

Air pollution increases heart attacks in nonsmokers, study finds

December 20 2023, by Physician's Briefing Staff



Air pollution is associated with significant increases in heart attacks

among nonsmokers, according to a study presented at the [European Society of Cardiology Congress](#) 2022, held from Aug. 26 to 29 in Barcelona, Spain.

Insa de Buhr-Stockburger, M.D., from the Berlin Brandenburg Myocardial Infarction Registry, and colleagues examined the association between nitric oxide, particulate matter (PM₁₀), and weather variables with the incidence of myocardial infarction (MI) in Berlin. The analysis included 17,873 MI cases from 2008 to 2014.

The researchers found a highly significant, independent association between overall MI incidence and same-day mean values of nitric oxide concentrations and with the average PM₁₀ concentration over the preceding three days. MI incidence variation with same-day nitric oxide was 3.2 percent, and variation with PM₁₀ in the preceding three days was 4.8 percent. There was an inverse relationship between daily peak ambient temperature and MI incidence. No associations were seen for sunshine duration and precipitation. Nitric oxide and PM₁₀ pollution did not affect MI incidence in current smokers.

"The study indicates that [dirty air](#) is a risk factor for [acute myocardial infarction](#) and more efforts are needed to lower pollution from traffic and combustion," de Buhr-Stockburger said in a statement.

"Causation cannot be established by an observational study. It is plausible that [air pollution](#) is a contributing cause of myocardial infarction, given that [nitric oxide](#) and PM₁₀ promote inflammation, atherosclerosis is partly caused by inflammatory processes, and no associations were found in smokers."

More information: [Press Release](#)

Copyright © 2023 [HealthDay](#). All rights reserved.

Citation: Air pollution increases heart attacks in nonsmokers, study finds (2023, December 20)
retrieved 9 May 2024 from

<https://medicalxpress.com/news/2023-12-air-pollution-heart-nonsmokers.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.