

Smoking soon after waking raises risk of lung and head and neck cancers

August 25 2011

Two new studies have found that smokers who tend to take their first cigarette soon after they wake up in the morning may have a higher risk of developing lung and head and neck cancers than smokers who refrain from lighting up right away. The findings by researchers at Columbia University's Mailman School of Public Health and Penn State College of Medicine may help identify smokers who have an especially high risk of developing cancer and would benefit from targeted smoking interventions to reduce their risk.

The research was published early online in *CANCER*, journal of the [American Cancer Society](#).

Cigarette smoking increases one's likelihood of developing various types of cancers. But why do only some [smokers](#) get cancer? The researchers investigated whether [nicotine dependence](#) as characterized by the time to first cigarette after waking affects smokers' risk of lung and head and neck cancers independent of cigarette smoking frequency and duration.

The lung cancer analysis included 4,775 lung cancer cases and 2,835 controls, all of whom were regular cigarette smokers. Compared with individuals who smoked more than 60 minutes after waking, individuals who smoked 31 to 60 minutes after waking were 1.31 times as likely to develop lung cancer, and those who smoked within 30 minutes were 1.79 times as likely to develop lung cancer. Read Journal article on Lung Cancer Risk.

The head and neck cancer analysis included 1,055 head and neck cancer cases and 795 controls, all with a history of cigarette smoking.

Compared with individuals who smoked more than 60 minutes after waking, individuals who smoked 31 to 60 minutes after waking were 1.42 times as likely to develop head and neck cancer, and those who smoked within 30 minutes were 1.59 times as likely to develop [head and neck cancer](#).

These findings indicate that the need to smoke right after waking in the morning may increase smokers' likelihood of getting cancer. "These smokers have higher levels of nicotine and possibly other tobacco toxins in their body, and they may be more addicted than smokers who refrain from smoking for a half hour or more," said Joshua Muscat, PhD, of the Penn State College of Medicine in Hershey and first author. "It may be a combination of genetic and personal factors that cause a higher dependence to nicotine."

Dr. Steven D. Stellman, professor of clinical epidemiology at the Mailman School of Public Health and director of the overall research program under which the data were gathered, stated, "Our finding that time to first cigarette raises the risk of cancer is the latest in a long series of studies that grew directly out of Dr. Ernst Wynder's work, published in JAMA in 1950, which first described the link between cigarette smoking and [lung cancer](#). Research has steadily expanded our knowledge of the hazards of tobacco use."

According to the authors, because smokers who light up first thing in the morning are a group that is at even higher risk of developing cancer than other smokers, they would benefit from targeted smoking cessation programs. Such interventions could help reduce tobacco's negative health effects as well as the costs associated with its use.

Provided by Columbia University

Citation: Smoking soon after waking raises risk of lung and head and neck cancers (2011, August 25) retrieved 1 May 2024 from <https://medicalxpress.com/news/2011-08-lung-neck-cancers.html>

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