

# Childhood risk profiles affect middle-age lung function

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(HealthDay)—Profiles of childhood respiratory risk factors predict

middle-age lung function levels and chronic obstructive pulmonary disease (COPD) risk, according to a study published in the September issue of the *Annals of the American Thoracic Society*.

Dinh S. Bui, from the University of Melbourne in Australia, and colleagues assessed 11 childhood risk factor profiles (documented at age 7 years) and their influence on lung function and COPD in middle age among 8,352 participants in the Tasmanian Longitudinal Health Study.

The researchers identified six risk profiles: (1) unexposed or least exposed (49 percent); (2) parental smoking (21.5 percent); (3) allergy (10 percent); (4) frequent asthma, bronchitis (8.7 percent); (5) infrequent asthma, bronchitis (8.3 percent); and (6) frequent asthma, bronchitis, allergy (2.6 percent). Profile six was most strongly associated with lower forced expiratory volume in one second (FEV<sub>1</sub>), lower FEV<sub>1</sub>/forced vital capacity, and increased COPD risk (odds ratio, 4.9) at age 53 years. Adult active asthma largely mediated the effect of [profile six](#) on COPD. Profiles two and four had smaller adverse effects than profile six, and profiles two and six were synergistically stronger for smokers.

"Targeting active [asthma](#) in adulthood (i.e., a dominant mediator) and smoking (i.e., an effect modifier) may block causal pathways and lessen the effect of such established early-life exposures," the authors write.

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