

Aspirin and Cardiovascular Disease

Population: Adults (mean age 60.6 years) without a history of CVD (95% of included participants are without a CVD)

Intervention: Aspirin (75 – 500 mg/d, median: 100 mg/d)

Comparator: Placebo or no medication

Outcome 3.8 – 10.1 years	Study results and measurements	Certainty in effect estimates (Quality of evidence)	Absolute effect estimates		Summary
			Placebo	Aspirin	
All Cause Mortality	Relative risk: 0.94 (CI 95% 0.88 - 1.0) Based on data from 100076 patients in 9 studies Mean follow up 3.8 – 10.1years	Low Risk of Bias	35 per 1000	33 per 1000 Difference: 2 fewer per 1000 (CI 95% 4 fewer - 0 fewer)	Aspirin has little or no effect on all-cause mortality
CVD Mortality	Relative risk: 0.96 (CI 95% 0.84 - 1.09) Based on data from 100076 patients in 9 studies Mean follow up 3.8 – 10.1years	Low Risk of Bias	12 per 1000	12 per 1000 Difference: 0 fewer per 1000 (CI 95% 2 fewer - 1 more)	Aspirin has little or no effect on CVD mortality
Major CVD Events	Relative risk: 0.88 (CI 95% 0.83 - 0.94) Based on data from 100076 patients in 9 studies Mean follow up 3.8 – 10.1years	Low Risk of Bias	40 per 1000	35 per 1000 Difference: 5 fewer per 1000 (CI 95% 7 fewer - 2 fewer)	Aspirin slightly decreases the risk for a major CVD event
Myocardial Infarction	Relative risk: 0.83 (CI 95% 0.69 - 1.0) Based on data from 100076 patients in 9 studies Mean follow up 3.8 – 10.1years	Low Risk of Bias	20 per 1000	17 per 1000 Difference: 3 fewer per 1000 (CI 95% 6 fewer - 0 fewer)	Aspirin has little or no effect on myocardial infarction
All Cause Stroke	Relative risk: 0.93 (CI 95% 0.82 - 1.05) Based on data from 100076 patients in 9 studies Mean follow up 3.8 – 10.1years	Low Risk of Bias	15 per 1000	14 per 1000 Difference: 1 fewer per 1000 (CI 95% 3 fewer - 1 more)	Aspirin has little or no effect on all cause stroke
Ischemic Stroke	Relative risk: 0.86 (CI 95% 0.75 - 0.98) Based on data from 100076 patients in 9 studies Mean follow up 3.8 – 10.1years	Low Risk of Bias	9 per 1000	8 per 1000 Difference: 1 fewer per 1000 (CI 95% 2 fewer - 0 fewer)	Aspirin slightly decreases the risk of ischemic stroke
Hemorrhagic Stroke	Relative risk: 1.36 (CI 95% 1.01 - 1.82) Based on data from 100076 patients in 9 studies Mean follow up 3.8 – 10.1years	Low Risk of Bias	2 per 1000	3 per 1000 Difference: 1 more per 1000 (CI 95% 0 fewer - 2 more)	Aspirin increases the risk of hemorrhagic stroke

Gastrointestinal Bleed	Relative risk: 1.37 (CI 95% 1.01 - 1.82) Based on data from 100076 patients in 9 studies Mean follow up 3.8 – 10.1years	Low Risk of Bias	32 per 1000	44 per 1000	Aspirin increase the risk of gastrointestinal bleed
Major Bleed	Relative risk: 1.66 (CI 95% 1.41 - 1.95) Based on data from 100076 patients in 9 studies Mean follow up 3.8 – 10.1years	Low Risk of Bias	5 per 1000	8 per 1000	Aspirin increases the risk for major bleed
			Difference: 12 more per 1000 (CI 95% 0 fewer - 26 more)		
			Difference: 3 more per 1000 (CI 95% 2 more - 5 more)		

References

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Seshasai SR, Wijesuriya S, Sivakumaran R, Nethercott S, Erqou S, Sattar N, Ray KK. Effect of aspirin on vascular and nonvascular outcomes: meta-analysis of randomized controlled trials. *Archives of internal medicine*. 2012 Feb 13;172(3):209-16.

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Practical Issues



Medical routine

How often do I need to take the medication?

Aspirin is required to be taken daily. The amount of tablets/capsule per day varies with each class of medication which your doctor should explain to you.



Adverse effects, interactions and antidote

Are there any side effects from taking aspirin?

Some side effects include:

- Haemorrhagic Stroke: 3 in 1000 people may have a hemorrhagic stroke while taking daily aspirin compared to 2 in 1000 people taking a placebo pill.
- Gastrointestinal Bleeds: 44 in 1000 people may have a gastrointestinal bleed while taking daily aspirin compared to 32 in 1000 people taking a placebo pill.



Cost and access

How much does aspirin cost?

In Australia, for 112 × 100 mg aspirin tablets costs \$12.93 (from behind the counter). 30 × (75 mg clopidogrel and 100 mg) aspirin tablets costs \$16.23. Over the counter aspirin can range from \$2.99 (e.g. Mayne 100 mg Aspirin Tablets) to \$13.99 (Cartia 100mg Aspirin Tablets).