



Nutrition for Family Living

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May, 2000 Topics

New Interactive Healthy Eating Index Online
Fat, Fiber, and Colon Cancer

New Interactive Healthy Eating Index Online

On April 13th, Agriculture Secretary Dan Glickman announced the release of the Interactive Healthy Eating Index (IHEI), a new on-line dietary assessment tool that provides a quick measure of a person's diet quality.

Designed for use by the general public and nutrition professionals, the IHEI shows internet users how well they are meeting current dietary recommendations. The index is based on 10 aspects of a healthy diet for persons 2 years of age and older, as defined by the Dietary Guidelines for Americans and USDA's Food Guide Pyramid. These 10 aspects are:

<u>Intake from the:</u>	<u>Intake of:</u>
Grain group	Total fat
Vegetable group	Saturated fat
Fruit group	Cholesterol
Milk group	Sodium
Meat group	Variety of foods

Consumers can analyze their dietary status and maintain a cumulative record so improvements in their diet can be observed. Nutrition messages targeted to the user's score provide helpful information on diet and health with links to websites for those individuals with specific health concerns.

The tool is fairly easy to use, but it can take 20 minutes or more to input a day's intake. For each food/drink entered, the user is asked to select the closest match from a list of similar foods/drinks; for example, entering "sandwich" produces a list of 97 items to choose from. In addition, the user must specify a serving size for each food/drink item. While this takes time, it does help to produce a reasonably accurate report on the quality of the user's diet.

Results can be viewed a number of different ways, including:

- A food guide pyramid with groups that reflect the user's intake; for example, if the person ate less fruit than recommended, the fruit group would look very small in the pyramid.
- A table that compares the user's intake of individual nutrients to the RDA for those nutrients.
- A comparison of the person's Healthy Eating Index (HEI) score to the national average, as a total and for each of the 10 aspects of a healthy diet. The HEI score is out of 10 possible points for each of the aspects, or a total score out of 100. (A "good" diet is a total score over 80; 51-80 = "needs improvement"; and <51 = "poor." The national average is 62.4.

This tool will not be very useful for short or single-session nutrition education programs. However, reports generated by the IHEI program may be useful for self-study or multi-session classes. You may also want to recommend this resource to people who request a program that they can use to evaluate their own diets.

The IHEI is available at the following web address: www.usda.gov/cnpp/.



Fat, Fiber, and Colon Cancer

Evidence about the roles of fat and fiber in the development of colon cancer is inconsistent. Some studies support an association between high-fat, low-fiber diets and colon cancer, while other studies do not support this association. In the April 20, 2000 *New England Journal of Medicine*, two groups of researchers reported results that show colon cancer is not linked to dietary fat and fiber. The National Cancer Institute (a part of the National Institutes of Health) funded both studies.

The first study reports results from the Polyp Prevention Trial, a large, multicenter, randomized, clinical trial.¹ The study involved 2079 men and women, age 35 and older, who had already had at least one adenoma (precancerous growth on the inner wall of the colon or rectum) removed within 6 months prior to being recruited into the study. The average age of participants was 61 years old. Researchers gave half the study participants a diet that was low in fat (20% total calories), high in fiber (18 grams per 1000 calories), and high in fruits/vegetables (5-8 servings per day). They also received nutritional counseling on diet and behavior modification. The remaining participants were given a brochure on healthy eating and assigned to follow their usual diet. At the end of four years, there was no difference in the recurrence of adenomas between groups. In the lowfat, high fiber, high fruits and vegetables group, 39.7% of participants had at least one recurrent adenoma, and in the brochure group it was 39.5%. In addition, there was no difference in the average number of recurrent adenomas between groups – 1.85 and 1.84 respectively.

The second study reports results from the Wheat Bran Fiber Study, also a large, multicenter, randomized clinical trial.² The study involved 1429 men and women, ages 40-80, who had already had at least one adenoma removed within 3 months prior to being recruited into the study. The average age of participants was 66 years old. Researchers supplemented the diet of half of the participants with 13.5 grams of wheat fiber per day, and supplemented the other half of the participants 2 grams of wheat fiber per day. The wheat fiber was given in the form of cereals and bars. At the end of 3 years, at least one recurrent adenoma had been identified in 47% of the high-fiber group and in 51.2% of the low-fiber group. The difference was not statistically significant.

These well-designed studies have concluded that reducing dietary fat and increasing dietary fiber through whole grains, fruits, and vegetables does not reduce the risk of recurrent adenomas in men and women over age 35. The studies are supported by recent longer-term studies looking at diet and colon cancer, like the Nurses' Health Study.³ Despite these findings, the authors of both studies caution that current dietary advice to eat a lowfat, high fiber diet with plenty of fruits and vegetables should continue to be recommended, because of the benefits of this type of diet on the improvement of overall health and reduction of chronic diseases like heart disease, hypertension, and diabetes.

Bottom line: There is mounting evidence which suggests that reducing dietary fat and increasing dietary fiber through whole grains, fruits and vegetables does not reduce the recurrence of adenomas, nor the occurrence of colon cancer in people without a history of adenomas. Because we have no evidence that these dietary changes are harmful, and because we know that these dietary changes do decrease risk of other diseases, nutrition educators should continue to recommend a diet with plenty of fruits, vegetables, and grains for overall health.

References

- 1) Schatzkin A et al. Lack of effect of a low-fat, high-fiber diet on the recurrence of colorectal adenomas. *N Engl J Med* 2000; 342:1149-55.
- 2) Alberts D et al. Lack of effect of a high-fiber cereal supplement on the recurrence of colorectal adenomas. *N Engl J Med* 2000; 342:1156-62.
- 3) Fuchs CS et al. Dietary fiber and risk of colorectal cancer and adenoma in women. *N Engl J Med* 1999; 340:169-76. For a summary of this study, see the February 1999 issue of *Nutrition for Family Living*, available at <http://www.uwex.edu/ces/wnep/p3/mmpdfs/9902.pdf>

For additional information on these two most recent studies and their implications, visit the National Cancer Institute Website at http://rex.nci.nih.gov/massmedia/pressreleases/polyp_prev_diet.html and http://rex.nci.nih.gov/massmedia/pressreleases/polyp_prev_qa.html