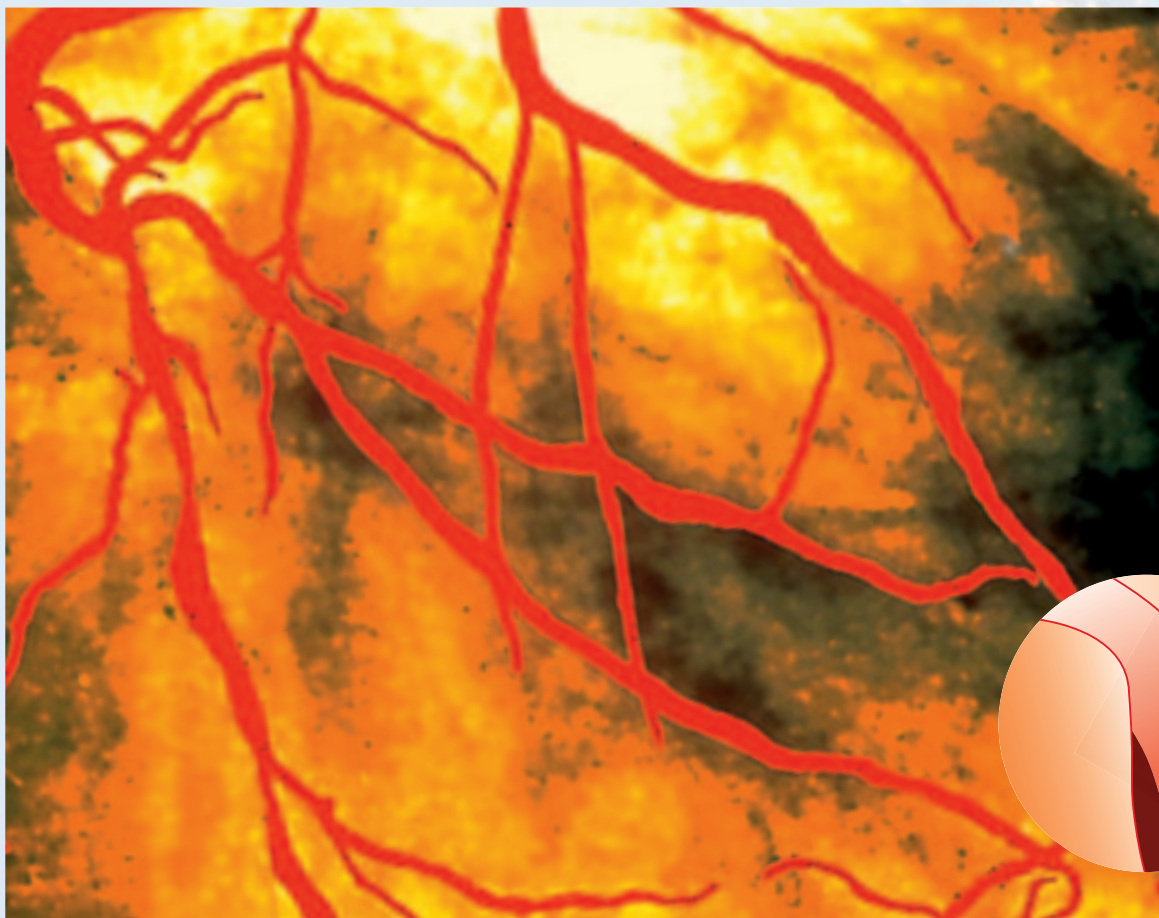


Active ingredient in Aspirin® helps protect women against stroke

Myocardial infarction and stroke protection



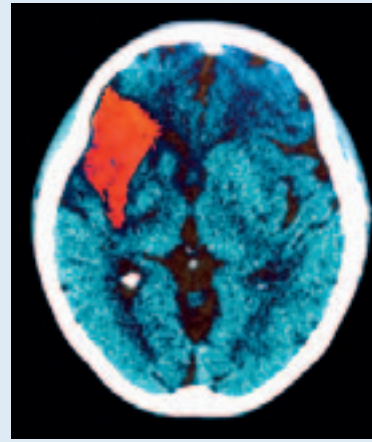
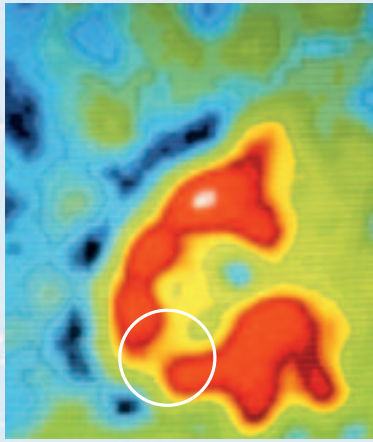
Deposits in the coronary heart vessels can cause constriction and increase the risk of infarction.

