

**International Conference 'Advances in Pneumology'
Bonn, 17-18 June 2011**

ENDOTOXIN EXPOSURE DUE TO SECOND HAND TOBACCO SMOKE

B. Szponar, L. Larsson

Lund University, Dept. of Laboratory Medicine, Sect. of Medical Microbiology, Lund,
Sweden; Ludwik Hirszfeld Institute of Immunology and Experimental Therapy, Polish
Academy of Sciences, Wroclaw, Poland

Tobacco smoke represents a major source of endotoxin (lipopolysaccharide, LPS) in indoor environments with ongoing smoking and contributes therefore to the numerous well-documented adverse health effects of second hand smoke (SHS). To determine endotoxin exposure in houses of smokers and non-smokers, 3-hydroxy fatty acids, endotoxin markers assessed by gas chromatography - tandem mass spectrometry were used. Lipopolysaccharide load in air filtrates as well as in settled dust in rooms with ongoing smoking and smoke-free were compared. The fact that cigarette smoke contains large amounts of endotoxin may partly explain the high prevalence of respiratory disorders among smokers and may draw attention to a neglected risk factor of SHS.

Acknowledgement. This work is supported by the Flight Attendants Medical Research Institute (FAMRI).