

SMOKING AS A RISK FACTOR OF PATHOLOGICAL PROCESSES IN THE RESPIRATORY ORGANS AND ITS EFFECTS ON PULMONARY SURFACTANT

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Summary

In order to determine the effects of smoking on the respiratory system we studied a surface active properties and fatty-acid composition of pulmonary surfactant in smokers. The study was conducted using both physical and biochemical methods. The physical method included static surface tension measurements of expired air condensate (EAC), whereas the biochemical method was used for the gas chromatographic determination of EAC fatty-acid composition. The results of the study indicated that smoking significantly reduced surface active properties of surfactant and activated free-radical processes. Thus, smoking is a risk factor of both acute or chronic respiratory diseases.