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Title: Connecting Poor Occupant Respiratory Health with the Presence of Fungi in Indoor Environments

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### ABSTRACT

For the last 25 years, scientists and policy-makers have suspected that fungi colonizing indoors have a detrimental influence on the respiratory health of occupants. To address this public health concern, a meta-analysis was performed that examined the association between fungal agents and nasal hypersensitivities in indoor environments. The effect size estimates (odds ratios) from thirty individual statistics lend support to evidence that occupants exposed to fungal agents are more likely to exhibit symptoms of nasal hypersensitivities. The meta-analytic test statistic of  $Z = 8.48$  ( $p < 0.00001$ ); summary  $I^2 = 44\%$ ; and, summary odds ratio = 1.58 [Children (1.63); Adults (1.49); (95% C. I.)] links fungal agents and nasal hypersensitivity symptoms. This study's findings acknowledge the consistency of association between fungal agents and hypersensitivities and moreover support the need for public health policies addressing indoor fungal contamination in order to protect community respiratory health. Key words: fungus, mold, spore, respiratory, rhinitis, exposure, indoor, public health, meta-analysis, Review Manager, allergy, allergen, environment, public policy.