

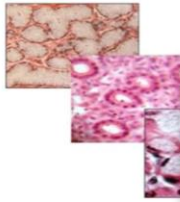
New editions of KSMU

Federal State Budgetary Educational Institution of Higher Education
«Kursk State Medical University» of the Ministry of Healthcare
of the Russian Federation



Department of Histology, Embryology, Cytology

STUDY GUIDE ON HISTOLOGY, EMBRYOLOGY,
CYTOLOGY
(EPITHELIAL, CONNECTIVE, MUSCULAR
AND BONE TISSUES)
for the medical faculty students



KURS

Parsons' Eye *Diseases of the* Eye



Ramanjit Sihota
Radhika Tandon

Rodak's Hematology Clinical Principles and Applications

Elaine M. Keohane Catherine N. Otto Jeanine M. Walenga



Evolve® Student Resources on Evolve
Details Inside

Annotated bibliographic review

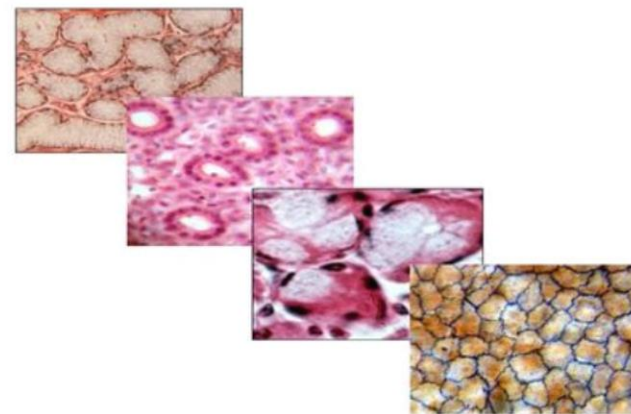
Учебное пособие по гистологии, эмбриологии, цитологии (эпителиальные, соединительные, мышечные и костные ткани): для студентов медицинского факультета: [на англ. яз.] = Study guide on histology, embryology, cytology (epithelial, connective, muscular and bone tissues): for the medical faculty students / А. В. Иванов, М. А. Затолокина, С. Н. Радионов [и др.]; Курский гос. мед. ун-т, каф. гистологии, эмбриологии и цитологии. - Курск: Изд-во КГМУ, 2020. - 90 с.

Federal State Budgetary Educational Institution of Higher Education
«Kursk State Medical University» of the Ministry of Healthcare
of the Russian Federation



Department of Histology, Embryology, Cytology

**STUDY GUIDE ON HISTOLOGY, EMBRYOLOGY,
CYTOLOGY
(EPITHELIAL, CONNECTIVE, MUSCULAR
AND BONE TISSUES)
for the medical faculty students**



KURSK - 2020

[ПОЛНЫЙ ТЕКСТ](#)

Annotation: This Study Guide was compiled at the Department of Histology, Embryology, Cytology of the Kursk State Medical University according to Teaching Program on the discipline "Histology, Embryology, Cytology" and on the basis of the Regulation on the Teaching and Methodological Support

of the Discipline (Module) approved by the meeting of the Academic Council of the KSMU on October 10, 2016 and is intended for independent preparation of students of the medical faculty for practical and final lessons on Histology.

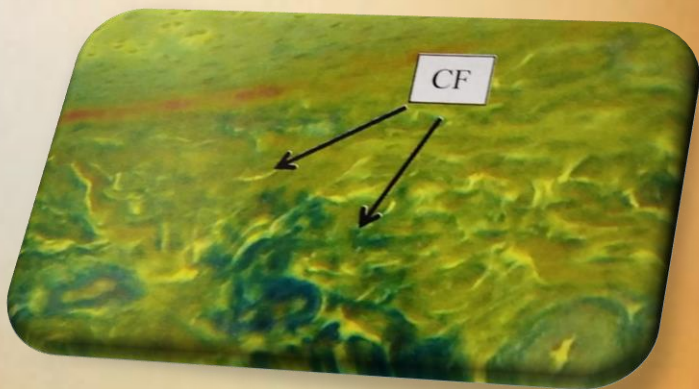
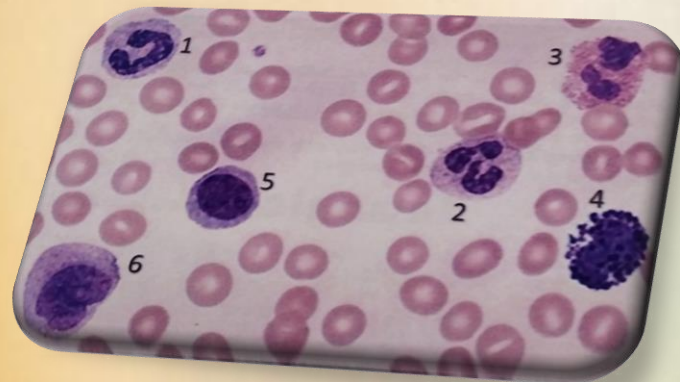
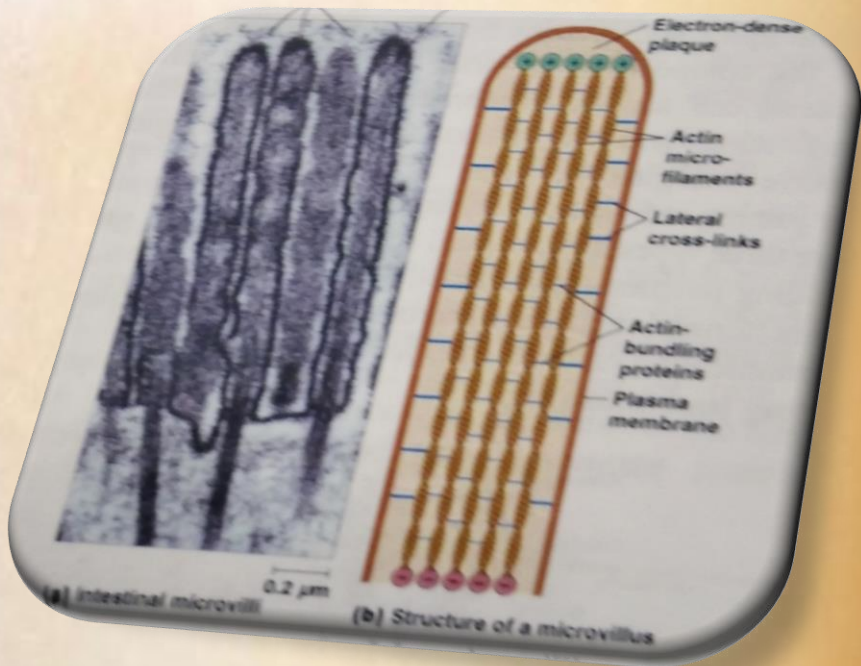
Учебное пособие составлено на кафедре гистологии, эмбриологии, цитологии Курского государственного медицинского университета в соответствии с рабочей программой по дисциплине «Гистология, эмбриология, цитология» и на основании Положения об учебно-методическом обеспечении дисциплины (Модуль),

