

# Air pollution linked to increased rheumatoid arthritis severity

November 2 2021

---



(HealthDay)—Air pollution is associated with increased rheumatoid

arthritis (RA) disease severity, according to a study published in the October issue of *Rheumatology*.

Giovanni Adami, M.D., Ph.D., from the University of Verona in Italy, and colleagues collected longitudinal data of patients affected by RA and the daily concentrations of air pollutants in the Verona area to examine the correlation between RA flares and air pollution in a case-crossover study. Exposure to pollutants was compared in the 30- and 60-day periods preceding an arthritic flare relative to the 30- and 60-day exposure preceding a low-disease activity visit.

Data were included for 888 RA patients with 3,396 follow-up visits. The researchers identified an exposure-response relationship between air [pollutant](#) concentration and the risk for having abnormal C-reactive protein (CRP) levels. The risk for having CRP levels  $\geq 5$  mg/L were increased for patients exposed to higher concentrations of air pollutants. In the 60-day period preceding a flare, concentrations of carbon monoxide, [nitric oxide](#), [nitrogen dioxide](#), oxides of nitrogen, [particulate matter](#) with a diameter of 2.5  $\mu\text{m}$  or less, and ozone were higher.

"The excessive risk was seen even at very low levels of exposure, even below the proposed threshold for the protection of human health," the authors write. "Our study has important and direct consequences. In order to reduce the burden of RA, public and environmental health policy makers should aim to diminish gaseous and particulate matter emissions to a larger extent than currently recommended."

**More information:** [Abstract/Full Text](#)

Copyright © 2021 [HealthDay](#). All rights reserved.

Citation: Air pollution linked to increased rheumatoid arthritis severity (2021, November 2)

retrieved 27 April 2024 from

<https://medicalxpress.com/news/2021-11-air-pollution-linked-rheumatoid-arthritis.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.