

Pediatric Physical Examination



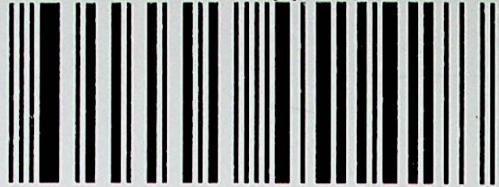
Katilov O. V., Dmytriiev D. V., Dmytriieva K. Yu., Makarov S. Yu.

PEDIATRIC PHYSICAL EXAMINATION



Updated second edition

Vinnytsia
Nova Knyha
2019



545142

УДК 616-053.2-07

К49

*Рекомендовано Державною установою "Центральний методичний кабінет з вищої медичної освіти МОЗ України" як навчальний посібник для іноземних студентів вищих навчальних закладів МОЗ України, які навчаються російською мовою
(протокол засідання Комісії від 27.10.2016 р. № 3)*

Authors:

Katilov O. V. — MD, PhD, Associate Professor of National Pirogov Memorial Medical University, Vinnytsya.

Dmytriiev D. V — MD, PhD, Associate Professor of National Pirogov Memorial Medical University, Vinnytsya.

Dmytriieva K. Yu. — MD, PhD, Associate Professor of National Pirogov Memorial Medical University, Vinnytsya.

Makarov S. Yu. — MD, General Practitioner.

Reviewers:

M. D., professor Bulat L. M.

M. D., professor Nedelska S. N.

M. D., professor Bolbot Yu. K.

M. D., professor Kablukova O. K.

K49 **Клінічне обстеження дитини** : навчальний посібник для студ. вищих навч. закладів = **Pediatric physical examination** : textbook for students of higher educational institutions : переклад з укр. мови / O. V. Katilov, D. V. Dmytriiev, K. Yu. Dmytriieva, S. Yu. Makarov – 2nd ed., up. – Vinnytsia : Nova Knyha, 2019. – 504 p. : il.

ISBN 978-966-382-751-3

Taking into account the analysis of the concepts of domestic and foreign scientific schools, the textbook contains the fundamentals and principles of pediatric clinical examination.

The book is intended for students of medical universities, interns and pediatric residents, as well as general practitioners.

УДК 616-053.2-07

У представленому навчальному посібнику, з урахуванням аналізу концепцій вітчизняних і зарубіжних наукових шкіл, викладено основи і принципи клінічного обстеження дитини.

Книга призначена для студентів медичних університетів, лікарів інтернів та початківців лікарів-педіатрів, а також лікарів загальної практики.

545142

ISBN 978-966-382-751-3



© Authors, 2019

© Nova Knyha, 2019

Semiotics of the nervous system diseases in children	380
<i>Meningitis</i>	380
<i>Encephalitis</i>	383
<i>Hydrocephaly</i>	383
<i>Cerebral palsy</i>	385
CHAPTER 12. Diagnostics and semiotics of the endocrine system diseases	387
Clinical physiology of the endocrine system.....	387
Clinical examination of the endocrine system	404
Semiotics of main endocrine glands diseases.....	407
<i>Growth disorders in children</i>	407
<i>Diseases of the hypothalamic-hypophyseal system</i>	414
<i>Thyroid diseases</i>	416
<i>Adrenal gland diseases</i>	418
<i>Pancreatic diseases</i>	421
<i>Diseases of gonads</i>	423
CHAPTER 13. Diagnostics and semiotics of the blood system diseases.....	425
Clinical physiology of the blood system.....	425
Clinical examination of the blood system.....	429
<i>Additional methods of examination</i>	431
Laboratory methods	431
Semiotics of blood diseases.....	447
<i>Syndrome of anemia</i>	447
Iron-deficiency anemia	448
B ₁₂ - and folate-deficiency anemia	450
Hemolytic anemias	450
<i>Iron overload syndrome</i>	451
<i>Hemorrhagic syndrome</i>	451
<i>Myelodysplastic syndrome</i>	456
CHAPTER 14. Possibilities of ultrasound investigation in clinical examination.....	458
Main principles of ultrasound investigation	458
<i>Ultrasound investigation of the skin</i>	460
<i>Ultrasound investigation of lymph nodes</i>	464
<i>Ultrasound investigation of the musculoskeletal system</i>	466
<i>Ultrasound diagnostics of respiratory system diseases</i>	472
<i>Ultrasound diagnostics of heart diseases (echocardiography)</i>	475
<i>Ultrasound diagnostics of urinary system diseases</i>	476
<i>Ultrasound diagnostics of gastrointestinal diseases</i>	479
<i>Ultrasound diagnostics of brain diseases (neurosonography)</i>	480
<i>Ultrasound diagnostics of endocrine system diseases</i>	483
CHAPTER 15. Clinical examination of a child in the critical condition	489
BIBLIOGRAPHY	496

