

# ASTHMA AND TOBACCO SMOKING: DIFFICULTIES OF TREATMENT AND PROSPECTS FOR SOLVING THE PROBLEM

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## Abstract

The data of scientific research on the influence of tobacco smoking on the development and course of asthma are presented in current report. There are the differences in the lung function in smokers and non-smokers.

The mechanism by which tobacco smoke changes the phenotype of the disease and the effectiveness of asthma treatment is not fully understood. Although it is emphasized that exposure to tobacco increases the risk of asthma developing and worsens its symptoms in patients. Active smoking and the exposure to second-hand smoke affect the effectiveness of standard therapy, such as inhaled corticosteroids, in asthmatics, and worsen the outcome of the disease.

The article discusses the mechanisms of steroid resistance during smoking, as well as the peculiarities of treating the exacerbation of the disease in smoking patients. The possibility of using a combination of fluticasone propionate in capsules for inhalations and formoterol (Zafiron<sup>®</sup>) dispersed by novel delivery device Cyclochaler is an effective strategy for overcoming corticosteroid resistance by obtaining fine particles. The additional effect of leukotriene receptor antagonists (Montelukast<sup>®</sup>) which enhances the effect of inhaled corticosteroid in smoking patients is of great importance as well. It is emphasized that evidence of poor control of asthma in tobacco smoking, despite new and more targeted methods of treatment, requires further research.

**Key words:** asthma, tobacco smoking, formoterol, fluticasone propionate.

**Ukr. Pulmonol. J. 2019; 1: 67–73.**

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