Journal of Cancer Diagnosis
ISSN: 2476-2253

Mini Review Open Access

Cancer Prevention through Diet

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Abstract

A nutritious diet has been demonstrated in research to reduce your chance of developing some malignancies. Additionally, it may aid in the prevention of other diseases like heart disease, osteoporosis and Type 2 diabetes. A patient can keep a healthy weight by eating well, which is one of its advantages. Obese or overweight individuals run the risk of developing additional health issues.

Keywords: Malignancies; Prevention; Osteoporosis; Type 2 diabetes; Heart disease

Introduction

Cancer Risk Decreased by Diet

Diet and health is currently the subject of study. Researchers are still looking into whether specific meals and nutrients can lower the risk of developing cancer. Results are not constant and vary from person to person. The items below could be useful [1]. Your risk of oral, oesophageal, stomach and colon cancer may be reduced by eating more fruits and vegetables. Cancer prevention may come from the Mediterranean diet. This diet emphasises items like fish, fruits and vegetables, beans, whole grains, and legumes. Your risk of colorectal cancer may be reduced by calcium and vitamin D. The antioxidant folic acid may prevent cancer.

Measures for better diet

A healthy, well-balanced diet can lower your risk of developing health issues. This consists of a selection of fruits, vegetables, whole grains, legumes (dry beans and peas), nuts, and seeds. Eat lean meats, fish, poultry, dairy products with little or no fat, and fowl in moderation for protein [2]. A balanced diet needs to contain some fats. Your risk of sickness may be reduced. Your total cholesterol level may be reduced by "good" fats. Suitable fats consist of: a monounsaturated fat. Found in oils made from canola, olive, avocado, peanut, and other nuts. Found in avocados, seeds, nuts, olives, legumes, olive oil, and nut butters.

Polyunsaturated fats Located in vegetable oils such as corn, sunflower, and safflower. Additionally present in certain grains, legumes, nuts, and seeds as well as in corn, soybeans, and other crops [3]. Fats with omega-3s found in "oily" seafood, including mackerel, sardines, salmon, and herring. Likewise present in walnuts, flaxseed oil, and flaxseed seeds. Fish contains omega-3 fatty acids that are very beneficial to your health.

As "bad" fats can raise your cholesterol, you should avoid or limit them. These comprise: A saturated fat. Found in chocolate, pastries, pies, cakes, dairy products including milk and butter, and animal fat. Fats that are trans. found in a variety of meals, including fried foods, microwave popcorn, pancake mix, ice cream, frozen foods (like pizza), and commercially baked goods.

Phytochemicals

Plant-based diets contain compounds called phytochemicals. Some scientists think you can lower your risk of developing cancer. They might also promote good heart, bone, and brain health. The phytochemicals vitamin C and folic acid are examples of common kinds [4]. Isoflavones, flavonoids, phytosterols, and other kinds are less prevalent. Suitable sources of phytochemicals consist of: (1) Broccoli, (2) Cauliflower, (3) Carrots, (4) Tomatoes, (5) Grapefruit, (6) Garlic, (7) Peas, (8) Beans, (9) Whole grains, (10) Nuts, (11) Flaxseed and (12) Things to consider.

Use of Herbal Supplements as Food

Claims that the newest dietary supplement will prevent or treat cancer are likely to excite people. These marketing claims, however, are unlikely to have been supported by evidence. There is no evidence to support the claim that multivitamins can help lower cancer risk [5]. Before introducing vitamins or herbs to your diet, consult your doctor. In fact, making drastic dietary changes can increase your risk of developing new health issues.

Taking vitamin E or beta-carotene to prevent cancer is not advised by the U.S. Preventive Services Task Force (USPSTF) or the American Academy of Family Physicians (AAFP). Never take beta-carotene if you smoke or have a high risk of developing lung cancer. Lung cancer risk may be raised by it.

Food Increases the Level of Cancer

Research indicates that certain meals can raise your chance of developing cancer even though there isn't conclusive proof that they do. They consist of the following: Meats that have been heavily processed, such as bologna, ham, bacon, sausage, and lunch meats [6]. If you consume these too frequently, it may increase your risk of colorectal cancer. Food that has undergone extensive processing such as TV dinners boxed or bagged meals and fast food meals.

Foods with a lot of saturated fats can make you gain weight. The risk of developing several different types of cancer rises with weight. Alcohol can raise your risk of developing liver, breast, colorectal, oral, throat and oesophageal cancer. Men should not consume more than 2 drinks each day [7]. One drink per day is the maximum for women. A 12-ounce bottle of beer (4.5% alcohol), a 5-ounce glass of wine (12.9% alcohol), or 1.5 ounces of distilled spirits at 80-proof are all considered one drink.

