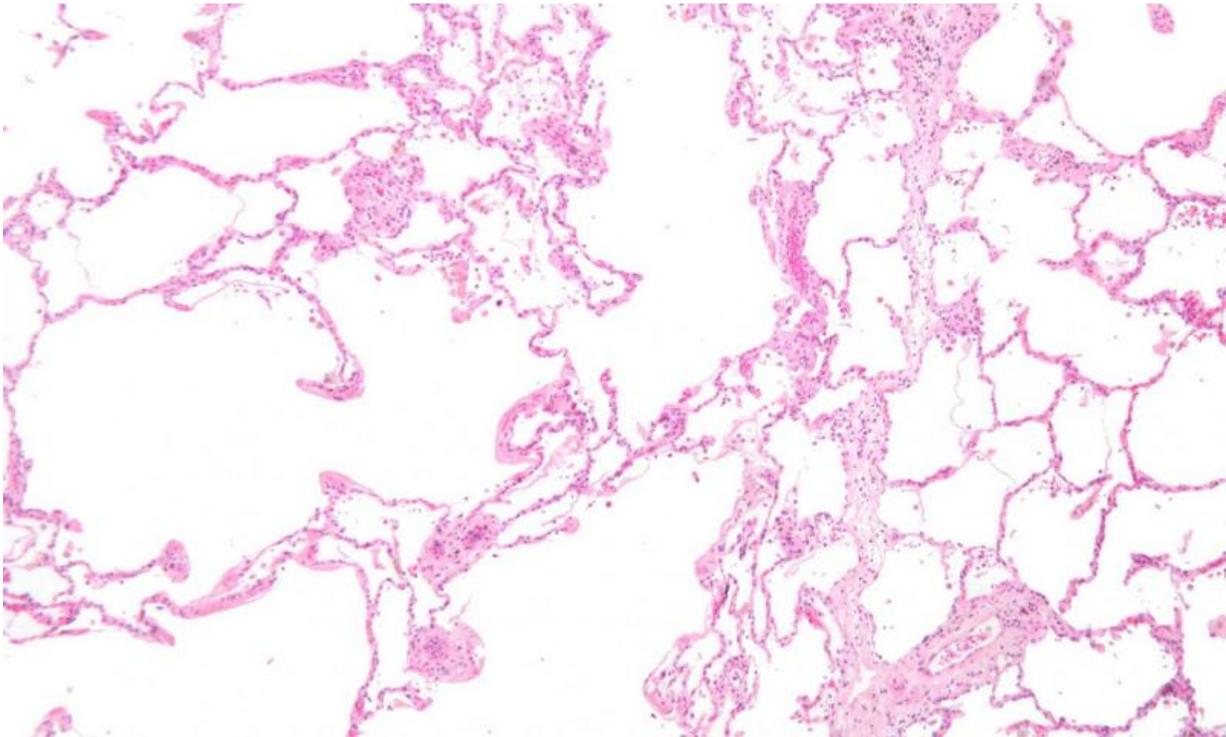


# Mould exposure significantly increased chance of COPD flare up in study

June 14 2021, by Mike Addelman

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Micrograph showing emphysema (left – large empty spaces) and lung tissue with relative preservation of the alveoli (right). Credit: Wikipedia, CC-BY-SA 3.0

Patients with a common respiratory disease had more flare-ups linked to activities that put them at risk of being exposed to mold in a study by University of Manchester and NIHR Manchester Biomedical Research Center (BRC) researchers.

The study of 140 people with [chronic obstructive pulmonary disease](#) (COPD) measured self-reported exposure to mold using a questionnaire.

They were four times more likely to visit a GP for chest problems (at least four times in the previous year) if they vacuumed their home more often than once a week.

The patients were also over three times more likely to visit a GP for chest problems (at least four times in the previous year) if they did not ask visitors to remove shoes when entering their home.

In addition, current or previous occupational contact with agricultural resources also increased the risk by more than three times.

According to the peer-reviewed study "Impact of self-reported environmental mold exposure on COPD outcomes," published in *Pulmonology*, the findings are likely to be associated with *Aspergillus*, a mold found in decaying vegetation, compost, air conditioning and damp walls and ceilings.

Lead author Dr. Chris Kosmidis, a Senior Lecturer at The University of Manchester and Honorary Consultant in Infectious Diseases at Wythenshawe Hospital, part of Manchester University NHS Foundation Trust, said: "It must be stressed that most people will be unaffected by mold, but this research demonstrates quite clearly that people with COPD will have an increased risk of ill-health if exposed."

*Aspergillus* can also lead to a debilitating, but rare condition called chronic pulmonary aspergillosis (CPA) which causes shortness of breath, fatigue, coughing (including coughing up blood) and weight loss.

Participants in the study were twice as likely to have CPA if they lived within one mile of a farm or agricultural area.

COPD is the most common condition associated with CPA in the UK, and around 3,600 people are estimated to have the illness in the country.

The NIHR Manchester BRC respiratory theme is helping to reduce [disease progression](#) and symptoms for people with respiratory conditions by working towards earlier diagnosis and a more targeted approach.

Dr. Kosmidis, who is also a Manchester BRC researcher said: "We're not able to generalize about the specific risk to COPD patients exposed to mold from this relatively small sample.

"However, it would be fair to conclude that activities which bring COPD patients into contact with mold may increase the risk of flaring and hospitalization.

"Mold is present in homes and outdoors, but certain activities may increase the amount.

"As it is well known that admission to hospital carried a higher risk of death for COPD patients, it is clear that preventing those flares is an important goal of clinical staff."

Preventative measures could include:

- ventilating the home often
- opening a window during and after vacuuming
- good maintenance of the vacuum cleaner
- avoiding dust from being carried into the home, for example by taking off shoes on entering
- taking care of visible mold in the [home](#)

The British Lung Foundation estimates that 1.2 million people are currently living with diagnosed COPD, making it the second most

common lung disease in the UK, after asthma.

The number of people who have had a diagnosis of COPD increased by 27 percent in the last decade, from under 1,600 to nearly 2,000 per 100,000.

Of the 140 patients who took part in this study, 60 had CPA as well as COPD and 39 were active cigarette smokers.

**More information:** Chris Kosmidis et al, Impact of self-reported environmental mould exposure on COPD outcomes, *Pulmonology* (2021). [DOI: 10.1016/j.pulmoe.2021.05.003](https://doi.org/10.1016/j.pulmoe.2021.05.003)

Provided by University of Manchester

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