утвержденного на заседании Ученого совета КГМУ 10 октября 2016 года. Учебное пособие предназначено для подготовки студентов медицинского факультета к практическим и итоговым занятиям по гистологии.

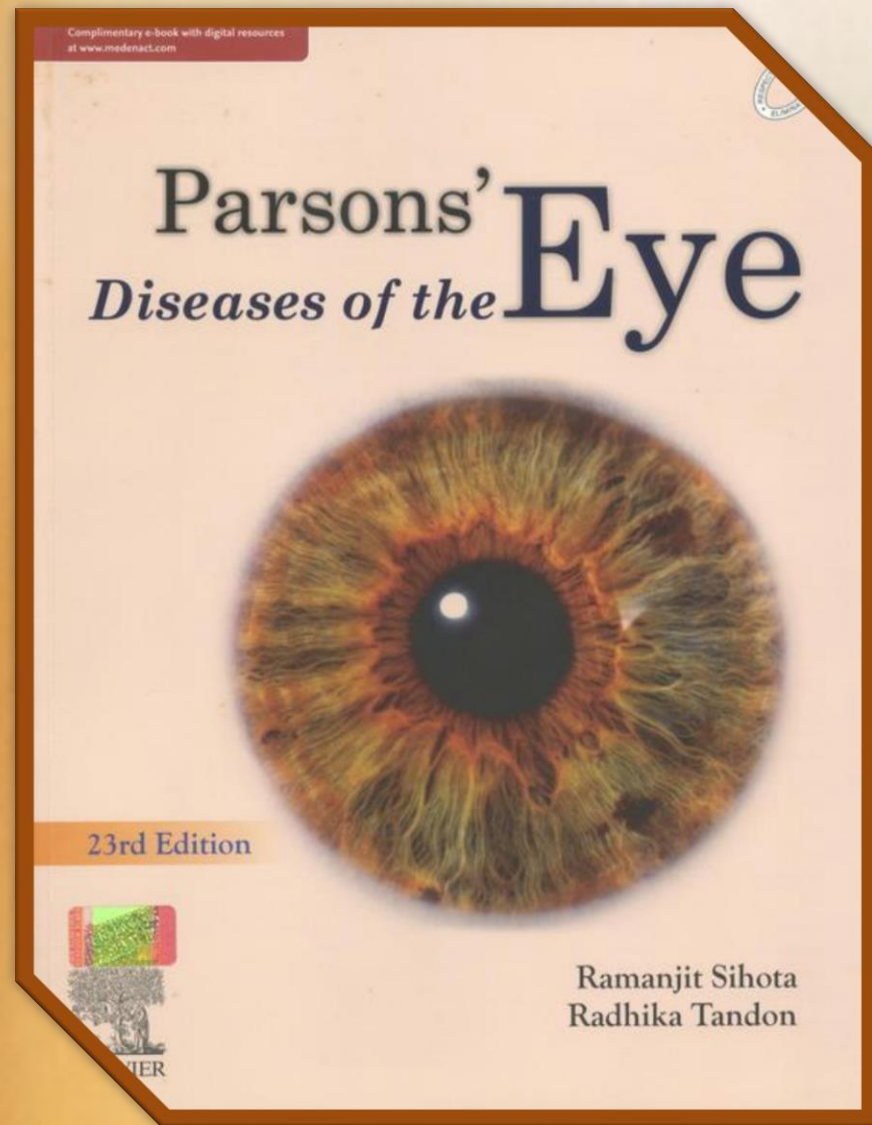
Table of Contents

EPITHELIAL TISSUES	5
FUNCTIONS OF EPITHELIUM	5
GENERAL MORPHOLOGICAL CHARACTERISTICS OF EPITHELIAL TISSUES	5
MORPHOLOGICAL FEATURES OF EPITHELIAL TISSUES.....	5
I Cell polarity	5
II The apical domain and its modifications.....	6
III The lateral domain and its specializations in cell-to-cell adhesion	8
IV Morphologic specializations of the lateral cell surface	10
V The basal domain and its specializations in cell-to-extracellular matrix adhesion.....	10
CLASSIFICATION OF EPITHELIAL TISSUES	10
I. Histogenetic classification	11
II. Functional classification.....	11
III. Morphological classification.....	11
IV. GLANDS.....	17
V. I Morphology of secretory cycle.....	17
VI. II Morphological characteristic of the exocrine glands.....	18
VII. III Classification of exocrine glands.....	18
VIII. BLOOD	20
IX. CONNECTIVE TISSUES.....	40

I. CLASSIFICATION OF CONNECTIVE TISSUES.....	40
II. CONNECTIVE TISSUE PROPER.....	40
III. I Loose connective tissue	40
II Dense irregular connective tissue.....	46
III Dense regular connective tissue.....	47
SPECIALIZED CONNECTIVE TISSUE	47
I Adipose tissue	47
II Reticula tissue.....	49
III Mucous connective tissue	49
IV Pigmented connective tissue.....	50
SKELETAL CONNECTIVE TISSUES	50
I. Cartilage.....	50
II Bone tissue.....	58
MUSCULAR TISSUE	69
STRUCTURAL AND FUNCTIONAL PECULIARITIES.....	69
CLASSIFICATION	69
I Morphofunctional classification	69
II Genetic classification	70
HISTOLOGICAL STRUCTURE.....	70
I SMOOTH MUSCLE TISSUE.....	70
II Skeletal striated muscle tissue.....	73
III Cardiac striated muscle tissue	84



Parsons' Diseases of the Eye / ed.:
Ramanjit Sihota, Radhika Tandon. - 23rd
ed. - Gurgaon, Haryana: Elsevier, 2020. -
597 p.: il.



