

# European Respiratory Society Annual Congress 2013

**Abstract Number:** 387

**Publication Number:** P3631

**Abstract Group:** 6.2. Occupational and Environmental Health

**Keyword 1:** Air pollution **Keyword 2:** Environment **Keyword 3:** Epidemiology

**Title:** Environmental asbestos exposure as a risk factor for small airways obstruction

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**Body:** BACKGROUND. Tremolite is one of the six recognized types of asbestos, whose toxicity and cancerogenity is well-documented. Resident population in the area of Lagonegro (Basilicata, Italy) has been shown to be exposed to environmental tremolite pollution, deriving from superficial rocks and asbestos caves. A branch of the ongoing health surveillance program for residents is evaluating the prevalence of pulmonary functional abnormalities. METHODS. A total number of 1518 individuals were included into this study. The study group was composed by 697 residents in the tremolite-exposed area of Lagonegro (age 49.35±16.68, current smokers 122, ex-smokers 134). The control group was composed by 821 individuals living in areas not tremolite-exposed (age 54.45±17.16, current smokers 159, ex-smokers 199). All the participants to the study performed a lung function test. RESULTS. Prevalence of obstructive and restrictive diseases did not show significant differences between the two groups. Tremolite-exposed group showed a higher prevalence of small-airways disease compared to the non-exposed group (p<0.01). Odds Ratio for small-airways obstruction was 2.432 (95% CI, lower limit 1.914, upper limit 3.019). irrespective of smoking status. CONCLUSIONS. According to our data, tremolite exposure may be a risk factor for small airways disease. It is mandatory to follow these subjects longitudinally by repeated measurements.