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Health Options
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Plant food diet can protect lungs

When was the last time you thought about your lungs and their importance to the quality of your life? Was it after climbing Diamond Head, chasing after a young child, running to the bus, or after the fireworks of New Year's Eve? Maybe you never have lung problems and never stop to think about them very much.

Just last month, the Star Bulletin thought about your lungs and decided to stop accepting advertisements for smoking. Maybe you should think about your lungs too. Much like the heart, they are constantly at work. They can't stop for very long without affecting the rest of the body. Every part of the body is dependent on a steady supply of oxygen extracted from air by the lungs and released into the blood for transport to your body cells.

A steady supply of oxygen is essential to life by playing an important role in extracting the energy from food substances such as carbohydrates and fats. Now, fire depends on oxygen, but unlimited oxygen can allow fire to get out of control. In the body, oxygen also must be controlled or it can damage chromosomes, cell membranes and important proteins in the body.

The body has many complex systems that protect it against oxidative damage. A healthy body is good at managing the metabolic fire of oxygen. Within cells, various enzymes are produced that mop up extra oxygen or stop any runaway damage before it gets out of control. In addition, various nutrients have "antioxidant" functions that protect the body from oxidative damage. These include vitamin C, the beta-carotene form of vitamin A (found in fruits and vegetables), and vitamin E. Also, various other chemical compounds in foods can function as antioxidants. These include various carotenoid compounds (related chemically to beta-carotene) and flavonoids, also found mainly in fruits and vegetables.

Preventing oxidative damage is especially important in the lungs. Smokers, and those affected by second-hand smoke, expose their lungs to substances in tobacco smoke that increase oxidative stress. Smoking increases the vitamin C requirement to handle the increased oxidative stress.

So, should we all be taking high levels of antioxidant vitamin supplements? Although seemingly logical, at least one well-designed study has reported an increased incidence of lung cancer and death in smokers taking beta-carotene supplements. Many studies demonstrate the benefits of eating more fruits and vegetables high in beta-carotene. But the possible value or risk of beta-carotene in supplement form awaits further research.

Modest supplementation with vitamins C and E appears to be safe and possibly beneficial. However, beta-carotene studies indicate some antioxidant supplements may be harmful.

Why might food antioxidants be more protective than those in a dietary supplement form? Many antioxidant nutrients work in concert with each other or with other compounds in foods. When they are provided by themselves in supplements, they may have other effects. Therefore, using a concentrated pill form of antioxidants may not have the same protective benefits derived from foods and may even be harmful.

So what is the best way to protect your lungs from oxidative damage? Eat plenty of fruits, vegetables, beans and grains.

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