Contents

Section I: Anatomy and Physiology of the Eye and Visual Pathway

1	Anatomy of the Eye	2
2	Physiology of the Eye	15
3	The Physiology of Vision	20
4	The Neurology of Vision	27

Section II: Optics and Refraction

5	Elementary Optics and Optical System of the Normal Eye	37
6	Clinical Refraction and Refractive Errors ▶ Technique for Testing of Refractive Errors by Performing Clinical Refraction and Prescribing Spectacle Correction	54

Section III: Basics of Clinical Examination and Treatment

7	Clinical History Taking and Interpretation of Symptoms	77
8	Clinical Examination ▶ Techniques for Visual Acuity Assessment, Slit Lamp Examination and Direct and Indirect Ophthalmoscopy	86
9	Clinical Investigations	118
10	Ocular Therapeutics and Lasers	127

Section IV: Diseases of the Eye

11	Diseases of the Conjunctiva	139
12	Diseases of the Cornea	166
13	Diseases of the Sclera	198
14	Diseases of the Uveal Tract	205

15	Diseases of the Lens ▶ Video Demonstrating Various Types of Cataract Surgery, Informed Consent Process and Standard Procedures Followed by the Surgical Team	232
----	---	-----

16	Glaucoma	261
17	Diseases of the Retina and Vitreous ▶ Fundus Examination Technique	285

18	Diseases of the Optic Nerve	321
19	Intraocular Tumours	345

Section V: Eye Movements and Their Disorders

20	Anatomy and Physiology of the Motor Mechanism ▶ Technique for Examining Extraocular Movements (Uniocular and Binocular)	355
----	--	-----

21	Squint: Comitant Strabismus	367
22	Paralytic Squint	385

Section VI: Diseases of the Adnexa

23	Diseases of the Eyelids ▶ Techniques for Clinical Procedures like Testing Lid Movement, Bell's Phenomenon, Assessment of Entropion/Ectropion, Regurgitation Test of Lacrimal Sac, Massage Technique in Congenital Dacryocystitis and Removal of Trichiatic Cilia by Epilation	400
----	--	-----

24	Diseases of the Lacrimal Apparatus	422
25	Diseases of the Orbit	433

Section VII: Systemic Ophthalmology

26	Diseases of the Nervous System with Ocular Manifestations	453
27	Ocular Manifestations of Systemic Disorders	483

Section VIII: Ophthalmic Emergencies

28	Eye Injuries ▶ Correct Approach for Evaluation and Initial Management in a Patient with Ocular Injury and Steps to be Taken for Providing First Aid, Stabilization and Indications for Referral	492
29	Nontraumatic Ophthalmic Emergencies	508

Section IX: Preventive Ophthalmology

30	Genetics in Ophthalmology	516
31	Community Ophthalmology	530

Section X: Ophthalmic Instruments and Their Practical Usage

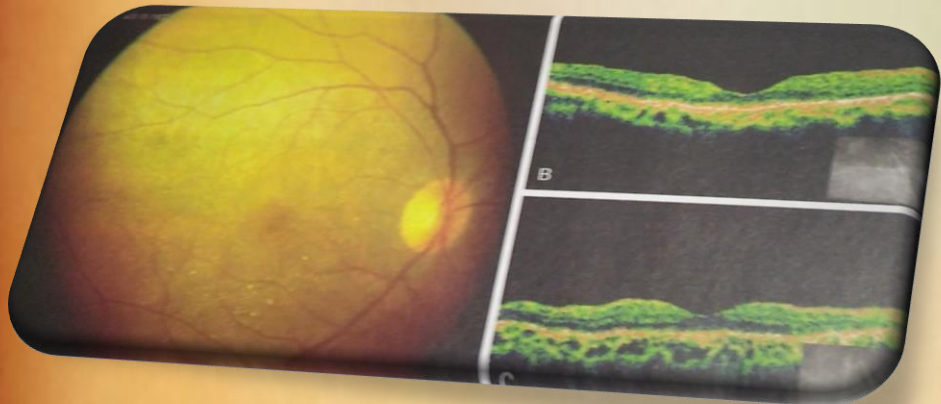
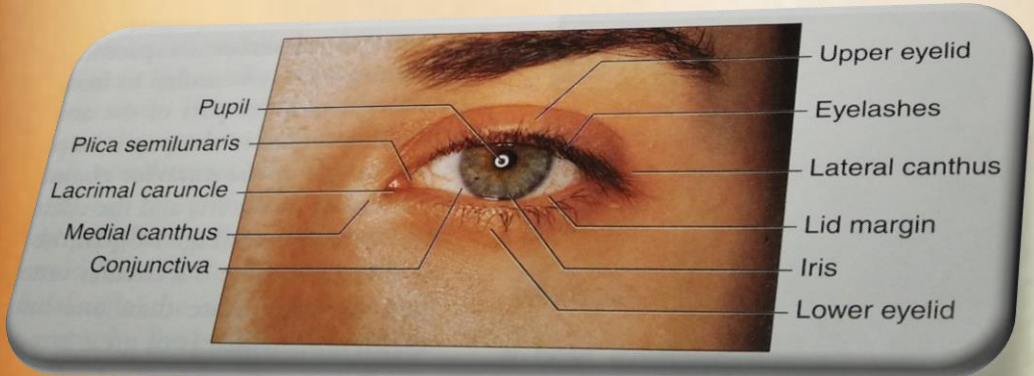
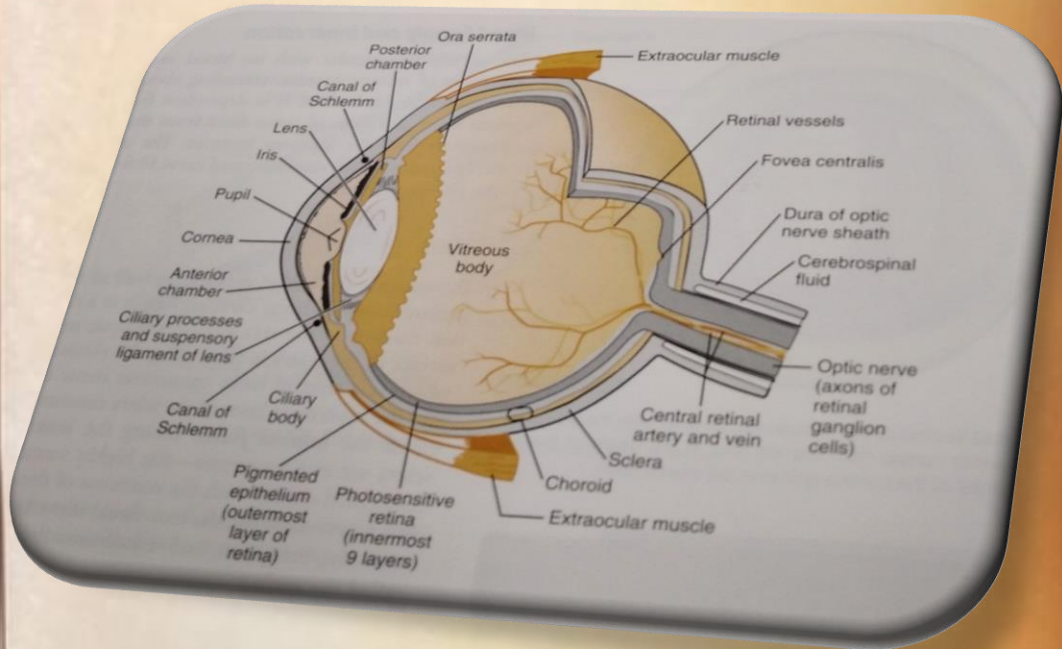
32	Dark Room Procedures in Ophthalmology	546
33	Surgical Instruments in Ophthalmology	549

