

PHYTO NUTRIENT PROTECTION FROM THE CANCERS WE FEAR MOST

Two decades of research and more than 200 studies show that diets rich in cruciferous vegetables, such as broccoli, radishes, and watercress, protect us against certain cancers, including the two cancers we fear most, breast and prostate cancers.

Why are cruciferous vegetables such a potent source of protection? In addition to providing an abundance of vitamins, minerals, and fibre, cruciferous vegetables are loaded with particular types of protector phyto nutrients that we get only from those foods. Two particular phyto nutrients found in cruciferous vegetables, isothiocyanates and indole carbinols, may decrease our risk of developing certain cancers, including breast, prostate, and uterine-lining cancers, as well as lung and digestive tract cancers. Scientists do not yet fully understand how cruciferous vegetables and other plants help prevent cancer, but it is likely that they:

- stimulate enzymes that detoxify cancer-causing agents (called carcinogens) and flush them out of the body.
- prevent the conversion of "good" oestrogen (a hormone correlated with a lower risk for breast cancer) to "bad" oestrogen (correlated with a higher risk).
- neutralise toxins and prevent chemicals from becoming active carcinogens.
- block interaction of carcinogens with cell DNA.
- In addition to reducing cancer risks, research has shown that compounds in cruciferous vegetables may help lower cholesterol, regulate the immune system, and positively influence metabolism.

The Cruciferous Gap

According to the National Cancer Institute, the American Cancer Society, and the National Research Council, we should eat one serving of cruciferous vegetables a day.

In reality, Americans actually eat only one serving of these pungent foods a week, reports the USDA. In contrast, populations who enjoy some of the world's lowest cancer rates, especially of breast and prostate cancers, eat on average eight servings of cruciferous vegetables a week.

The Cutting-Edge of World-wide Cruciferous Research

Golden Neo-Life Diamite's Scientific Advisory Board/Technical Research Advisory Council (SAB/TRAC) participates in the leading edge of global health and nutrition research. Their aggressive effort to translate science into real health benefits has created exceptional products such as Cruciferous Plus. The SAB/TRAC members spent five years researching the health benefits of cruciferous vegetables. Then they looked for the raw materials that would provide the ideal amount of active phyto nutrients found in an optimal serving of cruciferous vegetables. They also added three other health-protecting phyto nutrients from plant extracts. GNLD's Cruciferous Plus™ offers the broadest spectrum of these phyto nutrients with the strongest biological activity available.

Powerful Phyto nutrient Protection

Cruciferous Plus™ is made from all-natural, whole-food concentrates and extracts of broccoli, radish, kale, black and brown mustards, and watercress. Each fresh-smelling tablet provides the density and diversity of the phyto nutrients found in an optimal serving of a wide variety of cruciferous vegetables. The "plus" in Cruciferous Plus™ is other health-promoting phyto nutrients,

including limonene from oranges, chalcones from liquorice root, and isoflavones from soybeans. Research has shown that these three "pluses" also help protect cells from reactions that may lead to breast and prostate cancer. Based in nature and backed by science, Cruciferous Plus™ offers an excellent means of bridging dietary gaps and supplying unique phyto nutrients shown to help protect against the cancers we fear most.

The Key to Maximum Health

Mountains of scientific research show that we can help protect ourselves from disease by eating a well-balanced, healthy diet rich in cruciferous vegetables. Nevertheless, cancer is a frightening thought for many of us. Current statistics indicate that cancer strikes three out of four families and breast and prostate cancers have the highest incidence rates of all. In fact, one in eight women will develop breast cancer and one in six men will develop prostate cancer in their lifetimes. However, we are not helpless.

Take an active role in your peace of mind and long-term health by eating a diet rich in cruciferous vegetables, including broccoli, bok choy, radishes, turnips, and cauliflower, and supplemented with Cruciferous Plus™.

HATE BROCCOLI? IT MAY BE ALL IN THE GENES

Feb 16, 1997

SEATTLE (Reuters) - People who hate broccoli may be genetically predisposed to do so, a panel of researchers said Sunday.

"Taste sensitivities are genetic. Children who are 'super tasters' will not like broccoli or Brussels sprouts no matter what you do," Adam Drewnowski, a researcher from the University of Michigan, said at the annual meeting of the American Association for the Advancement of Science.

