

Perception of climate change in patients with chronic lung disease

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Climate change affects human health. The respective consequences are predicted to increase in the future. Patients with chronic lung disease are particularly vulnerable to the involved environmental alterations. However, their subjective perception and reactions to these alterations remain unknown.

We surveyed 172 adult patients who underwent pulmonary rehabilitation and 832 adult tourists without lung disease in the alpine region about their perception of being affected by climate change and their potential reaction to specific consequences. The patients' survey also contained the COPD Assessment Test (CAT) to rate the severity of symptoms.

Most of the patients stated asthma (73.8%), COPD (9.3%) or both (11.0%) as underlying disease while 5.8% suffered from other chronic lung diseases. Patients and tourists feel equally affected by current climate change in general, while allergic subjects in both groups feel significantly more affected ($p = 0.042$). The severity of symptoms assessed by CAT correlates with the degree of feeling affected ($p < 0.01$). The main disturbing consequences for patients are decreased air quality, increasing numbers of ticks and mosquitos and a rising risk for allergy and extreme weather events such as thunderstorms, while tourists are less disturbed by these factors. Increasing number of heat-days is of little concern to both groups.

Overall patients are more sensitive to health-related consequences of climate change. Yet, the hazard of heat-days seems underestimated and awareness should be raised.