

Publication**Respiratory health in cleaners in Northern Europe : is susceptibility established in early life?****JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)****ID** 3178823**Author(s)** Svanes, Øistein; Skorge, Trude Duelien; Johannessen, Ane; Bertelsen, Randi Jacobsen; Bråtevit, Magne; Forsberg, Bertil; Gislason, Thorarin; Holm, Mathias; Janson, Christer; Jögi, Rain; Macsali, Ferenc; Norbäck, Dan; Omenaas, Ernst Reidar; Real, Francisco Gómez; Schlünssen, Vivi; Sigsgaard, Torben; Wieslander, Gunilla; Zock, Jan-Paul; Aasen, Tor; Dratva, Julia; Svanes, Cecilie**Author(s) at UniBasel** [Dratva, Julia](#) ;**Year** 2015**Title** Respiratory health in cleaners in Northern Europe : is susceptibility established in early life?**Journal** PLoS ONE**Volume** 10**Number** 7**Pages / Article-Number** e0131959

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There is some evidence that maternal smoking increases susceptibility to personal smoking's detrimental effects. One might question whether early life disadvantage might influence susceptibility to occupational exposure.; In this cross-sectional study we investigated respiratory symptoms, asthma and self-reported chronic obstructive pulmonary disease (COPD) as related to working as a cleaner in Northern European populations, and whether early life factors influenced susceptibility to occupational cleaning's unhealthy effects.; The RHINE III questionnaire study assessed occupational cleaning in 13,499 participants. Associations with respiratory symptoms, asthma and self-reported COPD were analysed with multiple logistic regressions, adjusting for sex, age, smoking, educational level, parent's educational level, BMI and participating centre. Interaction of occupational cleaning with early life disadvantage (maternal smoking, severe respiratory infection >5 years, born during winter months, maternal age at birth <35 years) was investigated.; Among 2138 ever-cleaners the risks of wheeze (OR 1.4, 95% CI 1.3-1.6), adult-onset asthma (1.5 [1.2-1.8]) and self-reported COPD (1.7 [1.3-2.2]) were increased. The risk increased with years in occupational cleaning (adult-onset asthma: ≤1 year 0.9 [0.7-1.3]; 1-4 years 1.5 [1.1-2.0]; ≥4 years 1.6 [1.2-2.1]). The association of wheeze with cleaning activity ≥4 years was significantly stronger for those with early life disadvantage than in those without (1.8 [1.5-2.3] vs. 1.3 [0.96-1.8]; pinteraction 0.035).; Occupational cleaners had increased risk of asthma and self-reported COPD. Respiratory symptom risk was particularly increased in persons with factors suggestive of early life disadvantage. We hypothesize that early life disadvantage may increase airway vulnerability to harmful exposure from cleaning agents later in life.

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