Even a minimal dose of acetylsalicylic acid (ASA), the active ingredient in Aspirin®, can reduce the risk of stroke in women, and in elderly women it also protects against myocardial infarction. These are two of the findings of the Women's Health Study, the largest study ever conducted into ASA.

Various formulations of acetylsalicylic acid (ASA) have been used to treat pain and fever for more than 100 years, and the substance also has anti-inflamma-

tory properties. Following numerous studies which focused primarily on men, a new study called the Women's Health Study recently investigated the benefits of acetylsalicylic acid specifically for women. The study which, with some 40,000 participants, is the largest study ever conducted to investigate the active ingredient in Aspirin®, produced some significant findings about the effects of ASA in myocardial infarction and stroke prevention in women. The participants took either Aspirin® or a dummy substance (placebo) over a ten-year period. The most important findings: regular

use of small doses of Aspirin® (100 mg every second day) affords protection against a first myocardial infarction in women aged above 65. A comparable effect of Aspirin® in preventing myocardial infarction in women aged between 45 and 55 was not found, but the substance did markedly reduce the risk of stroke in this age group. Stroke and myocardial infarction are wrongly regarded as conditions that primarily threaten men: according to the World Heart Federation, 8.5 million women worldwide die from cardiovascular disease every year, with three



Major damage: myocardial infarction and stroke cause tissue destruction. The blood flow through the heart muscle shown on the left is good except for the infarction region (circled). The red area of the brain in the picture on the right shows where tissue has died.

million – 25 percent more than men – suffering a fatal stroke.

The myocardial infarction risk for women is age-dependent, however: in their younger years, women are naturally equipped with a high level of protection against myocardial infarction. Dr. Gisela Latta, Senior Science Manager at Bayer HealthCare’s Consumer Care Division in Basel, Switzerland, suspects that hormones play a crucial role in this process, as the protection “gradually disappears once the menopause starts.”

Above the age of 65, the risk of myocardial infarction climbs up to the same level as that in men. “So it’s hardly surprising that the Women’s Health Study only identified a positive effect of ASA in myocardial infarction above this age,” comments Latta. As the initiator of the Women’s Health Study, Professor Julie E. Buring from the Brigham and Women’s Hospital in Boston, explains, “That’s why the study findings have such significance for effective precautionary strategies.”

ASA in myocardial infarction and stroke prevention

The Women’s Health Study was mainly concerned with primary prevention, i.e. prevention of a first stroke or infarction. Acetylsalicylic acid has been used for many years as a tried and true measure to prevent reinfarction (secondary prevention), and five major studies had already shown that ASA can reduce the risk of a first myocardial infarction by 32 percent. “Relatively few women

took part in these studies, however,” reports Buring. According to scientific criteria, therefore, the findings of these studies related primarily to men.

Epidemiologist Buring and her colleagues designed the Women’s Health Study, the findings of which have now been published, in 1992. “On designing the study, we chose the smallest dose of Aspirin® that was still likely to produce an effect.” The results are nonetheless striking: the risk of suffering a first stroke fell by a total of 17 percent in women who took 100 milligrams of ASA every second day. Women aged above 65 also enjoyed a high level of primary protection against myocardial infarction – the risk of this condition dropped by 34 percent.

The Women’s Health Study has once again triggered international debate into whether ASA should be prescribed as a preventive measure for individuals with certain risk factors, such as high blood pressure, a pre-disposition in the family, diabetes, obesity or excessive blood lipid levels. Doctors can assess these factors and use them to determine the correct dosage. Buring does warn against self-medication, however: a physician must weigh up the benefits of ASA therapy for the cardiovascular system against the slight yet ever-present risk of gastrointestinal bleeding. This risk can also be minimized by the use of enteric-coated ASA tablets such as Aspirin® Protect, however.

“Nonetheless, ASA has already been registered for primary prevention of myocardial infarction in 34 countries,”

says Dr. Volker Knappertz, from Bayer HealthCare’s Global R&D Cardiovascular in Morristown, New Jersey. Indeed, Professor Thomas A. Pearson, a cardiologist and member of the board of the World Heart Federation, believes that the time has come for drawing practical conclusions: “The findings of the WHS are particularly useful for developing global guidelines for using this medicine.”

www.worldheart.org

The World Heart Federation conducts numerous projects designed to promote precautionary and therapeutic measures for cardiovascular disease.

High cardiovascular risk in women

Cardiovascular disease used to be a condition that was regarded as being particularly lethal to men. Since 1984, however, the picture has changed: today, many more women than men in the United States die as a result of cardiovascular disease, possibly because they react more strongly to certain risk factors such as diabetes.

U.S. fatalities (thousands)

