

Does air pollution affect mental health later in life?

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In a study of women aged 80 years and older, living in locations with higher exposures to air pollution was associated with increased depressive symptoms. The findings are published in the *Journal of the*

American Geriatrics Society.

When looking at individual air pollutants, a team led by investigators from the University of Southern California found that long-term exposure to [nitrogen dioxide](#) or fine particulate [air pollution](#) was associated with increased depressive symptoms, but with only a small effect. Results also suggested that depressive symptoms might play a role in linking long-term air pollution exposure to memory decline more than 10 years after the exposure.

"This is the first study showing how air pollution exposures affect [depressive symptoms](#) as well as the interrelationship between the symptoms and subsequent [memory decline](#) that had not been found in older people aged less than 80 years," said lead author Andrew Petkus, Ph.D.

Senior author Jiu-Chiuan Chen, MD, ScD, added, "We know late-life exposures to ambient air pollutants accelerate brain aging and increase the dementia risk, but our new findings suggest the oldest-old populations may respond to air pollution neurotoxicity in a different way that needs to be investigated further."

More information: Andrew J. Petkus et al, Air Pollution and the Dynamic Association Between Depressive Symptoms and Memory in Oldest-Old Women, *Journal of the American Geriatrics Society* (2020). [DOI: 10.1111/jgs.16889](https://doi.org/10.1111/jgs.16889)

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