Dietary Mindfulness Can Reduce the Risk of Colorectal Cancer

50% of colorectal cancer cases can be prevented by dietary and lifestyle modifications.

January 3, 2022 By Colon Cancer Foundation

A recently conducted systematic electronic search investigated keywords relating to colorectal cancer (CRC) and nutrition to define the association between diet and CRC. We summarize their findings here.

What Can Change in My Dietary Habits?

According to the World Cancer Research Fund and American Institute of Cancer Research, 50% of CRC cases can be prevented by dietary and lifestyle modifications. While previous research studies concluded that high-fat and high-calorie diets had a carcinogenic effect, new research is showing that there is a specific role for nutrients such as fiber, vitamins, and minerals on intestinal metabolism. Consuming whole grains, dietary fiber, and dairy products decreases the risk of CRC, while consuming red and processed meats and fats increases the risk of CRC. Dietary interventions have increasingly been used over the past decade to reduce the occurrence and progression of CRC.

While there are some dietary habits that can reduce the risk of CRC, others can increase that risk. High-risk diets include those with red and processed meats, and diets made up of high fats and high carbohydrates.

- Processed meats are categorized as Group 1, meaning they are carcinogenic

- Red meats are categorized as Group 2A, meaning they are most likely to be carcinogenic

Growth hormones in red and processed meats may be responsible for their carcinogenic effects. It is recommended that individuals limit the intake of red meats to 12–18 oz each day, and processed meats should be completely avoided. Many components of our diet may help prevent CRC: dietary fiber intake, for example, is inversely related to CRC development. Vitamins and minerals also play an important role in CRC prevention.

- Vitamins E and C have been shown to have a direct tumor suppressing effect on CRC

- Vitamin D has been shown to reduce the risk of developing CRC

- Calcium and selenium have also been shown to have an inverse effect on CRC

However, more research is needed to fully understand the role that fiber, vitamins, calcium, and selenium play in CRC development.

There has also been significant interest in the role of gut microbiota (the bacteria in our gut) on CRC development. Research findings so far indicate that the microbiome and microbial metabolite health is pivotal to the prevention of several diseases such as CRC. The Mediterranean diet has positive effects on protecting individuals against CRC. Thus, nutritional therapies that are based on epigenetically active nutrients are likely to represent a good research direction.

In summary, dietary factors have a strong influence on CRC development. Consuming whole grains, dietary fiber, and dairy products can reduce the risk of CRC. Evidence also points to a role for vitamins in preventing CRC development. Ultimately, it is important to remember that future dietary recommendations will need to consider each person individually—looking at their cultural identities, risk factors, and the interaction between nutrients and the microbiota.

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This article was originally published on December 20, 2021, by the Colon Cancer Foundation. It is republished by permission.
