

# Prevalence of asthma at risk symptoms in adolescents exposed to volcanic ash, in two Patagonian cities

Abstract in English, [Spanish](#)

**Objective:** Evaluate the prevalence of asthma risk in subject of 13-14 years old that were exposed to volcanic ash. One year after the eruption of the Calbuco Volcano and in 2 cities with different degrees of exposure.

**Methods:** Cross-sectional study was developed in subjects of 13-14 years old of two Patagonian cities: San Carlos de Bariloche and Cipolletti. The ISAAC questionnaire and video questionnaire was applied to determine asthma risk. Demographic and perception of exposure variables were assessed.

**Results:** 511 subjects were surveyed in both cities. The prevalence of asthma at risk symptoms was higher in Bariloche 14% compared to Cipolletti 10%, but this difference was not statistically significant ( $p=0.32$ ). A significant increase in the perception of volcanic ash exposure was reported 14% in Bariloche city vs. 6% in Cipolletti city,  $p<0.05$ .

**Conclusions:** After 18 months of volcanic eruption with respiratory ash exposure and the lack of respiratory symptoms difference between two cities with different degree of exposure, this factor may not contribute to have a clinical impact in respiratory health.

**Keywords:** asthma; air pollutants; volcanic eruptions.

Link full text: <https://pubmed.ncbi.nlm.nih.gov/32558506/>