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Aspirin may cut heart attack risk

The Washington Post

WASHINGTON – Healthy men can cut their risk of a heart attack nearly in half by taking an aspirin every other day, according to a major new study.

Previous research has shown that daily aspirin use can vastly reduce second heart attacks, but this is the first time that regular aspirin use has been shown to prevent initial heart attacks.

The conclusion that aspirin can lower the risk of a first heart attack was reached in one of the largest prospective studies of heart disease ever conducted in the Unied States, with more than 22,000 participants. The results were so dramatic that the study was ended three years early so that participants and the public could be told of aspirin's effects.

Because more than 1.5 million Americans have heart attacks each year, the results are expected to encourage millions to begin using aspirin regularly.

"There will be many thousands of people whose heart attacks will be prevented by this," said Dr. Lawrence S. Cohen of Yale Medical School.

Heart attacks are the leading cause of death in the United States, killing more than 500,000 persons each year, according to the American Heart Association.

All 261,248 male physicians ages 40 to 84 living in the United States during 1982 were invited to participate in the aspirin study. More than 59,000 volunteers were screened and 22,000 physicians entered the trial, which began in 1983.

Of the 11,034 who took aspirin every other day, 104 had heart attacks. In the 11,037-person group that took placebos, 189 had heart attacks. Because the test sample was so large, there was only a minute statistical probability that the difference between the groups was caused by chance.

What the numbers mean is that an ordinary aspirin tablet taken every other day reduced the risk of a heart attack for healthy people by 47 per cent.

The study had generated intense interest in the medical community for years, and the tablet taken every other day by the 22,000 physicians came to be known as a Hennekens Pill, after Dr. Charles H. Hennekens, who directed the study at the Harvard Medical School and Brigham and Women's Hospital in Boston.

"It's a big, whopping decrease," Hennekens said of the results. But like other physicians familiar with the research, he urged that Americans use caution before they began to take the pills regularly.

"Do the results now justify the widespread use of aspirin for primary prevention" of heart attacks? wrote Dr. Arnold S. Relman, editor of *The New England Journal of Medicine*, in an editorial accompanying the report to be published today. "Any answer at this time must be tentative and carefully qualified."

The participants were screened heavily. No one who had trouble tolerating aspirin or who had a peptic ulcer, gout, liver, kidney disease or history of heart disease was included.

The use of aspirin as a preventive therapy for heart patients has been debated for more than a decade, but smaller studies have been inconclusive.

In 1985 federal health officials changed the labeling of aspirin to reflect evidence that it could reduce the likelihood of dying from second heart attacks and lower the risk of suffering from "unstable angina" – chest pains that change in severity or character and are associated with heart attacks.

Aspirin is thought to inhibit the action of special cells in the blood that play a role in clotting. That reduces the danger that a clot will form and block the flow of blood to the heart, causing a heart attack.

The study also found that regular use of aspirin seemed to increase the likelihood of one form of stroke. Although there was a major difference in the incidence of heart attacks between the two groups, there was no difference in the death rates from heart and blood vessel diseases. The researchers said the participants were unusually healthy and that the study would have had to continue into the 21st century to prove that aspirin affects death rates.

Dr. Claude Lenfant, director of the National Heart, Lung and Blood Institute, said that people with heart risk factors – such as high blood pressure, elevated cholesterol, smoking, diabetes or a family history of heart disease – should be considered for aspirin therapy.

But he urged patients to first discuss treatment with their physicians.

REFERENCE: A.S. Relman: Aspirin for the Primary Prevention of Myocardial Infarction. *New Engl. J. Med.* **318**(#4): 245-246 (1988); see also the Steering Committee Special Report on pages 262-264 of this journal and the subsequent Final Report: **321**(#3): 129-135 (1989). [DC Library call number: PER R11.B7]

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