

## Butter-flavored popcorn ingredient suspected cause of lung disease

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An unusually high incidence of lung disease has been diagnosed in workers at popcorn factories. Researchers are focusing on diacetyl, the ingredient which is largely responsible for the odor and flavor of the butter in popcorn, according to an article published by SAGE in the current issue of *Toxicologic Pathology*.

"Workers making microwave popcorn and flavoring chemicals are at increased risk for developing lung disease," said lead researcher, Ann Hubbs of the Pathology and Physiology Research Branch, Health Effects Laboratory Division, National Institute for Occupational Safety and Health, (NIOSH), Centers for Disease Control and Prevention in Morgantown, WV.. "This research, in conjunction with other recent studies, supports the conclusion that diacetyl is an inhalation hazard and further studies are needed to also investigate other agents in butter flavoring so we have the information needed to protect workers."

The study examined diacetyl and its health consequences. Diacetyl is easily vaporized at temperatures used in microwave popcorn production, which results in high concentrations in the workplace.

The NIOSH research examined the acute toxicity of inhaled diacetyl in rats, and compared different exposure patterns. It was one of the very first studies to evaluate the respiratory toxicity of the chemical flavoring agent at levels relevant to human health. The researchers found that diacetyl – including just its vapors – can injure lungs.



Source: SAGE Publications

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