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Received: 30-Aug-2022, Manuscript No: JCD-22-75785, **Editor assigned:** 01-Sep-2022, PreQC No: JCD-22-75785(PQ), **Reviewed:** 15-Sep-2022, QC No: JCD-22-75785, **Revised:** 20-Sep-2022, Manuscript No: JCD-22-75785(R), **Published:** 27-Sep-2022, DOI: 10.4172/2476-2253.1000158

Citation: Yang X (2022) Cancer Prevention through Diet. J Cancer Diagn 6: 158.

An Italian cohort of 8,984 women was followed for an average of 9.5 years, with 207 incident cases of breast cancer during that time. Their diets were analyzed by patterns -salad vegetables (raw vegetables and olive oil), western (potatoes, red meat, eggs and butter), canteen (pasta and tomato sauce), and prudent (cooked vegetables, pulses, and fish). Only the salad vegetable diet pattern was associated with a significantly lower risk of breast cancer, about 35% lower. For women of normal weight (BMI <25) the salad vegetable pattern was even more protective, about a 61% decreased risk of breast cancer [8]. The overall dietary pattern does make a very significant difference.

In US-based studies the "prudent" diet has been shown to be protective for colon cancer, while the "western" diet has been shown to be detrimental. The "western" dietary pattern, with its higher intakes of red meat and processed meats, sweets and desserts, French fries, and refined grains, was associated with a 46% increase relative risk of colon cancer in the Nurses' Health Study [9, 10]. A two-fold increase in relative risk of colon cancer associated with a "western" dietary pattern, and a 35–40% decrease in relative risk associated with the "prudent" pattern, especially among those diagnosed at an earlier age (<67 years old). The "salad vegetable" pattern is still more likely to be protective compared to the prudent dietary pattern, but this pattern did not exist in this study population.

In an analysis of the colon cancer data from the Health Professionals Follow-up Study, found that there was a 71% decrease in colon cancer risk when men with none of six established risk factors were compared to men with at least one of these risk factors (obesity, physical inactivity, alcohol consumption, early adulthood cigarette smoking, red meat consumption, and low intake of folic acid from supplements) [11]. So, if all men had the same health profile as these healthier 3% of the study population, colon cancer rates would have been only 29% of what they measured.

A plant-based dietary pattern in being currently tested in the Women's healthy Eating and Living (WHEL) study. About 3,000 women who were treated for an early stage of breast cancer have been randomized into two groups. The dietary goals for the test group of the study are 5 servings of vegetables, 16 oz of vegetable juice, 3 servings of fruit, 30 g of fiber, and <20% of energy from fat [12]. No guidelines were given for animal product intake, and initial results seem to confirm, since there were no changes in body weight, total cholesterol, or LDL cholesterol [181], which would be affected by animal protein intake. However, over the first year of follow-up vegetable intake did increase to seven servings/day, fruit intake increased to 3.9 servings/day energy from fat decreased from 28% to 23%. Also, plasma carotenoid concentrations increased significantly in the intervention group, but not in the control group [13, 14]. α-Carotene increased 223%, β-carotene increased 87%, lutein increase 29%, and lycopene increased 17% [182], indicating that a substantial dietary change had been made by these women. It will be very interesting to follow the results of this study.

Treatment

If you believe you may be at risk for cancer or other health issues, speak with your doctor [15]. They can suggest a diet for you or suggest a dietician.

Conclusion

In a viewpoint published in this journal over half a century ago, a sitting U.S. senator described the need for "preventive geriatrics". He called for "a more comprehensive effort to identify and control" the chronic conditions common in later life, including cancer. Given the rapid growth in the population of older adults in the United States, the need for cancer prevention is even greater today than it was 50 years ago. Primary cancer prevention has long been regarded as an elusive goal, particularly for older adults. This may no longer be the case. Past successes in public health point to opportunities to increase healthy life expectancy (Frieden, 2015). A comprehensive approach to cancer prevention at older ages would lower exposures to known causes of cancer, promote healthy social and physical environments, expand the appropriate use of clinical preventive services, and engage older adults in these efforts. The collection of papers in this supplement call for a comprehensive approach to prevention, coupled with an intensified application of evidence-based measures and best practices to reduce cancer risk in the growing population of older adults, and provide innovative insights for exciting new directions in research and practice.

Conflict of Interest

The author has no conflict of interest.

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