C ONTENTS

FOREWORD	7
LIST OF ABBREVIATIONS	8
CHAPTER 1. General examination of a child	10
Assessment of general condition	10
Main principles of physical development evaluation of a child older than 1 month	12
Patterns of physical development of a child	17
Assessment of physical development of a newborn	22
Rules of anthropometric indicators measuring	24
Semiotics of disorders of physical development	25
CHAPTER 2. Diagnostics and semiotics of skin diseases	30
Clinical anatomy and physiology of the skin	30
Anatomical and physiological features of the skin in children	32
<i>Skin characteristics in the neonatal period.</i>	34
Clinical examination	36
Main (physical) methods of examination	36
Survey and examination	36
Palpation	43
<i>Additional methods of examination.</i>	44
General semiotics and differential diagnosis of skin diseases	45
<i>Skin dysplasia and dystrophy.</i>	45
<i>Infectious diseases of the skin</i>	46
<i>Allergic and toxicallergic diseases</i>	57
<i>Skin changes in non-infectious diseases</i>	58
<i>Principles of differential diagnosis of infectious and allergic rashes</i>	64
<i>Hemorrhagic rash syndrome</i>	65
<i>Skin vascular formations</i>	67
<i>Skin pigmentation disorders</i>	68
CHAPTER 3. Diagnostics and semiotics of peripheral lymph nodes lesions	72
Clinical anatomy and physiology of lymph nodes	72
Clinical examination of lymph nodes	76
<i>Main (physical) methods of examination.</i>	76
Examination	76
Palpation	76
General semiotics of lymph nodes lesions	78

CHAPTER 4. Diagnostics and semiotics of skeletal system diseases.....	81
Anatomical and physiological features of the skeletal system.....	81
Clinical examination of the skeletal system.....	87
<i>Main (physical) methods of examination.....</i>	87
Palpation of the skeletal system	96
General semiotics of skeletal system disorders	97
<i>Dental pathology</i>	98
<i>Microcephaly.....</i>	98
<i>Craniostenosis (craniostenosis)</i>	99
<i>Macrocephaly.....</i>	100
<i>Rickets</i>	101
<i>Hip dysplasia.....</i>	102
CHAPTER 5. Diagnostics and semiotics of muscular system diseases.....	105
Anatomical and physiological features of the muscular system.....	105
Clinical examination and semiotics of the muscular system disorders	107
CHAPTER 6. Diagnostics and semiotics of respiratory system diseases.....	113
Clinical anatomy and physiology of the respiratory system.....	113
Clinical examination of the respiratory system.....	120
<i>Main (physical) methods of examination.....</i>	120
Survey.....	120
Examination	123
Palpation	135
Percussion.....	137
Auscultation	141
<i>Additional methods of investigation.....</i>	154
X-ray diagnostics	154
Spirometry	159
Peak flow metry	163
General semiotics of respiratory diseases in children	165
<i>ARVI</i>	165
<i>Acute laryngotracheitis.....</i>	169
<i>Acute tonsillitis. Tonsillopharyngitis.....</i>	170
<i>Acute bronchitis</i>	172
<i>Bronchial asthma.....</i>	173
<i>Pneumonia.....</i>	176
<i>Pleurisy</i>	179
<i>Respiratory failure</i>	181
Chapter 7. Diagnostics and semiotics of cardiovascular system diseases	183
Clinical physiology of cardiac work.....	183
Anatomical and physiological features of the cardiovascular system in children	188
<i>Antenatal fetal circulation.....</i>	189
Clinical examination of the cardiovascular system	191
<i>Main (physical) methods of examination.....</i>	191
Survey.....	191
Examination	194

Palpation	196
Heart auscultation	206
<i>Additional methods of examination</i>	219
Electrocardiography	219
Heart X-ray	239
General semiotics of the cardiovascular system diseases in children	240
 CHAPTER 8. Diagnostics and semiotics of the urinary system diseases	
Clinical physiology of the renal function	249
Anatomical and physiological features of the urinary system in children	255
Clinical examination of the urinary system	256
<i>Main (physical) methods of examination</i>	256
Survey	256
Examination	257
Palpation and percussion	259
<i>Additional methods of examination</i>	261
Laboratory methods	261
Instrumental methods	275
General semiotics of the urinary system diseases	279
 CHAPTER 9. Diagnostics and semiotics of gastrointestinal diseases	
Clinical physiology of the gastrointestinal tract	286
Anatomical and physiological features of the gastrointestinal tract in children	291
Clinical examination of the gastrointestinal tract	293
<i>Main (physical) methods of examination</i>	294
Survey	294
Examination	302
Auscultation of the abdominal area	310
Percussion	312
Palpation	315
<i>Additional methods of examination</i>	320
Laboratory methods	320
Instrumental methods	324
General semiotics of GIT organs diseases in children	327
 CHAPTER 10. Diagnostics and semiotics of ENT-organs diseases	
Clinical anatomy of ENT-organs and hearing physiology	336
Main methods of ENT-organs examination	344
Additional methods of ENT-organs examination	355
 CHAPTER 11. Diagnostics and semiotics of the nervous system diseases	
Clinical physiology of the nervous system	358
Clinical assessment of the neurological status and semiotics of disorders in newborns and infants	360
<i>Approximate dynamics of the psychomotor development of a child during the first years of life</i>	372
Clinical assessment of the neurological status and semiotics of disorders in older children and adolescents	373
Stigmas of dysembryogenesis	379