

Federal State Autonomous Educational Institution of Higher Education
I.M. Sechenov First Moscow State Medical University of the Ministry of Health
of the Russian Federation (Sechenov University)



SECHENOV UNIVERSITY
LIFE SCIENCES

A.B. Saltykov, A.N. Khitrov, S.V. Grachev et al.

PATHOLOGY

TEXTBOOK

*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 по направлению подготовки
специальности по специальности 33.05.01 «Фармация»*



Medical Informational Agency
Moscow
2020

UDC 616-092(075.8)

Получена положительная рецензия Экспертной комиссии по работе с учебными изданиями ФГАОУ ВО Первый МГМУ имени И.М. Сеченова Министерства здравоохранения Российской Федерации (Сеченовский Университет) № 492 ЭКУ от 20 сентября 2018 г.

Saltykov, A.B.

Pathology: Textbook / A.B. Saltykov, A.N. Khitrov, S.V. Grachev et al. — Moscow : Medical Informational Agency, 2020. — 304 p.

ISBN 978-5-9986-0386-0

The textbook examines the typical forms of structural and functional pathology that are characteristic for cellular, tissue, organ, and other levels of vital activity. The emphasis is on the interrelationship of functional, biochemical and structural changes, as well as disadaptive and adaptive responses. Each chapter is accompanied by control questions and test tasks. The material is prepared taking into account the program on discipline “Pathology” and is intended for students of higher medical educational institutions, studying in the specialty of pharmacy. The study of this material contributes to the formation of general cultural (GK) and professional (PC) competencies:

- the ability to abstract thought, analysis, synthesis (GK-1);
- the ability to assess morpho-functional physiological states and pathological processes in human body for solving professional problems (PC-8).

UDC 616-092(075.8)

ISBN 978-5-9986-0386-0

- © Салтыков А.Б. и др., 2020
- © ФГАОУ ВО Первый МГМУ имени И.М. Сеченова Минздрава России (Сеченовский Университет), 2020
- © Оформление. ООО «Издательство «Медицинское информационное агентство», 2020

Все права защищены. Никакая часть данной книги не может быть воспроизведена в какой-либо форме без письменного разрешения владельцев авторских прав

Contributors

Author's collective:

Saltykov A.B. — professor

Khitrov A.N. — associate professor

Grachev S.V. — Academician of the Russian Academy of Sciences, professor

Vvedenskaya O.Yu. — associate professor

Romadanova N.B. — associate professor

Kukushkin M.L. — professor

Reviewers:

Voinov V.A. — professor of Pathophysiology department of Sechenov First State Medical University, PhD

Tezikov E.I. — professor of Pathophysiology, department of Sechenov First State Medical University, PhD, associate professor

Content

Chapter 1. Cell pathology	6
Chapter 2. Disturbances of regional circulation	19
Chapter 3. Inflammation	31
Chapter 4. Fever. Infectious process	47
Chapter 5. Pathology of carbohydrate metabolism	61
Chapter 6. Pathology of fat and protein metabolism	75
Chapter 7. Pathology of water-electrolyte metabolism and acid-base state	89
Chapter 8. Allergy and autoallergy. Immunodeficiency	105
Chapter 9. Pathology of tissue growth. Tumors	121
Chapter 10. Extreme states	133
Chapter 11. Blood pathology	145
Chapter 12. Coronary and heart failure. Arrhythmias	158
Chapter 13. Arterial hyper- and hypotension	172

Chapter 14. Pathology of the respiratory system. Respiratory failure. Pneumonia	187
Chapter 15. Pathology of the digestive system	201
Chapter 16. Liver pathology	214
Chapter 17. Renal pathology	228
Chapter 18. Pathology of the endocrine system	240
Chapter 19. Pathology of the nervous system	255
Chapter 20. General nosology	263
Test tasks and control questions	272