Universität Basel

Publication

The role of air pollution in adult-onset asthma: a review of the current evidence

JournalItem (Reviews, Editorials, Rezensionen, Urteilsanmerkungen etc. in einer wissenschaftlichen Zeitschrift)

ID 2002725
Author(s) Jacquemin, Benedicte; Schikowski, Tamara; Carsin, Anne Elie; Hansell, Anna; Krämer, Ursula; Sunyer, Jordi; Probst-Hensch, Nicole; Kauffmann, Francine; Künzli, Nino
Author(s) at UniBasel Schikowski, Tamara ; Künzli, Nino ; Probst Hensch, Nicole ;
Year 2012
Title The role of air pollution in adult-onset asthma: a review of the current evidence
Journal Seminars in respiratory and critical care medicine
Volume 33
Number 6
Pages 606-19
Keywords asthma incidence, air pollution, adults traffic, ultrafine particulate matter
The causes of adult-onset asthma are poorly established, and the asthmogenic role of air pollution has been investigated primarily in children. This review assesses the current evidence of the association between air pollution and asthma incidence among subjects free of asthma at least until late childhood. Seven publications from five study populations fulfilled the inclusion criteria (one case-control and six cohort studies). All but one used markers of local traffic-related air pollution to characterize long-term exposure. Those studies reported similar associations with traffic-related air pollution. However, protocols, definitions of asthma, and exposure assignment were rather heterogeneous, and three publications relied on the same study; thus we abstain from meta-analytic summaries. Reported patterns of effect modification (e.g., by sex, atopy, or smoking) were inconsistent. Overall, the role of traffic-related air pollution in adult-onset asthma is less conclusive than in childhood asthma. Larger studies with more consistent definitions of phenotypes and exposure assessment for local traffic-related pollutants (e.g., ultrafine particles) are needed. Pooling existing cohorts such as in the ongoing European ESCAPE and TRANSPHORM consortia are promising steps. There is, however, a need for large-scale megacohorts to investigate these effects in standardized ways and to identify the most susceptible populations

Publisher Georg Thieme
ISSN/ISBN 1069-3424
edoc-URL http://edoc.unibas.ch/dok/A6164940
Full Text on edoc No;
Digital Object Identifier DOI 10.1055/s-0032-1325191
PubMed ID http://www.ncbi.nlm.nih.gov/pubmed/22918788
ISI-Number WOS:000309760600005
Document type (ISI) Journal Article, Review