Appendices

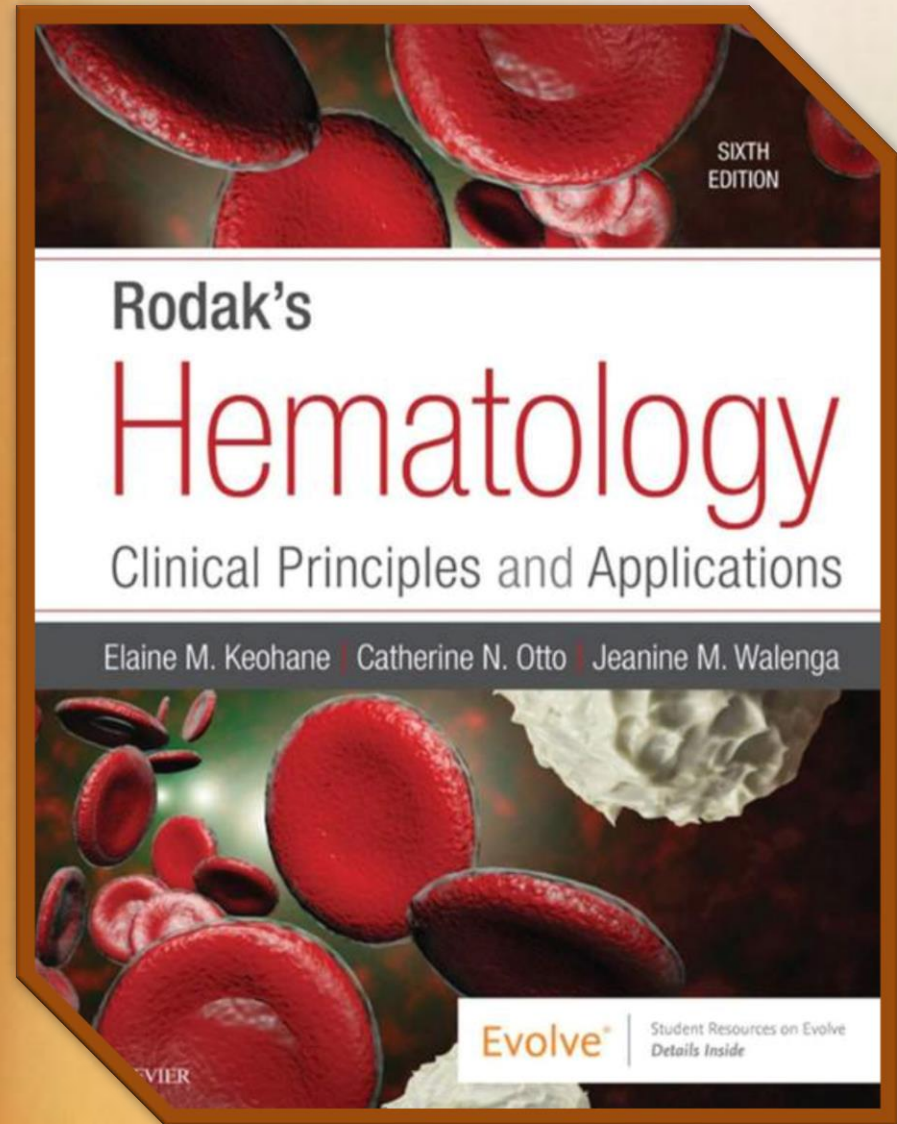
Appendix I	Local Anaesthesia in Ophthalmology	566
Appendix II	Radiology Illustrations	569
Appendix III	Case Studies ▶ Cataract case study	581

Annotation: Parsons' Diseases of the Eye has been a trusted textbook for undergraduate students for more than 100 years. It also caters to the basic needs of postgraduate students and practitioners who need to refer to this book for a quick review of the basic concepts. The book was first published in 1907, and on account of its clear and friendly presentation style as well as its authoritative coverage of ocular disorders, it quickly became a fundamental text for students.

Since then the book has maintained its popularity with students through regular revisions and updates. The 19th edition of this book was especially adapted to the context of Indian subcontinent with a special mention about the infections that occur predominantly in this region. The 23rd edition continues this trend by presenting unparalleled guidance on nearly every ophthalmic condition and procedure, including the latest advances in the field, making the book more comprehensive and contemporary.



Keohane, Elaine M. Rodak's Hematology
Clinical Principles and Applications /
E. M. Keohane, C. N. Otto, J. M. Walenga.
- 6th ed. - St. Louis, Missouri: Elsevier
Science, 2020 (Printed in Canada). –
887 p.: il.



