

Broccoli may lower lung cancer risk in smokers

18 November 2008

The cancer preventive properties of broccoli and other cruciferous vegetables appear to work specifically in smokers, according to data presented at the American Association for Cancer Research's Seventh Annual International Conference on Frontiers in Cancer Prevention Research.

Cruciferous vegetables have been shown to be protective in numerous studies, but this is the first comprehensive study that showed a protective benefit in smokers, specifically in former smokers, according to lead author Li Tang, Ph.D., a post-doctoral fellow at Roswell Park Cancer Institute.

"Broccoli is not a therapeutic drug, but for smokers who believe they cannot quit nor do anything about their risk, this is something positive," Tang said. "People who quit smoking will definitely benefit more from intake of cruciferous vegetables."

Li and colleagues conducted a hospital-based, case-controlled study with lung cancer cases and controls matched on smoking status. The study included all commonly consumed cruciferous vegetables, and also considered raw versus cooked form. Researchers performed statistical calculations to take into account smoking status, duration and intensity.

Among smokers, the protective effect of cruciferous vegetable intake ranged from a 20 percent reduction in risk to a 55 percent reduction in risk depending on the type of vegetable consumed and the duration and intensity of smoking.

For example, among current smokers, only the consumption of raw cruciferous vegetables was associated with risk reduction of lung cancer. No significant results were found for consumption of vegetables in general and fruits.

Researchers further divided their findings by four

subtypes of lung cancer and found the strongest risk reduction among patients with squamous or small-cell carcinoma. These two subtypes are more strongly associated with heavy smoking.

"These findings are not strong enough to make a public health recommendation yet," said Li. "However, strong biological evidence supports this observation. These findings, along with others, indicate cruciferous vegetables may play a more important role in cancer prevention among people exposed to cigarette-smoking. "

Source: American Association for Cancer Research

APA citation: Broccoli may lower lung cancer risk in smokers (2008, November 18) retrieved 28 January 2022 from <https://medicalxpress.com/news/2008-11-broccoli-lung-cancer-smokers.html>

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