

## Publication

## Critical age windows in the impact of lifetime smoking exposure on respiratory symptoms and disease among ever smokers

**JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)****ID** 4424207**Author(s)** Erbas, Bircan; Knudsen, Toril Mørkve; Janson, Christer; Nilsen, Roy M.; Accordini, Simone; Benediktsson, Bryndis; Dratva, Julia; Heinrich, Joachim; Jarvis, Debbie; Leynaert, Benedicte; Matheson, Melanie C.; Norbäck, Dan; Real, Francisco G.; Raheison-Semjen, Chantal; Villani, Simona; Dharmage, S. C.; Svanes, C.**Author(s) at UniBasel** [Dratva, Julia](#) ;**Year** 2018**Title** Critical age windows in the impact of lifetime smoking exposure on respiratory symptoms and disease among ever smokers**Journal** Environmental research**Volume** 164**Pages / Article-Number** 241-247

Despite extensive knowledge of smoking effects on respiratory disease, there is no study including all age windows of exposure among ever smokers. The objective of this study was to assess the effects from smoking exposure in utero, early childhood, adolescence and adulthood on respiratory health outcomes in adult male and female ever smokers.; Respiratory health outcomes were assessed in 10,610 participants of the European Community Respiratory Health Survey (ECRHS) I who reported a history of ever smoking by questionnaire. The associations of maternal smoking in utero, maternal smoking during childhood, age of smoking debut and pack-years of smoking with respiratory symptoms, obstructive diseases and bronchial hyperreactivity were analysed using generalized linear regression, non-linearity between age of smoking debut and outcomes were assessed by Generalized additive mixed models.; Respiratory symptoms and asthma were more frequent in adults if their mother smoked during pregnancy, and, in men, also if mother smoked in childhood. Wheeze and  $\geq 3$  respiratory symptoms declined with later smoking debut among women [ $\leq 10$  years: OR=3.51, 95% CI 1.26, 9.73; 11-12 years: 1.57[1.01-2.44]; 13-15 years: 1.11[0.94-1.32] and  $\leq 10$  years: 3.74[1.56-8.83]; 11-12 years: 1.76[1.19-2.56]; 13-15 years: 1.12[0.94-1.35], respectively]. Effects of increasing number of packyears were pronounced in women (Chronic Obstructive Pulmonary Disease (COPD): OR/10 packyears women: 1.33 [1.18, 1.50], men: 1.14 [1.04, 1.26] p; interaction; =/0.01).; Among ever smokers, smoking exposure in each stage of the lifespan show persistent harmful effects for adult respiratory health, while women appeared to be more vulnerable to an early age of smoking debut and amount of smoking in adulthood.

**Publisher** Elsevier**ISSN/ISBN** 0013-9351**edoc-URL** <https://edoc.unibas.ch/62677/>**Full Text on edoc** No;**Digital Object Identifier DOI** 10.1016/j.envres.2018.02.028**PubMed ID** <http://www.ncbi.nlm.nih.gov/pubmed/29522998>**ISI-Number** WOS:000431387100031**Document type (ISI)** Article