curetoday.com
Combining science with humanity,
CURE makes cancer understandable.

WEB EXCLUSIVES

Mixing Supplements with Cancer Therapy

BY CHRISTIE L. CARTER

When a person is first diagnosed with cancer, surveys show a common reaction is to load up on vitamins at the health food store to help reduce the toxic effects of chemotherapy, and perhaps even to potentially help fight the cancer. Unfortunately, overloading on certain dietary supplements may do more harm than good.

Maintaining a healthy diet is important during treatment. For patients unable to do so, doctors and dieticians may recommend dietary supplements, including antioxidants. Though available as supplements, antioxidants are found naturally in many foods and beverages, and some data suggest they help prevent heart disease and cancer by fighting cellular damage caused by free radicals in the body. Free radicals are damaging substances that are produced through the body's normal processes. "Despite people's belief of the benefit of antioxidant therapy, the actual data supporting antioxidants as cancer prevention or during cancer treatment is conflicting and sparse," says Gabriella D'Andrea, MD, a breast cancer medical oncologist at Memorial Sloan-Kettering Cancer Center.

With today's $18-billion supplement industry, the Institute of Medicine released a report in 2005 calling for regulation. Currently, dietary supplements are not held to the same testing and approval requirements of medical drugs. As a result of the Dietary Supplement Health and Education Act, the Food and Drug Administration can only stop the sale of a supplement if the agency proves it is unsafe.

Regardless of your specific situation, Dr. D'Andrea says it's imperative for cancer patients to remember, that contradictory data exist around this issue, and large-scale human trials are needed to provide definitive answers. "It's extremely important for us to learn the effects of antioxidants in either the positive or negative direction because the number of people affected with cancer who are taking supplements is huge. Potentially small impacts may have large ramifications," she says.

While studies exist showing that vitamin C and other antioxidants can protect

cells from the detrimental effects of chemotherapy, other studies show the possibility that the same antioxidants may also protect cancer cells from chemotherapy. In short, dietary supplements—specifically antioxidants—may actually work against chemotherapy's effectiveness. For this reason, many oncologists discourage patients from using supplements during treatment.

Cynthia Thomson, PhD, RD, assistant professor in nutritional sciences at the University of Arizona, says patients must also consider their baseline nutritional status going into chemotherapy when deciding whether to supplement their diet with vitamins. "If you have low intake or serum levels, or even if you're just not appropriately absorbing what you're eating, then to supplement at levels of one to two multivitamins daily is helpful and will likely improve your response to treatment." Thomson says a the white blood cell count of a patient low on antioxidants going into chemotherapy will likely have that count drop faster than normal "potentially causing a delay in therapy because your white count is too low."

Under-nourished patients may also experience more side effects. "If your micronutrient status is poor and as a result, you go into chemotherapy with some baseline fatigue, you may become even more fatigued from treatment than the average person," says Thomson. However, she does caution against levels of supplementation that exceed daily requirements.

So what's the answer for cancer patients trying to balance their nutritional needs during cancer treatment with any possible dangers of taking too many dietary supplements? Drs. Thomson and D'Andrea agree that patients should proceed with caution. "So many patients spend a lot of money on dietary supplements thinking they're doing themselves a service, and others seek advice from people who aren't particularly qualified," D'Andrea says. "As a result, they're taking massive supplements of things they don't understand."

With no cookie-cutter approach to supplements, each situation must be considered independently, and patients should consult their doctor before using supplements. What's good for one person isn't good for everyone and what's appropriate during one aspect of treatment (for example, prior to surgery) isn't necessarily what's right for all parts of treatment (such as during chemotherapy and/or radiation).

Research lags behind the need for answers. "We need to define which chemotherapeutic agents are most likely to interact with antioxidant supplements," says Thomson. But, D'Andrea says, "We're just not there yet."

For information about a variety of dietary supplements, visit www.mskcc.org/aboutherbs. To access a list of supplements that have had their quality verified by the United States Pharmacopeia, visitwww.uspverified.org