Biomedicine

Certain foods influence diabetes risk

Women who eat little cereal fiber and a lot of carbohydrate-rich foods such as white bread, white rice, potatoes, and sugary soft drinks increase their chance of developing diabetes to 2.5 times the normal risk, new research shows.

The study supports what many researchers have long contended—that a person's diet helps set the stage for adult diabetes, say Jorge Salmerón and several colleagues in Mexico and the United States.

Animal experiments have shown that high fat intake can upset the body's glucose-insulin balance, leading to diabetes. Dietary trials in people have yielded inconsistent results, however.

Some short-term studies have shown that a high-fiber diet reduces the body's demand for insulin, and others indicate that certain carbohydrates substantially raise the demand. Few long-term follow-up studies have examined the link between diet and diabetes.

Researchers at the Harvard School of Public Health and Brigham and Women's Hospital, both in Boston, and the Instituto Mexicano del Seguro Social in Mexico City drew on data from participants in the 20-year-old Nurses' Health Study, a long-term look at the health of 121,000 women.

The latest analysis, in the Feb. 12 JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, reported on more than 65,000 of the nurses, who were asked to complete a detailed dietary questionnaire in 1986. None of the women had heart disease, cancer, or diabetes at that time.

Within the next 6 years, however, 915 of them developed diabetes.

After accounting for the influence of other risk factors—including smoking, age, family history, and alcohol use—the researchers concluded that a diet rich in carbohydrates and lacking in fiber increases diabetes risk. —*S.S.*

Stubborn digitalis debate continues

For 200 years, doctors have argued about the value of a commonly used heart medicine, digitalis. Advocates of the drug have praised its ability to lessen the symptoms of heart failure and allow afflicted individuals to lead relatively normal lives. Critics have argued that the drug can be toxic and should be avoided.

To resolve the dispute, the Digitalis Investigation Group, made up of doctors at 302 medical centers across the United States and Canada, conducted the largest carefully controlled trial of digitalis in heart patients. The results appear in the Feb. 20 NEW ENGLAND JOURNAL OF MEDICINE.

In the 7,000-patient trial, digitalis reduced the risk of hospitalization for heart failure by 8 percent. The drug was effective for at least 4 years. However, it did not reduce the risk of death from heart failure, and significantly more of the patients who took digitalis died of heart rhythm disturbances, report Richard Gorlin of Mount Sinai Medical Center in New York and his colleagues.

Moreover, Milton Packer of Columbia University's College of Physicians and Surgeons observes in an accompanying commentary, the reduced need for hospitalization, "though significant, is so small that physicians would avoid only 9 hospitalizations by treating 1,000 patients with digitalis for 1 year."

Although the trial may not end the controversy over the drug's benefits, Packer says, it is likely to make digitalis a second-tier drug. As such, it would be prescribed only if symptoms persisted after the use of such drugs as angiotensin-converting enzyme inhibitors and beta blockers, which reduce the risk of hospitalization and death.

Packer says these newer drugs will eventually supplant digitalis. "This evolutionary change, more than any immediate effect of the new study, will finally bring the controversy over the use of [digitalis] to an end." —*S.S.*

Answers to Anniversary Crossword

Congratulations!

The first five readers to send in a correctly completed 75th anniversary crossword puzzle were:

- Janet Kofoed of Drexel Hill, Pa.,
- Cynthia Felch of South Bend, Ind.,
- Leon Harkleroad of Ithaca, N.Y.,
- Tony Woodville of Hico, Texas, and
- Cecily Sharko of Ridgewood, N.J.

Each will receive a SCIENCE NEWS anniversary mug.