

**Publication****Early age of menarche, lung function and adult asthma****JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)****ID** 1022886**Author(s)** Macsali, Ferenc; Real, Francisco Gómez; Plana, Estel; Sunyer, Jordi; Anto, Josep; Dratva, Julia; Janson, Christer; Jarvis, Deborah; Omenaas, Ernst Reidar; Zemp, Elisabeth; Wjst, Matthias; Leynaert, Benedicte; Svanes, Cecilie**Author(s) at UniBasel** [Dratva, Julia](#) ; [Zemp Stutz, Elisabeth](#) ;**Year** 2011**Title** Early age of menarche, lung function and adult asthma**Journal** American journal of respiratory and critical care medicine**Volume** 183**Number** 1**Pages / Article-Number** 8-14**Keywords** menarche, lung function, asthma, body mass index, European Community Respiratory Health Survey

**RATIONALE:** Hormonal and metabolic status appears to influence lung health in women, and there are findings suggesting that early menarche may be related to asthma, cardiovascular disease, diabetes and breast cancer. **OBJECTIVES:** This study investigates whether age of menarche was related to adult lung function and asthma. **MEASUREMENTS:** Among participants in the European Community Respiratory Health Survey II, 3354 women aged 27-57 years from random population samples in 21 centers responded to a questionnaire concerning women's health (1998-2002). 2873 had lung function measurements, 2136 measurements of bronchial hyper reactivity (BHR) and 2743 IgE measurements. Logistic, linear and negative binomial regression analyses included adjustment for age, height, body mass index, education, smoking, family size and centre. **MAIN RESULTS:** Forced expiratory volume in one second (FEV1) and forced vital capacity (FVC) were lower and asthma more common in women with early menarche. Women reporting menarche  $\leq 10$  years as compared with women with menarche at age 13 years (reference category) had lower FEV1 (adjusted difference -113ml, 95%CI -196 to -33) and FVC (-126ml [-223 to -28]); also lower FEV1 in percent of predicted (-3.28% [-6.25 to -0.30]) and FVC % predicted (-3.63% [-6.64 to -0.62]). Women with early menarche more often had asthma symptoms (OR 1.80, 95%CI 1.09-2.97), asthma with BHR (2.79[1.06-7.34]) and higher asthma symptom score (mean ratio 1.58, 95%CI 1.12-2.21). **CONCLUSIONS:** Women with early menarche had lower lung function and more asthma in adulthood. This supports a role for metabolic and hormonal factors in women's respiratory health

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