



Department of Human Physiology and Pathophysiology

**PATHOPHYSIOLOGY**

**LECTURES (28 h):**

No.	DATE	Topic	Lecturer	Hours
1	<b>04.10.2024</b> 15:45-17:15 (CSM, 100D)	<b>Autoimmunity and autoimmune diseases.</b> 1. Mechanisms preventing autoimmunity 2. Mechanisms of autoimmunity 3. Genetic factors predisposing to the development of autoimmunity. 4. Immunopathogenetic mechanisms in autoimmune diseases. 5. Autoimmune diseases - specific and systemic.	Ł. Jaśkiewicz, MD, PhD	2h
2	<b>07.10.2024</b> 13:00-14:30 (CSM, 100D)	<b>Pathophysiology of diseases of the central nervous system.</b> 1. Pathogenesis of the multiple sclerosis (sclerosis multiplex, MS). 2. Development of basic research and understanding of the mechanisms in SM.	prof. M. Mycko, MD, PhD	2 h
3	<b>17.10.2024</b> 14:00-15:30 (CSM, 100D)	<b>Pathophysiology of neoplastic diseases.</b> 1. What is neoplastic disease: changing at the levels: genomic, epigenetic. Dysregulation by growth factor receptors, immun system surveillance disorders. 2. Factors promoting carcinogenesis in humans. 3. Principles of anticancer therapies, clinical trials, the importance of molecularly targeted drugs.	prof. S. Nawrocki, MD, PhD	2 h





4	<b>24.10.2024</b> 15:30-17:00 (CSM, 100D)	<b>Basics pathophysiology of the cardiovascular system – atherosclerosis.</b> 1. Pathophysiology of atherosclerosis. 2. Lipid disorders.		2 h
5	<b>28.10.2024</b> 14:45-16:15 (CSM, 100D)	<b>Pathophysiology of cardiovascular diseases.</b> 1. Heart failure. 2. Cardiomyopathies. 3. Ischemic heart disease.		2 h
6	<b>07.11.2024</b> 15:30-17:00 (CSM, 100D)	<b>Pathophysiology of respiratory diseases.</b> 1. Anatomy of the respiratory system. 2. Pathophysiology of respiration mechanics. 3. Lung volumes and capacities. 4. Disorders of gas diffusion. 5. Research in functional respiratory system.	prof. A. Doboszyńska, MD, PhD	2 h
7	<b>12.11.2024</b> 16:00-17:30 (CSM, 100D)	<b>Pathophysiology of gastrointestinal diseases.</b> 1. Swallowing disorders. 2. Esophageal diverticula. 3. Helicobacter pylori infection. 4. Tumors of the stomach. 5. Gallstones. 6. Acute inflammation of the pancreas. 7. Inflammatory bowel diseases and colon cancer.	N. Dowgiałło-Gornowicz, MD, PhD	2 h





8	<b>21.11.2024</b> 15:30-17:00 (CSM, 100D)	<b>Pathophysiology of the aging process.</b> 1. Physiology of the aging process and the principles of geriatric care, and knows the risks associated with hospitalization of the elderly. 2. The mechanisms of aging of the organism.	M. Stompór, MD, PhD	2 h
9	<b>26.11.2024</b> 13:15-14:45 (WSS)	<b>Pathophysiology of the shock.</b> 1. Types of shock: cardiogenic, hypovolemic / haemorrhagic, distributional. Mixed form. Sepsis and septic shock. Adrenal crisis. 2. Microcirculation disorders in shock. Mechanisms of adaptation and compensation. 3. Phases of shock: reversible, irreversible decompensated. 4. Immune system, coagulation cascade, inflammation, oxidative stress and ischemia-reperfusion stress in shock. 5. Consequences in organs and selected clinical signs in various forms and stages of shock.	prof. T. Stompór, MD, PhD	2 h
10	<b>02.12.2024</b> 13:15-14:45 (WSS)	<b>Pathophysiology of kidney diseases.</b> 1. Pathogenesis i mechanisms of proteinuria development. Proteinuria of glomerular origin. 2. Immunopathogenesis glomerular kidney disease. 3. Genetically determined diseases of the glomeruli. Gene mutations coding proteins for podocyte and basement membrane collagen as the cause of proteinuria. Goodpasture's disease and Alport syndrome as examples of diseases related to collagen abnormalities of the basal membrane. 4. Role autoantibodies in the development of kidney damage. 5. Pathogenesis of diseases of the tubulo-interstitial compartment. 6. Pathogenesis of acute kidney damage.	prof. T. Stompór, MD, PhD	2 h





		7. Hormones of renal origin and hormonal consequences kidney disease.		
11	<b>12.12.2024</b> 13:00-14:30 (WSS)	<b>Diseases of the endocrine system.</b> 1. The hypothalamic-pituitary-secret organ axis internal. 2. Pituitary gland deficiency and excess hormones. 3. Disorders of the thyroid gland, parathyroid glands, adrenal glands, gonads and endocrine pancreas.	W. Matuszewski, MD, PhD	2 h
12	<b>19.12.2024</b> 13:00-14:30 (WSS)	<b>Metabolic disorders - disorders in metabolism of carbohydrate, obesity, metabolic syndrome.</b> 1. Pathogenesis of diabetes mellitus. 2. Pathophysiology of the obesity. Metabolic syndrome.	W. Matuszewski, MD, PhD	2 h
13	<b>14.01.2025</b> 13:00-14:30 (CSM, 100D)	<b>Disturbances in the volume-pressure balance of the intracranial space.</b> 1. The volume-pressure balance of the space intracranial in health (Monroe-Kelly rule and the five aspects of equilibrium, which is notified by chemical, pressure and neurogenic methods). 2. Pathophysiology of volume and pressure disorders in intracranial spaces with vegetative exponents (Cushing's triad). 3. Basics pathophysiology of the increase in intracranial pressure associated with the occurrence of cerebral edema (types cerebral edema), fluid and electrolyte imbalances and their effect on intracranial pressure. Hydrocephalus (types and procedures resulting from the differences in the pathomechanisms of the different types of hydrocephalus). 4. Types wedging of the brain in natural intracranial openings.	M. Barczewska, MD, PhD, prof. UWM	2 h
14	<b>21.01.2025</b> 12:15-13:45 (CSM, 100D)	<b>Pathophysiology of pain.</b> 1. Anatomical pathway of pain sensation. 2. The essence of pain, physiological pain and its meaning.	M. Barczewska, MD, PhD, prof. UWM	2 h





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		3. The pain levels of neuropathic lesions and proprioceptive pain. 4. Types of pain.		
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Olsztyn, 30.09.2024

*Łukasz Jaśkiewicz, MD, PhD*  
Coordinator of Pathophysiology Course



WYDZIAŁ LEKARSKI, COLLEGIUM MEDICUM / KATEDRA FIZJOLOGII I PATOFIZJOLOGII CZŁOWIEKA  
**UNIwersYTET WARMIŃSKO-MAZURSKI W OLSZTYNIE**  
ul. Warszawska 30, 10-082 Olsztyn  
tel. (89) 524 53 04  
fax (89) 524 53 07