TWO STUDIES FIND HIGH-FIBER DIET LOWERS COLON CANCER RISK

Two new studies suggest dietary fiber intake is inversely related to the incidence of colon adenomas and cancer. The findings are intriguing because several recent, well-conducted studies found no such link. The new studies are reported in *The Lancet* (2003;361:1491–1495 and 1496–1501).

In the first study, Ulrike Peters, PhD, and colleagues from the National Cancer Institute and from several centers participating in the Prostate, Lung, Colorectal, and Ovarian (PLCO) Screening Trial examined the relationship between fiber in the diet and the risk of colorectal adenomas. This case-control study of over 38,000 subjects compared results from food frequency questionnaires with those of flexible sigmoidoscopy examinations done at the time of entry into the PLCO trial.

People who had the highest amounts of fiber in their diets (36 grams a day or more) had the lowest incidence of colon adenomas. Their risk of having an adenoma detected by sigmoidoscopy was 27% less than that of the people who ate the least amount of fiber (12 grams a day or less). When specific sources of fiber were considered, fiber from fruits and from grains/cereals was significantly associated with lower adenoma risk, but surprisingly, fiber from vegetables and legumes was not.

The second study was reported by Sheila Bingham, PhD, of the UK Medical Research Council and colleagues from several centers participating in the European Prospective Investigation into Cancer and Nutrition (EPIC). This prospective cohort study compared the dietary habits of more than a half-million people in 10 countries with colorectal cancer incidence. They found that people who ate the most fiber (those with total fiber from food sources averaging 33 grams a day) had a 25% lower incidence of colorectal cancer than those who ate the least fiber (averaging about 12 grams a day). After statistically correcting for differences in dietary assessment methods between countries, the investigators estimated that populations with low average fiber consumption could reduce colorectal cancer incidence by 40% by doubling their fiber intake.

On the other hand, neither a high fiber dietary intervention nor fiber supplements decreased the risk of adenoma recurrence in two recent randomized clinical trials.
And several large US cohort studies (the Nurses’ Health Study and the Health Professionals Follow-Up Study) found no beneficial association between fiber consumption and colon cancer risk, or only a very weak one. Studies from Finland and Sweden also found no protective effect from fiber.

So, why the apparent confusion among these large studies conducted by respected teams of researchers? “Fiber intake is correlated with other healthy components of a plant-based diet and it’s hard to disentangle what the responsible factor or factors might be because they’re so closely tied,” said Marji McCullough, PhD, a nutritional epidemiologist with the American Cancer Society (ACS). For instance, McCullough explains, many high-fiber foods also contain folate, other vitamins, and myriad phytochemicals that may be protective. And many people who consume a high-fiber diet are also likely to eat less red meat, drink less alcohol, smoke less, and get regular exercise— all healthy behaviors that can reduce cancer risk. One reason for different conclusions among these studies is differences in the extent to which investigators attempted to control for these confounding dietary and other lifestyle factors.

“We just have to be hesitant to attribute any association with a particular nutrient unless we’re really sure and it’s been shown consistently and across different study designs,” McCullough said. “We don’t want people to start taking fiber supplements [based on this research] because previous studies have shown that certain types of fiber may even increase the risk of polyps.”

In an editorial commentary published in the same issue of The Lancet, Lynette R. Ferguson, MSc, DPhil, and Phillip J. Harris, MA, PhD, of the University of Auckland, New Zealand, outline several additional explanations for the variable results of studies into this subject. These include regional and ethnic differences in the ranges of fiber intake in different populations, and in the source and chemical composition of their dietary fiber. They also suggest that “A final consideration is that dietary fiber is not itself protective but merely acting as a marker for the intake of plant foods. Over recent years, much information has accumulated indicating that a vast range of components in the contents of plant cells can protect against cancer.”

Given this uncertainty regarding the reasons for inconsistency among published studies on fiber and cancer risk, and as to whether fiber itself is protective, how should clinicians respond to their patients’ questions on this issue? Fortunately, the answer to this question is quite clear. According to Ferguson and Harris, “Whatever the reasons for the results reported in these two studies (PLCO and EPIC), eating a diet rich in plant foods, in the form of fruit, vegetables, and whole-grain cereals, probably remains the best option for reducing the risk of colon cancer, and for more general health protection.”

The value of hospice care in improving symptom management, quality of life, and satisfaction with care at the end of life has been shown in several studies. However, data indicate that most people with advanced cancer likely to benefit from hospice care do not utilize hospice services, and those who do typically begin hospice care too close to the time of death to receive the maximum benefits of this care. To improve quality of life for people dying of cancer, it is therefore important to understand factors that influence decisions about whether and when to receive hospice care.

A recent report in JAMA (2003;289:2238–2245) demonstrates that patients dying of cancer who are enrolled in Medicare Managed Care plans (MMC) are more likely to receive hospice care than are those with fee-for-service Medicare insurance (MFFS). Ellen P. McCarthy, PhD, MPH, and colleagues from Harvard Medical School and the