events (e.g., prior MI, stroke)?

NO

YES

Primary prevention

Secondary prevention

**Avoid or don't recommend aspirin, if:**

- age 70 or older (ASPREE)
- low risk of ASCVD events (ARRIVE)
- elevated risk of ASCVD events with a high risk of bleeding

**Discuss risk and benefit of aspirin, if:**

- Diabetes (ASCEND, ADA)
- elevated risk of ASCVD events with low risk of bleeding

**Recommend low-dose aspirin**

Even low-dose aspirin (81 mg/day) can increase the risk of GI bleed. A proton pump inhibitor can help reduce this risk.

A given patient's risk of ASCVD events can be calculated using the ASCVD Risk Estimator Plus. Elevated risk is "intermediate risk" or higher in the tool. [Links to this and other tools can be found at AlosaHealth.org/Antiplatelet.](https://www.amosahealth.org/Antiplatelet)

# Summary of 2018 evidence on aspirin for primary prevention<sup>1-3</sup>

Trial name	Patient population	Size	Follow-up	Mean age	Relative CV effect	Relative risk of major bleeding
<b>ASPREE</b>	Healthy older adults	19,114	4.7 years (median)	74	No difference	<b>38% increase</b>
<b>ARRIVE</b>	“Moderate” CV risk	12,546	5 years (median)	64	No difference	<b>&gt;2-fold increase</b>
<b>ASCEND</b>	Diabetes	15,480	7.4 years (mean)	63	<b>12% decrease (NNT 91)</b>	<b>29% increase (NNH 111)</b>

**NNT:** number needed to treat; **NNH:** number needed to harm

(1) McNeil JJ, Wolfe R, Woods RL, et al. Effect of Aspirin on Cardiovascular Events and Bleeding in the Healthy Elderly. *N Engl J Med.* 2018;379(16):1509-1518. (2) Gaziano JM, Brotons C, Coppolecchia R, 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. (3) Bowman L, Mafham M, Wallendszus K, et al. Effects of Aspirin for Primary Prevention in Persons with Diabetes Mellitus. *N Engl J Med.* 2018;379(16):1529-1539. (4) Arnett DK, Blumenthal RS, Albert MA, et al. 2019 ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease. *Circulation.* 2019;Cir00000000000000678.



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## Balanced information for better care

These are general recommendations only; specific clinical decisions should be made by the treating clinician based on an individual patient's clinical condition. These materials were made possible by the PACE Program of the Department of Aging of the Commonwealth of Pennsylvania. Links to references can be found at [AlosaHealth.org](https://www.AlosaHealth.org).

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