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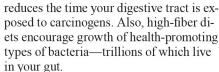
5 Steps to Cut Colon Cancer Risk

Slash your colon cancer risk with lifestyle choices: healthy weight, exercise, and a diet rich in fiber and plant foods, and low in red meat.

A bout 50 percent of colorectal cancer, the third most common cancer among men and women in the U.S., can be prevented through daily diet, physical activity and weight management, making it one of our most preventable cancers.

Five specific steps toward that goal come from an evidence-based report on reducing risk of colorectal cancer released by the American Institute for Cancer Research (AICR) and World Cancer Research Fund (WCRF) as part of their Continuous Update Project (CUP). Here are those strategies, as well as some steps likely to offer additional protection:

Fill up on foods with fiber. Each 10 grams of dietary fiber is linked with a 10 percent lower risk of colorectal cancer, according to an analysis detailed in the November 10, 2011 *British Medical Journal*. Whole grains stand out as particularly linked to lower risk. Fiber adds bulk and



• Focus on whole plant foods—vegetables, fruits, whole grains, beans, and nuts—in order to reach levels of fiber linked with lowest risk. Whole plant foods, which provide fiber along with protective nutrients and phytochemicals, are best. Although you can get some of these benefits from fiber supplements or refined grains with added fiber, whole plant foods provide fiber along with protective nutrients and phytochemicals.

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5 Lifestyle Steps to Fight Colorectal Cancer (continued from page 1)

- Add beans or tofu to soups, stews and stirfries
- Start eating whole grain bread and pasta, then expand to a variety of unprocessed, cooked grains such as bulgur, whole wheat couscous, quinoa, and whole-grain polenta.
- Add some nuts or seeds (including ground flaxseed) to your morning cereal or smoothie.

2 Cut calories if you're carrying extra weight, especially if it's around your

waist. Excess body fat secretes inflammation-inducing proteins and creates cancer-promoting changes in hormones like insulin and growth factors. Each one-unit increase in body mass index (BMI), which corresponds to five to seven pounds for most adults, is linked with a two percent increase in colorectal cancer risk. Fat deep in the abdomen poses the most risk. Each one-inch increase in waist links to a five percent increase in colon cancer risk. The key: don't simply add healthy foods; swap them for less healthy foods to boost nutrition and keep calories the same or lower.

- Sip water, seltzer, tea or coffee instead of soda or sugary tea and coffee specialty drinks
- If you're not hungry, relax with a walk, meditation, music or a book instead of food.
- If you drink alcohol, limit it to no more than one (for women) or two (for men) drinks a day. Alcohol is metabolized to compounds that damage cells and can lead to cancer. Based on similar alcohol content, one standard drink is considered 12 ounces (oz) beer, 5 ozs wine, 1.5 ozs 80-proof liquor or 1 oz 100-proof liquor. For each one standard drink consumed daily, colorectal cancer risk increases 14 percent, according to analysis of multiple studies. Cancer risk is linked with alcohol content. not choice of beverage.
- Watch your glass size. With today's larger glasses, what you may consider one drink may be more.
- Choose seltzer flavored with fruit essence, or add slices of fruit to club soda, for a more enticing option than plain water.
- Limit red meat (beef, lamb and pork) and avoid processed meat. Each 3½-oz portion of red meat eaten daily increases colorectal cancer risk 17 percent, according to CUP analysis published in *PLoS ONE* in June, 2011. Processed meat is even more strongly linked with risk; each portion half

that size eaten daily increases risk 18 percent. Recommendations include limiting red meat, even if lean, to no more than 18 ounces a week and to save processed meat for occasional consumption. By swapping a couple of fish or seafood meals per week for red meat, you reduce colon cancer risk while promoting overall health.

- Add a few more meatless meals to your week, making sure to include beans, lentils or some other source of protein.
- Get moving. Even if you don't lose weight, a little extra activity every day can stop or slow weight gain. What's more, regular physical activity fights cancer development directly by reducing elevated insulin levels and reducing inflammation regardless of weight. Each 30 minutes of daily recreational physical activity is linked with an 11 percent decrease in colorectal cancer risk.
- You needn't get the recommended 30 minutes or more of daily physical activity all at once. See how many 10-minute blocks of movement you can include throughout your day.
- Get up just a little earlier and start the day with a 10-minute walk.
- Get off public transit one stop early, walk 10 minutes at lunch or between projects, head outside or turn on your favorite tunes and dance before or after dinner.



Spice it Up!

Spices, including turmeric, cumin, cloves and black pepper, contain compounds that seem to have anticancer properties, says John Milner, PhD, Director of Human Nutrition at the U.S. Department of Agriculture. In discussing the potential of spices to affect risk of cancer, "Spices could inhibit the growth of tumors in many ways: by changing activation of carcinogens, as well as cell signaling that regulates cell growth and destruction of abnormal cells," Milner says. Further research is needed to understand the impact that typical dietary use of spices provides.

Your Overall Eating Pattern Matters Most

It may be your style of eating—day in and day out—that affects cancer risk most. The DASH (Dietary Approaches to Stop Hypertension) diet, high in vegetables and fruits with an emphasis on lowfat dairy and whole grains, is one eating pattern linked with lower risk of colorectal cancer. In a study published in the American Journal of Clinical Nutrition in July 2013, people whose diets most closely followed this pattern had about a 20 percent lower risk of colorectal cancer than those whose eating habits were least like it. Paige Miller, PhD, MPH, RD, a fellow at the National Cancer Institute, and now Senior Epidemiologist with Exponent, Inc. and lead author of the study, says that analyzing dietary patterns "recognizes that people do not consume foods and nutrients in isolation, but rather combinations of foods that contain multiple nutrients and other dietary components that may act synergistically."

When it comes to the cancer protection from an eating pattern built around a wide variety of plant foods, "The whole is greater than the sum of its parts."

Beyond the five steps. While other lifestyle strategies may not have as much research support as our top five, some also show colon-cancer fighting potential.

- Garlic. This plant food contains allyl sulfur compounds that, in laboratory studies, inhibit colon tumor formation. Population studies tend to link regular garlic consumption with lower colorectal cancer risk (Annals of Oncology, April 2013).
- Milk and calcium. Consuming milk probably decreases colorectal cancer risk, according to a study in the January 2012
 Annals of Oncology. Milk could be protective in multiple ways; calcium's effects on controlling cell growth and reproduction appear significant.
- Vegetables and fruits. Eating more vegetables and fruits may modestly reduce colon cancer risk. Aim for variety to get the widest array of protective compounds. Include cruciferous vegetables regularly for isothiocyanates that may intervene directly in cancer development (Food & Function, October 2011). Consume deep green, orange, and red vegetables and fruits for beta-carotene and other carotenoids linked with reduced risk of the adenomas (benign polyps) from which most colon cancer begins (Cancer Causes & Control, April 2013).
 - Karen Collins, MS, RDN, CDN