



Some nutrients can increase risk for lung cancer

There's no question that smoking cigarettes is unhealthy. If you can't kick the habit, however, you may want to rethink what dietary supplements you take each day.

A new study led by Jessie Satia, PhD, suggests that supplements that contain some of the same nutrients found in fruits and vegetables can increase the risk for developing lung cancer in certain people, especially smokers.

Satia, an associate professor of epidemiology and nutrition in the UNC Gillings School of Global Public Health and the UNC School of Medicine, led a team of researchers at UNC and the University of Washington in Seattle. They used questionnaires to examine dietary supplement use among more than 77,000 western Washington state residents between the ages of 50 and 76. Participants were asked about their health history, risk factors and use of supplements and multivitamins over the previous 10 years. Researchers then tracked them for four years before using data from the National Cancer Institute's Surveillance Epidemiology and End Results (SEER) cancer registry to identify the rates of lung cancer among them.

What they found is that smokers who took beta-carotene or other carotenoid-containing dietary supplements had a stronger chance of developing lung cancer than those who did not take the supplements, according to the study published in the *American Journal of Epidemiology*.

Results show that smokers should be very cautious about taking these supplements, says Satia, who also is a member of the UNC Lineberger Comprehensive Cancer Center. While vegetables provide a certain amount of various nutrients, the supplements can provide substantially

more of a specific nutrient than the recommended daily allowances call for, Satia says.

"You don't know what effect taking those very large doses of supplements is going to have on your health," says Satia, who is also the Special Assistant to the Dean of the School of Public Health for Diversity.

Beta-carotene is a vitamin that acts as an antioxidant, protecting cells against oxidation damage. Food sources of beta-carotene include sweet potatoes, carrots, kale, spinach and collard greens.

Earlier double-blinded randomized clinical trials in the United States and in Europe also indicated that very large doses of beta-carotene supplements increased the risk of lung cancer in smokers and persons exposed to asbestos. The UNC and University of Washington researchers wanted to see if they would get the same results by tracking the general population. The study proved to be pioneering, Satia says.

"It is the first one that showed that people, particularly smokers, who take moderate doses for a relatively long period of time might have an increased risk of developing lung cancer," says Satia. In her study, the median 10-year daily dose was 4,500 micrograms of beta-carotene, much lower than the 20 milligrams and 30 milligrams of beta-carotene taken during the randomized clinical trials.

In fact, the study showed that a person's risk of lung cancer increased the longer they took supplements containing beta-carotene, retinol and lutein. For example, a person who took retinol supple-



Dr. Jessie Satia

HELPING A SMOKER QUIT: DO'S AND DON'TS

Most smokers struggle to give up cigarettes. You, as a family member or friend, can help out by following these tips from the American Cancer Society:

Do respect that the quitter is in charge. This is their lifestyle change and their challenge, not yours.

Do help the quitter get what she or he needs, such as hard candy to suck on, straws to chew on, and fresh veggies cut up and kept cold in the refrigerator.

Do spend time doing things with the quitter to keep his or her mind off smoking – go to the movies, take a walk to get past a craving (what many call a "nicotine fit"), or take a bike ride together.

Don't judge, nag, preach or scold. This may make the smoker feel worse about him or herself. You don't want your friend to turn to a cigarette to soothe hurt feelings.

Don't take the quitter's grumpiness personally during his or her nicotine withdrawal. The symptoms usually pass in about two weeks.

Do celebrate along the way. Quitting smoking is a BIG DEAL!

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ments for four years or longer was 53 percent more likely to develop lung cancer. Those who took lutein supplements for four years or longer were 102 percent more likely to develop it. Satia cautions, however, that relatively few persons took large doses of these supplements for long periods of time, so the results should not be over-interpreted.

The findings may be just another reason why smokers should consider kicking their habit altogether. ■

– By Natalie Gott