Dear Alice,

Why is beta-carotene dangerous for smokers?

Answer

Dear Reader,

The long-term use of beta-carotene supplements has been linked with certain cancers and an increased risk of mortality in smokers. Smokers who take beta-carotene supplements should pop those pills into the trashcan. But wait! Don't throw out those carrots just yet. Other studies have shown that eating foods rich in beta-carotene doesn't put people at risk of these harmful effects. Actually, diets with lots of fruits and vegetables that are loaded with beta-carotene may reduce the incidence of certain cancers.

Beta-carotene is a fat-soluble substance that is naturally present in many fruits, vegetables, and grains. Your body turns it into vitamin A, which is needed for proper vision, preventing inflammation, and cell growth and differentiation. Vitamin A is also used as an antioxidant, which protects your cells from certain chemical reactions that could otherwise cause damage. In combination with smoking, vitamin A may eventually be inactivated and form other by-products that actually cause more cellular destruction.

It's still unclear as to why the beta-carotene in foods doesn't result in cellular damage in smokers, while smokers who take supplements as low as 20 to 30 milligrams per day over five years seem to have such negative health effects. One theory is that foods with vitamin A usually also have other nutrients and phytochemicals (chemicals from plants) that work together to protect cells and keep the body healthy.

For more information on beta-carotene, check out the National Library of Medicine's MedlinePlus Herbs and Supplements: Beta-carotene.

Alice!

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