

**Publication****Low serum DHEA-S is associated with impaired lung function in women****JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)****ID** 4599037**Author(s)** Pesce, Giancarlo; Triebner, Kai; van der Plaat, Diana A.; Courbon, Dominique; Hustad, Steinar; Sigsgaard, Torben; Nowak, Dennis; Heinrich, Joachim; Anto, Josep M.; Dorado-Arenas, Sandra; Martinez-Moratalla, Jesús; Gullon-Blanco, Jose A.; Sanchez-Ramos, José L.; Raheison, Chantal; Pin, Isabelle; Demoly, Pascal; Gislason, Thorarinn; Torén, Kjell; Forsberg, Bertil; Lindberg, Eva; Zemp, Elisabeth; Jogi, Rain; Probst-Hensch, Nicole; Dharmage, Shyamali C.; Jarvis, Debbie; Garcia-Aymerich, Judith; Marcon, Alessandro; Gómez-Real, Francisco; Leynaert, Bénédicte**Author(s) at UniBasel** [Zemp Stutz, Elisabeth](#) ; [Probst Hensch, Nicole](#) ;**Year** 2020**Title** Low serum DHEA-S is associated with impaired lung function in women**Journal** EClinicalMedicine**Volume** 23**Pages / Article-Number** 100389**Keywords** Airflow obstruction; Androgens; Cohort studies; Sex hormones

Emerging evidence suggests that androgens and estrogens have a role in respiratory health, but it is largely unknown whether levels of these hormones can affect lung function in adults from the general population. This study investigated whether serum dehydroepiandrosterone sulfate (DHEA-S), a key precursor of both androgens and estrogens in peripheral tissues, was related to lung function in adult women participating in the European Community Respiratory Health Survey (ECRHS).; Lung function and serum DHEA-S concentrations were measured in; n = 2,045 and; n = 1,725 women in 1999-2002 and in 2010-2013, respectively. Cross-sectional associations of DHEA-S levels (expressed as age-adjusted z-score) with spirometric outcomes were investigated, adjusting for smoking habits, body mass index, menopausal status, and use of corticosteroids. Longitudinal associations of DHEA-S levels in 1999-2002 with incidence of restrictive pattern and airflow limitation in 2010-2013 were also assessed.; Women with low DHEA-S (z-score < -1) had lower FEV1 (% of predicted, adjusted difference: -2.2; 95%CI: -3.5 to -0.9) and FVC (-1.7; 95%CI: -2.9 to -0.5) and were at a greater risk of having airflow limitation and restrictive pattern on spirometry than women with higher DHEA-S levels. In longitudinal analyses, low DHEA-S at baseline was associated with a greater incidence of airflow limitation after an 11-years follow-up (incidence rate ratio, 3.43; 95%CI: 1.91 to 6.14).; Low DHEA-S levels in women were associated with impaired lung function and a greater risk of developing airflow limitation later in adult life. Our findings provide new evidence supporting a role of DHEA-S in respiratory health.; EU H2020, grant agreement no.633212.

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