Low dose aspirin lowered stroke risk but not risks of MI or cardiovascular deaths in women


Clinical impact ratings GP/FP/Primary care ★★★★★☆ IM/Ambulatory care ★★★★★☆ Neurology ★★★★★☆

Q Is low dose aspirin effective for the primary prevention of cardiovascular disease in women?

### METHODS

**Design:** randomised, placebo controlled trial (Women’s Health Study).

**Allocation:** (concealed)†.

**Blinding:** blinded (healthcare providers, participants, data collectors, and outcome assessors)†.

**Follow up period:** mean 10 years.

**Setting:** USA and Puerto Rico.

**Participants:** 39 876 women >45 years of age (mean age 55 y) who had no history of coronary artery disease, cerebrovascular disease, cancer (except non-melanoma skin cancer), or other major chronic illness; contraindication to the study medications; were not taking aspirin, non-steroidal anti-inflammatory drugs, anticoagulants, or corticosteroids; and were not taking vitamin A or E, or β carotene supplements more than once per week.

**Intervention:** aspirin, 100 mg every other day (n = 19 934) or placebo (n = 19 942).

**Outcomes:** first major cardiovascular event (non-fatal myocardial infarction, non-fatal stroke, or cardiovascular death); individual cardiovascular endpoints; and adverse events.

**Patient follow up:** 97% (intention to treat analysis).

†Information provided by author.

### MAIN RESULTS

The table shows the results.

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Sources of funding: National Heart, Lung, and Blood Institute and National Cancer Institute.

### CONCLUSION

Low dose aspirin lowered risk of stroke but not risks of myocardial infarction or death from cardiovascular causes.

Abstract and commentary also appear in ACP Journal Club.

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**Aspirin v placebo for primary prevention of cardiovascular disease in women at mean 10 years**

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Aspirin</th>
<th>Placebo</th>
<th>RRR (95% CI)</th>
<th>NNT (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major cardiovascular event†</td>
<td>2.4%</td>
<td>2.6%</td>
<td>9% (1–3 to 20)</td>
<td>Not significant</td>
</tr>
<tr>
<td>Stroke</td>
<td>1.1%</td>
<td>1.3%</td>
<td>17% (1 to 31)</td>
<td>445 (227 to 103 77)</td>
</tr>
<tr>
<td>Cardiovascular death</td>
<td>0.60%</td>
<td>0.63%</td>
<td>5% (22 to 26)</td>
<td>Not significant</td>
</tr>
<tr>
<td>Transient ischaemic attack</td>
<td>0.93%</td>
<td>1.2%</td>
<td>22% (6 to 36)</td>
<td>385 (216 to 1687)</td>
</tr>
<tr>
<td>Fatal or non-fatal MI</td>
<td>0.99%</td>
<td>0.97%</td>
<td>2% (16 to 25)</td>
<td>Not significant</td>
</tr>
<tr>
<td>Transfusion for GI bleed</td>
<td>0.6%</td>
<td>0.5%</td>
<td>40% (7 to 83)</td>
<td>554 (305 to 2751)</td>
</tr>
</tbody>
</table>

*CGI = gastrointestinal; MI = myocardial infarction. Other abbreviations defined in glossary: RRR, RRI, NNT, NNH, and CI calculated from data in article.

†Major cardiovascular event = non-fatal myocardial infarction, non-fatal stroke, or death from cardiovascular causes.
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_Evid Based Med_ 2005 10: 137
doi: 10.1136/ebm.10.5.137

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