

On Nutrition: by Helayne Waldman, Ed.D., N.E.

What Nutritionists Do

I am prompted to write today's column in the wake of a heartbreaking diagnosis a dear friend of mine received recently. The hard words to hear were these: glioblastoma multiforme, Stage 4. In English, this is a serious -- a very serious brain tumor.

In a flash there were surgeons, neurosurgeons, neuro-oncologists, radiation oncologists, technicians, phlebotomists and others scurrying around in the treatment onslaught that follows a diagnosis such as this one. Don't get me wrong. I was glad to see so many professionals jump on the case to contribute their expertise, their time and their compassion to my friend's welfare.

But in the rush of opinions, diagnoses, scans, MRIs, prescriptions, and radiation preparations, no one seemed to give a moment's thought as to what my friend puts in her body day in and day out, every day, and how this might help or hurt her chances.

It turns out that when you have a cancer diagnosis, the food you do or don't put in your body can make the difference between survival and demise. It can also help determine how well your system can cope with the deleterious effects of chemotherapy and radiation. This, as I explained to my friend last week, is not magic, and it's not voodoo. It's nutrition. And it's what we do.

Allow me to amplify with a few examples.



Cancer and inflammation

Cancer is aggressive, and sneaky, and tenacious. According to cancer specialist Dr. Jeanne Wallace of Nutrition Solutions, North Logan, Utah it induces your body to pump out noxious inflammatory chemicals to help fuel its growth, create new blood vessels to feed it, and to suppress immune function in order to evade detection. Wallace cites a 2001 study in the *Journal of Cancer Research*, in fact, which reported that "excessive amounts of inflammatory compounds were the strongest predictor of poor outcome for glioma [brain tumor] patients."

What causes levels of inflammatory chemicals in the body to skyrocket? Two bandits stand head and shoulders above all others: sugar, including high fructose corn syrup, and damaged fats.

Numerous studies point to evidence of a direct correlation between high blood sugar levels and cancer cell metabolism. That's because tumors, according to researcher Rossi-Fanelli in the *Journal of Parenteral and Enteral Nutrition* "thrive on glucose." Put another way by scientist M.

Rothkopf, writing in the journal *Nutrition*: "tumors are obligate glucose metabolizers. They are 'sugar feeders.'" In other words, feed yourself ice cream and cookies, and you'll have one very happy tumor on your hands.

Elevated blood sugar levels are also associated with excessive inflammation, which, as we just saw, cancer cells use to enhance their proliferation.

It works in a similar way with fats. Trans fatty acids, in particular, found in fast foods, fried and packaged foods, chips, pastries,, cookies and crackers, are forerunners of a family of inflammatory compounds with "Star Wars" sounding names like PGE2. The presence of high levels of PGE2 is considered bad news for cancer patients. Most Americans consume more of their share of dangerous trans fats at their own peril, and with varying disastrous results. Cancer is just one of them.

Omega 3 fats on the other hand, found in cold water fish, walnuts, and flax seeds tend to reduce inflammation, slowing tumor growth, reducing pain and swelling, and boosting immune competence.

Fruits and vegetables: Cancer fighting foods

Can certain foods actually help fight cancer? Indeed! Dr. Wallace reports that "research presented at the 2001 proceedings of the American Association of Cancer Research found that flavonoids from blueberries effectively kill brain tumor cells in vitro." Does

that mean blueberries cure cancer? Of course not. It's a long way from the test tube to the intestines.

Research continues to be encouraging, however, with some experts sources maintaining proper nutrition can contribute to the prevention of more than half of all cancers. A diet, that is, that is rich in high quality proteins, fats, and fruits and vegetables of all colors.

The "reds," it turns out help protect blood vessels and provide powerful antioxidant protection to tissues. Green leafies provide Vitamin A, an impressive array of phytonutrient, and chlorophyll to help maintain red blood cells during chemotherapy. Citrus fruits, especially the white part of the peel (officially known as the pericarp), appear to reduce the

invasive nature of cancer cells, while cruciferous vegetables may help suppress specific tumor promoting genes.

Mushrooms support immune integrity. The spices ginger and turmeric are natural anti-inflammatory agents. Avocados and bananas provide needed potassium, while tomatoes contain the powerful anti-cancer agent known as lycopene, recently popularized in the mass media. And green tea provides a virtual legion of cancer fighting compounds, helping to slow cancer cell growth, inhibit cancer cell immortality, and suppress inflammation.

Don't misunderstand. I am not claiming that these foods cure cancer. What I am claiming is that

it takes an army to fight a disease as powerful as cancer. A nutritionist's mission is to make sure that the troops we enlist are allies, not enemies.

The fact of the matter is this: you quite literally are what you eat. That's what nutritionists are here to tell the world.

So eat as if your life depended on it. Because it does.

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