CONTENTS

PART 1 Introduction to Hematology

1. **An Overview of Clinical Laboratory Hematology**, 1
Elaine M. Keohane
2. **Quality Assurance in Hematology and Hemostasis Testing**, 8
Heather DeVries, George A. Fritsma

PART 2 Blood Cell Production, Structure, and Function

3. **Cellular Structure and Function**, 31
Elaine M. Keohane
4. **Hematopoiesis**, 43
Kamran M. Mirza
5. **Erythrocyte Production and Destruction**, 62
Michelle Butina
6. **Erythrocyte Metabolism and Membrane Structure and Function**, 78
S. Renee Hodgkins
7. **Hemoglobin Metabolism**, 91
Catherine N. Otto
8. **Iron Kinetics and Laboratory Assessment**, 104
Kathryn Doig
9. **Leukocyte Development, Kinetics, and Functions**, 117
Reeba A. Omman, Ameet R. Kini
10. **Platelet Production, Structure, and Function**, 136
Walter P. Jeske

PART 3 Laboratory Evaluation of Blood Cells

11. **Manual, Semiautomated, and Point-of-Care Testing in Hematology**, 154
Karen S. Clark, Teresa G. Hippel, and Destiny B. Whitfield
12. **Automated Blood Cell Analysis**, 174
Jo Ann Molnar
13. **Examination of the Peripheral Blood Film and Correlation With the Complete Blood Count**, 201
Carolina Vilchez
14. **Bone Marrow Examination**, 219
Kamran M. Mirza
15. **Body Fluid Analysis in the Hematology Laboratory**, 236
Michelle Butina

PART 4 Erythrocyte Disorders

16. **Anemias: Red Blood Cell Morphology and Approach to Diagnosis**, 251
Naveen Manchanda

17. **Disorders of Iron Kinetics and Heme Metabolism**, 264
Kathryn Doig
18. **Anemias Caused by Defects of DNA Metabolism**, 282
Linda H. Goossen
19. **Bone Marrow Failure**, 299
Clara Lo, Bertil Glader, and Kathleen M. Sakamoto
20. **Introduction to Increased Destruction of Erythrocytes**, 311
Kathryn Doig
21. **Intrinsic Defects Leading to Increased Erythrocyte Destruction**, 336
S. Renee Hodgkins
22. **Extrinsic Defects Leading to Increased Erythrocyte Destruction—Nonimmune Causes**, 363
Catherine N. Otto
23. **Extrinsic Defects Leading to Increased Erythrocyte Destruction—Immune Causes**, 378
Ruth Perez
24. **Hemoglobinopathies (Structural Defects in Hemoglobin)**, 394
Tim R. Randolph
25. **Thalassemias**, 424
Elaine M. Keohane

PART 5 Leukocyte Disorders

26. **Nonmalignant Leukocyte Disorders**, 445
Steven Marionneaux
27. **Introduction to Hematologic Neoplasms**, 466
Elaine M. Keohane
28. **Flow Cytometric Analysis in Hematologic Disorders**, 477
Magdalena Czader
29. **Molecular Diagnostics in Hematopathology**, 495
Cynthia L. Jackson, Shashi Mehta
30. **Cytogenetics/Cytogenomics**, 525
Gail H. Vance
31. **Acute Leukemias**, 540
Reeba A. Omman, Ameet R. Kini
32. **Myeloproliferative Neoplasms**, 555
Tim R. Randolph
33. **Myelodysplastic Syndromes**, 589
Nicholas C. Brehl
34. **Mature Lymphoid Neoplasms**, 603
Steven Marionneaux, Peter Maslak

PART 6 Hemostasis and Thrombosis

35. **Normal Hemostasis**, 626
Jeanine M. Walenga

36. **Hemorrhagic Disorders and Laboratory Assessment**, 650
George A. Fritsma
37. **Qualitative Disorders of Platelets and Vasculature**, 675
Walter P. Jeske, Phillip J. DeChristopher
38. **Thrombocytopenia and Thrombocytosis**, 695
Phillip J. DeChristopher, Walter P. Jeske
39. **Thrombotic Disorders and Laboratory Assessment**, 720
George A. Fritsma, Jeanine M. Walenga
40. **Antithrombotic Therapies and Their Laboratory Assessment**, 746
George A. Fritsma
41. **Laboratory Evaluation of Hemostasis**, 765
George A. Fritsma
42. **Hemostasis and Coagulation Instrumentation**, 793
Debra A. Hoppensteadt, Jo Ann Molnar

PART 7 Hematology and Hemostasis in Selected Populations

43. **Hematology and Hemostasis in the Pediatric, Geriatric, and Pregnant Populations**, 813
Linda H. Goossen

