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Antioxidant Supplements: Beware of Dangerous Drug Interactions

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Along with growing old comes a wide range of age-related disorders and diseases: everything from poor eyesight and hearing loss to dementia, Parkinson's disease and cancer.

According to Dr. Kedar N. Prasad, Chief Scientific Officer and founder of Premier Micronutrient Corporation, there is a biochemical cause for many impairments associated with old age.

"Oxidative stress, caused by increased production of free radicals, are one of major factors which are common to all diseases: Parkinson's, heart disease, Alzheimer's and so on," Prasad explains.

Another biological factor: chronic inflammation is common to nearly all diseases. The culprits are those nasty free radicals--highly unstable compounds that form when oxygen combines with certain substances. Free radicals can damage the basic structure of cells and thus lead to chronic diseases (notably cancer and heart disease) and accelerate the aging process.

Antioxidants have proven effective in fighting the free radicals. But they are not without their share of controversy.

There are many types of antioxidants, and they do different kinds of work. What marketers of supplements never tell you is that not all of it is good work. Antioxidants can certainly deactivate free radicals in a test tube, but in the human body they can sometimes have the opposite effect—acting as pro-oxidants instead of antioxidants.

As an example, studies show that smokers (those smoking a pack a day or more) who take Beta Carotene or Vitamin A supplements were at a higher risk for developing lung cancer and a higher risk of dying. The study showed 18% more lung cancer and 8% more deaths in male smokers who took 20mg of Beta Carotene.

Why are smoking and Beta Carotene pills a dangerous mix? Beta carotene is oxidized as it inactivates the free radicals from cigarette smoke, and its antioxidant capacity is "used up." In the process, it can turn into a pro-oxidant or form oxidized by-products, particularly if adequate amounts of vitamins C and E aren't present. It's well known that C and E work together to maximize their antioxidant effect. Recent research strongly suggests that these vitamins can also help limit the oxidation of beta carotene so that it won't damage cells. (In fact, any antioxidant can become a pro-oxidant under certain conditions in the body—especially if other antioxidants are lacking, since they protect one another from oxidation.)

Prasad stresses that those who take antioxidant supplements, must use right kind of anti-oxidants in the right dosage and right dose schedule, depending on factors such as their age, and health. "All antioxidants are not the same," he says. "People with diabetes may

need a different formulation than those with Alzheimer's or Parkinson's."

He goes on to say that a variation in 2 or 3 ingredients can make tremendous difference. People on cholesterol lowering drugs, for example, may not be taking antioxidants containing the co-enzyme Q10, but the medication is reducing co-enzyme Q10. For maximum benefit, the person should take an antioxidant supplement made for heart disease patients that contains high levels of coenzyme Q10.

As another example, people with diabetes often suffer complications, such as damage to the kidneys, due to problems with glucose control. If high levels of glucose are present, the body will also have high levels of free radicals. And free radicals-induced damage to tissue causes chronic inflammation – which is responsible for almost all diabetic complications. In other words, it's a vicious cycle.

Lack of knowledge contributes to many people not getting the maximum benefits from antioxidants. "People tend to think all Vitamin E is the same. It's not. You should seek a natural form (d-form), instead of a synthetic (dl -form)form found in some vitamins and supplements."

Prasad also recommends taking a multi- vitamin twice a day, rather than once a day. Most vitamins are not time-released formulas, so if you take it only in the morning, half of the nutritional value is gone by evening. "The body sees much to fluctuation in level of antioxidants. To maintain a constant level, take the same total dose, but divide half and half in evening," he says.

The bottom line: Talk to your doctor regarding the benefits of anti-oxidant supplements and whether they might negatively interact with other medications you are taking.

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