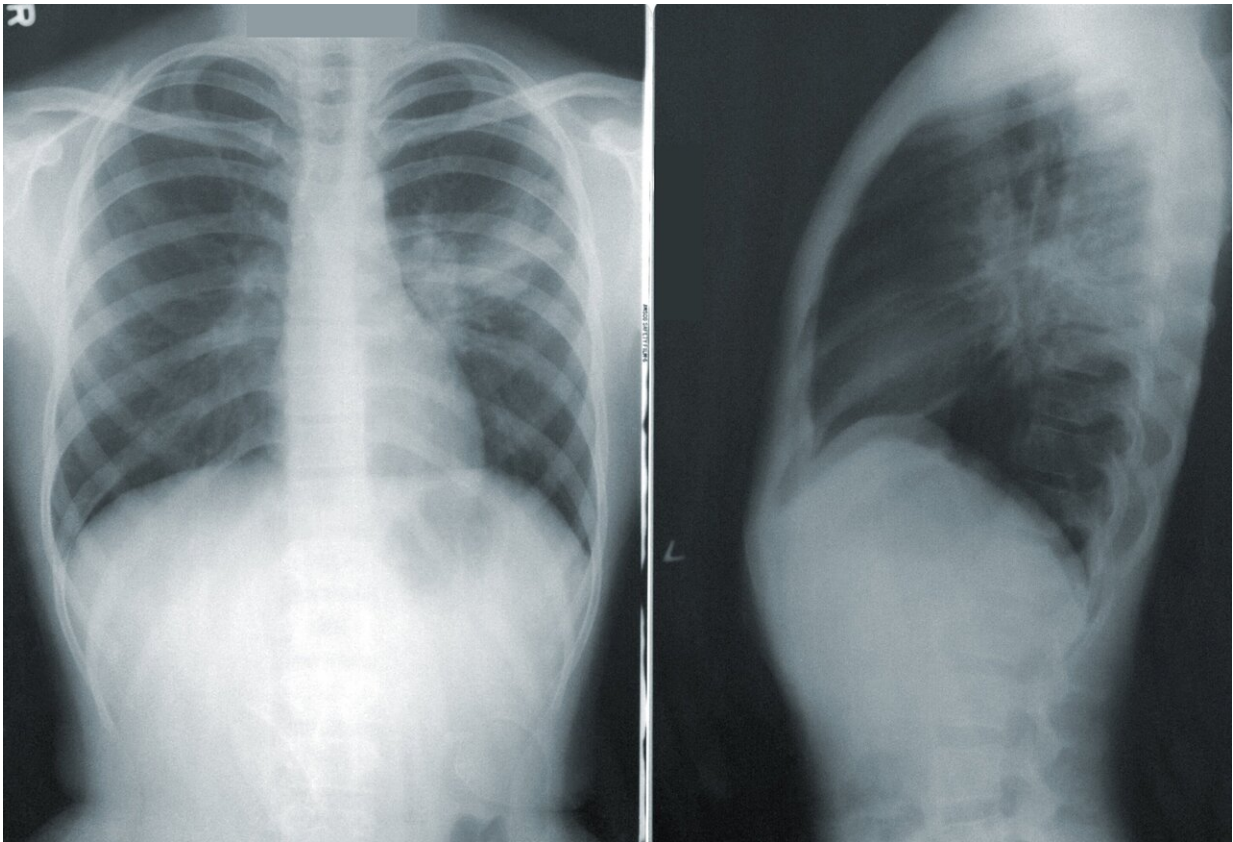


This stinks: New research finds sense of smell and pneumonia linked

May 11 2021, by Emilie Lorditch



Credit: Unsplash/CC0 Public Domain

An acute loss of smell is one of the most common symptoms of COVID-19, but for two decades it has been linked to other maladies, among them Parkinson's disease and dementia. Now, a poor sense of

smell may signify a higher risk of pneumonia in older adults, says a team of Michigan State University researchers.

"About a quarter of adults 65 years or older have a poor sense of smell," said Honglei Chen, a professor in the Department of Epidemiology and Biostatistics within MSU's College of Human Medicine. "Unlike vision or [hearing impairment](#), this sensory deficit has been largely neglected; more than two-thirds of people with a poor sense of smell do not know they have it."

In a first-of-its-kind study, Chen and his team found a possible link between poor sense of smell and a higher risk of [pneumonia](#) hospitalization. They analyzed 13 years of health data from 2,494 older adults, ages 71-82, from metropolitan areas of Pittsburgh, Pennsylvania, and Memphis, Tennessee. This study aimed to examine whether a poor sense of smell in older adults is associated with a higher future risk of developing pneumonia.

Chen's research was recently published in the journal *The Lancet Healthy Longevity*. The participants were given a Brief Smell Identification Test, or B-SIT, using common smells such as lemons and gasoline to determine if their sense of smell was good, moderate or poor. Then, the participants were monitored for the next 13 years using clinical exams and follow-up phone calls to identify hospitalization due to pneumonia.

The researchers found that compared with participants who had a good sense of smell, participants with a poor sense of smell were about 50% more likely to be hospitalized with pneumonia at any time point during the 13-year follow-up. Among participants (with a poor sense of smell) who never had had pneumonia before, the risk of having the first-ever pneumonia was about 40% higher.

"To our knowledge, this study provides the first epidemiological

evidence that poor olfaction (sense of smell) is associated with a long-term higher risk of pneumonia in older adults," said Yaqun Yuan, a postdoctoral fellow in Chen's research group.

This study provides novel evidence that a poor sense of smell may have broader health implications beyond its connections to Parkinson's disease and dementia.

"This is just an example how little we know about this common sensory deficit," Chen said. "Either as a risk factor or as a marker, poor [sense of smell](#) in [older adults](#) may herald multiple chronic diseases beyond what we have known about. We need to think out of the box."

More information: Yaqun Yuan et al, Poor olfaction and pneumonia hospitalisation among community-dwelling older adults: a cohort study, *The Lancet Healthy Longevity* (2021). [DOI: 10.1016/S2666-7568\(21\)00083-0](#)

Provided by Michigan State University

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