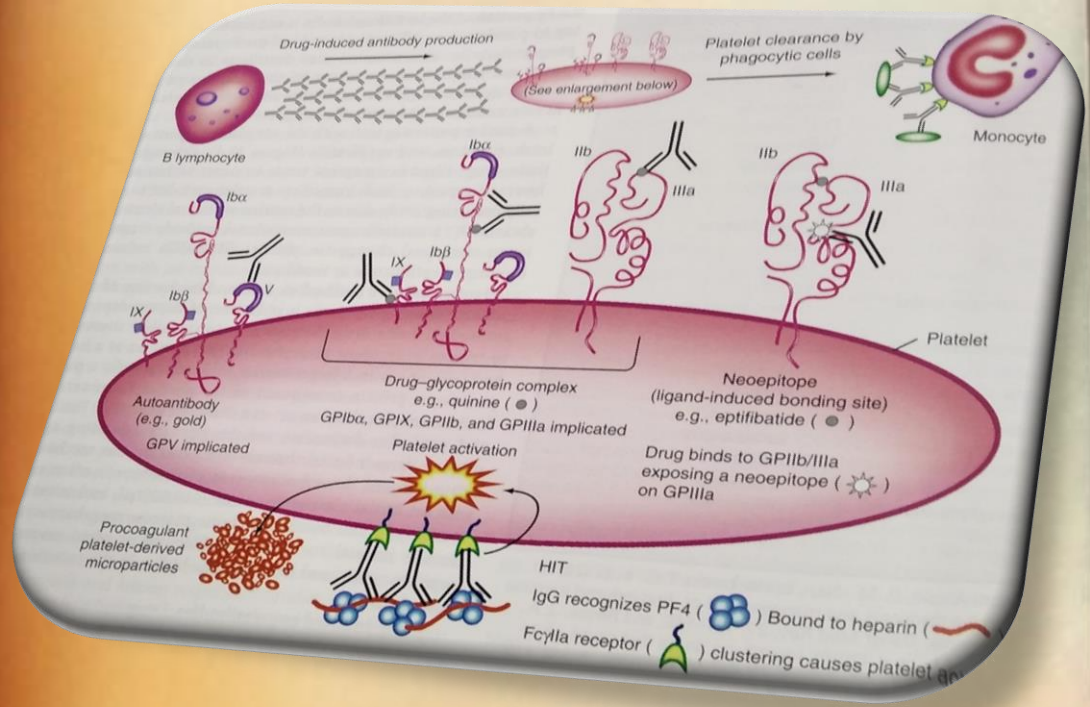
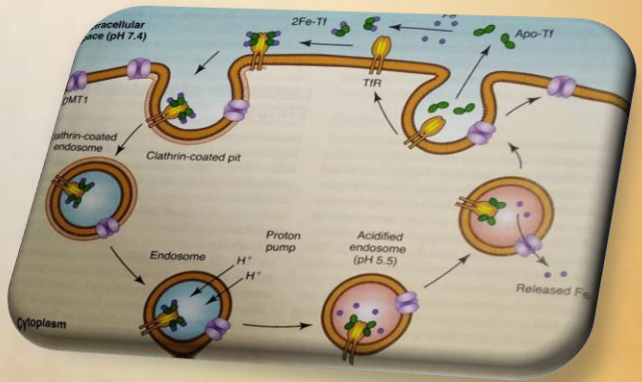
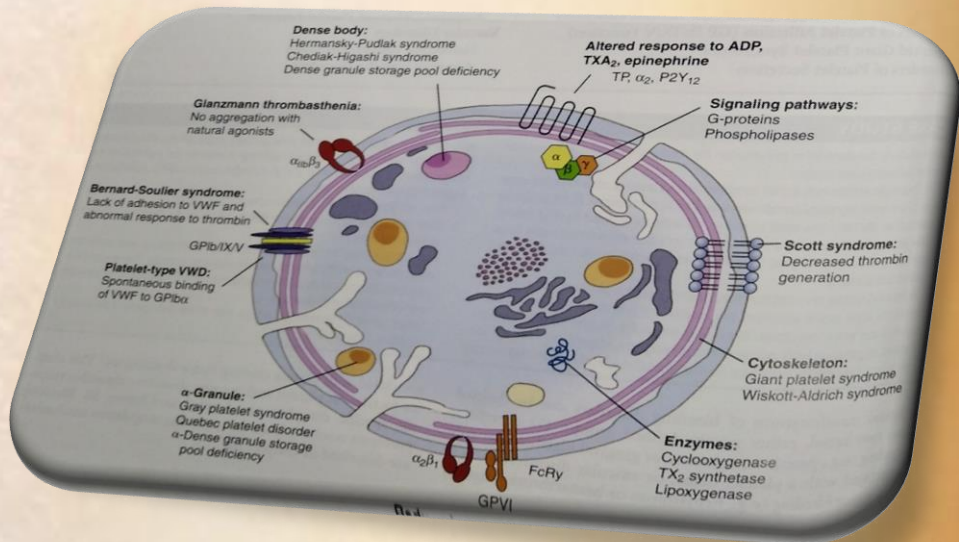
APPENDICES

- Appendix A: Abbreviations, 832
- Appendix B: List of Formulas, 835
- Appendix C: Answers, 836
- Appendix D: Glossary, 848
- Index, 867

Annotation: odak's Hematology: Clinical Principles and Applications, 6th Edition uses hundreds of full-color photomicrographs to help you understand the essentials of hematology. This new edition shows how to accurately identify cells, simplifies hemostasis and thrombosis concepts, and covers normal hematopoiesis through diseases of erythroid, myeloid,

lymphoid, and megakaryocytic origins.

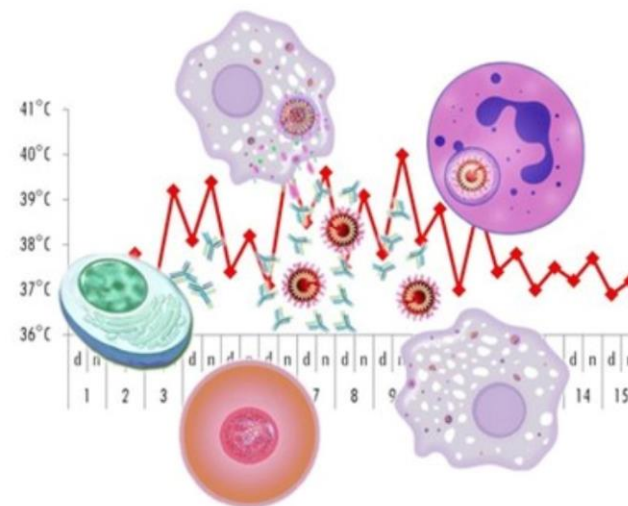
Easy to follow and understand, this book also covers key topics including: working in a hematology lab; complementary testing areas such as flow cytometry, cytogenetics, and molecular diagnostics; the parts and functions of the cell; and laboratory testing of blood cells and body fluid cells.



Белых, А. Е. Типовые патологические процессы = Typical pathological processes : [учебное пособие для студентов медицинских вузов] / А. Е. Белых, И. И. Бобынцев; Курский государственный медицинский университет, кафедра патофизиологии. - Курск: Изд-во КГМУ, 2020. - 229 с.: ил., табл.

