Editorials examine the bulk of the evidence

Baron and beans may help keep you regular, but don’t count on them to protect you against colon cancer. Despite more than three decades of studies on dietary fiber and its relationship to colon cancer, the connection between the two remains ambiguous. Dr. John Baron, a DMS epidemiologist, explained why in a December editorial in the Journal of the American Medical Association (JAMA).

“Part of the problem is dietary fiber itself,” wrote Baron, who is just one of several DMS faculty members recently invited to write an editorial for a top journal. He studies the effects of nutritional interventions on cancer in the large bowel.

Intake: “Although the term fiber suggests a single entity,” Baron explained in his JAMA editorial, “fiber actually represents a group of plant products that may have very different properties. Measuring dietary fiber intake is as uninformative as knowing that a patient with pneumonia took ‘some antibiotic or other,’” he wrote.

In many studies, fibers are categorized by the foods that contain them, says Baron, such as cereal fiber, fruit fiber, or vegetable fiber. A more helpful strategy, he argues, would be to categorize fibers as either soluble (found often in fruits and vegetables) or insoluble (found in some grains). “Insoluble fibers have the stool-bulking effect that is often associated in the public mind with fiber,” Baron wrote, “but soluble fibers typically do not have this effect because they are readily broken down in the large bowel.”

Yet even in studies that do distinguish between insoluble and soluble fibers, the cumulative picture is still murky. For example, in some animal studies insoluble fiber has been shown to be protective, but in some human studies it seems to have no effect at all. Instead, soluble fiber has been associated with a lower risk of colon cancer. As Baron explained in his summary, “The relationship between intake of dietary fibers and colorectal cancer risk has depended on the type of fiber under discussion and the research design used.”

Just over a page long, Baron’s editorial provides a concise but comprehensive overview of what is known about fiber and its relationship to colon cancer. It also reviews a large study on fiber and colorectal cancer published in the same issue of JAMA. That study, from the Harvard School of Public Health, suggests that colon cancer may be a “fiber deficiency disease,” such that modest fiber intake is sufficient to prevent increased risk. But the study found no protective effect in individuals who ate the most fiber. Although Baron described the study as providing “valuable help,” he also pointed out its many limitations—including the fact that it did not distinguish between soluble and insoluble fiber.

Touchstones: Summaries like Baron’s can be important touchstones for researchers and the public, so to be invited by a journal to write an editorial is a significant honor.

At least five other members of the DMS faculty contributed editorials to prominent journals during 2005: Dr. Richard Comi on two new diabetes treatments to the Annals of Internal Medicine; Dr. Jack Cronenwett on endovascular aneurysm repair to the Lancet; Dr. Matthew Friedman on veterans’ mental health to the New England Journal of Medicine; Dr. James AuBuchon on radiolabeled red blood cells to Transfusion; and Dr. Michael Simons on angiogenesis to the Journal of the American College of Cardiology.

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