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(Sechenov University)



SECHENOV UNIVERSITY  
LIFE SCIENCES

# ARTERIAL HYPERTENSION

**Student Training Manual**

*Edited by A.L. Syrkin and M.G. Glezer*

*Рекомендовано Координационным советом по области  
образования «Здравоохранение и медицинские науки»  
в качестве учебного пособия для использования  
в образовательных учреждениях, реализующих основные  
профессиональные образовательные программы высшего  
образования специалитета по направлению подготовки  
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This manual contains material that reflects modern clinical approaches to the diagnosis and treatment of patients with arterial hypertension. The manual contains test questions and case studies. The proposed structure of the manual helps to highlight the main aspects of the studied pathological processes, and to systematize the educational process.

The manual “Arterial Hypertension” was prepared for the subject of Cardiology in accordance with the Federal State Educational Standard of Higher Professional Education for students majoring in General Medicine (Clinical Medicine — 31.05.01).

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## INTRODUCTION

Arterial hypertension (AH) is a condition when the blood pressure (BP) in the arteries is elevated above the threshold values. Epidemiological studies and randomized controlled trials show a link between high BP and a higher risk of cardiovascular diseases, as well as proving the feasibility and benefits of treatment aimed at lowering blood pressure.

According to a Russian study ESSE, the prevalence of hypertension among the adult population is 30–45% [2014], which rises with aging, reaching 60% and higher in people over 60 years old.

Arterial hypertension (AH) is one of the major and most common risk factors for cardiovascular diseases and their complications, such as cerebrovascular disease, myocardial infarction, heart and renal failure. There is increasing evidence of connection between high blood pressure and the risk of atrial fibrillation, cognitive impairment, and dementia.