A.E. Belykh, I.I. Bobyntsev

TYPICAL PATHOLOGICAL PROCESSES



[ПОЛНЫЙ ТЕКСТ](#)

CONTENT

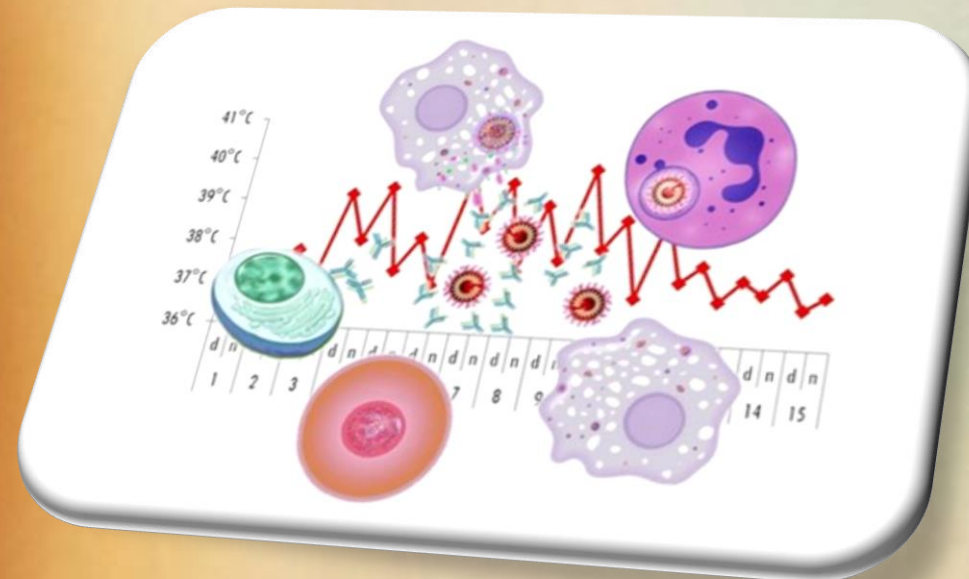
Chapter 1. PATHOPHYSIOLOGY OF PERIPHERAL CIRCULATION AND MICROCIRCULATION.....	8
Arterial hyperemia.....	9
Ischemia.....	16
Venous hyperemia	24
Stasis	28
Thrombosis	33
Embolism.....	34
Pathophysiology of cerebral circulation.....	39
Chapter 2. INFLAMMATION	46
Etiology of inflammation.....	47
Classifications of inflammation.....	48
Alteration.....	53
Metabolic changes in the inflammation focus	56
Physico-chemical shifts in the inflammation focus	57
Vascular reactions in the inflammation focus.....	58
Exudation.....	61
Local signs of inflammation	64

Inflammatory mediators	66
Mechanisms of blood cells emigration.....	89
Emigration stages	92
Phagocytosis	97
Proliferation.....	103
Chronic inflammation	108
General signs (systemic changes) of inflammation..	114
Role of regulatory systems in the inflammation development.....	119
Outcomes of inflammation.....	120
Principles of anti-inflammatory treatment:	121
Biological significance of inflammation for the organism	124
Chapter 3. FEVER	126
Etiology of fever	127
Pathogenesis of fever.....	130
Endogenous antipyresis	133
Fever stages	134

Classification and forms of febrile response.....	139
Changes in the functioning of organs and systems during fever	144
Biological significance of fever.....	149
Fever-like responses.....	152
Difference of fever from overheating and FLR.....	154
General principles of treatment of patients with fever.....	156
Therapeutic use of pyrogens. Pyrotherapy.	158
Chapter 4. ALLERGY.....	163
Sensitization (immunization)	164
Mechanisms for converting a protective immune response to an allergy (damage reaction)	167
Allergy criteria.....	167
Etiology of allergic reactions and diseases	170
Classifications of allergic reactions.....	175
General pathogenesis of allergic reactions	177
Type I anaphylactic (IgE-mediated, immediate) hypersensitivity	179
Type II antibody-dependent cytotoxic hypersensitivity.....	191
Type III immune complex-mediated hypersensitivity.	194

Inflammatory mediators	66
Mechanisms of blood cells emigration.....	89
Emigration stages	92
Phagocytosis	97
Proliferation.....	103
Chronic inflammation	108
General signs (systemic changes) of inflammation..	114
Role of regulatory systems in the inflammation development.....	119
Outcomes of inflammation.....	120
Principles of anti-inflammatory treatment:	121
Biological significance of inflammation for the organism	124
Chapter 3. FEVER	126
Etiology of fever	127
Pathogenesis of fever.....	130
Endogenous antipyresis	133
Fever stages	134
Type IV cell-mediated (delayed type) hypersensitivity.	200

Type V antireceptor (noncytotoxic or stimulatory)
 hypersensitivity 207
 Immune-privileged organs 211
 Autoimmune disorders..... 213
 Pseudoallergic (non-immunological) reactions..... 218
 Principles of allergic diseases diagnostics..... 221
 Pathophysiological basis for the prevention and treatment
 of allergy 224
 USED LITERATURE..... 226



Annotation: This Study Guide was compiled at the Department of Histology, Embryology, Cytology of the Kursk State Medical University according to Teaching Program on the discipline "Histology, Embryology, Cytology" and on the basis of the Regulation on the

Teaching and Methodological Support of the Discipline (Module) approved by the meeting of the Academic Council of the KSMU on October 10, 2016 and is intended for independent preparation of students of the medical faculty for practical and final lessons on Histology.

Учебное пособие составлено на кафедре гистологии, эмбриологии, цитологии Курского государственного медицинского университета в соответствии с рабочей программой по дисциплине «Гистология, эмбриология, цитология» и на основании Положения об учебно-методическом обеспечении дисциплины (Модуль),

утвержденного на заседании Ученого совета КГМУ 10 октября 2016 года. Учебное пособие предназначено для подготовки студентов медицинского факультета к практическим и итоговым занятиям по гистологии

Лапкин, М. М. Избранные лекции по нормальной физиологии = Selected Lectures on Normal Physiology: учебное пособие на русском и английском языках / М. М. Лапкин, Е. А. Трутнева. - Москва: ГЭОТАР-Медиа, 2021. – 544 с. - URL:

<https://www.studentlibrary.ru/ru/book/ISBN9785970459720.html>

Annotation: The present lectures are prepared in accordance with State Educational Standard for Higher Professional Education on specialty 31.05.01 “General Medicine”, and contain material on basic sections of discipline “Normal Physiology” studied by the second year students of higher medical educational institutions. The lectures cover modern concepts of physiology from the functioning of individual cells to the work of the whole organism.

Osloпов, V. N. General Care of a Patient: tutorial / V. N. Osloпов, O. V. Bogoyavlenskaya. -Moscow: GEOTAR-Media, 2021. - 208 p.: il. - 208 с. - URL:

<https://www.studentlibrary.ru/ru/book/ISBN9785970460429.html>

Annotation: Tutorial is compiled in accordance with the State Federal Educational Standard of Higher Education in 31.05.01 "General Medicine" speciality, the standard and working programs for the "General care" discipline. This tutorial highlights in details the content of unites, describes practical skills in a clear sequence of actions at the patient's bedside. The tutorial is intended for foreign students of medical higher education institutions.

