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A daily dose of garlic helps to keep your ticker ticking

Artery walls retain their flexibility longer, scientists say

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MONTREAL – Garlic can do more than just ward off vampires, it can help keep your heart healthy, according to results of a long-term study reported at a cardiology conference here yesterday.

A German clinical trial found that people who take daily garlic supplements have more flexibility in their major blood vessels and a lower incidence of heart disease than those who don't take garlic or use it in cooking.

"The effect is very striking," said Dr. Gustav Belz, cardiologist and director of the Institute for Cardiac and Vascular research at the University of Mainz in Germany.

Stiffening of the vessel walls, a condition called arteriosclerosis, makes blood flow less freely and puts a greater load on the heart. Stiffening occurs naturally with age, but Dr. Belz said people who take garlic can slow the hardening process by 20 per cent. "The effect is like delaying by years the stiffening that comes with aging."

Equipment was used to measure how long it takes the pressure from a heart beat to move through the arteries that lead to the groin and neck. In a stiff artery, the pulse travels quickly but in a flexible artery, blood moves smoothly and more slowly.

"Elasticity is a good thing; a stiff aorta is bad news for the heart," Dr. Belz noted.

He said this is the first study to look at garlic's effect on the arteries. Previous research has shown garlic can lower cholesterol and blood pressure and this could explain part of the result. More important, he believes, is garlic's ability to reduce the rate of blood clotting, which is a factor in the buildup of blockages on the inside of blood vessels.

The 202 Germans in the study were between the ages of 50 and 80. Half took daily supplements in the form of garlic powder tablets and their results were compared with the other half who had similar diets but didn't take garlic. Many of the subjects in the study have been taking garlic supplements for as long as five years.

"It was simple finding controls [people who don't use garlic] because people in Germany don't like garlic in their food," Dr. Belz said in Montreal at the Fourth International Conference on Preventive Cardiology.

The garlic users taking 600 to 900 mg a day had an average reduction (change from the beginning to the end of the study) in serum cholesterol of 12 per cent. This was estimated to have lowered their overall risk of heart attack by an equal percentage.

The garlic was given in the form of standardized tablets sold over the counter in Canada as Kwai. Dr. Belz said the pills contain more allicin, the active ingredient in garlic, than most people would get in a diet that liberally uses garlic. Raw garlic has been shown to have a cholesterol-lowering effect in some studies, but recent research has questioned the findings. Dr. Belz believes the confusion may be because garlic varies widely.

"Fresh garlic contains amounts of allicin that can vary by a factor of 100," Dr. Belz said. The most potent form is Chinese garlic, the type used in freeze-dried form to make the garlic pills. The least potent types of garlic come from the Middle East.

No matter where it is grown, though, raw garlic has a major drawback.

"The odour problem," Dr. Belz explained, comes about because the membranes in the mouth absorb it. Pills can help get around the problem because they take the substance directly into the stomach. "If pills are taken at bedtime, the odour problem is very minor," he said.

The article EM9704 reprinted above is used in Chapter 10 of the STAT 231 Course Materials.