

## **Noise-induced hearing loss: a three-year update**

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### **ABSTRACT**

Noise-induced hearing loss (NIHL) is still a world-wide leading environmental and occupational health risk in industrialized countries and the second most common form of sensorineural hearing impairment, after presbycusis. According to Medline database, almost 800 papers on NIHL were published in the last three years (2014-2016), exceeding by almost 200 the number of publications from previous reporting period. Excessing basic research was designed to evaluate pathomechanisms of NIHL, with special regards to cochlear synaptopathy, genetic background of susceptibility to noise, as well as putative causes of tinnitus after exposure to noise. Further studies were developed on the prevalence of NIHL in different populations, the role of individual risk factors for NIHL as well as medico-legal and clinical aspects of NIHL and tinnitus. Progress was continued in developing new strategies for preventing acoustic traumas (diet, pharmacological intervention), noise control engineering, and assessing the effectiveness of hearing loss preventive campaigns. Economic impact of hearing loss was also assessed. This presentation will discuss the most important research results on NIHL in humans.