

# Relationship between oxidative stress-related biomarkers and antioxidant status with asthma and atopy in young adults: A population-based study

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**Background and aim:** Enhanced oxidative stress has been described in adults who suffer from symptoms of asthma and poor lung function. This study assessed the relation between markers of oxidative stress and antioxidant status and lung function, symptoms of asthma, atopy and bronchial hyperresponsiveness (BHR) in young adults. **Methods:** A sub-sample of 589 individuals aged 22-28 years, selected from a total of 1232 included in a survey assessing early and current risk factors for chronic diseases, participated in the study. Participants were from an agricultural area of Chile, responded to a Spanish version of the European Community Respiratory Health Survey questionnaire, were skin tested to eight allergens, and challenged with methacholine to assess BHR. Five hundred and eighty-five individuals had measures of plasma biomarkers ferric reducing ability of plasma, uric acid, protein carbonyls and 564 had 8-iso-prostaglandin F<sub>2</sub>? (8-iso-PGF<sub>2</sub>?) assessed. **Results:** All participants had detect