People identified as "tasters" can taste a bitter substance called "prop," or 6-n-propylthiouracil, which is found in foods such as broccoli, grapefruit juice and green tea, the researchers said. This may cause these tasters, who are more often women than men, to reject such foods, even though their consumption is associated with a reduced risk of cancer. Other people, non-tasters, do not taste this substance, while a third group, the super tasters, are especially sensitive to bitter flavours.

Tasters or super tasters actually have more taste buds than non-tasters, who make up about one-quarter of the white population of the United States, the researchers said. However, the researchers disagreed on what genetically influenced food preferences meant for health and nutrition.

Drewnowski is studying women with a history of breast cancer with an eye toward finding out if women's status as tasters is a barrier to eating a healthier diet, one rich in foods such as kale and broccoli. "Super tasters will add cream sauce, cheese sauce or butter" to bitter vegetables to make them more palatable, he said, while also increasing their chances of obesity and of developing cancer.

But another researcher on the same panel found that super tasters were more sensitive to the feel of fatty foods in their mouths and tended to avoid fat as well as sweets, which may taste twice as sweet to them.

Laurie Ann Lucchina of the Yale University School of Medicine said her research found that women who were super tasters were likely to be thinner and thus have a lower risk of heart disease, diabetes or cancer than other women.

Reporters challenged the conflicting results, questioning how women who were super tasters could be simultaneously at a higher and a lower risk of developing cancer. "These are preliminary findings," said Linda Bartoshuk, also of the Yale School of Medicine. "There are conflicts in the data that have to be worked out."

Asked whether former President Bush's well-known aversion to broccoli meant he was a super taster, Bartoshuk said, "I've been hoping to test him. There is a real chance he is."

NEW STRATEGY FOR WAR ON CANCER

May 28, 1997

NEW YORK (Reuters) -- In the early 1970s, President Nixon declared war on cancer, but 25 years later, that war is far from over. The good news is that fewer people are dying from cancers of the cervix, uterus, colon, rectum and stomach, and in particular, fewer children are dying of cancer. Yet, the mortality rate from breast and prostate cancer, lymphomas, brain tumours and melanoma are stable or slightly increasing, despite improvements in detection and treatment.

A new plan of attack may be needed in the war on cancer, including a greater emphasis on preventing the disease from occurring in the first place, according to Dr. John Bailar and Heather L. Gornik of the Department of Health Studies at the University of Chicago in Illinois.

"The effect of new treatments for cancer on mortality has been largely disappointing," they reported in this week's issue of *The New England Journal of Medicine*. "The most promising approach to the control of cancer is a national commitment to prevention, with a concomitant rebalancing of the focus and funding of research."

The cancer mortality rate climbed by 6% from the 1970s to 1990s, despite the passage of the National Cancer Act in 1971 to expand cancer research programs. The mortality rate finally plateaued in 1991 at 203 deaths per 100,000 people, and since then has declined by about 1% per year -- mostly due to declining cancer deaths in black males and people younger than 55.

"Some declines are clearly a result of reduced incidence or earlier detection (cancer of the cervix, other cancers of the uterus, and cancers of the colon, rectum and stomach)," Bailar and Gornik wrote. "Similarly, recent changes in mortality from lung cancer are certainly due to changes in smoking patterns over the past few decades." The lung cancer death rate has declined steadily in those under 55, and is beginning to decline in men over 55, but is rising steadily in women over 55 -- increasing fourfold since 1970.

For children, the cancer rate has dropped significantly since 1970, about 50% for all types of cancer. That drop is due to better understanding of cancer and improved treatment -- but because so few children get cancer, the decline has a minimal impact on the cancer death rate overall.

"Hopes for a substantial reduction in mortality by the year 2000 were clearly misplaced," the researchers wrote. While research into cancer treatment should continue, there also should be a greater emphasis on cancer prevention.

Prevention includes everything from finding new ways to help people to quit smoking, to understanding how the diet and genes predispose some individuals to cancer, as well as reducing exposure to carcinogens and improving cancer surveillance.

"In our view, prudence requires a sceptical view of the tacit assumption that marvellous new treatments for cancer are just waiting to be discovered," Bailar and Gornik concluded. "We, like others, earnestly hope that such discoveries can and will be made, but it is now evident that the world-wide cancer research effort should undergo a substantial shift toward efforts to improve prevention."

Source: *The New England Journal of Medicine* (1997; 336:1569-1574)