Remizov, A. N. Medical and biological physics: textbook / Remizov A. N. - Москва: ГЭОТАР-Медиа, 2021. - 576 с. - URL:

<https://www.studentlibrary.ru/ru/book/ISBN9785970459430.html>

Annotation: The textbook is written in accordance with the curriculum and reflects biomedical direction of the course. Along with problems of physics and biophysics, the publication deals with the elements of probability theory, mathematical statistics, medical metrology, electronics, etc. It is intended for students and lecturers of medical, biological and agricultural specialties.

Osloпов, V. N. General Care of a Patient: tutorial / V. N. Osloпов, O. V. Bogoyavlenskaya.-Moscow: GEOTAR-Media, 2021. - 208 p.: il. - URL:

<https://www.studentlibrary.ru/ru/book/ISBN9785970460429.html>

Annotation: Tutorial is compiled in accordance with the State Federal Educational Standard of Higher Education in 31.05.01 "General Medicine" speciality, the standard and working programs for the "General care" discipline. This tutorial highlights in details the content of unites, describes practical skills in a clear sequence of actions at the patient's bedside. The tutorial is intended for foreign students of medical higher education institutions.

Artamonova, M. N. Medical Microbiology, Virology and Immunology. Lecture Notes : textbook / Artamonova M. N. , Potaturkina-Nesterova N. I. , Plyina N. A. , Nemova I. S. - Москва : ГЭОТАР-Медиа, 2021. - 352 с. - URL:

<https://www.studentlibrary.ru/ru/book/ISBN9785970460436.html>

Annotation: The textbook consists of three units: Microbiology, Virology and Immunology, each of which includes the main topics of the curriculum in these disciplines. Each topic is presented with a chapter, including the main questions of the topic, answers to them, as well as self-check and clinical cases that help students to understand studied material and check up the knowledge gained. The material is illustrated with pictures, diagrams and tables.

Левчук, И. П. Disaster Medicine = Медицина катастроф : учебник на английском и русском языках / И. П. Левчук, А. П. Назаров, Ю. А. Назарова. – Москва : ГЭОТАР-Медиа, 2021. - 240 с. - URL:

<https://www.studentlibrary.ru/ru/book/ISBN9785970460740.html>

Annotation: The textbook provides information on the most important issues of disaster medicine and the organization of medical support in emergency situations in the Russian Federation. The textbook consists of 9 topics reflecting the latest requirements in the field of disaster medicine.

Merzlikin, N. V. Surgical diseases: in 2 vol. Vol. 1.: textbook / N. V. Merzlikin, N. A. Brazhnikova, B. I. Alperovich, V. F. Tskhai. - Москва: ГЭОТАР-Медиа, 2021. - 360 с. - URL:

<https://www.studentlibrary.ru/ru/book/ISBN9785970458525.html>

Annotation: The authors, a team of professors with 45 years of experience in teaching surgical diseases at the medical university, systematize and summarize a vast amount of information on the main sections of clinical surgery. They rely on the latest advances in Russian and foreign surgery and focus on the use of cutting-edge clinical and instrumental research techniques and operative treatment methods. A large number of photographs and radiographs focus the reader's attention on essential features of the diseases under discussion.

Sidorova, I. S. Obstetrics and gynecology: Vol. 3: textbook / Sidorova I. S. , Nikitina N. A. - Москва: ГЭОТАР-Медиа, 2021. - 112 с. - URL:

<https://www.studentlibrary.ru/ru/book/ISBN9785970460122.html>

Annotation: Volume III of the basic university textbook on obstetrics and gynecology includes chapters describing surgeries directed to the preservation of pregnancy in cervical incompetence, assisted delivery, interventions in the placental and early postpartum period, minor obstetric surgeries. The main surgical methods for stopping obstetric hemorrhage as well as surgeries for pregnancy termination in the early and late gestational age are considered.

Levchuk, I. P. Life Safety in Medicine: textbook / I. P. Levchuk, A. P. Nazarov, M. V. Kostyuchenko. - Moscow: GEOTAR-Media, 2021. - 112 c. - URL:

<https://www.studentlibrary.ru/ru/book/ISBN9785970459980.html>

Annotation: The course book highlights six principle topics of the module "First Aid" as a part of the subject "Health and Safety, Disaster Medicine" and contains key questions for each part as well as cases and provisional tests for the students' self-control. This book can be helpful for the students taught by means of e-educational systems (including distant learning). The course book is designed for the tertiary medical students taught in English as well as for the foreign students attending classes as a part of the Russian-speaking groups. It can be used as complementary reading by the clinical residents, graduate students, medical students, secondary medical schools students and medical-college students learning English.

Melnichenko, P. I. Hygiene: textbook / ed. Melnichenko P. I. - Москва: ГЭОТАР-Медиа, 2021. - 512 с. - URL:

<https://www.studentlibrary.ru/ru/book/ISBN9785970459195.html>

Annotation: The textbook represents the characteristics of the current status of the science, demonstrates the evolution of hygiene at various historical stages, and considers the problems of hygienic significance, environment, and human ecology. Much attention is paid to health, algorithm of hygienic diagnostics which allows to detect changes in the human health status at the donozological (pre-pathological) level, as well as in the information on the administrative and legal forms of control over prophylactic arrangements and the health security system for each person.

Khaitov, R. M. Immunology: textbook / Rakhim M. Khaitov. - 2nd updated edition. – Moscow: GEOTAR-Media, 2021. - 272 c. – URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970458617.html>

Annotation: The textbook provides essential information on all aspects of structure and functions of the immune system under normal and pathological conditions. The knowledge about innate immunity and the mechanisms of adaptive immunity formation is presented at the organismal, cellular, and molecular levels. Information is provided about the immune cell populations, the structure of immune receptors, the intracellular signaling pathways, major histocompatibility complex (MHC), immunity genetic control, and immunological memory.

The immune deficiencies, allergic and autoimmune diseases are reviewed. An overview of clinical use of immunotropic drugs is presented. The textbook is recommended for medical students.

Подготовили
аннотированный
библиографический
обзор

сотрудники отдела иностранной
литературы библиотеки
Курского государственного
медицинского университета

2021 г.