Aspirin Cuts Risk of First Heart Attack

An aspirin every other day could help keep the doctor away by cutting in half the risk of that first heart attack, scientists said this week. But along with the good news came cautionary statements regarding possible side effects and warnings about indiscriminate use.

On the basis of results from the Physicians' Health Study, involving more than 22,000 U.S. physicians 40 to 84 years of age, a research group at Harvard Medical School and Brigham and Women's Hospital in Boston concluded that using aspirin reduced the risk of heart attacks by 47 percent among these healthy men. Previous studies had shown that aspirin can reduce the likelihood of a second heart attack through its ability to thin the blood (SN: 10/19/85, p.244). But this is the first major examination of the drug's preventive effects in healthy individuals.

Begun in 1982 and scheduled to continue until 1990, the aspirin trial was halted last month by recommendation of an external review board in order to get the encouraging results published. Scientists involved in the study report in the Jan. 28 NEW ENGLAND JOURNAL OF MEDICINE that the unusual termination of the study was based on data showing aspirin's "statistically extreme beneficial effect [in preventing] nonfatal and fatal [heart attacks]."

Half of the subjects took 325 milligrams of buffered aspirin every other day, while the remainder received a placebo. There were 104 heart attacks among the aspirin-treated subjects and 189 among those receiving placebos. Differences in the number of strokes were not statistically significant, say the authors.

Commenting on the preliminary report in an accompanying editorial, journal Editor Arnold S. Relman said he agrees that the "highly promising" results are significant in the fight against heart disease, particularly if supported by a complete analysis of the data. But both Relman and the Dallas-based American Heart Association (AHA) also point out that the study subjects are not a cross-section of the general population.

There are other questions that go beyond the design of the study. In addition to gastrointestinal effects, a potential clinical problem is aspirin's interference with the body's clotting system, leading to a remote chance of hemorrhage. Although the Boston researchers say the numbers of subjects suffering from moderate to severe or fatal hemorrhagic strokes are far too small to draw conclusions, they and the AHA say the possibility of bleeding into the brain must be carefully considered.

As to whether these results mandate the general use of aspirin, Relman emphasizes that "any answer at this time must be tentative and carefully qualified." In a prepared statement, the AHA recommends that the decision to take aspirin as a heart-attack preventive "be made only in consultation with a physician" and that other risk factors for heart disease not be ignored. Aspirin does not, for example, eliminate atherosclerosis as a major risk factor in heart disease.

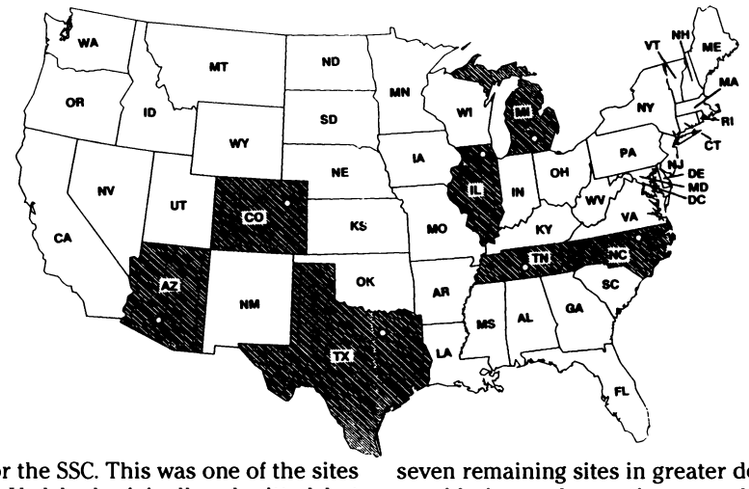
Also included in the study has been an assessment of the potential of beta carotene, a vitamin A precursor, in reducing the risk of cancer. On the days when they did not take aspirin or its placebo, the subjects took 50 mg of beta carotene or its placebo. Neither the clinicians nor the study subjects knew which pills were placebos. Although the aspirin trial has ended, study participants will continue taking beta carotene or a placebo every other day as part of that evaluation, still scheduled to run until 1990.

Although aspirin is not a panacea for heart patients, experts who have commented publicly seem to agree that its beneficial effects are another step toward reducing a problem of great proportions. Last week at a seminar in New Orleans, AHA officials released figures indicating that the annual U.S. mortality figures due to heart and blood vessel diseases exceed the total death toll of U.S. soldiers in the two world wars, Korea and Vietnam combined. — *D.D. Edwards*

Lucky seven in SSC site competition

Seven sites in seven states remain in the running for the Superconducting Super Collider (SSC), according to an announcement last week by Energy Secretary John S. Herrington. The SSC will be a 40-trillion electron-volt proton accelerator, the most energetic such machine ever built.

A committee empanelled by the National Academy of Sciences and National Academy of Engineering had reviewed the 36 sites in 25 states originally accepted for consideration by the Department of Energy (DOE), and had recommended eight as best qualified, including the seven shown on this map, plus one near Rochester, N.Y. (SN: 1/2/88, p.10). However, local opposition to the Rochester site was so intense that it enlisted the support of members of Congress from the area and New York's two senators and compelled the state government to withdraw the site from consideration. New York Gov. Mario Cuomo then tried to persuade the DOE to substitute another site, in the St. Regis Valley, where local people seem to favor the SSC. This was one of the sites New York had originally submitted, but it was passed over by the review committee. Herrington refused to revive consideration of the St. Regis Valley site, saying it would be unfair to the other states to overrule the decision of the review committee.



The department will now review the seven remaining sites in greater detail, considering such questions as relative cost, the geology of the areas and the environmental impact that building the SSC in each location would have. Herrington expects to be able to announce a preferred site in July 1988 and to confirm a final choice by January 1989. — *D.E. Thomsen*